



## Steering Committee Meeting Agenda

January 10, 2020 10:00 am – 4:00 pm

### Location

Cal/EPA Building, 1st Floor, Training Room  
1001 I Street, Sacramento, CA 95814

### Remote Access

Call-in: 415-594-5500, Access Code: 238-626-034#

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

Recommended browser: Chrome

#	Agenda item and desired outcomes	Attachments	Start & Lead
1	<b>Introductions and Review Agenda</b> Introduce TAC and SC members, establish quorum, and explain goals of the meeting.		10:00 Adam Laputz
2	<b>Decision:</b> Approve meeting summary from the previous meetings and confirm/set upcoming meeting dates.  <b>Desired outcomes:</b> <ul style="list-style-type: none"><li>• Approve meeting summaries</li><li>•</li><li>• Set a date for spring SC meeting in May 2020 <b>(Please bring your calendar to the meeting!)</b></li></ul>	Draft Meeting Summaries:  Sept 25, 2019 SC Teleconference  Oct 29, 2019 Joint SC-TAC Meeting	10:05 – 10:15 Adam Laputz

#	Agenda item and desired outcomes	Attachments	Start & Lead
3	<p><b>Information: Technical Advisory Committee update</b> Updates on TAC meetings held September through December 2019.</p> <p><b>New:</b> TAC subcommittee meeting summaries are included as well.</p> <p><b>Desired outcome:</b></p> <ul style="list-style-type: none"> <li>• Inform committee on TAC and subcommittee activities.</li> </ul>	<p><b>Draft TAC meeting summaries:</b></p> <ul style="list-style-type: none"> <li>• 2019-09-13</li> <li>• 2019-09-19 (phone)</li> <li>• 2019-10-11 (phone)</li> <li>• 2019-12-10</li> </ul> <p><b>TAC subcommittee meeting summaries:</b></p> <p>Toxicity Lab Selection Committee:</p> <ul style="list-style-type: none"> <li>• 2019-11-21</li> <li>• 2019-12-02</li> </ul> <p>Mercury Subcommittee:</p> <ul style="list-style-type: none"> <li>• 2019-08-30</li> </ul> <p>Nutrients Subcommittee:</p> <ul style="list-style-type: none"> <li>• 2019-11-14</li> </ul> <p>CEC Subcommittee:</p> <ul style="list-style-type: none"> <li>• 2019-09-23</li> </ul> <p>Pesticides Subcommittee:</p> <ul style="list-style-type: none"> <li>• 2019-08-26</li> <li>• 2019-09-27</li> <li>• 2019-12-19</li> </ul> <p>Data Management Subcommittee:</p> <ul style="list-style-type: none"> <li>• 2019-08-28</li> <li>• 2019-11-20</li> </ul>	<p>10:15 – 11:00 Stephen McCord</p>
4	<p><b>Discussion: Delta Science Plan</b> Yumiko Henneberry from the Delta Science Program would like to lead a discussion on how the Delta Regional Monitoring Program can participate in collectively implementing the mechanisms and tools identified in the Delta Science Plan and help champion these efforts. There will also be a short informational discussion on the upcoming update of the Science Action Agenda.</p> <p><b>Desired outcome:</b></p> <ul style="list-style-type: none"> <li>• Informed committee</li> </ul>		<p>11:00 – 11:30 Yumiko Henneberry, Delta Stewardship Council</p>

#	Agenda item and desired outcomes	Attachments	Start & Lead
5	<p><b>Discussion: Delta Plan Performance Measures</b>            In 2009, the California legislature passed laws creating the Delta Stewardship Council, and creating “coequal goals” to foster water supply reliability and a restored ecosystem. The 2013 Delta Plan lays out several policies and numerous recommendations. The Delta Plan Performance measures track how well the goals of Delta Plan are being achieved. The current set of performance measures was adopted by the Council in 2018. Further, Council staff are reviewing additional measures related to ecosystem adaptations.</p> <p><b>Desired outcome:</b></p> <ul style="list-style-type: none"> <li>Informed committee</li> </ul>	Delta Plan Performance Measures ( <a href="#">website</a> )	11:30 – 12:00 Scott Navarro, Delta Stewardship Council
<b>Lunch (provided)</b>			<b>12:00 – 1:00</b>
6	<p><b>Decision: TAC Chairs</b>            The charter calls for the SC to nominate and approve 2 TAC members to serve as chairs each year. The co-chairs “coordinate the TAC’s oversight of the technical content and quality of the RMP, co-chair TAC meetings, and help ensure review of all program proposals and technical products. They also provide a communication link between the SC, TAC and Implementing Entity.”</p> <p><b>Desired outcome:</b></p> <ul style="list-style-type: none"> <li>Approve 2 new TAC chairs to replace Stephen McCord as of the new fiscal year beginning July 1, 2020.</li> </ul>		1:00 – 1:30
7	<p><b>Discussion: Monitoring Pre-proposals</b>            In 2018, stakeholders suggested that project proponents optionally submit a Pre-Proposal that describes the study sufficiently for the SC to provide feedback, but prior to a significant study planning effort.</p> <p><b>Desired outcome:</b></p> <ul style="list-style-type: none"> <li>Confirmation by the SC that they are willing to consider a full proposal.</li> </ul>	2 nutrients monitoring pre-proposals (to be sent separately)	1:30 – 2:30
<b>BREAK</b>			<b>2:30 – 2:45</b>

#	Agenda item and desired outcomes	Attachments	Start & Lead
8	<p><b>Information: Delta RMP finances</b> The Finance Update memo summarizes Delta RMP revenues, expenses, and the status of the reserve fund. The Finance Committee will report out on its findings and recommendations.</p> <p><b>Desired outcomes:</b></p> <ul style="list-style-type: none"> <li>Informed committee</li> </ul>	Quarterly Finance Memo	2:45 – 3:30 Matthew Heberger  Dan Riordan
9	<p><b>Review Action Items and Deliverables</b> Report by ASC on the implementation of the workplan to date, to include updates on proposal development and quality assurance plans.</p> <p><b>Desired outcome:</b></p> <ul style="list-style-type: none"> <li>Informed committee regarding the status of Delta RMP deliverables.</li> </ul>	Delta RMP Stoplight Reports - PDF in agenda package, links to: <ul style="list-style-type: none"> <li><a href="#">Action Items</a></li> <li><a href="#">Deliverables</a></li> </ul> Dashboard of monitoring events and datasets (PDF in agenda package, live link <a href="#">here</a> ).	3:30– 3:55 Matt Heberger
10	<p><b>Wrap up</b> Review action items Suggest agenda items for next meeting</p>		3:55 Adam Laputz
	<b>Adjourn</b>		<b>4:00</b>

# Materials for Agenda Item 8



DATE: December 20, 2019  
TO: Delta RMP Steering Committee  
THROUGH: Delta RMP Finance Committee  
FROM: Matthew Heberger and Jen Hunt, Aquatic Science Center  
RE: Summary of Delta RMP Financials for the period ending September 30, 2019

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This memorandum provides an update of budgets and expenses for the Delta RMP and the balance of the Undesignated Reserve Fund. The figures in this memo are current through September 30, 2019.

## Financial Snapshot

### Financial Assets

Cash	\$1,337,403
Accounts Receivable	\$553,186
	<hr/>
	<b>\$1,930,589</b>

### Liabilities

Subcontracts	\$737,498
ASC Planned Labor & Expenses	\$504,810
	<hr/>
	<b>\$1,242,308</b>

### Other

Reserve Fund	\$243,835
Expected Revenue	\$142,400

## Definitions:

**Financial Assets** – Includes cash and cash equivalents and accounts receivable. We refer here only to “financial” assets as the Delta RMP does not own any physical assets such as equipment or supplies.

**Reserve Fund** – A dedicated “set aside” fund maintained in ASC’s accounting system. If there are excess funds in the Program account at the end of a budget year, the funds can be put into the Reserve Fund to be applied toward subsequent years of Program implementation with approval of the Steering Committee.

**Cash** – Money in the ASC checking account and savings account that belongs to the Delta RMP.

**Accounts Receivable** - “The balance of money due to a firm for goods or services delivered or used but not yet paid for by customers” (Investopedia). In our case, this represents invoices that we have sent to Delta RMP contributors but which have not yet been paid.

**Liabilities** – “A company’s legal financial debts or obligations that arise during the course of business operations” (Investopedia). These can be thought of as “encumbered funds” that are restricted for a given purpose, such as subcontracts or honoraria, or planned labor or direct expenses.

**Expected revenue** is revenue that we *expect* to receive, but we have *not yet invoiced*, therefore it is be counted under accounts receivable. At present, this consists of:

- (1) We expect to receive \$60,000 from the State Water Contractors, but cannot invoice them until we produce a deliverable, the draft pesticides interpretive report. This work is underway by our subcontractor Deltares.
- (2) We cannot invoice CalTrans for \$82,400 until the *end* of the fiscal year. According to the terms of our contract, CalTrans will pay for work after it is completed. In our case, this means that their contribution for FY19-20 will be invoiced in June 2020.

## Outstanding Receivables from FY18-19

For Fiscal Year 2018-2019, all Delta RMP participants have paid except for CalTrans. Due to their agency’s policy, we cannot invoice Caltrans until after the end of the fiscal year, as they will only pay for work that has already been performed. We invoiced Caltrans in July 2019 for \$80,000, the full amount of their expected contribution to the program.

Expected revenue in FY18-19 was **\$1,180,256**. To date, we have collected 93% of expected revenue. for a total of \$1,100,256.

## Revenue in FY19-20

Through Q1 of Fiscal Year 2019-20, there are no changes to report in revenue. All Delta RMP participants have been invoiced except for CalTrans. CalTrans will be invoiced after all FY19-20 work has been completed. Invoices sent total \$1,144,634. There are 13 outstanding invoices for FY19-20 in the amount of \$473,186. Of the 51 participants, 38 have paid in full, or 75% of participants. To date we have collected 51% of expected revenue for a total of \$671,448.

## Revenue Forecast for FY19-20

In July 2018, the SC voted for a one-time fee increase to all participants of 3%. Expected contributions from new and continuing participants amount to **\$1,227,034**. ASC sent invoices to all participants other than Caltrans in late June 2019. Table 1 shows the annual growth in the number of Delta RMP participants and the revenue in terms of their contributions.

**Table 1. History of Delta RMP participation and revenue**

Fiscal Year	Number of Participants	Expected Contributions by Participants
FY 15-16	33	\$751,733
FY 16-17	35 +6%	\$862,082 +15%
FY 17-18	49 +40%	\$997,356 +16%
FY 18-19	52 +6%	\$1,180,256* +18%
FY 19-20	52 –	\$1,227,034 +4%

\*The figures for contributions in FY18-19 and FY19-20 do not include a \$50,000 contribution by the Army Corps of Engineers, who joined as a contributor during FY18-19. The Corps is contributing by directly funding the USGS California Water Science Center to perform pesticides monitoring for the Delta RMP, offsetting our costs for monitoring. We are tracking this as an in-kind contribution to the program.



Below, Table 2 summarizes the past and expected revenue for FY19-20 summarized by category of participant.

**Table 2. Delta RMP revenue schedule.**

Participant Category	FY15-16 Actual	FY16-17 Actual	FY17-18 Actual	FY18-19 Actual	FY19-20 Expected	Comment
Agriculture	\$113,780	\$148,780	\$148,780	\$148,780	\$153,243	
Dredgers		\$60,000	\$60,000	\$63,000	\$64,890	Includes the Ports of Stockton and West Sacramento (joined during FY16-17) and the Sacramento Yacht Club (joined in FY17-18).
Flood Control and Habitat Restoration				\$200,000	\$206,000	The California Department of Water Resources joined the program in FY18-19.
POTW (Wastewater)	\$209,754	\$205,103	\$197,077	\$197,077	\$214,360	The City of Discovery Bay did not participate in the RMP in FY16-17 but did in FY17-18 and thereafter.  By approval of the CV Water Board, the City of Stockton contributed \$24,777 in FY16-17 but is permitted to pay \$12,100 in other years.
State of California	\$17,649					The state directly funded the program in FY15-16, but since then has lent in-kind support.
Stormwater	\$328,199	\$348,199	\$491,399	\$571,399	\$588,541	12 new participants joined in FY17-18.  CalTrans joined the program in FY18-19, contributing \$80,000.
Water supply	\$100,000	\$100,000	\$100,000			SFCWA announced its dissolution in 2018. To date, no other water supply agency has pledged to support the program.
<b>Total</b>	<b>\$769,382</b>	<b>\$862,082</b>	<b>\$997,256</b>	<b>\$1,180,256</b>	<b>\$1,227,034</b>	

## Interest Income

Interest earned by the Delta RMP project to date is as shown below in Table 3. Delta RMP funds are pooled with other SFEI-ASC funds in a state-run account referred to as the Local Agency Investment Fund (LAIF). Each quarter, ASC finance staff calculate the share of interest owed to each program based on their proportion of the cash invested.

At its May 2019 meeting, the Steering Committee directed staff to automatically transfer any interest earned to the Undesignated Reserve Fund each quarter. LAIF interest earned in in Q1 19-20 was \$8241.69. To date, LAIF earned interest was \$55,224.31

**Table 3. Interest earned to date by the Delta RMP**

<b>0</b>	<b>Quarter</b>	<b>Time Period</b>	<b>Interest Earned</b>
FY14-15	Q3	Jan 1 – Mar 31, 2015	\$7.08
FY14-15	Q4	Apr 1 – Jun 30, 2015	\$121.62
FY15-16	Q1	Jul 1 – Sep 30, 2015	\$284.39
FY15-16	Q2	Oct 1 – Dec 31, 2015	\$455.30
FY15-16	Q3	Jan 1 – Mar 31, 2016	\$801.25
FY15-16	Q4	Apr 1 – Jun 30, 2016	\$955.38
FY16-17	Q1	Jul 1 – Sep 30, 2016	\$1,287.58
FY16-17	Q2	Oct 1 – Dec 31, 2016	\$1,363.06
FY16-17	Q3	Jan 1 – Mar 31, 2017	\$1,611.89
FY16-17	Q4	Apr 1 – Jun 30, 2017	\$1,799.93
FY17-18	Q1	Jul 1 – Sep 30, 2017	\$3,695.80
FY17-18	Q2	Oct 1 – Dec 31, 2017	\$3,721.76
FY17-18	Q3	Jan 1 – Mar 31, 2018	\$3,901.73
FY17-18	Q4	Apr 1 – Jun 30, 2018	\$3,901.81
FY18-19	Q1	Jul 1 – Sep 30, 2018	\$5,825.83
FY18-19	Q2	Oct 1 – Dec 31, 2018	\$8,420.44
FY18-19	Q3	Jan 1 – Mar 31, 2019	\$9,165.32
FY18-19	Q4	Apr 1 – Jun 30, 2019	\$7,904.14
FY19-20	Q1	Jul 1 – Sep 30, 2019	\$8,124.68
		<b>Total</b>	<b>\$55,224.31</b>

## Changes to FY17-18 & FY18-19 Workplan Expenses

There was a change to the FY17-18 budget as an outcome from the 5/30/2019 Steering Committee meeting. Since the workplan was approved in May 2018, we have made several changes to the FY18-19 budget based on updated plans and priorities. The task 8A (Year 1-2 CUP Technical Report) budget increased by \$10,300. This budget is for Deltares, a subcontractor.

These changes are shown in Table 4 on the next page. The net result of these changes is a \$108 decrease in planned expenses:

Original Budget	\$1,098,244
Amendments	+\$3,096
<b>Revised Budget</b>	<b>\$1,101,340</b>

Most of these changes have been discussed previously. The only change in the last quarter was the addition of \$2,988 to the labor budget under *Task 1A. Program Planning*, to cover ASC staff time for the emergency website migration. This request was reviewed and approved by the Finance Committee via email in June 2019.

**Table 4. Changes to the planned expenses from the original FY18-19 workplan**

Task	Subtask	Expense Type	Original Budget	Budget Amendment	Revised Budget	Rationale
01. Core Functions	A. Program Planning	Labor	\$68,250	<b>-\$3,120</b> <b>+2,988</b> <b>Net -\$132</b>	\$68,118	Transferred \$3,120 from ASC labor to subcontracts. Contract with AMS for Dr. Aroon Melwani to perform power analysis and statistical analysis for the pesticides monitoring design.  2019-06-06: Added \$2,988 to budget to cover emergency website migration. All ASC Labor expenses. Approved via email by the finance committee.
		Subcontracts	\$0	<b>+\$3,120</b>	\$3,120	Transferred from labor to subcontracts, per note in row above.
	C. Proposal Writing	Labor	\$0	<b>+\$8,306</b>	\$8,306	<b>New subtask</b> added in Oct 2018, with authorization of the Finance Committee. Provides for ASC staff time to write and submit a Prop 1 grant proposal for CEC monitoring.
04. Nutrients Studies FY18-19	A. Nutrients Modeling Study	Subcontracts	\$85,000	<b>-\$35,000</b>	\$50,000	Cancelled the planned subcontract with Deltares when they changed their mind about writing hydrodynamic model converter code. Transferred to ASC labor. This work is being done by Dr. Allie King, new hire in the nutrients group.
		Labor	\$101,000	<b>+\$35,000</b>	\$136,000	Transferred from subcontracts to ASC labor. See note above.
05. Mercury Monitoring FY18-19	A Data Collection and Analysis	Subcontracts	\$242,130	<b>+\$46,581</b>	\$288,711	Budget amended by Steering Committee on Oct 29, 2018. We decided to increase the number of mercury water sampling events from 8 to 10 per year.
06. Pesticides Monitoring FY18-19	A. Field sample collection and laboratory analysis	Subcontracts	\$199,873	<b>-\$44,356</b>	\$155,517	Budget decreased by \$44,356, as the US Army Corps of Engineers made a direct cash contribution to the subcontractor USGS that will cover a portion of the planned work. This in-kind contribution to the program is in lieu of making a cash contribution to ASC to pay for their Delta RMP dues.

Task	Subtask	Expense Type	Original Budget	Budget Amendment	Revised Budget	Rationale
	B. Toxicity reporting	Subcontracts	\$15,063	-\$15,063	\$0	Cancelled this planned subcontract with AHPL, per communications with Melissa Morris at State Board Office of Information Management and Analysis. Most of the planned deliverables under this subtask will be provided by the State Water Board at no expense to the program.
	D. Additional Toxicity Testing	Subcontracts	\$0	+4,640		Funds for the Aquatic Health Program Laboratory at UC Davis to perform some additional analyses requested by the Toxicity Workgroup. Covers a nutrient add-back experiment in low-conductivity controls for the chronic <i>Ceriodaphnia dubia</i> toxicity test. Includes up to 4 tests @ \$1,160 each. Described in an April 9, 2019 memo to the Finance Committee. Approved by Finance Committee via email in April 2019.
999	Unallocated	Labor	\$0	+6,544		We are now reporting the amount that is unallocated in the FY18/19 budget.
<b>Net change to planned expenses in the FY18-19 workplan</b>				<b>+\$3,096</b>		

## **Expenses**

Job-to-date (JTD) expenses through September 2019 are tracking roughly in line with expectations. FY19-20 JTD spending is at 31% mostly due to subcontractor work on Task 5 Mercury Monitoring. A summary of expenses by task is shown in Table 5. Additional details are shown in Table 9 at the end of this memo.

**Table 5. Planned and actual expenses by task, through September 30, 2019.**

Task	Planned expense	Actual JTD Expense	Percent spent
<b>Tasks Authorized in the FY17-18 Workplan*</b>			
02.D Science Advisors Honoraria	\$10,000	\$9	0%
04.B Pulse of the Delta draft	\$40,000	\$1,178	3%
08. Pesticides Interpretive Report	\$98,300	\$51,115	52%
10. Mercury Monitoring FY17-18	\$233,561	\$236,806	101%
<b>Subtotal</b>	<b>\$381,861</b>	<b>\$289,108</b>	<b>76%</b>
<b>Tasks Authorized in the FY18-19 Workplan</b>			
01. Core Functions	\$135,694	\$128,930	95%
02. Governance	\$134,800	\$114,932	85%
03. Quality Assurance	\$32,500	\$35,927	111%
04. Nutrients Special Studies FY18-19	\$228,400	\$42,136	18%
05. Mercury Monitoring FY18-19	\$323,791	\$233,427	72%
06. Pesticides Monitoring FY18-19	\$201,155	\$17,139	9%
07. CEC Monitoring Plan FY18-19	\$45,000	\$32,096	71%
Unallocated**	\$6,544	\$0	0%
<b>Subtotal</b>	<b>\$1,107,884</b>	<b>\$604,587</b>	<b>55%</b>
<b>Tasks Authorized in the FY19-20 Workplan</b>			
01. Core Functions	\$101,714	\$33,216	33%
02. Governance	\$155,955	\$48,854	31%
03. Quality Assurance	\$17,500	\$13,908	79%
04. Sacramento River Nutrient Change Study	\$258,688	\$23,822	9%
05. Mercury Monitoring FY19-20	\$282,394	\$175,713	62%
06. Pesticides Monitoring FY19-20	\$118,026	\$305	<1%
07. CEC Pilot Study Year 1	\$34,321	\$0	0%
<b>Subtotal</b>	<b>\$968,598</b>	<b>\$295,818</b>	<b>31%</b>

\*Only showing FY17-18 open tasks and subtasks. Completed tasks have been closed and the surplus was transferred to the Undesignated Reserve Fund on Oct 29, 2018.

