

**RMP Steering Committee Planning Workshop
April 21, 2010
San Francisco Estuary Institute
Meeting Minutes**

Attendees:

Amy Chastain (BACWA)	Trish Mulvey (SFEI Board)
Mike Connor (EBDA)	Rachel Allen (SFEI)
Naomi Feger (SFRWQCB)	Jay Davis (SFEI)
Ellen Johnck (Bay Planning Coalition)	Sarah Lowe (SFEI)
Tom Mumley (SFRWQCB)	Rainer Hoenicke (SFEI)
Adam Olivieri (EOA/BASMAA)	
John Prall (Port of Oakland)	
Ian Wren (Baykeeper)	

By telephone:

Meg Sedlak (SFEI)

1. Goals and Chair Selection

Jay Davis presented the goals for the meeting, which were to make recommendations for 2011 special studies, to review and adjust multi-year plans by the workgroups, and to lay the foundation for developing a system of 5 year plans. The Steering Committee (SC) should identify projects for special studies for 2011 and the near future beyond 2011 (roughly 5 years), and express its priorities by designating dollar amounts or a percent of the budget for the topics. Given the current proposed projects, the SC should compare the budget with the remaining funds, and give guidance on how to allocate it.

Dr. Davis asked that the SC focus on the big picture, in order to give useful general feedback without getting hung up on the many details of this complex Program.

Given that Kevin Buchan, the chair of the SC, was not present, an acting chair was selected to manage the discussion. Tom Mumley suggested that if important issues arose that were not pertinent to this discussion that they be noted, and addressed at a later date. He also suggested that a time-keeper be appointed to keep the discussion within the allotted times and ensure that the discussion made progress.

Trish Mulvey volunteered to be the time keeper, and Rainer Hoenicke agreed to serve as the chair.

Ellen Johnck asked about the process for the meeting – given that all of the present parties are dischargers and have specific interests, should the representatives “keep their hats on”, and represent the interests of their constituents, or focus on the larger interest to come to a consensus? Jay Davis responded that all the ideas and interests of the individual groups were needed, so that the RMP can meet the needs of all of its stakeholders. However, a consensus would also be necessary at the end of the day.

Trish Mulvey suggested that 5 minutes at the end of the meeting be set aside for a “plus/delta” discussion of the meeting.

2. Anticipated Management Decisions and Policies and Information Needs to Support Them

Mike Connor posed the questions “what are the main things that we can do that will change our actions?” and “if we had better science, how would we manage differently?” He suggested that with the legacy contaminants, there is little to be done that would affect management actions, and that RMP money should be spent where it can have the most impact on management.

Adam Olivieri suggested that science questions be put in the long term plan, while management questions be addressed in the short term. Trish Mulvey asked “if we could only affect one thing, what would it be?”

Referring to Table 1 on the perspective of the Regional Board, Tom Mumley stated that the top priority is improving the understanding of the Bay in order to make informed decisions. Regarding resources, emphasis should be put into selection of special studies, aside from small tweaks that could be made in the future on Status and Trends monitoring. He is interested in creating a sense of which studies are “must do,” which are “limited,” and which are “optional.” He also provided a “SF Bay Tiered Risk and Action Based Monitoring of Emerging Contaminants” handout, which gave the examples of pyrethroids and PBDEs being of high concern, while pharmaceuticals and personal care products are of less concern. He suggested that the SC consider “what we can do that will make a difference? What will happen if we don’t do anything?”

Table 1. Regional Water Quality Control Board Priority Anticipated Decisions and Information Needs