\*\*Note that we have now added the amount of unallocated budget that is in FY18-19. This had previously been unreported.



Table 6 shows expense by category (ASC labor, subcontracts, and direct expenses). The subcontractor expenses are low in particular, as we do not log the expense until invoices are received and paid out.

**Table 6a. Budget and job-to-date expense for FY18-19 workplan expenses by category of expense.**

	Budget	Expense JTD	Percent spent
Labor	\$538,802	\$346,412	61%
Subcontracts	\$562,038	\$257,857	42%
Direct Expense	\$500	\$317	63%
Unallocated	\$6,544	\$0	0%
<b>Total</b>	<b>\$1,107,884</b>	<b>\$604,586</b>	<b>55%</b>

**Table 6b. Budget and job-to-date expense for FY19-20 workplan expenses by category of expense.**

	Budget	Expense JTD	Percent spent
Labor	\$337,364	\$88,882	61%
Subcontracts	\$626,134	\$205,391	42%
Direct Expense	\$5,100	\$1,545	63%
<b>Total</b>	<b>\$968,598</b>	<b>\$295,818</b>	<b>31%</b>

### **Subcontractors**

In the last quarter, the Finance Committee requested more detailed reporting of planned and actual expenses for subcontractors. This refers to contractors to ASC, the main “contractor” or implementing entity for the Delta RMP. Please see the attachment at the end of this memo:

**Table 7. Subcontractor budgets and expenses for all open tasks**

## Undesignated Reserve Fund

The current balance of undesignated funds is \$243,835.

Table 8 shows a running list of deposits and withdrawals into the Undesignated Reserve Fund. In this past quarter, we have transferred \$8,124 (LAIF earned interest from Q1 FY19-20) to the undesignated reserve fund.

**Table 8 Delta RMP Undesignated Reserve Fund ledger.**

Budget Year	Deposit or Withdrawal	Authorized By	Date	Amount	Comment
FY14-15	Deposit	Steering Committee	2015-06-16	\$41,000	Release funds allocated for CUP monitoring in FY14-15 budget in order to re-allocate these funds into the FY15-16 budget for CUP monitoring.
FY14-15	Deposit	Staff	2015-07-21	\$51,903	Extra revenue received in FY14-15. Actual revenue minus budgeted expenses for FY14-15.
FY15-16	Withdrawal	Steering Committee	2015-06-16	-\$41,000	Release funds allocated for CUP monitoring in FY14-15 budget in order to re-allocate these funds into the FY1516 budget for CUP monitoring.
FY15-16	Withdrawal	Steering Committee	2016-04-25	-\$20,000	Release funds for Pathogen Trigger study (TBD) not to exceed \$20K; see description in FY16-17 workplan
FY15-16	Deposit	Steering Committee	2016-04-25	\$100,000	SC directed that SFCWA funding of \$100K (contribution for FY15-16) be transferred to reserve.
FY16-17	Withdrawal	Steering Committee	2016-04-25	-\$100,000	SC directed that \$100K be withdrawn from the reserve to be reallocated as revenue for FY16-17. SFCWA contribution in Spring 2017 will be allocated to the FY17-18 budget.
FY15-16	Deposit	Steering Committee	2016-07-20	\$84,444	SC approved that \$84,444 be transferred from FY15-16 revenue to the reserve as undesignated funds.
FY16-17	Withdrawal	Steering Committee	2016-10-18	-\$10,000	SC approved up to \$10,000 for coordinating and drafting a response to the External Panel Review. Funds were allocated to FY16-17 Task 1.C.
FY16-17	Withdrawal	Finance Committee	2017-05-23	-\$7,500	Finance Subcommittee approved transfer of funds to cover final phase of External Review.
FY14-15	Deposit	Steering Committee	2017-07-28	\$725	Transfer FY14-15 surplus to the Reserve Fund.
FY17-18	Deposit	Steering Committee	2018-03-02	\$25,910	SC voted to unencumber the \$25,910 FY15-16 surplus and transfer the amount to the Reserve Fund
FY16-17	Deposit	Steering Committee	2018-03-02	\$8,097	SC voted to unencumber the \$8,097 FY16-17 surplus and transfer the amount to the Reserve Fund
FY17-18	Deposit	Steering Committee	2018-10-29	\$37,743	SC voted to unencumber \$37,743, the surplus from completed tasks in the FY17-18 workplan and transfer these funds to the Reserve Fund.

Budget Year	Deposit or Withdrawal	Authorized By	Date	Amount	Comment
FY18-19	Deposit	Steering Committee	2018-05-29	\$47,320	SC voted to transfer interest income earned to date in the amount of \$47,320.17 to the Undesignated Reserve Fund.
FY18-19	Deposit	Program manager	2019-10-04	\$9,165	LAIF earned interest from Jan – March 2019. SC authorized staff to transfer interest income to the reserve fund quarterly.
FY18-19	Deposit	Program manager	2019-07-01	\$7,904	LAIF earned interest from Jan – March 2019. SC authorized staff to transfer interest income to the reserve fund quarterly.
FY19-20	Deposit	Program manager	2019-10-01	\$8,124	LAIF earned interest from Jan – March 2019. SC authorized staff to transfer interest income to the reserve fund quarterly.
			<b>Total</b>	<b>\$243,835</b>	

## Invoices

Please follow this link to download the invoices covered by this memo:

<https://drive.google.com/drive/folders/1OuOOMWTGLmyFxjiAQOTtR-MEVXvLCxea?usp=sharing>

## Attachments – Detailed Expense Tables

See the following pages for detailed tables of expenses by task:

**Table 9. Planned and actual expenses for *uncompleted* tasks authorized in the Delta RMP FY17-18 Workplan, by task and subtask, with details on expenses in the last quarter.**

**Table 10. Planned and actual expenses for *uncompleted* tasks authorized in the Delta RMP FY18-19 Workplan, by task and subtask, with details on expenses in the last quarter.**

**Table 11. Planned and actual expenses for tasks authorized in the Delta RMP FY19-20 Workplan, by task and subtask, with details on expenses in the last quarter.**

<b>Table 7. Subcontractor budgets and expenses for all open tasks</b>							
<b>Task</b>	<b>Subtask</b>	<b>Subcontractor Name</b>	<b>Subcontractor budget</b>	<b>Subcontractor JTD Billed through 9/30/2019</b>	<b>Subcontractor Balance</b>	<b>Description</b>	<b>Deliverables</b>
<b>Open tasks authorized in the FY17-18 Workplan</b>							
02. Governance	D. Science Advisors	Various advisors	\$10,000	\$0	\$10,000	Earmarked to pay honoraria to our science advisors. Unused because (a) many of our science advisors are government employees and are barred from accepting honoraria, and (2) we were slow to approve the current slate of advisors.	As needed consultation and review of documents. Attendance at workgroup meetings once per year.
08. Year 1-2 CUP Technical Report	A. Report	Deltares	\$80,000	\$38,725	\$41,275	FY17-18 Workplan allocated \$60,000 for this task. SC directed that this should be outsourced, and we selected Netherlands-based Deltares as the contractor.	Multiple deliverables under: Task 1. Stakeholder Engagement & Input Task 2. Compilation of existing data and literature Task 3. Analysis Methods Report Major deliverable = Pesticides Interpretive Report
<b>Open tasks authorized in the FY18-19 Workplan</b>							
04. Nutrients Special Studies FY18-19	B. Chlorophyll Intercalibration Study	USGS (Biogeochemistry Group)	\$36,050	\$4,663	\$31,387	USGS subcontract for managing field data collection, analysis, collaboration through meeting attendance, and report writing.	Co-authorship of the following: Task 1: Assessment of in-situ chlorophyll methods in use; Task 2: Presentation to workgroup on field intercalibration exercises; Task 3: Report on laboratory intercalibration study; Task 4: Summary report with recommendations for next steps. Electronic data in CEDEN templates, cruise report
05. Mercury Monitoring FY18-19	A. Data Collection and Analysis	San Jose State University Research Foundation (parent organization of Moss Landing Marine Laboratory)	\$288,711	\$218,204	\$70,507	Field collection of fish and water samples and laboratory analyses by the Moss Landing Marine Laboratory (MLML). Includes a \$25,000 in-kind contribution from MLML.	
06. Pesticides Monitoring FY18-19	A. Field sample collection and laboratory analysis	USGS (Pesticide Fate Research Group, PFRG)	\$155,517	\$8,842	\$146,675	Covers field sample collection, laboratory analysis. Includes a \$50,000 contribution by the Corps of Engineers, paid directly to USGS, and a \$13,700 cost share on labor and supplies from the USGS.	Electronic data in CEDEN templates. Scanned field data sheets. Pesticides Chemistry Lab Report (Report to the Delta RMP; not a formal USGS Data Series Report)
06. Pesticides Monitoring FY18-19	D. Additional Toxicity Testing	Aquatic Health Program Laboratory at UC Davis	\$4,640	\$0	\$4,640	Covers a nutrient add-back experiment in low-conductivity controls for the chronic Ceriodaphnia dubia toxicity test. Includes up to 4 tests @ \$1,160 each. Described in an April 9, 2019 memo to the Finance Committee. Approved by Finance Committee via email in April 2019.	Data submitted to ASC on the results of the nutrient add-back experiment
<b>Tasks authorized in the FY19-20 Workplan</b>							
2. Governance	B. TAC meetings	McCord Environmental	\$38,955	\$11,147	\$27,808	Contract with Stephen McCord, TAC chair, covers his time for facilitation of 4 TAC meetings, review of program documents, planning and coordination.	
2. Governance	E. Science Advisors Honoraria	Various	\$5,000	\$0	\$5,000	Honoraria and travel expenses for our independent experts to attend meetings and review program documents.	
4. Sacramento River Nutrient Change Study	A. Sacramento River Study	Resource Management Associates	\$125,688	\$23,822	\$101,866	Numeric modeling of proportional water volumes and mixing	(1) Final report describing background information for the modeling applications, data acquisition, modeling results, and interpretation of results. (2) Modeling results (3) Particle-tracking products

<b>Table 7. Subcontractor budgets and expenses for all open tasks</b>							
<b>Task</b>	<b>Subtask</b>	<b>Subcontractor Name</b>	<b>Subcontractor budget</b>	<b>Subcontractor JTD Billed through 9/30/2019</b>	<b>Subcontractor Balance</b>	<b>Description</b>	<b>Deliverables</b>
4. Sacramento River Nutrient Change Study	A. Sacramento River Study	Applied Marine Sciences	\$103,000	\$0	\$103,000	Phytoplankton growth evaluations and clam sampling	1) Quarterly reports 2) Draft final report 3) Final report
4. Sacramento River Nutrient Change Study	A. Sacramento River Study	BSA Environmental Services	\$30,000	\$0	\$30,000	Phytoplankton and zooplankton enumeration. Three replicate phytoplankton and zooplankton samples, and one picoplankton sample will be enumerated at each of 12 sampling stations.	Enumeration outputs (analysis results) in electronic worksheet format.
5. Mercury Monitoring FY19-20	A. Field Sampling and Lab Analysis	San Jose State University Research Foundation	\$222,394	\$170,422	\$51,972	Field collection of fish and water samples and laboratory analyses by the Moss Landing Marine Laboratory (MLML).	Cruise report, Electronic data deliverables of lab results
6. Pesticides Monitoring Water Year 2020	A. Field sample collection and pesticides chemical analysis	USGS (Pesticide Fate Research Group, PFRG)	\$79,477	\$0	\$79,477	USGS subcontract for field sample collection, laboratory analysis. Note that this funding amount only covers one half of the Water Year, or 3 of 6 planned events. It also takes into account an anticipated in-kind cash contribution of \$50,000 from the Army Corps of Engineers made directly to USGS.	(1) Field data sheets (2) Chain of Custody Forms (3) Electronic Data Deliverables of pesticide chemistry results in CEDEN template format. (4) Pesticides Chemistry Lab Report (Report to the Delta RMP; not a formal USGS Data Series Report)
7. CEC Pilot Study Year 1	C. Fish Sampling	San Jose State University Research Foundation	\$14,360	\$0	\$14,360	Subcontract with Moss Landing Marine Laboratory. CEC fish collection at Delta RMP Mercury Monitoring site CEC fish collection at new site site specific to this study Fish compositing (2) Archive sample storage for up to two years	(1) Field Collection Info in the CEDEN template (2) Chain of Custody Forms (3) Cruise Report
7. CEC Pilot Study Year 1	D. Chemical Laboratory Analysis	SGS-AXYS Analytical	\$7,260	\$0	\$7,260	Subcontract with SGS Axys for chemical analysis of fish and bivalve tissue.	Electronic data deliverables in CEDEN templates submitted by lab to ASC.
<b>TOTAL</b>			<b>\$1,201,052</b>	<b>\$475,825</b>	<b>\$725,227</b>		

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Table 9. Planned and actual expenses for uncompleted tasks authorized in the Delta RMP FY17-18 Workplan, by task and subtask, with details on expenses in the last quarter.

Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of duration elapsed	Percent of budget spent	Expenses in this Quarter	Staff and subcontractors billing	Description and Notes
02. Governance	D. Science Advisors	\$10,000	\$9	\$9,991	2019-06-30	113%	0%	\$0		Earmarked for paying honoraria to our science advisors. Delayed in FY17-18 due to the lengthy nomination and selection process. Small expense was due to a previous billing error.
04. Communications	B. Pulse of the Delta Draft	\$40,000	\$1,178	\$38,822	2020-10-31	67%	3%	\$0		Most labor deferred; originally planned for FY17-18; SC chose to postpone publication until Fall 2020.
08. Year 1-2 CUP Interpretive Report	A. Report (subcontract)	\$90,300	\$41,770	\$48,530	2019-12-31	90%	46%	\$ -		Earmarked to pay the consultant Deltares for the Pesticides Interpretive Report. Subcontract in the amount of \$77,450. To date, we have not received any invoices from Deltares. Some spending on ASC labor (\$3,045) occurred before SC made decision to outsource this task. Labor hours were for compiling data and planning the study, including a detailed presentation on proposed analysis methods.  <b>Deliverables completed:</b> Deliverables 3.3 (revised tech memo on methods).
	B. Contract Management (Pesticides Report)	\$8,000	\$9,346	(\$1,346)	2019-06-30	done	117%	\$0		<b>Task closed.</b>
09. Nutrients	A. Cross-Delta Monitoring Using High Frequency Tools	\$195,000	\$195,000	\$0	2019-03-31	129%	100%	\$ -		<b>Outputs:</b> USGS has completed all 3 of the 3 planned high-frequency cruises on May 15-17, 2018, July 24-26, 2018, and October 16-18, 2018.  <b>Deliverables completed:</b> None to date, although the Principal Investigator Brian Bergamaschi has given presentations about the provisional results to the SC. Expected deliverables include (1) draft report, (2) electronic maps, and (3) data files containing results of monitoring cruises.
10. Mercury Monitoring FY17-18	A. Data Collection and Analysis	\$209,016	\$209,106	(\$90)	2019-03-31	done	100%	\$ -		Earmarked for paying subcontract with Moss Landing Marine Laboratory (MLML).  <b>Outputs:</b> All of the planned sampling events have been completed. All data has been submitted by the lab to ASC; and we are currently finalizing a data report.  Note that a typo in the budget under-funded this project by \$90.  <b>CLOSED</b>
	B. RMP Data Management	\$19,545	\$23,714	(\$4,169)	2019-03-31	done	121%	\$ 1,965.57	John Ross (8.5 hrs) Weaver, Michael (9 hrs)	<b>Outputs:</b> QA review of mercury data. Worked with lab staff to resolve issue related to a mislabeled sample. Edits to finalize the QA summary report.  <b>Deliverables:</b> Formatted dataset and QA Report included in the FY17-18 data report out for review by subcommittee and TAC. Data ready to be uploaded to CEDEN and released to public pending SC approval.

Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of duration elapsed	Percent of budget spent	Expenses in this Quarter	Staff and subcontractors billing	Description and Notes
	C. Technical Oversight	\$5,000	\$2,613	\$2,387	2019-03-31	done	52%	\$ -		<b>Outputs:</b> No billing in this quarter. <b>Deliverables:</b> Draft data report out for review by subcommittee and TAC.
		\$576,861	\$482,735	\$94,126			84%	\$1,966		

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Table 10. Planned and actual expenses for tasks authorized in the Delta RMP FY18-19 Workplan, by task and subtask, with details on expenses in the last quarter.

Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of budget spent	Percent of duration elapsed	Expenses in last Quarter	Staff and subcontractors billing	Description and Notes
01. Core Functions	A. Program Planning	\$71,238	\$74,906	-\$3,668	2019-06-30	105%	done	\$8,672	Davis, Jay (16 hrs) Franz, Amy (1 hrs) Heberger, Matthew (17 hrs) Hunt, Jennifer (2.25 hrs) Miller, Elizabeth (19 hrs) Wong, Adam (1 hrs)	<b>Outputs:</b> Internal coordination, staff meetings, labor planning, oversight and project management. Effort to help diagnose causes of observed toxicity to algal test species, in order to determine best course of action for follow up testing, give expert advice to workgroup. Continued development of Mercury Monitoring workplan.  <b>Deliverables completed:</b> After the FY19-20 workplan was posted in June 2019, additional planning needed for planning toxicity intercalibration and beginning the tox. lab RFP process. Revised mercury monitoring proposal for wetland restoration monitoring. <b>CLOSED</b>
	B. Contract and Financial Management	\$56,150	\$46,739	\$9,411	2019-06-30	83%	done	\$459	Heberger, Matthew (3 hrs) Hunt, Jennifer (0.25 hrs)  Direct expense, software, \$317.29.	<b>Outputs:</b> Internal accounting; subcontract management; checked and approved internal and external invoices; tracked expenses by task.  <b>Deliverables completed:</b> Invoices, as noted above. <b>CLOSED</b>
	C. Proposal Writing (Added Oct 2018)	\$8,306	\$7,285	\$1,021	2018-10-31	88%	done	\$0		<b>Deliverables completed:</b> Prop 1 grant proposal submitted to Delta Stewardship Council in October 2018. Unfortunately, we received notification in April 2019 that our proposal was not funded.  <b>CLOSED</b>
02. Governance	A. SC meetings	\$38,400	\$27,307	\$11,093	2019-06-30	71%	done	\$1,075	No labor billing. Expenses: Daphne Orzalli invoices for SC meeting summaries.	<b>Outputs:</b> Followup from May 29, 2019 SC Meeting and planning for Aug 5 SC meeting. Updated decision record and action items tracking sheets. Followup on SC meeting action items. Communications with SC members.  <b>Deliverables completed:</b> None this quarter.
	B. TAC meetings	\$59,400	\$50,640	\$8,760	2019-06-30	85%	done	\$9,608	Davis, Jay (6 hrs) Heberger, Matthew (51.5 hrs)  Expenses: Travel reimbursement to Matthew Heberger of \$77.72	<b>Outputs:</b> Planned and coordinated July 19, 2019 TAC Meeting. (This was TAC meeting #4 for the fiscal year.) Prepared materials for agenda package. Began planning for Sept. TAC meeting.  <b>Deliverables completed:</b> Agenda package and meeting summary for TAC meeting. Updated action items tracking sheet.
	C. Technical Subcommittees	\$37,000	\$36,985	\$15	2019-06-30	100%	done	\$4,340	Franz, Amy (11.75 hrs) Heberger, Matthew (5 hrs) Miller, Elizabeth (19 hrs)  Expenses: Staff travel expenses of \$332.66	<b>Outputs:</b> Planning of and participation in technical subcommittee meetings. Billing for data management subcommittee on 8/28 and pesticides subcommittee 8/26.  <b>Deliverables completed:</b> Agenda packages and Meeting Summaries for 2 meetings.
03. Quality Assurance	A. Quality Assurance	\$17,500	\$21,101	-\$3,601	2019-06-30	121%	done	\$2,021	Franz, Amy (8 hrs) Salomon, Micha (15 hrs) Yee, Donald (-3 hrs)	<b>Outputs:</b> Revisions to the Delta RMP Quality Assurance Program Plan. Edits to the Data Management and Quality Assurance Standard Operating Procedures document. Internal meeting to discuss data flagging policies.  <b>Deliverables completed:</b> New QAPP version 5 was finalized in August 2019.
	B. Technical Oversight and Coordination	\$15,000	\$14,826	\$174	2019-06-30	99%	done	\$183	Franz, Amy (1.5 hrs)	<b>Outputs:</b> Coordination meeting with data services and USGS OCRL staff.
04. Nutrients Special Studies FY18-19	A. Nutrients Modeling Study	\$186,000	\$30,934	\$155,066	2020-06-30	17%	62%	\$560	Heberger, Matthew (4 hrs)	<b>Outputs:</b> Project management; monthly check-ins with modeler.



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Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of budget spent	Percent of duration elapsed	Expenses in last Quarter	Staff and subcontractors billing	Description and Notes
	B. Chlorophyll Inter-calibration Study	\$42,400	\$11,201	\$31,199	2020-03-31	26%	71%	\$700	Heberger, Matthew (5 hrs)	<b>Outputs:</b> Coordination for the second component of the lab intercalibration sampling and analysis. In the last quarter, we checked in much of the lab data and began analyzing it. Note that most ASC labor is being charged to the NMS, while the bulk of the Delta RMP funds are earmarked for a subcontract with the USGS.  <b>Deliverables:</b> None in this quarter.
05. Mercury Monitoring FY18-19	A. Data Collection and Analysis	\$288,711	\$218,204	\$70,507	2019-06-30	76%	125%	\$23,290	MLML invoice received and paid this quarter, for water monitoring.	Earmarked for paying subcontractor Moss Landing Marine Laboratory for field sampling and lab analysis.  <b>Outputs:</b> Water monitoring conducted.
	B. Mercury Data Management and Quality Assurance	\$29,930	\$15,720	\$14,210	2020-03-31	53%	71%	\$9,571	Franz, Amy (0.75 hrs) Ross, John (32 hrs) Weaver, Michael (46.75 hrs) Yee, Donald (4 hrs)	<b>Outputs:</b> Completeness review of mercury water and sediment data. Formatted and processed data. Wrote QA summary for inclusion in data report as an appendix. Answered questions and responded to suggestions by program managers. QA officer reviewed QA summaries for water and sediment.  <b>Deliverables completed:</b> None to date.
	C. Technical Oversight and Coordination	\$5,150	\$0	\$5,150	2020-03-31	0%	71%	\$0		<b>Outputs:</b> None to date.  <b>Deliverables:</b> Planned deliverable is a year-end data report.
06. Pesticides Monitoring FY18-19	A. Field sample collection and laboratory analysis	\$155,517	\$8,842	\$146,675	2019-09-30	6%	100%	\$0		Earmarked for paying subcontractor, USGS Organic Chemistry Research Laboratory (OCRL) for field sampling and lab analysis.  Only a single invoice received to date. Note that USGS tends to invoice us rather late as they need to bill internally first in order to take advantage of their agency's cost share on labor and materials
	C. Pesticides Data Management and Quality Assurance	\$40,998	\$8,297	\$32,701	2020-03-31	20%	71%	\$3,806	Franz, Amy (0.75 hrs) Weaver, Michael (28.5 hrs) Yee, Donald (4 hrs)	<b>Outputs:</b> Processed Electronic Data Deliverables (EDD) and loaded into internal database. Correspondence with lab staff to resolve questions. Reviewed data submitted by lab and performed completeness check.  <b>Deliverable completed:</b> No official deliverables yet. We have provided provisional data to the TAC for review.
	D. Additional Toxicity Testing	\$4,640	\$0	\$4,640	2019-09-30	0%	100%	\$0		NEW budget line created this quarter, to cover additional toxicity testing by the Aquatic Health Program Laboratory at UC Davis. See finance memo for details. No ASC labor, earmarked to pay lab as subcontractor. The lab will invoice us toward the end of the project, on or after Sept 2019.
07. CEC Monitoring Plan FY18-19	A. Coordination and planning	\$22,000	\$20,177	\$1,823	2020-03-31	92%	71%	\$3,949	Heberger, Matthew (18 hrs) Miller, Elizabeth (0.5 hrs) Sutton, Rebecca (0.5 hrs)	<b>Outputs:</b> Drafting CEC Sampling and Analysis Plan, which is being incorporated into the QAPP. Questions handled in this period largely had to do with the selection of an analytical lab for water samples.  <b>Deliverables completed:</b> None this quarter.
	B. QAPP Amendments	\$23,000	\$11,919	\$11,081	2020-03-31	52%	71%	\$1,120	Yee, Donald (7 hrs) Heberger, Matthew (8 hrs)	<b>Outputs:</b> Misc. QAPP edits. QA Officer review of draft QAPP.  <b>Deliverable completed:</b> None this quarter. QAPP to be finalized once water lab is selected/approved.
<b>Total</b>		<b>\$1,101,340</b>	<b>\$605,083</b>	<b>\$496,257</b>	<b>2020-06-30</b>	<b>55%</b>	<b>62%</b>	<b>\$69,356</b>		

Table 11. Planned and actual expenses for tasks authorized in the Delta RMP FY19-20 Workplan, by task and subtask, with details on expenses in the last quarter.

Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of budget spent	Percent of duration elapsed	Expenses in this Quarter	Staff and subcontractors billing	Description and Notes
01. Core Functions	A. Program Planning	\$46,714	\$ 20,813	\$25,901	2020-06-30	45%	25%	\$ 20,813	Davis, Jay (14 hrs) Franz, Amy (1.25 hrs) Hale, Anthony (1 hrs) Heberger, Matthew (78 hrs) Lin, Diana (3.25 hrs) Miller, Elizabeth (35 hrs) Robinson, April (11 hrs) Salomon, Micha (0.5 hrs) Weaver, Michael (0.25 hrs) Wong, Adam (1.5 hrs) Yee, Donald (2 hrs)	<b>Outputs:</b> Internal coordination, staff meetings, labor planning, oversight and project management. Tracking and updating stoplight reports of action items and deliverables. Finalized the mercury monitoring proposal and presented to TAC and SC, including major new sections on DQOs and statistical power analysis. Developed toxicology lab RFP.  <b>Deliverables completed:</b> Final revised mercury proposal to SC for teleconference on September 25, 2019.
	B. Contract and Financial Management	\$55,000	\$ 12,404	\$42,596	2020-06-30	23%	25%	\$ 12,404	Heberger, Matthew (24 hrs) Hunt, Jennifer (10 hrs) Lofthouse, Meredith (58 hrs) Lowe, Sarah (11.5 hrs)	<b>Outputs:</b> Internal accounting; subcontract management; checked and approved internal and external invoices; tracked expenses by task. Prepared quarterly finance memo and met with finance subcommittee on July 29, 2019.  <b>Deliverables completed:</b> Quarterly finance memo and Finance Committee meeting; finance update to SC at Aug 5, 2019 meeting.
02. Governance	A. SC meetings	\$33,000	\$ 11,439	\$21,561	2020-06-30	35%	25%	\$ 11,439	Davis, Jay (2 hrs) Heberger, Matthew (68.5 hrs) Miller, Elizabeth (1 hrs) Robinson, April (3.5 hrs)	<b>Outputs:</b> Planned and coordinated Aug 5, 2019 SC Meeting. Held two Coordinating Committee meeting on July 23 and Aug 27. Updated decision record and action items tracking sheets. Followup on SC meeting action items. Communications with SC members.  <b>Deliverables completed:</b> Agenda package and meeting summary for SC meeting.
	B. TAC meetings	\$71,955	\$ 18,335	\$53,620	2020-06-30	25%	25%	\$ 18,335	Davis, Jay (4 hrs) Heberger, Matthew (43 hrs)  Expenses: Invoice received from McCord Environmental, Inc for \$4900.	<b>Outputs:</b> Planned and coordinated TAC meeting on Sept 13 and teleconference on Sept 19, 2019. Prepared materials for agenda package for meeting on Oct 11, 2019. Updated action items tracking sheet and corresponded with TAC members.  <b>Deliverables completed:</b> Agenda packages and summaries for TAC meetings. Updated action items tracking sheet.

Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of budget spent	Percent of duration elapsed	Expenses in this Quarter	Staff and subcontractors billing	Description and Notes
	C. Technical Subcommittees	\$38,000	\$ 14,355	\$23,645	2020-06-30	38%	25%	\$ 14,355	Davis, Jay (5 hrs) Franz, Amy (2 hrs) Heberger, Matthew (50.5 hrs) Miller, Elizabeth (48 hrs) Weaver, Michael (2.5 hrs) Wong, Adam (1 hrs)	<b>Outputs:</b> Planning of and participation in technical subcommittee meetings for:  Toxicity Lab Selection Committee: ● 2019-11-21 ● 2019-12-02 Mercury Subcommittee: ● 2019-08-30 Nutrients Subcommittee: ● 2019-11-14 CEC Subcommittee: ● 2019-09-23 Pesticides Subcommittee: ● 2019-08-26 ● 2019-09-27 ● 2019-12-19 Data Management Subcommittee: ● 2019-08-28 ● 2019-11-20  <b>Deliverables completed:</b> Agenda packages and Meeting Summaries for subcommittee meetings.
	D. Multi-Year Planning Workshop	\$8,000	\$ 4,724	\$3,276	2019-08-31	59%	149%	\$ 4,724	Heberger, Matthew (31 hrs)	<b>Outputs:</b> Long-Range Planning Meeting held on 2019-07-31. Follow-up discussions with SC, TAC, and Coordinating Committee.  <b>Deliverables:</b> Long-Range Planning Meeting Summary.
	E. Science Advisors Honoraria	\$5,000	\$0	\$5,000	2020-06-30	0%	25%	\$0		Earmarked for paying honoraria to our science advisors.
03. Quality Assurance	A. Quality Assurance	\$17,500	\$13,908	\$3,592	2020-06-30	79%	25%	\$13,908	Franz, Amy (10.5 hrs) Heberger, Matthew (28 hrs) Weaver, Michael (14 hrs) Yee, Donald (39.5 hrs)	<b>Outputs:</b> Revisions to the Delta RMP Quality Assurance Program Plan. Edits to the Data Management and Quality Assurance SOP. Internal planning meetings to respond to reviewer comments.  <b>Deliverables completed:</b> none. QAPP version 6 begun, to be completed in 2020.
04. Sacramento River Nutrient Change Study	A. Sacramento River Study	\$258,688	\$23,822	\$234,866	2020-12-31	9%	17%	\$23,822	Expenses: 3 invoices paid out to RMA.	<b>Outputs:</b> Continued compiling input to Delft3D-FM (the hydrodynamic model) for the Water Year 2016 simulation. A more complete quarterly report will be provided to the Nutrients Subcommittee in Fall 2019.
05. Mercury Monitoring FY19-20	A. Field Sampling and Lab Analysis	\$222,394	\$170,422	\$51,972	2020-06-30	77%	25%	\$170,422	Expenses: 3 invoices paid out to MLML.	Earmarked for paying subcontractor Moss Landing Marine Laboratory for field sampling and lab analysis.  <b>Outputs:</b> Water and fish monitoring conducted in July 2019. Monthly fish monitoring in August and September.

Task	Subtask	Budget	Total Expense JTD	Budgeted funds remaining	Projected end date for task	Percent of budget spent	Percent of duration elapsed	Expenses in this Quarter	Staff and subcontractors billing	Description and Notes
06. Pesticides Monitoring FY19-20	B. Mercury in Water Data Management and Quality Assurance	\$15,000	\$1,779	\$13,221	2021-03-31	12%	14%	\$1,779	Weaver, Michael (15.25 hrs) Yee, Donald (1 hrs)	<b>Outputs:</b> Accelerated data management for the Central Valley Regional Water Quality Control Board staff for use in the mercury TMDL. Set up data management system, processed new data, corresponded with laboratory staff, formatted data and performed completeness check.  <b>Deliverables completed:</b> Provisional data provided monthly to
	C. Mercury in Fish Data Management and Quality Assurance	\$15,000	\$3,512	\$11,488	2021-03-31	23%	14%	\$3,512	Franz, Amy (2.5 hrs) Ross, John (6 hrs) Weaver, Michael (23.75 hrs)	<b>Outputs:</b> As above. Accelerated data management for the Central Valley Regional Water Quality Control Board staff for use in the mercury TMDL.  <b>Deliverables:</b> Planned deliverable is the formatted dataset and QA report.
	D. Mercury Reporting	\$30,000	\$0	\$30,000	2021-03-31	0%	14%	\$0		<b>Deliverables:</b> Planned deliverable is an interpretive report summarizing first 3 years of Delta RMP data.
	A. Field sample collection and pesticides chemical analysis	\$79,477	\$0	\$79,477	2019-09-30	0%	100%	\$0		Earmarked for paying subcontractor, USGS Organic Chemistry Research Laboratory (OCRL) for field sampling and lab analysis. Note that approved budget only covers 50% of the Water Year 2020 planned analysis.
	D. Pesticides Data Management and Quality Assurance	\$38,549	\$305	\$38,244	2019-09-30	1%	100%	\$305	Franz, Amy (2.5 hrs)	<b>Outputs:</b> Project management and labor planning.  <b>Deliverables:</b> Planned deliverable is the formatted dataset and QA report.
07. CEC Pilot Study	C. Fish Sampling	\$14,360	\$0	\$14,360	2020-06-30	0%	25%	\$0		
	D. Chemical Laboratory Analysis	\$7,260	\$0	\$7,260	2020-06-30	0%	25%	\$0		
	H. CECs in fish data management and quality assurance	\$12,351	\$0	\$12,351	2020-12-31	0%	17%	\$0		
	S. Sample Shipping	\$350	\$0	\$350	2020-06-30	0%	25%	\$0		
<b>Total</b>		<b>\$968,598</b>	<b>\$295,818</b>	<b>\$672,780</b>		<b>31%</b>		<b>\$295,818</b>		

# Materials for Agenda Item 9

# Delta RMP Action Items

Key to Status Colors:

Checkmark indicates done.

Green indicates greater than 90 days until the deliverable is due.

Yellow indicates a deliverable is due within 90 days.

Red indicates a deliverable that is overdue.

Task	Assigned To	Date Created	Due Date	Status	Comments
<b>Steering Committee (SC) Action Items</b>					
<b>SC Action Items 2019-02-22</b>		<b>02/22/19</b>			
Finalize the October 29, 2018 and December 19, 2018 SC Meeting Summaries and post to the website.	Matthew Heberger	02/22/19	03/15/19	✓	
Secure meeting rooms for May 29, 2019 and August 5, 2019 SC Meetings and forward calendar invitation for the May and August meetings	Matthew Heberger	02/22/19	03/15/19	✓	
A volunteer group of SC members will discuss how to resolve the toxicity testing/data upload issue.	Greg Gearheart, Michael Johnson, Rebecca Franklin, Selina Cole	02/22/19	03/22/19	✓	
Amend the workplan and budget to reflect the transfer of the \$35,000 for Task 4A to ASC	Matthew Heberger	03/20/19	03/20/19	✓	
Post a complete list of Delta RMP contributors, and dollar amount of contributions, to website	Matthew Heberger	02/22/19	02/28/19	✓	
The Coordinating Committee will convene the small workgroup and develop a recommendation for the Steering Committee on the process for data management, and approval or certification of data (i.e., confirm the data quality assurance process and turn existing standard operating procedures into a Data Management Plan).	Adam Laputz, Debbie Webster, Patrick Morris, Stephen McCord	02/22/19	03/31/19	✓	This group has met twice and has produced a document on how existing data in CEDEN can be updated or amended if necessary. ASC staff are currently revising their draft Data Management and QA SOP doc. This revised draft should address most of the short-term data management concerns.
Forward a copy of the Deltares deliverables and schedule information on TAC and Pesticides Sub-committee review discussions to Steering Committee members	Matthew Heberger	02/22/19	03/15/19	✓	
Inquire with contractor for the recently awarded Delta Monitoring Enterprise Review to see if a project overview is possible for the Delta RMP summer planning meeting.	Matthew Heberger	02/22/19	04/15/19	✓	From Edmund Yu, Delta Independent Science Board, who is the contract manager for the study: "It will be possible for us to provide a progress report to the Delta RMP Steering Committee this summer. We will likely have an ISB member do it, but this is subject to change based on the date of the meeting and what the Steering Committee wants out of the presentation. However, it will be important to note that the inventory will not be done by July/August."
TAC condense the Management Drivers Table into a more focused and prioritized list.	Stephen McCord	02/22/19	04/30/19	✓	
<b>SC Action Items 2019-04-23 Teleconference</b>			04/23/19		
Central Valley Board Staff to give a report to the SC on the results of fire monitoring to the Steering Committee.	Adam Laputz	04/23/19	06/30/21	●	
<b>SC Action Items 2019-05-29</b>		<b>05/29/19</b>			
Make corrections to the May 9, 2019 TAC meeting summary, listing Mike Johnson and Melissa Turner as MEMBERS. And add Debbie Webster as an attendee.	Matthew Heberger	05/29/19	06/17/19	✓	
Secure a meeting location and send announcement for: Multi-year planning Workshop; Wednesday, July 31 and Joint SC/TAC Meeting; Tuesday, October 29.	Matthew Heberger	05/29/19	06/25/19	✓	
Draft written request to Greg Gearheart and SWAMP QA Officer regarding (copy Adam on memo, and get to State Board within a month). Re: Access on request to lab bench sheets. The need to reference sample data, how controls are run, Providing a corrective action report any time there is a deviation from the QAPP.	Matthew Heberger	05/29/19	06/10/19	✓	Memo sent on June 2.
Follow up with Rebecca Franklin on examples or a preferred format for documenting anytime a project deviates from its QAPP	Matthew Heberger	05/29/19	06/10/19	✓	

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Task	Assigned To	Date Created	Due Date	Status	Comments	
19	Create a clear process for communicating any QA issues that we encounter in the future.	Matthew Heberger	05/29/19	06/30/19	✓	At present, the process we follow is that ASC staff perform QA on all of the data that is collected or created as part of the Delta RMP, by field crews, labs, and others. When we encounter issues, a variety of steps are taken depending on the severity of the issue. Commonly, our staff will communicate with labs to help diagnose the problem. Where issues are encountered, data may be "flagged" to provide warnings to data users. At the extreme, data that are considered unreliable or unusable may be "censored" or not published. The results of the QA process go into a written summary that becomes either an appendix to a report, or a technical memo to the TAC. In either case, TAC members have the opportunity to ask questions about or suggest edits to QA summary following our typical review process.  My understanding is that the SC is requesting that we create a more standardized "form" to document the issues that we encounter. They have asked us to be more methodical about how we document and communicate deviations from sampling or analysis protocols and/or corrective actions taken. I believe what they are looking for is a FORM we can fill out and share with stakeholders. I think they want more timely notification, rather than waiting for our QA memo at the end of the year. I believe they also want a paper trail showing that we have requested that the lab take "corrective actions." At SFEI, when we have problems with a lab, we usually communicate with them via email, or set up a phone meeting to discuss the challenges encountered and brainstorm how to resolve them. It is decidedly less formal than what some people may be used to, and my understanding is that the SC would like us to be more formal about this.  From Cam Irvine: "Deviations can be documented when the QAPP is not followed (for good reason or not) and this forms part of the program record. A corrective action could be to revise the QAPP (e.g., when it is found to be unclear)"  Update July 2019: It was agreed that the Data Management Subcommittee should discuss this and make a recommendation. Selina Cole has agreed to schedule this meeting and will add a discussion of this to the agenda.
20	Consider a presentation to the SC on QA basics, Quality Management System, or how QA at ASC works.	Greg Gearheart, Matthew Heberger	05/29/19	07/07/19	●	Checked in with Greg G. about this again on 6/28. There is continued interest, but Greg has not identified a speaker.
21	Investigate the need to do an intercomparison for aquatic toxicity testing if we switch labs. Talk to SFEI staff and query our science advisors.	Liz Miller, Matthew Heberger	05/29/19	06/15/19	✓	Investigation underway. There is a tech memo by Dr. Don Yee and Dr. Liz Miller on the subject, and is on the agenda for discussion at the next Toxicity Work Group meeting.
22	Invite a staff member from the Central Valley Water Board to come to our Aug 5 Steering Committee meeting to give a presentation about the Pyrethroids TMDL and Basin Plan Amendment.	Adam Laputz	05/29/19	07/07/19	✓	This will be useful background for a discussion on whether this is something that the Delta RMP can/should be involved in. Danny McClure has agreed to do this.
23	Consider inviting a guest speaker to talk about intercalibration and intercomparison: what they are and when they are needed.	Matthew Heberger	05/29/19	07/07/19	●	As of 6/28/2019, Matt emailed several colleagues asking for suggestions. I think this is a good idea, as the subject of "intercalibration" seems to come up a lot in discussions. The SC could benefit from a better understanding of when these are useful, what kinds of questions they can answer, how long they take, how much they cost, who pays for them, etc.  A colleague suggested Bev Van Buuren from Moss Landing, but she is too busy to accept our invitation.  At SFEI, Dr. Don Yee has led several intercalibrations and has a lot of experience in this area.
24	Schedule a small group discussion on the subject of "how to think about variability in aquatic toxicity testing."	Debbie Webster, Greg Gearheart, Liz Miller, Matthew Heberger	05/29/19	07/07/19	●	This seems to be a discussion for the Toxicity Work Group. I'm not certain what this is about or what the desired outcome is. Staff and the Tox WG are developing a straw man proposal to bring forward to the TAC then SC.  Update July 17, from Greg Gearheart: I think this "assignment" is in need of refining to make sure we deliver something constructive and avoid the "talking past each other" pattern of the past. I don't have time to engage in this right now, either. Perhaps someone from the Division of Water Quality can come and present on the toxicity positions they are proposing as a starter.  Debbie asked to keep this action item open as she feels it is important.
25	Form a Strategic Planning Workshop Workgroup and have a meeting to help plan the agenda for the workshop on July 31, 2019.	Dalia Fadl, Gita Kapahi, Stephanie Hiestand	05/29/19	07/07/19	✓	First phone meeting held on 6/6/2019. Followup to be held.
26	Ask the Deltares researchers if they can please share any scripts, tools, methods that they used for handling California water data for our project. Also ask if they have any recommendations to make it more usable for analysts.	Matthew Heberger	05/29/19	07/07/19	✓	Matt emailed Erwin on 6/2/2019.
27	Confirm reliability of Weck lab and compare costs of sending water samples instead to Axys	Matthew Heberger	05/29/19	07/15/19	✓	SFEI wrote a memo, dated Sept 12, 2019, on this subject for consideration by the CEC subcommittee, then the TAC, then the SC.
28	Seek SEP funding for the CEC study	Matthew Heberger	05/29/19	08/31/19	✓	
29	<b>Long-Range Planning Workshop 2019-07-31</b>		07/31/19			
30	Consider reviewing the flowchart that is in Appendix 3 of the Charter.	Adam Laputz, Debbie Webster, Matthew Heberger	07/31/19	12/31/19	✓	Put to the Coordinating Committee on Oct 7, 2019. Decided not to take action at this time.
31	TAC and SC members should send specific suggestions for changes in the wording of the management and assessment questions to Matt, for consideration by the SC this fall.	Delta RMP TAC, Steering Committee	07/31/19	09/30/19	✓	
32	Staff will draft header questions for the two categories, "Forecasting Scenarios," and "Effectiveness Tracking," for later adoption.	Matthew Heberger	07/31/19	09/30/19	✓	Matt made some edits on Oct 2, 2019, and asked colleagues for suggestions. To discuss at a future TAC meeting.
33	Staff develop a Gantt chart of planned monitoring (next 5 years), including key drivers and their milestones and deadlines	Matthew Heberger	07/31/19	09/30/19	●	
34	<b>SC Action Items 2019-08-05</b>		08/05/19			
35	Finalize the approved SC meeting summaries and post to the website.	Matthew Heberger	08/05/19	08/31/19	✓	
36	Secure meeting rooms for January 10, 2020 and March 11, 2020 Meetings and forward calendar invitation.	Matthew Heberger	08/05/19	08/31/19	✓	
37	Add an agenda item to the September 18 teleconference for the SC to approve the lab for analyzing water samples as part of the CEC Pilot Study.	Matthew Heberger	08/05/19	08/31/19	✓	Added to draft agenda. Aim to send on 8/30.
38	Share the memo describing the process and timeline for getting bids and selecting a new aquatic toxicity testing lab with the TAC and SC	Matthew Heberger	08/05/19	08/15/19	✓	Emailed to SC and TAC on 8/6.
39	Danny McClure will send his slide presentation to the SC	Danny McClure	08/05/19	08/15/19	✓	
40	Danny agreed to send to the SC a list of the MS4 Phase II stormwater programs that will be subject to the new pyrethroid monitoring requirements	Danny McClure	08/05/19	09/15/19	✓	Emailed Danny a reminder on 10/4