Anticipated Water Board Management Decisions, Policies, and Actions	Timing	Information Needs from RMP	Information Needs from Other Programs
<i>Determination of Reasonable Potential and permit limits</i>	Ongoing	Pollutant status and trends in water	
<i>Biennial 303(d) List</i>	2010-11 2012-13	<ul style="list-style-type: none"> • Pollutant status and trends in water, sediment, and/or biota • PAH impairment threshold • PBDEs impairment threshold 	<ul style="list-style-type: none"> • PAH impairment threshold • PBDEs impairment threshold
<p><i>Mercury</i> Review the TMDL and evaluate new and relevant information from monitoring, special studies, and scientific literature</p> <ul style="list-style-type: none"> - Determine if modifications to the targets (human health and/or wildlife), allocations, or implementation plan are necessary (methylmercury focus?) <p>-----</p> <p>SF Bay Mercury TMDL 2.0 TMDL 2.0 alternatives include: segmentation, methyl mercury or bioavailable mercury basis for allocations, revised allocations</p>	<p>2011-13</p> <p>-----</p> <p>2016-18</p>	<ul style="list-style-type: none"> • Synthesis paper which contains updated conceptual model based on review and interpretation of special studies and other work by RMP and others • Revised mercury strategy (and modeling strategy) to make sure RMP studies provide support for TMDL 2.0 	
<p><i>PCBs</i> Review the TMDL and evaluate new and relevant information from monitoring, special studies, and scientific literature</p>	2014-15	<ul style="list-style-type: none"> • Synthesis paper which contains updated conceptual model based on review and interpretation of 	

Anticipated Water Board Management Decisions, Policies, and Actions	Timing	Information Needs from RMP	Information Needs from Other Programs
<p>- Determine if modifications to the allocations or implementation plan are necessary</p> <p>-----</p> <p>SF Bay PCBs TMDL 2.0 TMDL 2.0 alternatives include: segmentation, delisting, revised allocations</p>	<p>-----</p> <p>2019-20</p>	<p>special studies and other work by RMP and others</p> <ul style="list-style-type: none"> • Revised PCBs strategy (and modeling strategy) to make sure RMP studies provide support for TMDL 2.0 	
<p><i>Copper</i></p> <p>Ambient levels below triggers? Site-specific objectives provisions</p> <p>Reevaluation of the site-specific objectives</p> <ul style="list-style-type: none"> • Assessment of continued appropriateness of the SSOs should conditions change in Bay water quality • Assessment of sediment toxicity • Assessment of possible effects on olfactory system of salmonids 	<p>Annually</p> <p>Triennially (2012)</p>	<p>Three-year rolling mean of copper in water concentrations in segments of the Bay</p> <ul style="list-style-type: none"> • Dissolved organic carbon level trends in segments of the Bay • Investigation possible copper sediment toxicity • Investigation possible sublethal effects on salmonids 	
<p><i>Cyanide</i></p> <p>Antidegradation policy? Ambient levels below 1.0 µg/L?</p>	<p>Triennially (2012)</p>	<p>Cyanide in water concentration in segments of the Bay</p>	
<p>Selenium</p> <p>North Bay Selenium TMDL</p> <p>South Bay Selenium TMDL</p>	<p>2012-14</p> <p>> 2015</p>	<p>TMDL Project Plan forthcoming (speciation data needed?)</p>	

Anticipated Water Board Management Decisions, Policies, and Actions	Timing	Information Needs from RMP	Information Needs from Other Programs
		Mass balance and food web models	
<i>Legacy Pesticides (DDT, Dieldrin, Chlordane)</i> Determination of recovery trend and “simple” TMDL based on PCBs TMDL	2012-13	Status and trends in sediment and large fish (and small fish) One-box model	
Dioxin Review/reissue permit requirements TMDL project plan ----- TMDL TMDL alternatives include: segmentation, delisting, non-TMDL regulatory action(s)	2013-14 ----- 2017-19	<ul style="list-style-type: none"> • Synthesis paper which contains updated conceptual model based on review and interpretation of special studies and other work by RMP and others • Revised Dioxin strategy (and modeling strategy) to make sure RMP studies provide support for TMDL 	
<i>Sediment Quality Objectives</i> 303(d) listings Determination of reasonable potential and permit requirements	2010-11 2010-11	Status and trends data Stressor identification plan Source identification plan	
<i>Emerging Contaminants</i> Water Board Emerging Contaminants Strategy - Tiered risk and action based monitoring plan	2010-11	Synthesis of RMP and other data	
<i>Nutrients</i> New estuarine numerical endpoints	2012-15		<ul style="list-style-type: none"> ▪ Nutrient endpoints ▪ Conceptual model

Anticipated Water Board Management Decisions, Policies, and Actions	Timing	Information Needs from RMP	Information Needs from Other Programs
Assessment of ammonia toxicity			
<i>Municipal Regional Stormwater Permit</i>	2010 and beyond	<ul style="list-style-type: none"> ▪ Local tributary load monitoring ▪ Watershed modeling to develop regional load estimates ▪ Watershed modeling to predict effectiveness of management actions ▪ Data to support load modeling 	<ul style="list-style-type: none"> ▪ Local tributary load monitoring ▪ Watershed modeling to develop regional load estimates ▪ Watershed modeling to predict effectiveness of management actions ▪ Data to support load modeling
<i>LTMS-DMMP-Regional Sediment Management</i>	2010 and beyond	<ul style="list-style-type: none"> ▪ Suspended sediment monitoring ▪ Ambient sediment quality data from Status and Trends 	<ul style="list-style-type: none"> ▪ Additional suspended sediment monitoring ▪ Updated bathymetry ▪ Additional model input data
<i>Dredging Permits</i>	2010 and beyond	<ul style="list-style-type: none"> ▪ Threshold for PAH effects on fish 	<ul style="list-style-type: none"> ▪ Threshold for PAH effects on fish
<i>LTMS-DMMP: Wetland Restoration</i>	2010 and beyond	<ul style="list-style-type: none"> ▪ Regional status and trends monitoring of methylmercury in the food web 	<ul style="list-style-type: none"> ▪ Local monitoring of specific projects

Ellen Johnck responded to Mike Connor's challenge, agreeing that it is one way to be visionary, however the RMP is still required to maintain compliance with the laws and regulations.

Trish Mulvey asked which of Tom Mumley's list needed RMP support, and what kind? She suggested color-coding the table to indicate this.

Tom Mumley replied that a process will be needed to evaluate the tiered risk of emerging contaminants (EC), but this can be guided by the results of the Mussel Watch pilot. While it is not the focus for this meeting, the tiered risk figure should be populated as the planning process continues. Naomi Feger suggested that it be sent to the Emerging Contaminants Workgroup (ECWG) to make recommendations to the TRC.

Tom Mumley noted the SC has not yet planned to invest in EC research beyond 2011, and that no management activities are planned. However, the State Water Resources Control Board released the "Monitoring Strategies for Chemicals of Emerging Concern (CECs) in Recycled Water" paper on April 15, 2010, and there are many directions for future EC research.

Referring to Table 1, Mike Connor suggested that pyrethroids should also be included, and that information on loading and pyrethroid control, such as their pathways, usage, and location in the Bay Area, could make a positive change. It is possible that toxicity in the Bay is linked to pyrethroids, and there is no good mass balance information on pyrethroids. He suggested that the RMP develop a pyrethroid strategy and a flame retardant strategy. Mike Connor recommended developing a pyrethroid workgroup, and funding a white paper on what is understood. Trish Mulvey asked what additional information on pyrethroids is need for action. Mike Connor suggested that sources, uses, and mass balance information would be valuable. Amy Chastain noted that different pyrethroids are present in wastewater and stormwater.

Tom Mumley responded that beyond outreach, the Regional Board is not able to affect pesticide control, and that other than possibly a 303(d) listing, the role of the RMP is unclear.

Adam Olivieri noted that permit requirements are driving his information needs, and suggested that emerging contaminants are one area where the RMP could help with permit requirements. The RMP will be monitoring 2-3 of the required 8 stations for stormwater loading studies. He also suggested that the RMP not focus its efforts on method development, but rather implementing known methods in the Bay Area, to determine what the next generation of contaminants of concern will be.

Ian Wren asked what the regulated communities needed from the RMP to maintain compliance.

Ellen Johnck mentioned that the dredging community is interested in having fewer obstacles to reusing sediment in the Bay. Mike Connor asked what information the RMP could collect in order to determine if it is appropriate to reuse all dredged sediments in the Bay. Ellen Johnck replied that a reduction in regulations, such as for selenium, would be needed.

Rainer Hoenicke suggested that information needs be divided into two categories: 1) regulatory requirements, i.e. things that have to happen, and 2) special studies, and other information needs that are necessary in order to initiate action.