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Task	Assigned To	Date Created	Due Date	Status	Comments	
41	Danny will lead a TAC discussion on the pyrethroid research plan. Matt Heberger will schedule the discussion for the next TAC meeting	Danny McClure	08/05/19	09/01/19	✓	
42	Brian Laerson and Stephanie Hiestand agreed to collaborate to write a strawman plan for pyrethroid monitoring services	Brian Lauerson, Stephanie Hiestand	08/05/19	09/30/19	✓	Update from Brian on 9/17: "Stephanie and I came up with some options and are currently running them by folks to narrow down what we think would work for the RMP. We'll get back to you with more details. I think we can do that before the end of September."  Resolution 12/6/2019: From Brian Laerson: "Aside from the Pyrethroid Research Plan, which the Steering Committee had interest in participating in some role, a group of POTWs and MS4s have been working directly with the Regional Board to develop a group effort for the baseline and trend TMDL monitoring. That collaborative effort and others (like the Urban Pesticide Amendments) may bring specific requests to the Delta RMP Steering Committee later, but they are still working out the framework and scope. To my knowledge, the discharger groups do not have a specific request to the Delta RMP Steering Committee at this time. I haven't talked with Danny or other Regional Board staff about the Pyrethroid Research Plan - I'll ping Danny again about it and let you know."
43	Each participant group is invited to participate in the ad hoc committee on governance. Please nominate your representative by contacting Meredith Howard	Steering Committee	08/05/19	08/12/19	✓	
44	Send the anonymous poll on governance to SC members and others	Kathryn Garcia	08/05/19	09/15/19	●	Update from Kat Garcia on 10/2 -- not sent yet. They are still soliciting input on the right questions to ask. Update from Kat Garcia on 12/9: "I'm still waiting for the questions from the Governance team."
45	Send the SC the 5-year budget plan approved at last October's joint meeting, a copy of dot voting results, and the management and assessment questions	Matthew Heberger	08/05/19	08/15/19	✓	Re-sent this information on Aug 9.
46	Matt to let Krista Hoffman know when the pesticide data compiled by Deltares will be available - after we get the next version from Deltares, the SC should authorize release of the dataset.	Matthew Heberger	08/05/19	09/30/19	●	
47	Add to an upcoming SC meeting agenda a presentation and discussion of preliminary results, particularly for pesticides and toxicity	Matthew Heberger	08/05/19	09/30/19	✓	Added to draft agenda and invited Jim O. and Marie S. to come and give a presentation at the Oct 29 Joint Meeting.
48	Matt to send the agreed-upon text on "screening levels" to Erwin Roex, the Principal Investigator at Deltares	Matthew Heberger	08/05/19	08/15/19	✓	Email sent on 8/9/2019.
49	<b>SC Action Items 2019-10-29</b>		<b>10/29/19</b>			
50	Change the highlighted question in the QAPP Deviation Form instructions to a statement that the forms will be included in year-end monitoring reports.	Matthew Heberger	10/29/19	11/05/19	✓	
51	Add a passage describing the use of the Deviations Form to the program's Quality Assurance Project Plan, QAPP.	Matthew Heberger	10/30/19	11/05/19	✓	Added to the Google Docs version of the QAPP. Inserted a paragraph and a hyperlink to the form in sections 14 and 21.
52	ASC to double-check that the hold times to guarantee in the RFQ (36 hours after sample collection like for EPA) is appropriate even though SWAMP has extended theirs to 48 hours.	Liz Miller	10/31/19	11/01/19	✓	
53	Schedule Pesticides Subcommittee/TAC meeting to finalize scoring.	Liz Miller	11/01/19	11/15/19	✓	
54	Write up draft rules of engagement for the Pesticides Subcommittee and TAC members that will be involved in helping to assign scores to bidders and select a new aquatic toxicity testing lab.	Brian Lauerson	11/02/19	11/30/19	✓	
55	ASC to ensure the Delta RMP has adequately budgeted for toxicity data management, quality assurance, and upload to CEDEN in the multi-year budget.	Matthew Heberger	11/03/19	11/30/19	●	
56	The agenda for the March 2020 SC meeting should include a finance update that includes a fiscal year closeout, and USGS contract renewal confirmation.	Matthew Heberger	11/04/19	02/15/20	✓	USGS contract was extended on 12/23/2019.
57	ASC to work with subcommittees to develop proposals for 1) planning budget with modular +/-25%, and 2) SEPs with a range of budgets.	Jay Davis, Liz Miller, Matthew Heberger	01/31/20	02/15/20	●	As of 12/23, this is underway. Nutrients Subcommittee has met once to discuss, as has Pesticides Subcommittee. Mercury Subcommittee will meet in Jan 2020.
58						
59	<b>Technical Advisory Committee (TAC) Action Items</b>					
60	<b>TAC Action Items 2019-01-07</b>		<b>01/07/19</b>			
61	Update project management plan (Gantt chart) with correct dates for the Pulse publication timeline (Fall 2020)	Matthew Heberger	01/17/19	01/25/19	✓	
62	Contact Janis Cooke regarding bivalve sampling program she is managing and potential for coordinating/cost-sharing	Matthew Heberger	01/17/19	01/25/19	✓	Matt spoke to Janis on Jan 25. She is contracting with the Fisheries Foundation, a nonprofit fish biology firm in Elk Grove. Only one of their planned monthly sampling sites is in the same location as the planned Delta RMP sampling sites, however other sites on the Sacramento River are somewhat close to ours. They field crew is planning on 3 days to monitor all 10 of their sites. We had presumed it would take 2 days to monitor our 5 sites for bivalves and sediment. So it appears economies of scale are likely to be minor. However, we will consider obtaining a bid from this firm.
63	Update monitoring event summary worksheet to correct typo (Mercury sampling planned in 2019).	Matthew Heberger	01/17/19	01/25/19	✓	
64	Add an errata sheet to the toxicity lab reports, to indicate to readers that the C. dubia data has been modified after the report was written, and that data users should obtain updated data from CEDEN, and be aware that tables and summaries may be inaccurate.	Matthew Heberger	01/17/19	01/31/19	✓	This report was updated and the new file was published online. <a href="https://www.sfei.org/documents/delta-pesticides-2016">https://www.sfei.org/documents/delta-pesticides-2016</a> An email was sent to the TAC on 2019-03-24.
65	Update and reconfirm members of our TIE Committee	Matthew Heberger	01/17/19	01/31/19	✓	
66	Add Ted Swift (DWR) to the chlorophyll intercalibration workgroup	Matthew Heberger	01/17/19	01/31/19	✓	
67	Add "science strategies" to our table of management drivers	Matthew Heberger	01/17/19	01/31/19	✓	
68	Distribute announcement on pesticides symposium to TAC members	Matthew Heberger	01/17/19	01/31/19	✓	
69	This spring, review the management and assessment questions for each focus area with the relevant technical subcommittee.	Matthew Heberger	01/17/19	01/31/19	✓	Pesticides Subcommittee on Feb 26, 2019 recommended adding a question related to drinking water impacts. To discuss at a future TAC/SC meeting. Background material is a white paper by Kelly Moran and distributed to the subcommittee by Armand Ruby.  Further, now that the Delta RMP is planning monitoring for CECs, it is appropriate to put in place "Management and Assessment Questions" for this focus area. ASC scientists are creating a "strawman" first draft to be discussed by the TAC and SC.



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Task	Assigned To	Date Created	Due Date	Status	Comments	
70	Schedule a pesticides subcommittee meeting for this spring in order to review the wet weather/high flow monitoring triggers and potentially lower them.	Matthew Heberger	01/17/19	01/31/19	✓	
71	<b>TAC Action Items 2019-05-09</b>		<b>05/09/19</b>			
72	Confirm meeting room locations for the July and September meetings and forward date, time & location information to the committee	Matthew Heberger	05/09/19	05/31/19	✓	
73	Update the TAC Meeting Summary to reflect an Errata sheet was also added to the FY 16/17 Toxicity Report	Matthew Heberger	05/09/19	05/31/19	✓	
74	Put on the agenda for a meeting of the Toxicity Workgroup: How to deal with persistent algal toxicity that we are seeing in this monitoring season.	Liz Miller, Matthew Heberger	05/09/19	06/15/19	✓	
75	Send TAC members the funding level guidance given by the SC at last fall's joint meeting.	Matthew Heberger	05/09/19	05/10/19	✓	
76	Add the standard or threshold of 0.24 ppm to the mercury time series plots in the proposal and report.	Jay Davis	05/09/19	05/19/19	✓	
77	As we finalize the choice of mercury monitoring locations, speak with restoration managers, to find out more about the construction, phasing, and hydrology of individual projects.	April Robinson, Jay Davis	05/09/19	09/30/19	✓	
78	Consult the mercury subcommittee and the TAC on the final choice of sampling sites, species monitored, and sampling timeframe.	Jay Davis	05/09/19	09/30/19	✓	
79	Consider adding an increased funding option for the pesticides monitoring project that will accelerate the schedule and complete the study more quickly.	Matthew Heberger	05/09/19	05/18/19	✓	This suggestion came about after Matt mentioned that the CEC study budget would be lower than the target of \$250K, due to the large amount of in-kind contributions from project partners for field sampling in particular. The thinking was that this may free up extra money for other focus areas, e.g. pesticides. However, in assembling the overall program budget, there was nothing left over. A key reason for this is that the SWAMP contract which has funded our aquatic toxicity testing for the last several years is going to expire in March 2020, meaning that the program will have to pay for tox. testing on its own in the second half of Water Year 2020, to the tune of \$169,000 (!).
80	Send the CEC budget to the TAC as well as the SC once it is finalized.	Matthew Heberger	05/09/19	05/31/19	✓	
81	Consult the Toxicity Workgroup and/or Pesticides Subcommittee to assist in planning any toxicity intercomparison we may do.	Liz Miller, Matthew Heberger	05/09/19	08/15/19	✓	Discussed at meeting on 2019-07-16. Workgroup gave guidance, asked staff to prepare strawman proposal for next meeting, to be scheduled.
82	Incorporate a version of the proposed study planning timeline in the materials for the multi-year planning workshop	Matthew Heberger, Selina Cole	05/09/19	08/15/19	✓	Planning committee agreed this was more appropriate for a future SC meeting with a focus on reforming governance.
83	Suggest to Deltares to add a meeting to discuss the methods memo before we give them a notice to proceed with the analysis.	Matthew Heberger	05/09/19	05/12/19	✓	
84	Ask Deltares to submit a track changes version of the tech memo to see exactly what has changed and how they responded to comments/suggestions rather than asking them to provide a formal response to comments.	Matthew Heberger	05/09/19	05/12/19	✓	
85	Send instructions to TAC members that you can leave a question blank if you feel that it does not apply or is not relevant.	Matthew Heberger	05/09/19	05/12/19	✓	
86	Add DPR and DTSC programs to Management Drivers Table, and incorporate a cross reference to Delta RMP Management Assessment Questions if possible	Stephen McCord	05/09/19	05/15/19	✓	
87	<b>TAC Action Items 2019-07-19</b>		<b>07/19/19</b>			
88	Schedule a meeting of the Data Management Subcommittee to discuss the proposed corrective actions/QAPP deviations form.	Matthew Heberger, Selina Cole	07/19/19	07/31/19	✓	
89	Consider compiling provisional pesticides and toxicity data into a single workbook where they can be compared	Matthew Heberger	07/19/19	12/31/19	●	ASC plans to compile these data to share with TAC members. We will do so after OCRL has submitted the data in CEDEN templates and they have undergone QA. Another option would be to put this into the dataviz, but would require some budget.
90	Consider doing some analysis on pesticides uses and loads	Matthew Heberger	07/19/19	07/31/19	✓	ASC does not really have a budget for analysis. The SC explicitly instructed us to outsource the interpretive report to a consultant in July 2017. Nevertheless, ASC scientists have done some of these analyses in the course of program planning, preparing proposals, etc. For example, we worked with DPR to run the Pesticide Prioritization Model in July 2019. This shows which compounds are being applied in the watershed, and ranks them based on their toxicity. In April 2018, a pesticides subcommittee member requested some maps of crops and pesticide application in Delta subareas, as part of pesticide planning effort. For the meeting on April 12, 2018, SFEI scientists presented maps and tables showing crops grown and pesticides applied in and around the Delta.  I will reshare these with the TAC and ask if there is anything else that folks think is useful. If desired, we can put together a proposal for some additional data analysis or mapping work.
91	Request all TAC members to read the summary of the July 15 meeting with Deltares, and make sure that it accurately captured any remaining concerns about their proposed methods.	Matthew Heberger	07/19/19	07/26/19	✓	Email sent on 7/22
92	Inquire with Deltares PI about comments that they did not address.	Matthew Heberger, Michael Johnson	07/19/19	07/31/19	✓	Matt emailed them a final round of comments to address on 7/31.
93	Pesticide Subcommittee to review wording of proposed assessment question related to pesticides and human health	Pesticides Subcommittee	07/19/19	09/30/19	✓	Checked as done, as we've added it to the agenda for the next meeting, scheduled for Sept 26, 2019.
94	Look into an unbiased dot voting app or website for the Long-Range Planning Workshop	Matthew Heberger	07/19/19	07/28/19	✓	Matt looked online, and did not find anything that fits the bill. (Maybe a good project if you know any enterprising coders.) Plus, I still think we'd like to do something to get people up out of their chairs and which does not involve computers.
95	Organize a 1-hour teleconference for the TAC after we get the revised, final Deltares methods memo.	Matthew Heberger	07/19/19	08/31/19	✓	Meeting planned for Thursday, October 19, 9:00 - 10:00 am.
96	Reconcile completion of the CEC QAPP with the sampling timeline planned to begin in August.	Matthew Heberger	07/19/19	08/05/19	✓	Working with Moss Landing to figure out possible sampling dates and to determine with sampling needs to be delayed.
97	Map out timeline/process for selection of a new tox lab to avoid any gap in monitoring schedule	Matthew Heberger	07/19/19	08/05/19	✓	Due to the uncertainty of whether crews were even going out in Sept 2019 (mercury monitoring at restoration sites not yet funded by SC), we decided to put this off until the spring.

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Task	Assigned To	Date Created	Due Date	Status	Comments
98 Consider adding to the agenda for the Long-Range Planning Workshop or another future meeting (1) Adaptive Management Discussion – how to address monitoring data results? (2) Potential conflict of interest regarding labs participating in selection discussions that may be bidding on the project.	Matthew Heberger	07/19/19	07/31/19	✓	Referred to the coordinating committee for planning.
99 Transmit provisional mercury data to Regional Board Staff for use in the Mercury TMDL data analysis.	Matthew Heberger	07/19/19	08/15/19	✓	An Excel workbook with the provisional data will accompany the draft mercury data report, expected to be shared with TAC and reviewers by the end of July.
100 Revise the restoration monitoring proposal to provide additional information related to prey fish monitoring and site selection and placement. Revised proposal to be presented to the TAC at the December 10, 2019 Meeting.	April Robinson, Jay Davis	07/19/19	10/31/19	✓	
101 <b>TAC Action Items 2019-09-13</b>		<b>09/13/19</b>			
102 Roster cleanup - Communicate with TAC members to make sure everyone is clear on their role, and who is the primary and alternate	Matthew Heberger, Stephen McCord	09/13/19	10/15/19	✓	
103 Add Tessa and Danny to 7/19/19 meeting summary prior to finalizing and posting	Matthew Heberger	09/13/19	09/30/19	✓	
104 TAC members: Send any comments you have on the Deltares response to comments to Matt to distribute to the TAC before the Sept 19 call	TAC members	09/13/19	09/16/19	✓	
105 TAC members should review the final draft report and send comments to Matt and/or Jay	Matthew Heberger	09/13/19	10/31/19	✓	
106 Add the allowed ½ mile radius from planned monitoring site to the QAPP	Matthew Heberger	09/13/19	10/31/19	✓	Added to QAPP draft.
107 ASC to capture any other revisions using our new corrective action form	Matthew Heberger	09/13/19	02/28/20	✓	
108 Selina to transfer info from Tessa/Brian Ogg to memo form and share with the TAC and the Toxicity Workgroup	Selina Cole	09/13/19	10/31/19	●	
109 Figure out desired outcomes for SEP discussion	Matthew Heberger, Selina Cole	09/13/19	10/10/19	✓	
110 Draft a budget for creating a QAPrP	Matthew Heberger	09/13/19	03/31/20	✓	We later received feedback that State Water Board is not supportive of this approach.
111 <b>TAC Teleconference Action Items 2019-10-11</b>		<b>10/11/19</b>			
112 Matt Heberger and Danny McClure to follow up with their respective legal counsels on the question of confidentiality of bid materials.	Matthew Heberger	10/11/19	10/31/19	✓	
113 ASC to make any necessary changes to the RFQ in response to input by the lawyers.	Matthew Heberger	10/11/19	10/31/19	✓	
114 Ask Jim Orlando who the sample collection coolers belong to.	Matthew Heberger	10/11/19	10/31/19	✓	
115 Add text to the QAPP specifying that the tox. lab is determining whether a sample is toxic (the significant effect code) based on a statistical calculation using the TST	Matthew Heberger	10/11/19	10/31/19	✓	
116 Schedule discussion of the statistical method for calculating toxicity with the Toxicity Workgroup / TAC (i.e. whether we wish to continue using the TST)	Liz Miller	10/11/19	02/28/20	✓	Added to the agenda for the Feb 2020 Toxicity Work Group meeting.
117 ASC to edit RFQ and distribute final draft as part of TAC-SC joint meeting agenda package.	Liz Miller, Matthew Heberger	10/11/19	10/31/19	✓	
118 <b>TAC Action Items 2019-12-10</b>		<b>12/10/19</b>			
119 Share the Google Docs version of the conflict resolution memo so TAC can make comments and suggested edits	Matthew Heberger	12/10/19	12/15/19	✓	Link included in email with the meeting summary.
120 ASC to draft and share QAPP revision process timeline for this spring	Matthew Heberger	12/10/19	01/31/20	●	
121 Central Valley Water Board staff to finish algal toxicity memo and distribute to the Pesticides subcommittee before their next meeting	Danny McClure, Samantha Mello	12/10/19	12/13/19	✓	
122 ASC to develop strawman pesticides data report proposal and budget for the next TAC meeting	Matthew Heberger	12/10/19	01/31/20	●	
123 ASC to share slide presentations from today's meeting	Matthew Heberger	12/10/19	12/19/19	✓	Links included in the draft meeting summary
124 Correct meeting summaries and then post them on the website	Matthew Heberger	12/10/19	12/31/19	✓	
125 Debug the issue with unsearchable PDFs	Matthew Heberger	12/10/19	12/31/19	✓	Caused by printing with Adobe PDF from Google Docs. Instead, choose, "File > Download > PDF Document."
126					
127 <b>Coordinating Committee Action Items</b>					
128 <b>Coordinating Committee Meeting 2019-02-05</b>					
129 Matt to invite Brian Bergamaschi, USGS, to give a presentation about the high-frequency monitoring. If Brian or his colleagues are not available, invite an SFEI ecologist to talk about "A Delta Transformed" or "A Delta Renewed" reports. If no speaker is available on relatively short notice, just end the meeting early.	Matthew Heberger	02/05/19	02/10/19	✓	
130 <b>Coordinating Committee Meeting 2019-03-05</b>					
131 Matt to speak with Melissa Morris at State Board/OIMA to find out if there are any remaining concerns with toxicity testing procedures.	Matthew Heberger	03/06/19	03/15/19	✓	
132 After this, Matt to communicate with the SC what procedures the data management and QA team at SWAMP have agreed to follow.	Matthew Heberger	03/06/19	03/31/19	✓	Matt H. gave an update to the SC on this item at the 2019-04-23 Teleconference meeting.
133 Verify that SWAMP has a process in place for correcting errors we may find in the data after it is uploaded.	Matthew Heberger	03/06/19	03/31/19	✓	
134 <b>Coordinating Committee Meeting 2019-05-08</b>					

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Task	Assigned To	Date Created	Due Date	Status	Comments	
135	Selina to send Matt the list of "study questions" from the state CEC guidance, as a starting point for developing management and assessment questions for RMP	Selina Cole	05/08/19	05/25/19	✓	Canceled. Instructed ASC staff to do this.
136	Patrick Morris to talk with Adam and Danny McClure about whether and how the Delta RMP could support the Pyrethroids TMDL.	Adam Laputz, Danny McClure	05/08/19	05/25/19	✓	Scheduled a discussion of this item for the Aug 5, 2019 SC meeting.
137	<b>QAPP finalization</b>					
138	Incorporate conditions provided by the TAC's conditional recommendation at the September 13, 2019 meeting into the QAPP	April Robinson, Jay Davis	11/11/19	02/28/20	●	Jay to work in collaboration with Matt, April, and the Mercury Subcommittee to resolve some of the outstanding questions. The requested items are: i. Specify the maximum distance monitoring crews can go from the original target fish species collection site (if necessary). ii. Describe how will flows and hydrodynamics affect the connectivity between the comparison sites. iii. Insert additional information on the rationale for selecting station locations. iv. Provide requested information about concurrent RB2 monitoring at Winter Island v. Define the term "reference sites" with the specific criteria used to select them, or change the term to "comparison" sites
139	Once above is completed, send NEW QAPP version 6.0 to TAC for review. Incorporate TAC edits into new QAPP 6.0 version and submit to Signing authorities for final approved signature	Matthew Heberger	11/11/19	03/31/20	●	
140						
141	<b>Pesticides Subcommittee Action Items</b>					
142	<b>Pesticides Subcommittee Meeting 2019-02-26</b>		02/26/19			
143	Schedule a meeting of the toxicity workgroup to meet to discuss the results of recent toxicity testing, in particular to brainstorm potential causes of persistent low-level toxicity observed to <i>Selenastrum</i> algae	Matthew Heberger	02/26/19	03/15/19	✓	Meeting scheduled for Jun 24, 2019
144	Consider analyzing samples for additional metals. Jim Orlando to check prices for us.	Jim Orlando	02/26/19	03/05/19	✓	
145	Marie will send text messages in addition to emails if the TIE discussion is to take place on a weekend	Marie Stillway	02/26/19	04/30/19	✓	Marie has agreed to do this in the future.
146	Revise the QAPP with the proposed changes to the storm triggers for pesticides monitoring.	Matthew Heberger	02/26/19	06/30/19	✓	These are in Table 6.7 in the Google Docs version of the QAPP: <a href="https://docs.google.com/spreadsheets/d/1ywgqFrOhnScM5zQgmBqM1HMaFKSLAeZv7f3VrHnusc/edit#gid=1505343848">https://docs.google.com/spreadsheets/d/1ywgqFrOhnScM5zQgmBqM1HMaFKSLAeZv7f3VrHnusc/edit#gid=1505343848</a>
147	Draft a new assessment question related to drinking water impacts for consideration by the TAC and SC (Matt, by March 10, 2019).	Matthew Heberger	02/26/19	03/10/19	✓	To discuss at a future meeting of (a) Pesticides Subcommittee, (b) TAC, (c) Steering Committee. See: <a href="https://docs.google.com/open?id=1VyR85nJc3MKSVr65iMxH5FwP51NuZ0USialVycXDM&amp;authuser=matth@sfei.org&amp;usp=drive_fs">https://docs.google.com/open?id=1VyR85nJc3MKSVr65iMxH5FwP51NuZ0USialVycXDM&amp;authuser=matth@sfei.org&amp;usp=drive_fs</a>  Proposed question: 3. To what extent to current use pesticides contribute to human health risk in the Delta? A. Do pesticides occur at concentrations that exceed water quality regulatory values and benchmarks ("reference values") for human health?
148	Armand Ruby agreed to distribute a white paper having to do with pesticides and human health vs. ecotoxicity.	Armand Ruby	02/26/19	03/15/19	✓	Email reminder sent on 3/6/19.
149	<b>Pesticides Subcommittee Meeting 2019-08-26</b>		08/26/19			
150	Central Valley Board staff to update memo on toxic units for algae	Danny McClure, Samantha Mello	08/28/19	09/06/19	✓	
151	Give Danny comments on sum of toxic units memo	Pesticides Subcommittee, Toxicity Work Group	08/28/19	09/04/19	✓	
152	Send sTU memo to science advisers along with other relevant information and ask for their input	Matthew Heberger	08/28/19	09/13/19	✓	
153	Send out nutrients recipe to the Pesticides Subcommittee	Marie Stillway	08/28/19	09/06/19	✓	
154	Send out metals data for July sampling event when the data are available	Jim Orlando	08/28/19	09/30/19	✓	
155	Communicate specific extra nutrient addback sample protocol. Suggested to write a short tech memo with a table showing additional tests to be run.	Cam Irvine, Liz Miller, Marie Stillway, Tim Mussen	08/28/19	09/06/19	✓	
156	Look into acquiring carboxylesterase in lyophilized form that will last longer and report back to the subcommittee	Marie Stillway	08/28/19	09/06/19	✓	
157	QAPP to be changed to specify that the lab should run chronic tests as part of all TIEs, even when observed toxicity is acute	Matthew Heberger	08/28/19	09/15/19	✓	I added a sentence specifying this requirement in section 13.2.5.
158	Subcommittee members should send Matt (cc Liz) bullet item reasons why interlab comparison is not a good idea	Armand Ruby, Beverly Anderson-Abbs, Brian Ogg, Danny McClure, Jim Orlando, Michael Johnson, Mike Trouchon, Scott Wagner, Selina Cole, Stephen McCord, Tim Mussen	08/28/19	09/03/19	✓	Several members sent their thoughts.
159	ASC to work with Debra and others to develop recommended criteria for choosing a lab	Liz Miller, Matthew Heberger	08/28/19	09/18/19	✓	
160	ASC to revise Aug 6, 2019 memo with new timeline & criteria for lab selection process	Liz Miller, Matthew Heberger	08/28/19	09/18/19	✓	
161	<b>Pesticides Subcommittee Meeting 2019-09-27</b>					
162	Send information on what is meant to be included in a "pre-proposal" to subcommittee members.	Matthew Heberger	09/27/19	10/15/19	✓	Sent on 10/15
163	Dr. Young agreed to send us some information to include in a "pre-proposal" for how to incorporate NTA into Delta RMP pesticides and toxicity monitoring.	Tom Young	09/27/19	10/31/19	✓	Dr. Young sent us a 2-page concept note which was reviewed by the Pesticides Subcommittee at its Dec. 19, 2019 meeting.
164	Let Matt know if you have an idea for a SEP proposal that you can work on or wish to have help developing	Pesticides Subcommittee	09/27/19	10/31/19	✓	Reminder sent on 10/15

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Task	Assigned To	Date Created	Due Date	Status	Comments	
165	Subcommittee members should think about ideas for SEP projects, especially small projects or add-ons, and bring them to the next meeting.	Pesticides Subcommittee	09/27/19	10/31/19	✓	Reminder sent on 10/15
166	Schedule 90 minutes at the next meeting for brainstorming and discussion of SEP project ideas.	Liz Miller	09/27/19	10/31/19	✓	Added to draft agenda
167	Stephen Clark agreed to provide extra information on methods for alternative tox testing species.	Stephen Clark	09/27/19	10/31/19	✓	Rec'd on 10/15. Will be inc
168	Matt Heberger and Danny McClure to collaborate on rewording the proposed new management question related to pesticides and human health	Danny McClure, Matthew Heberger	09/27/19	10/31/19	✓	
169	Liz to update RFP to incorporate comments received at today's meeting	Liz Miller	09/27/19	10/04/19	✓	
170	Pesticides Subcommittee and Technical Advisory Committee members should submit any comments or suggestions on the draft aquatic toxicity testing RFP by Oct 11	Delta RMP TAC, Pesticides Subcommittee	09/27/19	10/11/19	✓	Several members submitted comments.
171	Consider getting legal advice on the confidentiality clause on the materials provided to us by labs, e.g. SOPs	Matthew Heberger	09/27/19	10/15/19	✓	ASC got legal advice from our lawyer, Michael Futterman.
172	Danny McClure agreed to get legal advice from the Water Board about the question above, related to public disclosure.	Danny McClure	09/27/19	10/15/19	✓	
173	Cam Irvine agreed to give Matt contact information for a lab in Corvallis that may be able to review our Tox Lab RFP	Cam Irvine	09/27/19	10/15/19	✓	RFP was reviewed by a lab in Oregon.
174	Schedule a future meeting of the Tox WG to review the choice of test species (?)	Liz Miller	09/27/19	10/31/19	✓	Liz sent a scheduling poll on Oct 15, 2019. Will schedule meeting for sometime in December.
175	<b>Pesticides Subcommittee Meeting 2019-11-21</b>					
176	Develop a proposed set of criteria to score labs performance with running toxicity tests for Hyalella and Chironomus	Cam Irvine	11/21/19	11/25/19	✓	file emailed to Liz and Matt on 11/25
177	Find out the organisms and endpoints for which ELAP accreditation is offered	Liz Miller	11/21/19	11/25/19	✓	
178	<b>Pesticides Subcommittee Meeting 2019-12-19</b>					
179	Danny will ask Selina to ask their IT staff add a note at the top of the old Water Board Delta RMP website that readers should refer to the new website version at sfei.org	Danny McClure, Selina Cole	12/19/19	01/15/20	●	
180	Publish meeting summary for Sept 27, 2019 Pesticides Subcommittee meeting	Matthew Heberger	12/19/19	12/31/19	✓	See <a href="https://sfei.org/DeltaRMP-MeetingMaterials">https://sfei.org/DeltaRMP-MeetingMaterials</a>
181	Check with Alisha Wenzel, the contract administrator, about when the last date when invoices can be submitted	Selina Cole	12/19/19	12/31/19	✓	Alisha responded: "I think the deadline will be May 15th (invoices for non-reverting funds). Technically work can be done up to the contract deadline on March 31st, but it will be up to Marie to decide how late she's willing to accept samples and still be able to get everything submitted in time."
182	Check with Marie Stillway about the last date on which AHPL can initiate tests and submit invoices on time in order to get paid	Matthew Heberger	12/19/19	12/31/19	●	Awaiting definitive answer. As of Dec 20, 2019, Marie is following up with the UC Davis accounting staff to get a hard deadline. She wrote: "I could probably accept samples up through the week of March 23, but I don't want to confirm that until I hear back with the timing aspect of it."
183	Send any final comments on the algae toxicity memo to Samantha Mello	Pesticides Subcommittee	12/19/19	01/10/20	●	
184	Send the memo to our science advisors for their consideration, after comments by the Pesticides Subcommittee and any revisions by Ms. Mello.	Matthew Heberger	12/19/19	01/31/20	●	
185	Figure out what columns used in TIEs have been preserved by AHPL and are available for analysis	Liz Miller	12/19/19	01/20/20	●	
186	Ask another lab about their experience working with preserved or frozen columns	Melissa Turner	12/19/19	12/31/19	✓	See attached email for response.
187	Identify the relevant Delta RMP management and assessment questions related to the proposed NTA study	Liz Miller	12/19/19	01/20/20	●	See QAPP Appendices B & C
188	Ask Tom Young to describe more explicitly what questions we can answer with the proposed analysis, and to share an example of the kind of data he will be able to deliver with us, i.e. output from similar studies done recently	Liz Miller	12/19/19	01/20/20	●	
189	Send any other ideas for SEP projects related to pesticides and toxicity monitoring to Liz Miller, for discussion at a future meeting of the Pesticides Subcommittee	Pesticides Subcommittee	12/19/19	01/31/20	●	
190	Resend the scheduling poll (when2meet) for the Selection Committee meeting	Liz Miller	12/19/19	12/20/19	✓	
191	Find meeting rooms and send calendar invitations for scheduled meetings	Liz Miller	12/19/19	01/11/20	●	
192						
193	<b>Toxicity Work Group Action Items</b>					
194	<b>Toxicity Work Group Meeting 2018-11-09</b>					
195	Write up the new procedures agreed to related to low-conductivity controls for Ceriodaphnia toxicity testing; Share this with Marie and the group	Cam Irvine, Matthew Heberger	11/09/18	11/15/19	✓	
196	<b>Toxicity Work Group Meeting 2019-07-16</b>					
197	Share the cyanotoxins memo with the nutrients workgroup, and discuss with them whether they feel there is merit to measuring cyanotoxins more regularly	Matthew Heberger	07/16/19	07/31/19	✓	Not enough time on their agenda for meeting in July 2019. To be added to a future agenda.
198	Add a bit more information about hold times and detection limits for the ELISA tests	Liz Miller	07/16/19	07/31/19	✓	
199	Fill in the missing benchmarks for compounds based on available tox data (ideally for algae), being clear enough in what values are chosen for the analysis that it is replicable	Danny McClure	07/16/19	08/15/19	✓	
200	Talk to Tom Young (UC Davis) to learn more about what we could get out of doing the analysis - could we measure relative amounts? Ask him to speak to our group at a future meeting	Matthew Heberger	07/16/19	07/31/19	✓	

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Task	Assigned To	Date Created	Due Date	Status	Comments	
201	Create a strawman proposal for the "lab overlap study," to include # of samples, costs, what's needed for analysis to happen - holding time & sample volume, measurement quality objectives, etc.	Don Yee, Liz Miller	07/16/19	08/15/19	✓	Not done per se, as the Pesticides Subcommittee reversed course at its meeting on 8/26/2019, indicating that this study is not worthwhile, and that we should focus our time on choosing a good lab.
202	Distribute links to the QAPP	Matthew Heberger	07/16/19	07/19/19	✓	
203	Look into adding a CEDEN protocol code to flag Selenastrum tests using EDTA vs. not.	Brian Ogg	07/16/19	08/15/19	✓	From Brian: We decided to go with a straight forward approach and use the QA code "EDTA" for such treatments, along with a brief mention of the addition in the Fox Batch Comments field. It's worth noting that the addition of EDTA does not result in a "qualification" of the data under SWAMP's MQOs, but project staff is, as always, free to use the data as they see fit.
204	Figure out whether to document the issue with EDTA on our newly-proposed deviations from QAPP form	Matthew Heberger	07/16/19	08/15/19	✓	
205	Send out a poll to choose a date/time for the next meeting	Liz Miller	07/16/19	07/19/19	✓	
206						
207	<b>Data Management Subcommittee Action Items</b>					
208	<b>Data Management Subcommittee Meeting 2019-01-16</b>					
209	Any member who wishes, please provide input or edits to the mission statement	Subcommittee Members	01/16/19	01/31/19	✓	"The data management subcommittee reviews policies and procedures related to data management and quality assurance and makes recommendations related thereto, with a goal of having the program collect high quality data that is usable and widely accessible, and in the most efficient and cost-effective way possible."
210	Discuss the issue of batch vs. submittal flagging at a future TAC meeting.	Matthew Heberger	01/16/19	03/31/20	●	Will put on the agenda for spring 2020. In the meantime, we are arranging a meeting to discuss this issue between State Board OIMA staff and ASC's QA staff to discuss this, as it seems to be the main source of disagreement between our organizations vis-a-vis QA.
211	ASC should plan to include a data management plan in all future technical proposals for monitoring or special studies	Matthew Heberger	01/16/19	03/15/20	●	
212	<b>Data Management Subcommittee Meeting 2019-03-28</b>					
213	Provide some additional details about the "QA list" that ASC has proposed to do with each batch of pesticides data as it arrives? Matt to check with Amy and Don.	Matthew Heberger	03/26/19	06/30/19	✓	The Data Management Subcommittee and staff agreed it was appropriate to review the pesticides data in two batches. Each round will be a full QA review. Staff typically do a "completeness check" with each provisional dataset as it arrives.
214	Add some info to the workplan and QAPP about the process of communication between ASC and the lab. Send a few sentences about this to Selina to include in a memo to the TAC.	Amy Franz, Matthew Heberger	03/26/19	06/30/19	●	
215	Continue to document and summarize our business rules for applying flags in our Data Management and Quality Assurance SOP. (This is a todo in FY19-20).	Amy Franz, Don Yee, John Ross, Matthew Heberger	03/26/19	06/30/19	✓	As of late July 2019, this is 90% finished, and the work will be presented to the Data Management Subcommittee at its next meeting.
216	Amy to look into what happens when the collection records are duplicate for the tox and pesticide data. (Potential to create some conflict.)	Amy Franz	03/26/19	06/30/19	✓	We discussed with Brian Ogg, and he indicated this would not cause any problems, and is a non-issue in his mind. According to Amy Franz, Data Services Manager at SFEI: "there isn't an issue unless the records are not "exactly" the same - main field that can be messed up is comment field, need same actual lat/longs, position water column. If they have already uploaded their data we should use the collection info they have already uploaded if we can get it."
217	<b>Data Management Subcommittee Meeting 2019-08-28</b>					
218	Accept the suggested changes by Tessa Fojut in Cam's July 2, 2019 discussion document	Cameron Irvine	08/28/19	09/15/19	✓	
219	Tessa Fojut will have Brian Ogg respond to the toxicity data questions regarding potential inconsistencies in CEDEN data flagging (re low EC controls) and to send them to the group.	Tessa Fojut	08/28/19	09/15/19	✓	
220	Send suggestions on the QAPP deviations form ASAP	Data Management Subcommittee Members	08/28/19	08/31/19	✓	
221	Matt to include a discussion of the form at the next TAC meeting on Sept 13 and get feedback from the TAC on the issue of whether the form become part of the public record? Or is a "business confidential" internal document for staff and TAC/SC members only?	Matthew Heberger	08/28/19	08/31/19	✓	
222	Consider asking Jay Davis or Wes Heim to attend the next meeting to give an update on mercury dataset status	Matthew Heberger	08/28/19	10/15/19	✓	
223						
224	<b>Finance Committee Action Items</b>					
225	For the next finance update, also include a project progress update. Highlight progress on deliverables, any changes that have been made to monitoring plans, warning of any delays.	Matthew Heberger	05/02/18	01/15/19	✓	To be included in the next Finance Update and at subsequent SC meetings. It became clear that the "stoplight reports" are not serving the needs of the group, who wish to have greater insight into project progress. Update Oct 2018: To be included in the next quarterly finance report. Now that we have created a thorough "waterfall" Gantt Chart for the entire project, we will report on "% Complete" and "% of Budget Spent" for tasks and subtasks in future quarterly reports.
226	From now on, do not change budgets unless there has been a major change in scope or deliverables. Keep budgets the same and maybe spend more or less on different tasks and subtasks but don't actually transfer money in the budget.	Matthew Heberger	07/02/18	12/31/18	✓	Implementing this new policy beginning in FY18/19. In the past, we re-allocated funds among subtasks at the request of the Finance Committee. At the time, they preferred that we "move \$2,000 from Task 1A to 1B" rather than simply going overbudget on one task and staying under on another. From our point of view, either practice is acceptable, although the former is simpler.
227	For next Finance update, there is interest in tracking subcontractor budgets, particularly for tasks where expenses include multiple subs, or combine ASC labor and subs. Either figure out a way to display this information in a table, or add it to the detailed appendix tables in the "Description and Notes" field.	jhunt@sfei.org, Matthew Heberger	07/29/19	12/15/19	✓	We added a new table that shows budget and JTD expenses by task and by contractor.
228						
229	<b>Nutrients Subcommittee Action Items</b>					
230	Send Brian Bergamaschi any ideas or suggestions for analyses or visualization of the USGS high-frequency monitoring data	Nutrients Subcommittee members	02/26/19	03/15/19	✓	ASC staff provided comments. I do not know how many other subcommittee members were in touch with Brian, but they received reminders to do so.