Regarding mercury, Tom Mumley noted that POTWs are no longer considered drivers, but rather that stormwater loading is more important. A total maximum daily load (TMDL) 2.0 is needed for mercury, especially for the dredgers, because the current TMDL prevents contaminated sediments from being put back in the bay. He asked that a synthesis of what has been learned about mercury in recent years and what we can do about it be completed in 2011. Mike Connor suggested that funding for a mercury synthesis be allocated in 2011.

For PCBs, Tom Mumley stated that a change in the TMDL could affect the POTWs and stormwater agencies.

Rainer Hoenicke asked how the RMP could prevent future problems from occurring, such as selenium. Amy Chastain suggested that nutrients, ammonia, copper, and selenium could all be potentially managed to achieve greater water quality benefit, and that all of the regulated communities were in agreement that more management of these may be necessary, except, perhaps, the dredgers.

Ellen Johnck suggested that RMP efforts could be linked to the dredged material management plan slated to be completed in 2012. There is currently an ongoing dialogue with NOAA fisheries to identify guidelines for which treated materials can be used for construction in the Bay, and coordination with the Regional Board on these issues could be helpful.

Trish Mulvey suggested that the SC agree with the list of contaminants created by Tom Mumley, and suggested that a 4th column be added, indicating the anticipated source of information.

Mike Connor suggested also allocating funds in 2011 for a PCB synthesis paper. He recommended delaying nutrient work for a year, to see how the State Board process turns out. He would like to see a workgroup or strategy for nutrients that mimics those for sediments and pyrethroids, and a conceptual model for nutrients, though it is not urgent.

Rainer Hoenicke added that food web effects are a key issue from the IEP, and that after 2012, this is a potential information need.

Regarding pyrethroids, Sarah Lowe clarified that there is a pyrethroid data set beginning in 2008. Tom Mumley stated that current funding for pyrethroids, coming from a pesticide project, is expected to sunset, and that this will be an issue if new funding sources are not identified. Pyrethroids should be monitored in tributaries along with the Bay. Although it is possible that pyrethroids are a driver in sediment toxicity, Sarah Lowe stated that to date all Bay sediment samples have been non-detects for pyrethroids. She mentioned that in 2004, pyrethroids were detected in tributaries, but at low levels. Naomi Feger suggested developing a pyrethroids strategy, which could possibly be folded into an existing workgroup, which would help resolve the question of how much the RMP should cover the municipal monitoring requirements.

Naomi Feger mentioned that nutrients are receiving lots of attention at the federal level, and asked what the RMP could do on this issue locally. Tom Mumley added that the Bay is not currently under stress from nutrients, but it may be in the future, and the amount of impact management actions can have on that is unclear. Rainer Hoenicke suggested that the RMP keep track of the national nutrient work.

Ellen Johnck mentioned a new permit on marinas that may come from the State Water Board focusing on continuing levels of tributyl tin and copper from anti-fouling paint in southern California. Amy Chastain mentioned that it could increase funds for the RMP if new members of the regulated community are identified.

Ellen Johnck added that PAHs have not recently been an obstacle for moving dredged material, because there have not been excessive PAH levels recently. Naomi Feger and Mike Connor added that environmental concerns from dredging stem more from the plumes created by the propellers and wakes of large ships that are enabled to enter the Bay by the dredged channels, rather than the dredging plumes. Ellen Johnck suggested that the RMP should have a closer relationship with NOAA fisheries, which regulates the effects of dredging on fish populations. Rainer Hoenicke mentioned that the RMP already is collaborating with NOAA on a study of PAH impacts on Bay fish.

Mike Connor mentioned that the scientific issues related to shallow water discharges have changed, and suggested that questions such as replacing old pipes and mixing zones should be readdressed, to consider encouraging more shallow water dischargers. Adam Olivieri agreed with Mike Connor, and stated that shallow water discharge is allowed, but cautioned that the benefits of dilution, from deep water discharge, may override the simplicity of shallow water discharging. Tom Mumley added that responding to answers to this question could become very costly, and to address it would require a better understanding of the shallows and near field impacts.

Tom Mumley suggested that stressor identification work would not improve management, however Sarah Lowe pointed out that the work to date enables the elimination of concern about certain classes of contaminants such as nutrients or metals.