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Task	Assigned To	Date Created	Due Date	Status	Comments	
231	Russ Brown will provide Brian Bergamaschi his spreadsheet model to determine the residence time based on flow and travel time. Russ will also provide Brian some examples using a branched channel format to display concentrations rather than the color-coded format Brian's ESRI mapping program used	Russ Brown	02/26/19	03/10/19	✓	
232	Regarding the FY19-20 proposal for Delta nutrients monitoring during planned shutdowns of discharge from Regional San, Matt to assess the amount of funds for ASC to perform contract management of the three contracts under this project. General assumption was a standard 10%.	Matthew Heberger	02/26/19	03/15/19	✓	
233	Subcommittee members should send Janis any questions on project tasks as Lisa and Janis will be firming up the budget.	Nutrients Subcommittee members	02/26/19	03/15/19	✓	
234	Janis will send Subcommittee members an email on next steps for submitting proposal recommendations to RMP.	Janis Cooke	02/26/19	03/15/19	✓	
235						
236	<b>CEC Subcommittee Action Items</b>					
237	<b>CEC Subcommittee Meeting 2019-02-24</b>					
238	ASC to research whether it would be desirable to measure grain size distribution for sediment	Matthew Heberger	02/14/19	03/15/19	✓	
239	Matt to verify the target list of analytes in the State Guidance to check which ancillary parameters are required/recommended.	Matthew Heberger	02/14/19	03/15/19	✓	
240	Brian to send Matt the name of his contact at MWQI.	Brian Lauerson	02/14/19	03/15/19	✓	
241	Matt to contact MWQI about the possibility of cost-sharing or piggybacking.	Matthew Heberger	02/14/19	03/15/19	✓	
242	Matt to look at the Aquatic Ecosystems Dashboard to see whether it contains any information on what other ancillary parameters were collected during CEC studies.	Matthew Heberger	02/14/19	03/15/19	✓	Nothing listed beyond organic compounds.
243	Matt to look into costs for bird egg sampling	Matthew Heberger	02/14/19	03/15/19	✓	
244	Matt to research whether these species have good site fidelity.	Matthew Heberger	02/14/19	03/15/19	✓	
245	ASC to research what size range of clams is desirable. See if there is language about this in related studies or guidance documents.	Diana Lin	02/14/19	03/15/19	●	
246	Brian L. will send Matt the targets that the Coordinated Monitoring Program (CMP) used for the Sacramento urban area.	Brian Lauerson	02/14/19	03/15/19	✓	
247	<b>CEC Subcommittee Meeting 2019-04-03</b>					
248	Matt to ask Bryn Phillips, who runs the SPOT monitoring, if the site on the American River at Discovery Park is one of the SPOT monitoring locations, or if they are stopping there especially for us. Also need to confirm that their sampling methodology and equipment is appropriate for CEC sample collection, compatible with other field crews	Matthew Heberger	04/03/19	04/15/19	✓	
249	Matt to compile information on what questions we are seeking to answer by analyzing bird eggs.	Matthew Heberger	04/03/19	04/15/19	✓	
250	Selina to send some information from her birding app on where cormorant nests may be in the Delta.	Selina Cole	04/03/19	04/15/19	✓	From Selina: There are several apps out there by the National Audubon Society, but the Audubon Bird Guide app has a great feature -- you can download field guide data to access photos, audio, and range maps offline. It also has a bird alert notification system you can set up to get alerts when a particular bird species of interest is in your proximity (has been spotted nearby).  There are also various "twitcher" groups (amateur ornithologists) that have similar info available online. Just depends on what you're looking for.
251	Document the method for clam tissue homogenization more thoroughly	Diana Lin	04/03/19	04/15/19	●	
252	Insert into the plan that the CEC Subcommittee will meet after fish collection and before the fish are shipped to the lab, so the committee can make a recommendation on which species to analyze.	Matthew Heberger	04/03/19	04/15/19	✓	
253	ASC to consider adding Weck to analyze galaxolide and other compounds.	Matthew Heberger	04/03/19	04/15/19	✓	See Analyte Comparison Table for a thorough exposition of which lab should analyze which analyte for each matrix: <a href="https://docs.google.com/spreadsheets/d/1mVn7aeRMOcxBj5HWpDL0eCIRJdF3rLg8y2TwV_59_r8/edit#gid=1103446397">https://docs.google.com/spreadsheets/d/1mVn7aeRMOcxBj5HWpDL0eCIRJdF3rLg8y2TwV_59_r8/edit#gid=1103446397</a>
254	Matt to put together a side-by-side comparison of the competing labs, listing price, MDL, and RL, as it relates to the MTL or other threshold we are trying to be lower than.	Matthew Heberger	04/03/19	04/15/19	✓	See Analyte Comparison Table: <a href="https://docs.google.com/spreadsheets/d/1mVn7aeRMOcxBj5HWpDL0eCIRJdF3rLg8y2TwV_59_r8/edit#gid=1103446397">https://docs.google.com/spreadsheets/d/1mVn7aeRMOcxBj5HWpDL0eCIRJdF3rLg8y2TwV_59_r8/edit#gid=1103446397</a>
255	Define "batch" in the QAPP and tables.	Matthew Heberger	04/03/19	04/15/19	✓	
256	Specify in the QAPP (and change budget if necessary) that labs should run an LCS and MS at a minimum rate of one per batch.	Diana Lin, Matthew Heberger	04/03/19	04/15/19	✓	
257	Matt to get details about what exactly a "minimalist" quarterly QA would entail.	Matthew Heberger	04/03/19	04/15/19	✓	Essentially a completeness check on the data, basic review of blanks and duplicates to detect major problems.
258	Ask labs how long they retain records, and whether they could prepare a Level IV data package for us in the future upon request.	Matthew Heberger	04/03/19	04/15/19	✓	Discussed this with Leo Raab and Augustin Pierri at Weck Labs. The answer is that this is possible, but undesirable. It is best for them to compile this information "in real time" while doing the analysis. It would be harder to do later on, because they may not have the same staff, instruments, etc. and they would definitely charge us more to do it. They highly recommend Level IV data packages if the project is high profile and likely to be subject to a lot of scrutiny.
259	If we get the Prop 1 grant, and will be doing non-targeted analysis, ask Dr. Tom Young if the Level IV data package has information that would be useful to him.	Matthew Heberger	04/03/19	04/15/19	✓	We received word that we did not receive the grant, so this was a moot point.
260	CEC Subcommittee members should submit comments on the draft QAPP by April 19.	Matthew Heberger	04/03/19	04/15/19	✓	Received a few comments from subcommittee members.
261	<b>CEC Subcommittee Meeting 2019-04-24</b>					
262	Add site-specific collection methods to the QAPP	Matthew Heberger	04/24/19	05/15/19	✓	

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Task	Assigned To	Date Created	Due Date	Status	Comments	
263	Request documentation of sample collection methods of the SPOT program from Bryn Phillips	Matthew Heberger	04/24/19	04/30/19	✓	
264	Check on Lisa Thompson's membership status in the mailing list	Matthew Heberger	04/24/19	04/30/19	✓	Her Google account had been automatically disabled. We were able to help her re-enable.
265	Ask Vista laboratory whether they will report chemical analytical results below the MDL, and whether there is any update on their effort to obtain lower MDLs	Matthew Heberger	04/24/19	04/30/19	✓	Yes, they will report below the MDL if they are confident it is a detect. They have not made progress on doing studies that would lower their MDL.
266	Ask SFEI's CEC lead scientist Rebecca Sutton about whether there are new thresholds for PFAS compounds that may have been recently published	Matthew Heberger	04/24/19	04/30/19	✓	There are no new ecotoxicological thresholds that she is aware of. However, Becky cautioned me that experience matters when it comes to analyzing PFAS compounds. Not every lab who offers this service has the experience to produce robust results.
267	Report back to the subcommittee via email on the outcomes of the last two items as soon as possible	Matthew Heberger	04/24/19	04/30/19	✓	Email sent on 5/6 with the lab choice.
268	Consider applying for Supplemental Environmental Project (SEP) funds to cover components of the study that were part of our unsuccessful Prop 1 proposal	Matthew Heberger, Selina Cole	04/24/19	08/31/19	✓	Matt will work with Patrick on this. (Selina now that Patrick is retired!)
269	Add information to the QAPP explicitly stating that the additional analytes will be QAed and uploaded to CEDEN	Diana Lin, Matthew Heberger	05/21/19	05/31/19	●	Have not been able to complete as we have not finalized choice of labs.
270						
271	<b>Chlorophyll Intercalibration Work Group Action Items</b>					
272	Invite Stephanie Smith from YSI to participate in our study by attending meetings and/or reviewing documents	Liz Stumpner	03/15/19	04/05/19	✓	
273	Add the grab sample results to the time series plots	Matthew Heberger	03/16/19	03/25/19	●	
274	If you have ideas or suggestions for additional analyses, please send them to Matt	WG members	03/17/19	03/29/19	✓	
275	Create a project page on the Delta RMP Workspace website for project files and documents	Matthew Heberger	03/18/19	03/29/19	●	
276	Inquire about the availability of the DWR vessel, the Sentinel	Mike Dempsey	03/19/19	03/29/19	✓	
277	Ask Raphael Kudela, UC Santa Cruz, to participate in the study	Dave Senn	03/20/19	04/10/19	✓	
278	Remind labs to fill out the survey about their methods	Liz Stumpner	03/21/19	03/29/19	✓	
279	Send Matt the names and contact information for the 3 new labs that agreed to participate in the study	Liz Stumpner	03/22/19	03/29/19	✓	
280	Find out which lab Jim Cloern uses	Liz Stumpner	03/23/19	03/29/19	✓	They analyze chl-a in their own lab.
281	Contact Dr. Anke Mueller-Solger and ask whether she has any information or analysis to contribute to our study	Dave Senn	03/24/19	03/29/19	✓	
282	Develop a few more survey questions for participating labs about their lab instrument calibration	Liz Stumpner, Tim Otten	12/12/19	12/31/19	✓	
283	Share the lab survey questionnaire results with the Workgroup	Matthew Heberger	12/12/19	12/20/19	✓	
284	Look into how many results we have for lab blanks	Liz Stumpner	12/12/19	12/31/19	●	
285	Pull continuous sonde data from stations where we sampled, to show water quality conditions at the time of sampling (Liz Stumpner)	Liz Stumpner	12/12/19	01/15/20	●	
286	Report on the instantaneous sonde measurement taken during sample collection (Liz Stumpner)	Liz Stumpner	12/12/19	01/15/20	●	
287						
288	<b>Informal Action Items (not from a meeting)</b>					
289	Send twice yearly roster updates to RB5 staff to update on the website. This is an appendix to the Charter	Matthew Heberger	05/15/18	12/31/18	✓	Sent 2018-10-29
290	Twice yearly, post roster updates on the website. This is an appendix to the Charter	Matthew Heberger	05/15/18	07/31/19	✓	
291	Twice yearly, post roster updates on the website. This is an appendix to the Charter	Matthew Heberger	05/15/18	12/31/19	✓	The roster is kept continually up to date in the Google Sheet here:
292	Send twice yearly roster updates to RB5 staff to update on the website. This is an appendix to the Charter.	Matthew Heberger	05/01/18	01/31/19	✓	Update sent on 5/19/2019.
293	Consider an amendment to the Communication Plan (or next year's workplan?) that says we plan for 2 rounds of review for most reports. Any more than this would be considered an exception and would need certain approvals (?), timeline extension, and budget increase.	Delta RMP SC	10/23/18	06/30/19	✓	Decided this would be best simply as a part of future workplans/project scopes. Put it in the workplan that this is what we have budgeted for, two rounds of review. See file Google Drive/Delta RMP/Delta RMP Documents/Foundational Documents/Communication Plan/Communications Plan Potential Update 2018-10-23.txt
294	Consider drafting a State Board resolution on guiding principles and minimum expectations for regional monitoring programs.	Greg Gearheart	11/15/18	03/31/19	✓	From a meeting with Greg on Nov 15. He proposed this to help clarify common issues and pitfalls that crop up with collaborative monitoring projects around the state. The state allows dischargers to participate in these programs, and they are a form of regulatory relief. In return, there should be a set of minimum standards around quality assurance, timeliness of reporting, etc. Checking as done as it is beyond our scope to track this State Board initiative.
295	SFEI staff will meet with Melissa Morris for training/ discussion around SWAMP expectations for Quality Assurance Program Plans (QAPPs), Data Quality Assessment, and other Data Management and Quality Assurance issues.	Matthew Heberger	11/15/18	02/28/19	✓	Training held on Jan 7, 2019.
296	Update the Data Management and Quality Assurance SOP document, with a specific focus on how mercury data is managed.	Amy Franz	11/15/18	09/30/19	✓	Unfunded task which requires a significant effort. Planning to include funding request into next fiscal year's workplan. Update April 2019: There are unused funds in the FY18-19 budget, and I have asked our data services team to work on this document.

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Task	Assigned To	Date Created	Due Date	Status	Comments	
297	Write a memo on how stakeholders ought to communicate with labs through the contract manager, rather than calling or emailing them directly with questions, which it is felt is inefficient and inappropriate. (Melissa is the contract manager for toxicity testing at the Aquatic Health Program Laboratory at UC Davis (AHP/L), and Matt is the contract manager for pesticides chemistry at USGS Organic Chemistry Research Laboratory (OCRL).	Matthew Heberger	11/15/18	12/31/18	✓	To include in the agenda package for the next TAC meeting and/or SC meeting.
298	Invite the group of regulators and staff (State Board, Regional Board, and SFEI staff) to have a meeting 2-4 times per year to "caucus" as necessary in advance of Steering Committee meetings.	Matthew Heberger	11/15/18	02/15/19	✓	Matt has reminded agency staff about this twice.
299	Consider putting in place policies around how long stakeholders have to review drafts, how many opportunities they will be given to review	Matthew Heberger	11/15/18	03/31/19	✓	Proposal: plan for 2 review periods for most documents, especially important ones. A single review period should suffice for things such as meeting summaries, memos, etc. There will be a draft > comments > final draft > comments > final. After each of the 2 rounds of review, a response to comments will be issued, compiling the major comments and suggested edits into one document, and with a brief explanation of how the authors responded to the comment. This document will exclude minor comments, comments about formatting, grammar, spelling, style, etc.
300	Consider formalizing "Rules of Order" for meetings, as it is felt we would benefit from having more structure and formalized decision making.	Matthew Heberger	11/15/18	03/31/19	✓	Ad hoc committee on governance discussed this and did not make concrete recommendations.
301	Send Matt suggestions or proposed revisions to the Charter related to SC decision-making and governance, particularly as it relates to the creation of new seats on the Steering Committee.	Dan Riordan, Dave Tamayo, Debbie Webster, Greg Gearheart, Patrick Morris, Rebecca Franklin, Selina Cole, Stephanie Hiestand	12/19/18	01/15/19	✓	As a result of an ad hoc subcommittee on governance, charged with examining how votes are allocated and how new SC seats are created. To be discussed at a follow-up meeting on Jan 31.
302	Draft a template of a comment that can be inserted into the CEDEN database comment for cases in the C. dubia toxicity test where sample conductivity is low, but the control does not meet test acceptability criteria and therefore the sample is compared to the regular medium-hardness control. In cases like these, the sample may be shown as toxic, but it may not be (entirely) due to toxic contaminants, but rather due to a deficiency of ions that these organisms need in order to thrive.	Cam Irvine, Melissa Turner	03/22/19	03/28/19	✓	
303	Make proposed edits to the QAPP document and circulate these changes to this group for comment	Matthew Heberger	03/22/19	04/05/19	✓	
304	Ask contacts at SCCWRP for recommendations for aquatic toxicity testing labs	Matthew Heberger	03/11/19	03/29/19	✓	
305	Ask Wes Heim if the cost share that we get from Moss Landing would still be applicable if the funds were coming via a state contract.	Matthew Heberger	03/11/19	03/29/19	✓	After Wes checked with Office of Sponsored Programs and San Jose State University, the response was that, no, a cost share would not be available for a state contract.
306	Make a plan to consider options for our toxicity spending in FY19-20. The SWAMP contract only goes through March 2020, so will not cover the entire Water Year. We will need to transition to our own spending. It should be lean and cost effective since it is our own money.	Matthew Heberger	03/11/19	03/29/19	✓	Update Apr 2019: Have discussed this issue with Coordinating Committee. Our preference is to use State Board funds to contract with Moss Landing Marine Laboratory for mercury monitoring.  Will be part of the workplan creation, but should have a strawman proposal for Coordinating Committee in advance.
307	Communicate new policy related to expanded mercury monitoring to the Steering Committee	Adam Laputz, Patrick Morris	03/11/19	03/29/19	✓	Previously, the thinking was that we were putting a lot of resources into Hg monitoring in support of the Mercury TMDL, which had a strict deadline for information that could be considered in the rulemaking, and then we would drop down to a lower level of surveillance monitoring. However, now DWR has joined the program, and they are our largest financial contributor. They have joined as a condition of their GWA Section 401 Certifications for wetland restoration projects. They were allowed to drop certain monitoring activities as a result, and are contributing the Delta RMP instead. And one of the key concerns of these projects is that mercury in wetland sediment could be remobilized and/or methylated (converted to its more toxic organic form). Therefore, it is appropriate that we direct more resources to this area.
308	If the SC approves funding for lunches at meetings, set it up with our admin department (see howto notes from Anna), ask our contacts in Sacramento if they know of good, reliable caterers.	Matthew Heberger	05/20/19	06/15/19	✓	
309	Plan to send TAC and SC agenda packages so they come out 2 weeks (10 business days) before meetings in the future.	Matthew Heberger	05/20/19	07/31/19	✓	From a conversation with Patrick Morris and Meredith Howard. They (Central Valley Water Board Staff) are working on being better coordinated. They would like to have a week to review agenda packages, then a week in which they could meet before the meeting, 5 business days just isn't enough for them. Even more important if they're expected to coordinate with folks from the State Board, etc. Meredith stressed that we should send them out even if they are not 100% complete. They would rather have some of the materials so they can get started reading, then receive the remaining pieces later.  Working toward this, but it will take a couple of meetings to gear up, as there are many pieces that make up the agenda package, and these typically involve multiple collaborators.
310	Ask the Finance Committee Meetings if they'd prefer for me to schedule the meetings from now on. If not, send a reminder to a Finance Committee representative to schedule the meeting well in advance of future meetings. Better yet, schedule them as soon as we know the dates for upcoming SC meetings. The sooner they are in the calendar, the better for our planning purposes.	Matthew Heberger	05/20/19	07/31/19	✓	Dalia Fadl used to do this, but it is appropriate for ASC to take over this function now that she has left the committee.  Email sent in July 2019, but not resolved.  As of July 2019, Matt will schedule the calls and the conference line. We will stick with the customary format of FC confidential for 1 hour, followed by second hour with Matt.
311	Develop a proposed scope of work and budget to take over the Delta RMP website from the Central Valley Board. Per Adam, they are interested in handing it off to us.	Matthew Heberger	06/02/19	07/15/19	✓	As of 7/4, we have created a new Delta RMP website at sfei.org/DeltaRMP and are ready to take over management of it.
312	Fill out the "sole source justification" forms for RMA and AMS, subcontractors in the Sacramento River Nutrient Change Study.	Matthew Heberger	06/02/19	07/07/19	✓	Justification is that they helped us write the monitoring proposal, in other words, contributed their intellectual property and know-how. According to the Charter: "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."
313	Do a final pass through our Data Management and Quality Assurance SOP and accept or reject all suggested edits.	Amy Franz	07/10/19	07/20/19	✓	
314	Do a final proofread of the revised Data Management and Quality Assurance SOP and transmit the document to Melissa Morris at State Board. Consider whether we need to pull the comments and replies out of the document and handle them separately.	Matthew Heberger	07/10/19	07/25/19	✓	It now seems as if we will need to create v3, as State Board's comments on v2 are extensive.
315	Outline a proposed timeline and process for gathering competitive bids and contracting with a lab for aquatic toxicity testing	Danny McClure, Matthew Heberger	07/22/19	08/15/19	✓	Draft memo here: <a href="https://docs.google.com/document/d/1EFe7BqBO4HjY08zym4E998SZkgUk50Yrz8r1tTMuqQ/edit#">https://docs.google.com/document/d/1EFe7BqBO4HjY08zym4E998SZkgUk50Yrz8r1tTMuqQ/edit#</a>



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Task	Assigned To	Date Created	Due Date	Status	Comments
316 Provide as much mercury data as possible to Central Valley Regional Water Quality Control Board staff by December 2019 for their use in updating the Methylmercury TMDL and Central Valley Basin Plan Amendment.	Amy Franz, Autumn Bonnema, Don Yee, Jay Davis, Matthew Heberger, Wes Heim	08/07/19	12/15/19	✓	From Meredith Howard at the CV Water Board: [...] the Delta Mercury TMDL data analysis will be starting this month. We would like to include the FY 17-18 and FY 18-19 mercury DRMP data sets. We request the data so we can include it in the TMDL analysis and will not release it to the public until after the RMP approves.  As for the FY 19/20 fish and water sample collection to inform the TMDL, the fish collection is August 2019, and water sampling is monthly July through October 2019 (see Table 2, attached). We request the preliminary data on this collection in October 2019, with final data being delivered to us in December 2019.
317 Add AQUA-Science to our list of potential labs from whom to solicit bids for aquatic toxicity testing after March 2020	Liz Miller	08/07/19	08/15/19	✓	
318 Follow up with Tom Young, UC Davis, on whether he can come and talk to our Pesticides Subcommittee about using non-targeted analysis to identify herbicides and emerging contaminants that might explain the toxicity we've seen.	Matthew Heberger	08/29/19	09/15/19	✓	Dr. Young spoke to the subcommittee on Sept 27, 2019. There was a lot of interest in the subject. He is going to work with others to draft a concept note for using NTA in Delta RMP monitoring.
319 Create a template for "shovel ready" SEP projects.	Matthew Heberger	09/10/19	09/30/19	✓	Share with the CEC team and Diana Lin in particular.  Here is an example: <a href="https://docs.google.com/open?id=1a4CenOx73tQtxcX50CehHn05WdwAngz5f1zDoDT-dL8">https://docs.google.com/open?id=1a4CenOx73tQtxcX50CehHn05WdwAngz5f1zDoDT-dL8</a>
320 Respond to Karen Ashby's comments on the FY17-18 Mercury Data Report	Jay Davis	10/15/19	10/31/19	✓	
321 Send the FY17-18 Mercury Data Report to the TAC well before the December meeting	Matthew Heberger	10/15/19	11/15/19	✓	
322 Revise the FY18-19 Mercury QA Summary in response to Matt's comments	Don Yee	11/20/19	11/30/19	✓	
323 For the FY20-21 Workplan, include in the budget for data management and QA a 10% check on the data entry in field data sheets and lab bench sheets	Amy Franz, Matthew Heberger	12/06/19	02/28/20	●	Requested by the Data Management Subcommittee. We should scope out what this looks like, i.e. the specific tasks, who will do them, and what the cost to the program will be.