Tom Mumley mentioned that trash in the tributaries and the Bay was another issue that the RMP could address. Mike Connor suggested that if trash could be managed at the

tributaries, then it would no longer be an issue in the bay, however Trish Mulvey pointed out that there are other pathways of trash to the Bay, so it would still need to be addressed. Jay Davis said it would be possible to add trash to the RMP's standard water quality monitoring; however it is not as straightforward as it would appear. Monitoring methods are still in development, and the RMP is still hoping to learn from the Ballona Creek project in Southern California and other efforts. Jay Davis noted that the small plastic particles are abundant in ocean waters and are likely to be found in the Bay as well.

ACTION ITEMS

- The tiered risk figure for CECs should be populated as the planning process continues – it should be sent to the Emerging Contaminants Workgroup (ECWG) to make recommendations to the TRC
- Develop a pyrethroid strategy
- Develop a nutrient strategy

3. Existing Plans and Budgets

Jay Davis described the RMP five year plan budget spreadsheet (attached), which lays out the estimated funds the RMP will use in the broad program areas (program management, status and trends, and special studies) in the next 5 years. He pointed out that program management costs generally increase at a rate of 3% per year (unlike the typical RMP fee increase of 2% per year based on Bay Area consumer price index); this will be discussed at the next RMP SC meeting. Whether the Status and Trends money is being spent as well as possible will also be addressed at a later date. The allocation of the budget for special studies for 2011 and beyond was the focus of the current discussion.

Jay Davis outlined the status of the existing strategies to address funding by subject matter:

1) The mercury strategy had a 3 year plan that will finish in 2010. When final reports from various projects are being finished, a synthesis report would be appropriate to assess what to do next, including evaluation of the Diffusive Gradient in Thinfilm (DGT) and isotope projects. Jay Davis mentioned that it is a priority of the RMP to include small fish sampling in status and trends monitoring, however the next steps are unclear.

Tom Mumley agreed that continuing small fish in S&T is important.

2) The PCB strategy was developed more recently. The PCB team recommended that the conceptual model for PCBs be updated. The strategy pointed out information needs in spatial patterns and food web uptake.

3) The dioxin strategy is an ongoing 4-5 year program that mixes status and trends monitoring with special studies, such as the coring project. Eventually, it will be necessary to consider developing a TMDL, though more loading information is needed.

4) Emerging contaminants projects currently include a literature review by SFEI staff and a screening of chemicals in biota using a broadscan analytical approach. 2011 would be a good time to reassess where funding should be directed.

5) The small tributary strategy is dominated by the integration with the MRP. In future years, the strategy will move towards modeling, to extrapolate loading from a few watersheds to the entire population of watersheds flowing into the Bay.

6) Other Sources, Pathways, and Loadings projects include the 5 year monitoring of loads from the Central Valley, and developing an atmospheric deposition strategy, perhaps beginning atmospheric deposition studies in 2012.

7) Exposure and Effects projects include a study on the sensitivity of terns to PBDEs, Sediment Quality Objectives (SQO) assessment tool development, the effects of copper in salmon project slated for 2011, and the high priority information need on the effects of ammonium on phytoplankton.

8) Forecasting projects include the long-term Bay modeling plan, and the bioaccumulation conceptual model, which is scheduled to happen in the second half of 2010.

9) Other projects are not yet included, but should not be ruled out just because they do not fit into the existing strategies.

The SQO project receives a combination of S&T and special study funding, so it is listed independently on the budget spreadsheet.

Jay Davis created Table 2 during the meeting to document the workshop consensus on the long-term and short-term information needs for pilot and special studies.

Table 2. Short term and long term pilot and special study priorities for the RMP.

TOPIC	Next 3 Yr	Beyond 3 Yr	COMMENTS
Mercury	50K Synth	Unclear	Need synthesis, more work to come after
PCBs	50K Synth	Unclear	Need synthesis, more work to come after
Pyrethroids	Synth SQO drivers, 50K in 2012		
Dioxins	20K One box model 2013	20K more synthesis in 2013	One box model timing better after S&T work in 2012
Emerging Contaminants	50K Synth (2011??)	Unclear	Need synthesis, more work to come after
Small Tribs	250K Monitoring, possibly \$100K land use work related to modeling	Monitoring and modeling	Monitoring is clear need, need for near-term timing of land use and modeling work not clear – consider proposal and rationale from WG
Other Sources, Pathways, ...			Consider Air Dep in 2012 based on Strategy to be developed in 2010
Forecasting (Modeling)	~80K per year, may need to be more	Continued at similar level	Budget projection probably low
Nutrients	Develop strategy in 2012 or 2013		Too early in 2011. Not urgent, is existing state effort likely to succeed or does RMP need to pitch in? State effort may answer some questions. Conceptual model is being developed.
Bacteria	Develop strategy		Develop strategy in 2012 or 2013. Include consideration of shellfish survey.
SQO: Benthic assessment tools	Consider EEWG recommendation for 2011		EEWG to make recommendation (consider Sarah Lowe's proposals and other possibilities)
SQO: Sed Tox Stressor ID	Consider EEWG recommendation for 2012		EEWG to make recommendation after completion of current studies
Sediment Reuse Scoping	Coordination with LTMS to begin in 2012 (?? Why not 2011?)		Consider relaxed restrictions on reuse. Discuss needs with LTMS & DMMP then develop study plan
Sediment Cores			Consider as part of evaluation of S&T
Ammonium and Phytoplankton			Consider along with other nutrient issues in 2012 or 2013. Dugdale's work

			dubious.
Trash particles			Consider proposal when methods are available

Tom Mumley reiterated the earlier conclusion, that syntheses of mercury and PCB information are needed before more projects should be funded. A synthesis of emerging contaminants should also be added to the plan. Regarding concern about SFEI capacity to perform the work, Jay Davis said that he anticipates that SFEI will have the capacity to do this work, and if there are no SFEI staff who could take this on, it could be contracted out.

Tom Mumley suggested that given the overview of studies, a reassessment could be made on the long-term studies. The small tributary project is set to use \$250K in 2011, however it may not be capable, due to staff capacity issues, to use the \$100K slated for the land use study. He suggested that that funding could be redirected to another project. Jay Davis will take this feedback on the land use study back to the SPL workgroup. Given that the RMP will cover 2-3 of the stormwater monitoring sites required by the MRP, Adam Olivieri suggested increasing the \$250K slated for this work. Adam Olivieri stressed the importance of making sure we succeed at monitoring and funding this work appropriately before investing in the forecasting work.

Adam Olivieri asked if the modeling money could be redirected, and the project postponed, but Trish Mulvey cautioned that the project is long-term and slow, so derailing its funding would be harmful. Tom Mumley suggested a review of the modeling workplan, and funding field projects that will gather data of value to the modeling effort, in advance of their needs. Mike Connor noted that other groups (e.g., MacWilliams and Gross) are active in modeling the Bay and we should avoid duplication of effort.

Amy Chastain suggested looking at bacteria, and the SCCWRP background study, as this might have regulatory implications. Tom Mumley mentioned that there are statewide efforts looking at bacteria in shellfish and creating freshwater standards, and national work through the EPA. How this work will apply in the Bay is of interest, but there are no locally directed bacteria projects in the near future.

Ian Wren mentioned that stormwater can have high bacteria levels, though Mike Connor added that outfalls are unimpacted. There are monitoring methods in development in southern California, so Trish Mulvey suggested that bacteria work be added to the long-term “to do” list and Table 1. Mike Connor commented that most lawsuits in the next few years are likely to relate to bacterial issues.

Regarding pyrethroids, Adam Olivieri stated that they are an issue in the Bay, and are driven by inputs from streams. Sarah Lowe mentioned that a screening study is underway, to assess whether pyrethroids are linked with sediment toxicity, and will be addressed by the Exposure and Effect Workgroup.

Mike Connor suggested that a synthesis of SQO drivers be compiled, which will help determine new contaminants that should be addressed in the RMP and in 303(d) listings. It will also work on the spatial scale of potential listings.

Tom Mumley mentioned that approval of the 2008 listing recommendations is now wrapping up and the 2010 listing process is already underway for approval in 2012. Whatever SQO data are available needs to be considered in the next listing. As a cutoff date, he stated that 2009 data should be incorporated, but 2010 data will not be available by the summer 2010 cutoff date. Sarah Lowe added that 2008 benthos data are available, and the 2008 SQO data as a whole are almost ready, and that 2009 data will be ready in July of 2010.