# Delta RMP Deliverables

## Key to Status Colors:

Checkmark indicates complete.

Green indicates that there are over 90 days until the deliverable is due.

Yellow indicates a deliverable is due in less than 90 days.

Red indicates a deliverable that is overdue.

Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
1	<b>FY17-18 Delta RMP Workplan</b>						
2	<b>4. Communications</b>	"Pulse of the Delta" Draft	Matthew Heberger	06/30/20	<span style="color: green;">●</span>	<input type="checkbox"/>	As of Dec 2018, the SC has approved the main themes and an outline. SC decided to push back publication of report to 2020. Note that budget does not include layout or design.
3	<b>8. Pesticides Interpretive Report</b>						
4	8.B. Contract Management	RFP for Pesticides/Toxicity Interpretive Report	Matthew Heberger	11/15/17	✓	<input checked="" type="checkbox"/>	RFP issued in in spring 2018, proposals due March 16.
5	8.B. Contract Management	Signed contract and scope of work	Matthew Heberger	03/31/18	✓	<input checked="" type="checkbox"/>	
6	<b>8.A. Interpretive Report (Deltares)</b>						
7	8.A.1. Stakeholder Engagement & Input						
8	8.A.1. Stakeholder Engagement & Input	M1.1. Meeting #1: Kickoff meeting with contract manager (ASC)	Erwin Roex	07/01/18	✓	<input checked="" type="checkbox"/>	Kickoff meeting between Matt and Erwin held on July 12, 2018 via Skype.
9	8.A.1. Stakeholder Engagement & Input	M1.2. Meeting #2. In-person with stakeholders to discuss overall approach and data compilation	Erwin Roex	09/25/18	✓	<input checked="" type="checkbox"/>	Meeting held on morning of Sept 25 at Regional San.
10	8.A.1. Stakeholder Engagement & Input	D1.3. Presentation at stakeholder meeting #2	Erwin Roex	09/25/18	✓	<input checked="" type="checkbox"/>	Erwin's Powerpoint slide presentation was distributed to the Pesticides Subcommittee and TAC following the meeting.
11	8.A.1. Stakeholder Engagement & Input	D1.4 Minutes of stakeholder meeting #2	Erwin Roex	10/15/18	✓	<input checked="" type="checkbox"/>	Matt H. wrote up a meeting summary, saving Deltares from having to complete this step.
12	8.A.1. Stakeholder Engagement & Input	M1.3. Meeting #3. In-person meeting with Deltares to present data and methods to TAC	Erwin Roex	12/10/18	✓	<input checked="" type="checkbox"/>	Postponed to Dec 10, 2018.
13	8.A.1. Stakeholder Engagement & Input	D1.5 Presentation at meeting #3	Erwin Roex	12/10/18	✓	<input checked="" type="checkbox"/>	
14	8.A.1. Stakeholder Engagement & Input	D1.6 Minutes of meeting #3	Erwin Roex	12/17/18	✓	<input checked="" type="checkbox"/>	
15	8.A.1. Stakeholder Engagement & Input	M1.4. Meeting #4: Teleconference to discuss Draft Report	Erwin Roex	03/31/20	<span style="color: green;">●</span>	<input type="checkbox"/>	
16	8.A.1. Stakeholder Engagement & Input	D1.7 Presentation at Meeting #4	Erwin Roex	03/31/20	<span style="color: green;">●</span>	<input type="checkbox"/>	
17	8.A.1. Stakeholder Engagement & Input	D1.8 Minutes of Meeting #4	Erwin Roex	04/15/20	<span style="color: green;">●</span>	<input type="checkbox"/>	
18	8.A.2. Compilation of existing data and literature						
19	8.A.2. Compilation of existing data and literature	D 2.1: Summary of the definitive data set.	Erwin Roex	12/24/18	✓	<input checked="" type="checkbox"/>	As of Oct 19, 2018, State Board staff are still making adjustments to the Delta RMP toxicity data, preventing Deltares from finalizing their analysis.
20	8.A.2. Compilation of existing data and literature	D 2.2: Excel file containing the definitive database with both pesticide and toxicity results to be used in further analysis.	Erwin Roex	12/24/18	✓	<input checked="" type="checkbox"/>	
21	8.A.2. Compilation of existing data and literature	D 2.3: Technical memo describing the principles, methodology and metadata used to construct the final database and displaying some basic visualizations.	Erwin Roex	12/24/18	✓	<input checked="" type="checkbox"/>	
22	8.A.3. Analysis Methods Report						
23	8.A.3. Analysis Methods Report	D 3.1. Updated list of water quality thresholds	Erwin Roex	01/15/19	✓	<input checked="" type="checkbox"/>	Per Erwin Roex, expected to deliver by end of February 2019. Update: Update on 3/20: expect by end of March. PI states that team has encountered many problems an inconsistencies in the data that caused delays.
24	8.A.3. Analysis Methods Report	D 3.2 Draft memorandum on analytical methods to be used	Erwin Roex	01/15/19	✓	<input checked="" type="checkbox"/>	
25	8.A.3. Analysis Methods Report	D 3.3: Final memorandum on analytical methods to be used	Erwin Roex	02/15/19	✓	<input checked="" type="checkbox"/>	
26	8.A.4. Interpretive Report						
27	8.A.4. Interpretive Report	D4.1 First Draft Report	Erwin Roex	01/31/20	<span style="color: yellow;">●</span>	<input type="checkbox"/>	Update December 2019: Erwin Roex has informed me that we can expect the draft soon. I have asked him to set a schedule for the final deliverables.
28	8.A.4. Interpretive Report	D4.2 Final Draft Report	Erwin Roex	03/31/20	<span style="color: green;">●</span>	<input type="checkbox"/>	

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Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
29	8.A.4. Interpretive Report	D4.3 Final Report	Erwin Roex	05/31/20	<span style="color: green;">●</span>	<input type="checkbox"/>	
30	<b>9. Nutrients Special Studies</b>					<input type="checkbox"/>	
31	9.A. Cross-Delta Monitoring Using High-Frequency Tools	Report from USGS on Cross-Delta High Frequency Monitoring Project	Brian Bergamaschi	03/31/20	<span style="color: green;">●</span>	<input type="checkbox"/>	Update Aug 2019: See attached email from PI Brian Bergamaschi on why the study is so behind schedule. In brief, there was a problem with the software that corrects the nitrate sensor data, and it took extra time and effort to correct the data and ensure it is valid.
32	9.A. Cross-Delta Monitoring Using High-Frequency Tools	Electronic versions of maps produced by the project	Brian Bergamaschi	03/31/19	✓	<input checked="" type="checkbox"/>	
33	9.A. Cross-Delta Monitoring Using High-Frequency Tools	Data files containing constituent concentration data and location information	Brian Bergamaschi	03/31/19	✓	<input checked="" type="checkbox"/>	
34	9.B. Continued Nutrient Data Analysis and Biennial Reporting	Prepare, coordinate, and provide technical support to up to 4 nutrient subcommittee meetings	Philip Trowbridge	06/30/18	✓	<input checked="" type="checkbox"/>	Meetings held on 9/29/17, 12/1/17, 1/18/18, 2/15/18. 4 project proposals for FY18-19 were developed.
35	9.B. Continued Nutrient Data Analysis and Biennial Reporting	Outline for biennial synthesis report to be completed in FY18-19	Philip Trowbridge	06/30/18	✓	<input checked="" type="checkbox"/>	Proposal prepared for Nutrient Subcommittee. The Subcommittee set this project as a low priority for further action.
36	9.B. Continued Nutrient Data Analysis and Biennial Reporting	Design additional statistical analyses to be completed in FY17-18	Philip Trowbridge	09/30/17	✓	<input checked="" type="checkbox"/>	This task was a placeholder for any follow-on analyses after the three synthesis reports were completed. The subcommittee did not authorize any additional statistical analyses so this task no longer relevant.
37	9.B. Continued Nutrient Data Analysis and Biennial Reporting	Complete additional statistical analyses and prepare technical report	Philip Trowbridge	12/31/17	✓	<input checked="" type="checkbox"/>	This task was a placeholder for any follow-on analyses after the three synthesis reports were completed. The subcommittee did not authorize any additional statistical analyses so this task no longer relevant.
38	9.C. Chlorophyll Sensor Intercalibration	Prepare, coordinate, and facilitate Phase 1 Technical Team Meetings	Philip Trowbridge	06/30/18	✓	<input checked="" type="checkbox"/>	3 meetings held on 9/28/17 and 12/5/17 and 2/6/18.
39	9.C. Chlorophyll Sensor Intercalibration	Develop Phase 2 Project Plan, including study design, logistics, and institutional coordination	Philip Trowbridge	06/30/18	✓	<input checked="" type="checkbox"/>	Proposal for Phase II study prepared and presented to the SC on 5/11/18.
40	<b>10. Mercury Monitoring</b>					<input type="checkbox"/>	
41	10.B. Mercury Monitoring	Mercury Data Uploaded to CEDEN	Amy Franz	01/31/19	✓	<input checked="" type="checkbox"/>	As of Sept 2018, MOST FY17/18 data has been received from the lab. Data management will not marked as complete until QA is complete and data is uploaded to CEDEN.  Update Nov 2018: MML reports that there were problems with the TOC data (broken/malfunctioning equipment). They sent samples to an external, commercial lab to analyze for TOC. These data are not expected to be reported to her until early December.  Matt (ASC project manager) instructed ASC data services team to delay doing the data management and QA of this dataset, so that it can all be done together, rather than processing two separate datasets, which would result in extra time and expense. (TOC is an important ancillary parameter for interpreting the mercury results, and I decided that even though we have 99% of the data, it did not make sense to move forward with an incomplete dataset.) New timeline to complete the QA is about mid-January taking into account planned time off for staff around the holidays.  Update July 10, 2019: Data is uploaded but not yet made public pending approval.
42	10.B. Mercury Monitoring	Mercury QA Memo	Don Yee	05/31/19	✓	<input checked="" type="checkbox"/>	As of Jan 2019, QA is complete for the fish tissue data, but we are waiting for the complete results for water and sediment.  Update July 10, 2019: Draft QA memo provided to project manager. Editing before distributing to Mercury Subcommittee
43	10.C. Technical Coordination	Draft Mercury Data Report	Jay Davis	05/31/19	✓	<input checked="" type="checkbox"/>	Draft sent to Mercury Subcommittee for review on Aug 1, 2019.
44	10.C. Technical Coordination	Final Mercury Data Report	Jay Davis	08/31/19	✓	<input checked="" type="checkbox"/>	
45						<input type="checkbox"/>	
46	<b>FY18-19 Delta RMP Workplan</b>					<input type="checkbox"/>	
47	<b>1. Program management</b>					<input type="checkbox"/>	
64	<b>2. Governance</b>					<input type="checkbox"/>	
115	<b>3. Quality Assurance</b>					<input type="checkbox"/>	
116	A. QAPP Revision	Draft revised QAPP to send to signatories	Don Yee	09/28/18	✓	<input checked="" type="checkbox"/>	Revised QAPP required to kick off FY18-19 monitoring, adding new and revised elements for pesticides monitoring.
117	A. QAPP Revision	Spring 2019 QAPP Revisions to signatories	Don Yee	07/15/19	✓	<input checked="" type="checkbox"/>	Budgeted for a minor revision in the spring of 2019, following the approval of the FY19/20 workplan to account for any updated labs, protocols, etc.  Note that the creation of a separate QAPP to cover CEC monitoring is included under a separate budget line and is listed as a standalone deliverable.  Update July 31, 2019: Updated QAPP sent to the TAC for review. Expect comments by COB on Aug 12.
118	<b>4. Nutrients Special Studies</b>					<input type="checkbox"/>	
119	<b>4.B. Chlorophyll Sensor Intercalibration Study</b>					<input type="checkbox"/>	
120	Chlorophyll Sensor Intercalibration Study	Assessment of Chlorophyll Sensor Methods In Use	Liz Stumpner	12/31/18	<span style="color: red;">●</span>	<input type="checkbox"/>	Workplan states that "USGS will manage this task and prepare a summary report." We have a table that Liz Stumpner compiled from the questionnaires. She and her colleagues will write a short report to accompany.
121	Chlorophyll Sensor Intercalibration Study	Presentation to WG on Field Intercalibration Exercises	Liz Stumpner	12/31/18	✓	<input checked="" type="checkbox"/>	Liz gave a presentation about this at the Workgroup meeting on 3/13/2019.
122	Chlorophyll Sensor Intercalibration Study	Report on Laboratory Intercalibration Study	Matthew Heberger	12/31/19	<span style="color: red;">●</span>	<input type="checkbox"/>	The lab intercalibration was delayed until the spring to give us more time to organize the logistics and to recruit labs to participate. First round of samples collected April 2019. Third and final round scheduled for August.

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Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
123	Chlorophyll Sensor Inter-calibration Study	Matthew Heberger	03/31/20	●	🚩	<input type="checkbox"/>	
124	Chlorophyll Sensor Inter-calibration Study	Workgroup Meeting #1, Agenda and Summary	Matthew Heberger	09/30/18	✓	<input checked="" type="checkbox"/>	WG Meeting #1 held Sept 28, 2018
125	Chlorophyll Sensor Inter-calibration Study	Workgroup Meeting #2, Agenda and Summary	Matthew Heberger	12/31/18	✓	<input checked="" type="checkbox"/>	WG Meeting #2 held Dec 5, 2018
126	Chlorophyll Sensor Inter-calibration Study	Workgroup Meeting #3, Agenda and Summary	Matthew Heberger	03/31/19	✓	<input checked="" type="checkbox"/>	WG Meeting #3 held Mar 13, 2019
127	Chlorophyll Sensor Inter-calibration Study	Workgroup Meeting #4, Agenda and Summary	Matthew Heberger	12/31/19	✓	<input checked="" type="checkbox"/>	Schedule for October. Would like to have all of the results from the Aug 20 sampling round in, some preliminary data analysis and results to share with the workgroup. Typically takes labs several weeks to post results.
128	<b>4.A. WY2016 Modeling and Monitoring Synthesis</b>						
129	WY2016 Modeling and Monitoring Synthesis	Progress Report to Nutrient Subcommittee or Delta-Suisun Modeling Team	Matthew Heberger	07/31/18	✓	<input checked="" type="checkbox"/>	Provided progress report to RB5 to give to the STAG. Gave a presentation to the STAG on 9/18/18.
130	WY2016 Modeling and Monitoring Synthesis	Progress Report to Nutrient Subcommittee or Delta-Suisun Modeling Team	Matthew Heberger	01/31/19	✓	<input checked="" type="checkbox"/>	This update should be given at the Delta-Suisun Team Meeting
131	WY2016 Modeling and Monitoring Synthesis	Progress Report to Nutrient Subcommittee or Delta-Suisun Modeling Team	Matthew Heberger	07/31/19	✓	<input checked="" type="checkbox"/>	This update should be given at the Delta-Suisun Team Meeting
132	WY2016 Modeling and Monitoring Synthesis	Progress Report to Nutrient Subcommittee or Delta-Suisun Modeling Team	Matthew Heberger	01/31/20	●	<input type="checkbox"/>	This update should be given at the Delta-Suisun Team Meeting
133	WY2016 Modeling and Monitoring Synthesis	Create WY2016 Hydrodynamics Model Output	Allie King	12/30/19	✓	<input checked="" type="checkbox"/>	WY2016 hydrodynamics will be developed in DFM by SFEI staff. The STAG/Nutrients Subcmte was briefed of this change on 9/18/18 and agreed. Allie King, PhD, a new SFEI staff scientist, began working on this in Nov 2018. Update July 2019: this task is 90% complete. Detailed report given to the Nutrients STAG on July 26, 2019.
134	WY2016 Modeling and Monitoring Synthesis	Adapt and validate CASCaDE Delft3D-FM model for WY2016	Allie King	12/31/19	✓	<input checked="" type="checkbox"/>	Task was originally "Develop Converter Code." Code will be developed during 2019. Code could not be developed in 2018 without delaying the project. The STAG/Nutrients Subcommittee was briefed of this change on 9/18/18 and agreed. Ultimately, the project team decided that it was not practical to convert the output from DWR's SCHISM into the format needed for our biogeochemical model DMIWAQ. Rather, we decided it made sense to adapt and calibrate the CASCaDE Delft3D-FM model for WY2016. The USGS already developed, calibrated and validated for WY2011-WY2012.
135	WY2016 Modeling and Monitoring Synthesis	Draft Report for Delta RMP Committee Review	David Senn	03/31/20	●	<input type="checkbox"/>	
136	WY2016 Modeling and Monitoring Synthesis	Final Report	Dave Senn	06/30/20	●	<input type="checkbox"/>	
137	<b>5. Mercury Monitoring FY18-19</b>						
138	5.A. Mercury Data collection and analysis	Draft Year 3 Mercury Data Report	Jay Davis	12/31/19	✓	<input checked="" type="checkbox"/>	
139	5.A. Mercury Data collection and analysis	Final Year 3 Mercury Data Report	Jay Davis	03/31/20	●	<input type="checkbox"/>	
140	5.B. Mercury Data Management and Quality Assurance	Mercury Fish and Water QA Summary Technical Memo	Don Yee	10/31/19	✓	<input checked="" type="checkbox"/>	This was completed in Oct 2019; it will be distributed to the TA as an appendix to the data report.
141	5.B. Mercury Data Management and Quality Assurance	Formatted and QA'ed Mercury Data uploaded to CEDEN	Amy Franz	10/31/19	✓	<input checked="" type="checkbox"/>	Data is formatted and QA'd. To be released publicly following review by the TAC and approval by the SC.
142	<b>6. Pesticide Monitoring Water Year 2019</b>						
143	6.A. Field sample collection and laboratory analysis	Amendments to QAPP describing sampling and analysis for pesticides chemistry and aquatic toxicity	Don Yee	09/30/18	✓	<input checked="" type="checkbox"/>	
144	6.A. Field sample collection and laboratory analysis	Pesticides chemistry provisional data shared with TAC, Event #1	Matthew Heberger	12/31/18	✓	<input checked="" type="checkbox"/>	After each event, provisional data to be shared with the TAC and pesticides subcommittee includes: (1) Provisional results in a spreadsheet, (2) scanned field data sheets, and (3) Chain of Custody forms.
145	6.A. Field sample collection and laboratory analysis	Pesticides chemistry provisional data shared with TAC, Event #2	Jim Orlando	02/28/19	✓	<input checked="" type="checkbox"/>	Jim Orlando shared the preliminary data with the Pesticides Subcommittee on Feb 19, 2019. Field sheets and COCs will be available on the TAC workspace website.
146	6.A. Field sample collection and laboratory analysis	Pesticides chemistry provisional data shared with TAC, Event #3	Jim Orlando	05/31/19	✓	<input checked="" type="checkbox"/>	Matt H shared the provisional data with the Pesticides Subcommittee and the TAC on Mar 11, 2019.
147	6.A. Field sample collection and laboratory analysis	Pesticides chemistry provisional data shared with TAC, Event #4	Jim Orlando	07/15/19	✓	<input checked="" type="checkbox"/>	Matt shared the provisional data with the pesticides subcommittee on Jul 18, 2019. Sampling event conducted June 17-18.
148	6.A. Field sample collection and laboratory analysis	Pesticides chemistry provisional data shared with TAC, Event #5	Jim Orlando	08/31/19	✓	<input checked="" type="checkbox"/>	Sampling event conducted July 29-30. Provisional data shared on 9/5/2019.
149	6.A. Field sample collection and laboratory analysis	Pesticides chemistry provisional data shared with TAC, Event #6	Jim Orlando	10/31/19	✓	<input checked="" type="checkbox"/>	Matt forwarded the provisional data on Oct 24, 2019.
150	6.A. Field sample collection and laboratory analysis	Pesticides Chemistry Lab Report	Jim Orlando	12/31/19	●	<input type="checkbox"/>	Report to the Delta RMP; not a formal USGS Data Series Report.
151	6.B. Toxicity reporting	Aquatic toxicity provisional data shared with TAC, Sampling Event #1	Marie Stillway	12/31/18	✓	<input checked="" type="checkbox"/>	Matt H. sent the provisional toxicity data to the TAC, Toxicity Work Group, and Pesticides Subcommittee on May 10.
152	6.B. Toxicity reporting	Aquatic toxicity provisional data shared with TAC, Sampling Event #2	Marie Stillway	02/28/19	✓	<input checked="" type="checkbox"/>	Matt H. sent the provisional toxicity data to the TAC, Toxicity Work Group, and Pesticides Subcommittee on May 10.
153	6.B. Toxicity reporting	Aquatic toxicity provisional data shared with TAC, Sampling Event #3	Marie Stillway	06/30/19	✓	<input checked="" type="checkbox"/>	Sampling event conducted April 29-30, 2019. Typically takes 4-6 weeks to obtain results.
154	6.B. Toxicity reporting	Aquatic toxicity provisional data shared with TAC, Sampling Event #4	Marie Stillway	07/31/19	✓	<input checked="" type="checkbox"/>	Sampling event conducted June 17-18.
155	6.B. Toxicity reporting	Aquatic toxicity provisional data shared with TAC, Sampling Event #5	Marie Stillway	09/30/19	✓	<input checked="" type="checkbox"/>	Sampling event conducted July 29-30