Tom Mumley clarified that the State Board will include pyrethroids on the 2010 list, but only at Kirker Creek in this region. Sarah Lowe noted that two more toxicity workgroup meetings focused on stressor identification will occur before the end of 2010, which will inform the best areas to focus funds for further stressor ID research. Sarah Lowe added that while the toxicity workgroup considers this work to be important, it is focused on methods development, which the RMP may consider too research heavy. The RMP needs to consider whether it wants to pay for this work to continue. The toxicity identification studies are also determining what is not causing toxicity, which is also an important result.

Jay Davis suggested letting the Exposure and Effects Workgroup (EEWG) know that the SC considers drivers of sediment quality impacts to be an important issue, with listings for 2012 on the horizon, and that a sensible study for 2011 would be considered by the SC.

Mike Connor suggested that the dioxin strategy studies be accepted for 2011, but that the modeling work be pushed back to 2013, in order to incorporate data from empirical studies in 2011 and 2012. Tom Mumley suggested that by 2013 or 2014, a synthesis effort on dioxins will be needed to reassess management, such as a TMDL.

Tom Mumley suggested that the copper in salmon study be locked down for 2011. Jay Davis marked these studies accordingly on the budget spreadsheet.

Mike Connor suggested that a regional rainfall tool be a high priority, to set a standard set of rainfall data in the Bay Area.

ACTION ITEMS

- Jay Davis will take feedback on concerns that the land use study is premature back to the SPL workgroup.
- Include bacteria in Table 1.
- Include pyrethroids in Table 1.
- Jay Davis inform the Exposure and Effects Workgroup (EEWG) that the SC considers drivers of sediment quality impacts to be an important issue, and that a sensible study for 2011 would be considered by the SC.

4. General Program Priorities for the Next Five Years

Regarding future long-term projects, Adam Olivieri asked what the gaps in the small tributary loading strategy were. Tom Mumley clarified that the air regulatory community would not contribute to pollutants research, as they are concerned solely with direct human health issues. Given that the regulatory agencies for water quality can do nothing about air as a source of pollution, it should not be a funding priority.

Mike Connor and Adam Olivieri suggested that a proposal for nutrient work be prepared for 2012-2013.

Adam Olivieri commented that he would like to see information gaps for mercury and PCBs filled in the years after the synthesis efforts in 2011.

Mike Connor also suggested that studying the effects of ammonium on phytoplankton would not be a good use of RMP funds, because the work by Dick Dugdale did not fare well in peer review.

Sarah Lowe summarized the status of sediment toxicity evaluations: that a strategy will be prepared by the end of 2010, and proposals for 2012 would be created based on that strategy. Ellen Johnck supported all sediment toxicity work, on behalf of the dredgers, and expressed hope that toxicity thresholds for dredged material disposal will be reconsidered.

In the long term, sediment reuse management will need to be addressed, taking into account sea level rise and impacts from shipping-generated sediment plumes, potentially moving forward on sediment cores, and evaluating how management will affect other communities, such as boating marinas. Rainer Hoenicke suggested that funding for sediment strategy coordination be set aside every year, enabling the RMP and the dredgers to participate in this discussion. Mike Connor suggested that future status and trends monitoring consider replacing the existing sediment sampling with sediment coring. A joint discussion with the LTMS to determine information needs was recommended.

Rainer Hoenicke suggested that the standardization of taxonomy for the SQO be added to the proposals for 2011, following the lead of SCCWRP. Jay Davis will take this idea to the EEWG. Sarah Lowe mentioned that developing a resource for the SF Bay taxonomy was exactly the new proposal she had planned on submitting to the EEWG this year, per the standard procedure for soliciting pilot and special studies. Jay Davis clarified that this method is still viable for proposing new work.

Tom Mumley clarified that the SC is attempting to give a context for the special studies proposals, but that it is not refusing other innovative ideas, and Jay Davis mentioned that there is still unallocated funding from 2010 and for 2011.

Jay Davis summarized the proposals to be considered for 2011 pilot and special studies funding in Table 3. Some items were discussed prior to or following the SC planning workshop, but are still included in the summary table.

ACTION ITEMS

- A joint discussion with the LTMS to determine information needs.
- Jay Davis will take to the EEWG the idea for standardization of taxonomy for the SQO.

Table 3. Proposals to be considered for RMP Special Studies funding in 2011.

Proposals to be considered for 2011

Topic	Explanation
Mercury Synthesis	Per SC Workshop discussion.
Mercury Food Web Uptake (Small Fish)	Consider minimal work to maintain time series.
Mercury High Leverage Pathways (Isotopes)	End of project good time to hear Blum's ideas for potential next steps.
PCB Conceptual Model Update	Per SC Workshop discussion.
Dioxins Water	Per SC Workshop discussion.
Dioxins Small Tributary Loading	Per SC Workshop discussion.
EC Broadscan Screening	Per SC Workshop discussion.
EC Synthesis	Per SC Workshop discussion.
STLS Regional Loadings Estimates	Small item recommended by STLS
STLS POC Load Monitoring in Representative Watersheds	Per SC Workshop discussion.
STLS Monitoring at Representative Land Use Sites	Per SC Workshop discussion.
Benthos Understanding and Improving Assessment Tools	Per SC Workshop discussion.
Effects of Copper on Salmon	Per SC Workshop discussion.
EC Endocrine Responses in Fish	End of project good time to hear Kelley's ideas for potential next steps, other investigators interested in submitting as well
Modeling Fieldwork to support South Bay Hotspot / Tributary Modeling	Special case: proposal to come at end of 2010. Budget allotment requested now. To be explained at May SC meeting.
Modeling South Bay Sediment Model	Special case: proposal to come at end of 2010. Budget allotment requested now. To be explained at May SC meeting.
Modeling Coordination	Small item recommended by CFWG
Trash Monitoring	Per SC Workshop discussion. Consider proposal when methods are worked out. If methods are ready now, consider for 2011.

* Allot funds for this work in 2011 – only proceed if adequate progress is made in 2010

5. Plus/Delta Assessment of SC planning process

Trish Mulvey asked how often the SC should plan on reassessing the future goals in the manner of this Workshop. She supported the members present and the size of the group. Tom Mumley agreed that it should be built into the annual cycle of RMP planning and should occur between January and early spring, in order to inform each year's proposals and provide direction to the workgroups. Trish Mulvey suggested that it be incorporated into the January SC meeting. Tom Mumley then suggested that a separate meeting in February would be better.

Tom Mumley pointed out that the synthesis work that is targeted for 2011 may not be able to inform the projects for 2012, because of the yearly planning cycle, though Jay Davis suggested that those projects could be completed early enough in 2011 to inform the planning meeting in 2012 if it is held later in the year. Adam Olivieri therefore suggested that Jay Davis determine when the next planning meeting should occur. Trish Mulvey also asked that Jay Davis inform the TRC about this planning process, so they know the results of the meeting and are prepared for the future multi-year strategy.

#	Action Items – April 2010	Who?	When?	Status 8/4/2010
1	Ask the ECWG to populate the tiered risk figure for CECs as the planning process continues, and make recommendations to the TRC.	Susan Klosterhaus, Meg Sedlak	Next ECWG meeting	
2	Develop a pyrethroid strategy	Meg Sedlak, Jay Davis	2012	
3	Develop a nutrient strategy	Meg Sedlak, Jay Davis	Not determined	SFEI and SCCWRP will hold a joint meeting on nutrients in spring 2011
4	Inform the SPLWG that the SC feels the land use study is premature	Jay Davis	Next SPLWG meeting	Done
5	Add bacteria and pyrethroids to Table 1	Jay Davis, Tom Mumley	August	
6	Ask the EEWG to recommend a study on drivers of sediment quality impacts for 2011.	Jay Davis	May	Done
7	Hold a joint discussion with LTMS to determine information needs	Meg Sedlak and Ellen Johnck	Fall	
8	Suggest standardizing the taxonomy for SQO to the EEWG	Jay Davis	Next EEWG meeting	Done
9	Determine when the next SC planning meeting should occur (10 -14 months from April 2010)	Jay Davis	August SC meeting	
10	Inform the TRC about the new multi-year planning process	Jay Davis	June	Done