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Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
156	6.B. Toxicity reporting	Aquatic toxicity provisional data shared with TAC, Sampling Event #6	Marie Stillway	10/31/19	✓	<input checked="" type="checkbox"/>	Sampling planned for Sept 16-17
157	6.C. Pesticides Data Management and Quality Assurance	Pesticides chemistry QA Summary and Technical Memo	Don Yee	12/31/19	●	<input type="checkbox"/>	
158	6.C. Pesticides Data Management and Quality Assurance	Formatted pesticides data uploaded to CEDEN	Amy Franz	12/31/19	●	<input type="checkbox"/>	
159	<b>7. CEC Monitoring Plan for FY19-20</b>					<input type="checkbox"/>	
160	7.A. CEC Monitoring Coordination and planning	Draft CEC Sampling and Analysis Plan	Matthew Heberger	03/04/19	✓	<input checked="" type="checkbox"/>	Incorporated into the QAPP per State Board request.
161	7.A. CEC Monitoring Coordination and planning	Final CEC Sampling and Analysis Plan	Matthew Heberger	12/31/19	●	<input type="checkbox"/>	
162	7.B. QAPP Amendments to cover CEC Monitoring	Draft QAPP for CEC monitoring	Matthew Heberger	03/25/19	✓	<input checked="" type="checkbox"/>	70% draft shared with TAC in April 2019
163	7.B. QAPP Amendments to cover CEC Monitoring	Final QAPP for CEC monitoring	Matthew Heberger	02/28/20	●	<input type="checkbox"/>	
164							
165	<b>FY19-20 Delta RMP Workplan</b>					<input type="checkbox"/>	
166	<b>1. Core Functions</b>					<input type="checkbox"/>	
167	<b>A. Program planning</b>					<input type="checkbox"/>	
168	A. Program planning	Detailed Workplan and Budget for FY20-21	Matthew Heberger	05/01/20	●	<input type="checkbox"/>	
169	A. Program planning	Updated Communications Plan (if necessary)	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
170	A. Program planning	Updated Monitoring Design Summary (if necessary)	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
171	A. Program planning	Amended Charter (if necessary)	Matthew Heberger	12/31/19	●	<input type="checkbox"/>	
172	A. Program planning	Quarterly Report #1 on Deliverables and Action Items	Matthew Heberger	09/30/19	✓	<input checked="" type="checkbox"/>	Included in the agenda package for the Aug 5, 2019 SC meeting.
173	A. Program planning	Quarterly Report #2 on Deliverables and Action Items	Matthew Heberger	12/31/19	●	<input type="checkbox"/>	
174	A. Program planning	Quarterly Report #3 on Deliverables and Action Items	Matthew Heberger	04/30/20	●	<input type="checkbox"/>	
175	A. Program planning	Quarterly Report #4 on Deliverables and Action Items	Matthew Heberger	07/31/20	●	<input type="checkbox"/>	
176	<b>B. Contract and financial management</b>					<input type="checkbox"/>	
177	B. Contract and financial management	Quarterly finance update #1	Matthew Heberger	09/30/20	✓	<input checked="" type="checkbox"/>	
178	B. Contract and financial management	Quarterly finance update #2	Matthew Heberger	02/01/20	✓	<input checked="" type="checkbox"/>	
179	B. Contract and financial management	Quarterly finance update #3	Matthew Heberger	05/01/20	●	<input type="checkbox"/>	
180	B. Contract and financial management	Quarterly finance update #4	Matthew Heberger	07/30/20	●	<input type="checkbox"/>	
181	B. Contract and financial management	Invoices to Delta RMP participants/contributors	Matthew Heberger	06/15/20	●	<input type="checkbox"/>	
182	B. Contract and financial management	New or extended contracts for those Delta RMP participants that require a contract in order to pay ASC	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
183	B. Contract and financial management	Contracts with subcontractors, labs	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
184	<b>2. Governance</b>					<input type="checkbox"/>	
185	<b>A. Steering Committee Meetings</b>					<input type="checkbox"/>	
186	A. Steering Committee Meetings	Agenda Package #1	Matthew Heberger	09/30/19	✓	<input checked="" type="checkbox"/>	
187	A. Steering Committee Meetings	Meeting Summary #1	Matthew Heberger	09/30/19	✓	<input checked="" type="checkbox"/>	
188	A. Steering Committee Meetings	Agenda Package #2	Matthew Heberger	12/31/19	✓	<input checked="" type="checkbox"/>	
189	A. Steering Committee Meetings	Meeting Summary #2	Matthew Heberger	12/31/19	✓	<input checked="" type="checkbox"/>	
190	A. Steering Committee Meetings	Agenda Package #3	Matthew Heberger	03/31/20	●	<input type="checkbox"/>	
191	A. Steering Committee Meetings	Meeting Summary #3	Matthew Heberger	03/31/20	●	<input type="checkbox"/>	
192	A. Steering Committee Meetings	Agenda Package #4	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
193	A. Steering Committee Meetings	Meeting Summary #4	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
194	A. Steering Committee Meetings	Teleconference Agenda (if necessary)	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
195	A. Steering Committee Meetings	Teleconference Summary (if necessary)	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
196	<b>B. Technical Advisory Committee Meetings</b>					<input type="checkbox"/>	

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Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
197	B. Technical Advisory Committee Meetings	Agenda Package #1	Matthew Heberger	09/30/19	✓	<input type="checkbox"/>	Meeting held on July 19, 2019
198	B. Technical Advisory Committee Meetings	Meeting Summary #1	Matthew Heberger	09/30/19	✓	<input checked="" type="checkbox"/>	Draft summary shared with the TAC on Aug 1, 2019
199	B. Technical Advisory Committee Meetings	Agenda Package #2	Matthew Heberger	12/31/19	✓	<input type="checkbox"/>	
200	B. Technical Advisory Committee Meetings	Meeting Summary #2	Matthew Heberger	12/31/19	✓	<input checked="" type="checkbox"/>	
201	B. Technical Advisory Committee Meetings	Agenda Package #3	Matthew Heberger	03/31/20	●	<input type="checkbox"/>	
202	B. Technical Advisory Committee Meetings	Meeting Summary #3	Matthew Heberger	03/31/20	●	<input type="checkbox"/>	
203	B. Technical Advisory Committee Meetings	Agenda Package #4	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
204	B. Technical Advisory Committee Meetings	Meeting Summary #4	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
205	B. Technical Advisory Committee Meetings	Teleconference Agenda (if necessary)	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
206	B. Technical Advisory Committee Meetings	Teleconference Summary (if necessary)	Matthew Heberger	06/30/20	●	<input type="checkbox"/>	
207	<b>C. Technical Subcommittee Meetings</b>					<input type="checkbox"/>	
208	<input type="checkbox"/> Pesticides subcommittee meetings					<input type="checkbox"/>	
209	Pesticides Subcommittee Meeting #1	Meeting agenda package; meeting summary	Matthew Heberger	08/01/19	✓	<input checked="" type="checkbox"/>	Meeting held Aug 5, 2019
210	Pesticides Subcommittee Meeting #2	Meeting agenda package; meeting summary	Matthew Heberger	09/30/19	✓	<input checked="" type="checkbox"/>	Draft summary emailed to SC on Aug 8, 2019
211	Pesticides Subcommittee Meeting #3	Meeting agenda package; meeting summary	Matthew Heberger	10/31/19	✓	<input checked="" type="checkbox"/>	
212	Pesticides Subcommittee Meeting #4	Meeting agenda package; meeting summary	Matthew Heberger	12/31/19	✓	<input checked="" type="checkbox"/>	
213	Pesticides Subcommittee Meeting #5	Meeting agenda package; meeting summary	Matthew Heberger	03/30/20	●	<input type="checkbox"/>	
214	Pesticides Subcommittee Meeting #6	Meeting agenda package; meeting summary	Matthew Heberger	06/29/20	●	<input type="checkbox"/>	
215	<input type="checkbox"/> Nutrients subcommittee meetings					<input type="checkbox"/>	
216	Nutrients Subcommittee Meeting #1	Meeting agenda package; meeting summary	Matthew Heberger	09/30/19	✓	<input checked="" type="checkbox"/>	Meeting held on July 26, 2019
217	Nutrients Subcommittee Meeting #2	Meeting agenda package; meeting summary	Matthew Heberger	12/31/19	✓	<input checked="" type="checkbox"/>	Meeting planned for Nov 14, 2019
218	Nutrients Subcommittee Meeting #3	Meeting agenda package; meeting summary	Matthew Heberger	03/30/20	●	<input type="checkbox"/>	
219	Nutrients Subcommittee Meeting #4	Meeting agenda package; meeting summary	Michael Weaver	06/29/20	●	<input type="checkbox"/>	
220	<input type="checkbox"/> Mercury subcommittee meetings					<input type="checkbox"/>	
221	Mercury Subcommittee Meeting #1	Meeting agenda package; meeting summary	Jay Davis	10/31/19	✓	<input checked="" type="checkbox"/>	
222	Mercury Subcommittee Meeting #2	Meeting agenda package; meeting summary	Jay Davis	03/30/20	✓	<input checked="" type="checkbox"/>	
223	<input type="checkbox"/> CEC Subcommittee meetings					<input type="checkbox"/>	
224	CEC Subcommittee Meeting #1	Meeting agenda package; meeting summary	Matthew Heberger	10/31/19	✓	<input checked="" type="checkbox"/>	
225	CEC Subcommittee Meeting #2	Meeting agenda package; meeting summary	Matthew Heberger	03/30/20	●	<input type="checkbox"/>	
226	<input type="checkbox"/> Toxicity work group meetings					<input type="checkbox"/>	
227	Toxicity Work Group Meeting #1	Meeting agenda package; meeting summary	Liz Miller	09/13/19	✓	<input checked="" type="checkbox"/>	
228	Toxicity Work Group Meeting #2	Meeting agenda package; meeting summary	Liz Miller	06/29/20	●	<input type="checkbox"/>	
229	<input type="checkbox"/> Data Management Subcommittee Meetings					<input type="checkbox"/>	
230	Data Management Subcommittee Meeting #1	Meeting agenda package; meeting summary	Selina Cole	12/31/19	✓	<input checked="" type="checkbox"/>	
231	Data Management Subcommittee Meeting #2	Meeting agenda package; meeting summary	Selina Cole	06/30/20	✓	<input checked="" type="checkbox"/>	
232	<b>3. Quality Assurance</b>					<input type="checkbox"/>	
233	A. QAPP Revision	Draft revised QAPP	Matthew Heberger	04/30/19	✓	<input checked="" type="checkbox"/>	
234	A. QAPP Revision	Final revised QAPP to signatories	Matthew Heberger	06/30/19	✓	<input checked="" type="checkbox"/>	
235	<b>4. Sacramento River Nutrient Change Study</b>					<input type="checkbox"/>	
236	4. Sacramento River Nutrient Change Study	Draft report/manuscript	Lisa Thompson	11/05/20	●	<input type="checkbox"/>	describing background information for the modeling applications, data acquisition, modeling results, and interpretation of results.
237	4. Sacramento River Nutrient Change Study	Final report/manuscript	Lisa Thompson	12/31/20	●	<input type="checkbox"/>	
238	4. Sacramento River Nutrient Change Study	Modeling results	Lisa Thompson	06/30/20	●	<input type="checkbox"/>	to include estimates of source water volumes and mixing at sampled locations and times, documentation on grid updates and checks of flow and stage calibration, metadata used in modeling refinements.

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Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
239	4. Sacramento River Nutrient Change Study	Particle-tracking products	Lisa Thompson	06/30/20	●	<input type="checkbox"/>	to include documentation describing the particle tracking model set-up, travel time estimates and two movie-style visualizations of particle transport.
240	<b>5. Mercury Monitoring FY19-20</b>					<input type="checkbox"/>	
241	<b>A. Field Sampling and Lab Analysis</b>					<input type="checkbox"/>	
242	A. Field Sampling and Lab Analysis	Cruise Report	Wes Heim	09/30/20	●	<input type="checkbox"/>	
243	A. Field Sampling and Lab Analysis	Electronic data deliverables of lab results	Autumn Bonnema	09/30/20	●	<input type="checkbox"/>	
244	<b>B. Mercury in Water Data Management and Quality Assurance</b>					<input type="checkbox"/>	
245	B. Mercury in Water Data Management and Quality Assurance	(1) Provisional data provided to TAC and CEC Subcommittee	Matthew Heberger	09/30/20	●	<input type="checkbox"/>	
246	B. Mercury in Water Data Management and Quality Assurance	(2) Final data published in CEDEN	Amy Franz	12/31/20	●	<input type="checkbox"/>	
247	B. Mercury in Water Data Management and Quality Assurance	(3) QA Summary, distributed to TAC and included as an appendix in annual report*	Don Yee	12/31/20	●	<input type="checkbox"/>	
248	<b>C. Mercury in Fish Data Management and Quality Assurance</b>					<input type="checkbox"/>	
249	C. Mercury in Fish Data Management and Quality Assurance	(1) Provisional data provided to TAC and CEC Subcommittee	Matthew Heberger	09/30/20	●	<input type="checkbox"/>	
250	C. Mercury in Fish Data Management and Quality Assurance	(2) Final data published in CEDEN	Amy Franz	12/31/20	●	<input type="checkbox"/>	
251	C. Mercury in Fish Data Management and Quality Assurance	(3) QA Summary, distributed to TAC and included as an appendix in annual report*	Don Yee	12/31/20	●	<input type="checkbox"/>	
252	<b>D. Mercury Interpretive Report</b>					<input type="checkbox"/>	
253	D. Mercury Interpretive Report	(1) Draft report	Jay Davis	12/31/19	●	<input type="checkbox"/>	
254	D. Mercury Interpretive Report	(2) Response to comments	Jay Davis	02/15/20	●	<input type="checkbox"/>	
255	D. Mercury Interpretive Report	(3) Final draft report	Jay Davis	02/15/20	●	<input type="checkbox"/>	
256	D. Mercury Interpretive Report	(4) Final report	Jay Davis	03/31/20	●	<input type="checkbox"/>	
257	<b>6. Pesticides Monitoring Water Year 2020</b>					<input type="checkbox"/>	
258	<b>A. Field sample collection and pesticides chemical analysis</b>					<input type="checkbox"/>	
259	A. Field sample collection and pesticides chemical analysis	(1) Field data sheets	Jim Orlando	09/30/20	●	<input type="checkbox"/>	
260	A. Field sample collection and pesticides chemical analysis	(2) Chain of Custody Forms	Marie Stillway	09/30/20	●	<input type="checkbox"/>	
261	A. Field sample collection and pesticides chemical analysis	(3) Electronic Data Deliverables of pesticide chemistry results in CEDEN template format.	Jim Orlando	09/30/20	●	<input type="checkbox"/>	
262	A. Field sample collection and pesticides chemical analysis	(4) Pesticides Chemistry Lab Report (Report to the Delta RMP; not a formal USGS Data Series Report)	Jim Orlando	12/31/20	●	<input type="checkbox"/>	
263	<b>D. Pesticides Data Management and Quality Assurance</b>					<input type="checkbox"/>	
264	D. Pesticides Data Management and Quality Assurance	(1) Pesticides chemistry QA Summary;	Don Yee	12/31/20	●	<input type="checkbox"/>	
265	D. Pesticides Data Management and Quality Assurance	(2) Spreadsheets of compiled provisional data for sharing with Technical Advisory Committee (twice annually);	Matthew Heberger	09/30/20	●	<input type="checkbox"/>	
266	D. Pesticides Data Management and Quality Assurance	(3) Data and metadata uploaded to CEDEN.	Amy Franz	12/31/20	●	<input type="checkbox"/>	
267	<b>7. CEC Pilot Study Year 1</b>					<input type="checkbox"/>	
268	<b>A. Water and Sediment Sampling</b>					<input type="checkbox"/>	
269	A. Water and Sediment Sampling	CEDEN Templates Field Data and Collection Info	Matthew Heberger	06/30/21	●	<input type="checkbox"/>	
270	A. Water and Sediment Sampling	SWAMP Field Data Forms	Matthew Heberger	06/30/21	●	<input type="checkbox"/>	
271	A. Water and Sediment Sampling	Completed Chain of Custody Forms	Matthew Heberger	06/30/21	●	<input type="checkbox"/>	
272	A. Water and Sediment Sampling	Permit from County Parks	Matthew Heberger	06/30/21	●	<input type="checkbox"/>	
273	<b>B. Bivalve Sampling</b>					<input type="checkbox"/>	
274	B. Bivalve Sampling	CEDEN Templates Field Data and Collection Info	Aroon Melwani	09/30/20	●	<input type="checkbox"/>	
275	B. Bivalve Sampling	SWAMP Field Data Forms	Aroon Melwani	09/30/20	●	<input type="checkbox"/>	
276	B. Bivalve Sampling	Field Report (1 for each annual event)	Aroon Melwani	09/30/20	●	<input type="checkbox"/>	

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Task	Deliverable	Assigned To	Due Date	Status	Due Date Extended	Complete	Comments
277	B. Bivalve Sampling	Scientific Collection Permit Reports	Aroon Melwani	09/30/20	●	<input type="checkbox"/>	
278	<b>C. Fish Sampling</b>					<input type="checkbox"/>	
279	C. Fish Sampling	(1) Field Collection Info in the CEDEN template	Wes Heim	09/30/20	●	<input type="checkbox"/>	
280	C. Fish Sampling	(2) Chain of Custody Forms	Wes Heim	09/30/20	●	<input type="checkbox"/>	
281	C. Fish Sampling	(3) Cruise Report	Wes Heim	12/31/20	●	<input type="checkbox"/>	
282	<b>D. Chemical Laboratory Analysis</b>					<input type="checkbox"/>	
283	D. Chemical Laboratory Analysis	Electronic data deliverables in CEDEN templates submitted by labs to ASC.	Weck Labs	09/30/21	●	<input type="checkbox"/>	
284	D. Chemical Laboratory Analysis	Electronic data deliverables in CEDEN templates submitted by labs to ASC.	Vista Labs	09/30/21	●	<input type="checkbox"/>	
285	D. Chemical Laboratory Analysis	Electronic data deliverables in CEDEN templates submitted by labs to ASC.	SGS Axys Labs	09/30/21	●	<input type="checkbox"/>	
286	<b>E. CECs in water data management and quality assurance</b>					<input type="checkbox"/>	
287	E. CECs in water data management and quality assurance	(1) Water chemistry data uploaded to CEDEN	Amy Franz	09/30/21	●	<input type="checkbox"/>	
288	E. CECs in water data management and quality assurance	(2) QA Report	Don Yee	09/30/21	●	<input type="checkbox"/>	
289	<b>F. CECs in sediment data management and quality assurance</b>					<input type="checkbox"/>	
290	F. CECs in sediment data management and quality assurance	(1) Sediment chemistry data uploaded to CEDEN	Amy Franz	09/30/21	●	<input type="checkbox"/>	
291	F. CECs in sediment data management and quality assurance	(2) QA Report	Don Yee	09/30/21	●	<input type="checkbox"/>	
292	<b>G. CECs in bivalves data management and quality assurance</b>					<input type="checkbox"/>	
293	G. CECs in bivalves data management and quality assurance	(1) Bivalve chemistry data uploaded to CEDEN	Amy Franz	09/30/21	●	<input type="checkbox"/>	
294	G. CECs in bivalves data management and quality assurance	(2) QA Report	Don Yee	09/30/21	●	<input type="checkbox"/>	
295	<b>H. CECs in fish data management and quality assurance</b>					<input type="checkbox"/>	
296	H. CECs in fish data management and quality assurance	(1) Fish chemistry data uploaded to CEDEN	Amy Franz	03/31/21	●	<input type="checkbox"/>	
297	H. CECs in fish data management and quality assurance	(2) QA Report	Don Yee	03/31/21	●	<input type="checkbox"/>	
298	<b>R. Reporting</b>					<input type="checkbox"/>	
299	R. Reporting	(1) Draft report	Matthew Heberger	09/30/21	●	<input type="checkbox"/>	
300	R. Reporting	(2) Response to comments	Matthew Heberger	10/15/21	●	<input type="checkbox"/>	
301	R. Reporting	(3) Draft final report	Matthew Heberger	10/15/21	●	<input type="checkbox"/>	
302	R. Reporting	(4) Final report	Matthew Heberger	12/31/21	●	<input type="checkbox"/>	