

Workgroup Activities – First Quarter 2014

A. Contaminant Fate Workgroup

Purpose of Workgroup

The purpose of the workgroup is to evaluate the fate of contaminants in the Bay, to understand the contribution of Bay margins to the overall health of the Bay, and to assess the potential impacts of Bay management actions on Bay recovery.

Meetings:

None.

Milestones:

- Completed Nutrient Conceptual Model.
- Completed a draft coring manuscript.

Activities for the First Quarter of 2014:

- Preparing for PCB and Selenium Strategy meetings for 2nd quarter

For more information, see previous CFWG minutes and agendas at our website <http://www.sfei.org/rmp/cfwg> or contact the CFWG leader, Don Yee, at don@sfei.org.

B. Sources Pathways and Loading Workgroup (SPLWG)/Small Tributaries Loading Strategy Work Group (STLS)

Purpose of Workgroup

The purpose of the workgroup is to monitor storm water, small tributaries, and Delta outflow to understand contaminant loads to the Bay, to identify high priority tributaries for management actions, to evaluate how loads are changing over time, and to assess possible options for improving water quality.

Meetings:

The workgroup will meet on **May 29th, 2014** from 10 AM to 4 PM.

The STLS group continues to hold monthly phone conferences to discuss project progress on the sediment, PCB, and Mercury RWSM and POC monitoring.

Milestones:

- WY 2013 Pollutant of Concern Loading report has been completed. BASMAA has reviewed and approved the document.

WY2013 EMC Development Report/ Regional Watershed Model Report. This report discusses regional-scale water, sediment, PCB, and mercury loads.

Activities for the First Quarter of 2014:

- Begin planning for WY2015 monitoring
- Begin planning for WY2014 report
- Although 2013/2014 was a very dry year, we completed storm water monitoring at the Richmond location. We have approximately 5 more storm events scheduled for the Sunnyvale site (weather permitting).

For more information, see SPLWG minutes and agenda at our website

<http://www.sfei.org/rmp/splwg> or contact the SPLWG lead, Lester McKee, at Lester@sfei.org.

C. Exposure and Effects Workgroup

Purpose of Workgroup

The Exposure and Effect workgroup (EEWG) seeks to answer the following questions: Are pollutants individually or in combination having adverse impacts on Bay biota?; Are there spatial and temporal trends?; Which pollutants are responsible for the impacts?; Are there cost-effective tools that can be used to easily monitor these impacts?; and What are the appropriate guidelines?

Meetings:

- None to date

Milestones:

- Completion of 2008-2012 SQO Assessment report; reviewer comments were received and addressed, the final version has been posted to the web.
- Completion of the Bioanalytical Year 1 Progress report (sent to workgroup for comment). Final report for Year 1 activities will be completed in May 2014.

Activities for the First Quarter of 2014:

- Continuation of work on the Mesohaline Index Development (SCCWRP). The BPJ exercise has been completed and a progress report will be submitted by March 28th. SCCWRP will then request authorization to proceed on second year of funding (2013).
- Continuation of work on bioanalytical tools study (finishing Yr 1 activities).
- Development of a Selenium Strategy in response to the upcoming North Bay Selenium TMDL. The Strategy will be focused solely on monitoring. The strategy will be prepared by October 2014.
- Copper and olfactory nerve project. The study originally planned on collecting olfactory data from juvenile Chinook salmon late summer 2013 (both before and after smolting in estuarine water). A shutdown of the salmon aquaculture facility at the Mukilteo Research Station earlier this year prevented the study from being able to use Chinook salmon. Coho salmon reared at the Montlake facility in Seattle are available for the study.

However, switching to coho salmon requires that smolting occur in the spring of 2014. This is when the experiment will now take place. No additional funds are needed. A pilot experiment using older juvenile coho (too old to smolt) was planned for this fall. The experiment will involve a limited sample size and test freshwater-phase coho in both freshwater and estuarine water. The pilot was delayed as several project schedules needed to be shuffled due to the government shutdown in October. Data collection has now begun and will continue over the next few weeks.

It is likely that a conference call will be held in May to discuss progress of the Mesohaline work and a possible SQO study for 2015.. For more information, see previous EEWG minutes and agenda at our website <http://www.sfei.org/rmp/eewg> or contact the EEWG lead, Meg Sedlak, at meg@sfei.org.

D. Emerging Contaminants Workgroup

Purpose of Workgroup

The purpose of the emerging contaminant workgroup is to identify contaminants of emerging concern (CECs) that have the potential to adversely impact beneficial uses of the Bay.

Meetings:

The next ECWG meeting is scheduled for April 15th, 2014. During the meeting special studies for 2015 will be selected; additionally, the Bioanalytical Tool study, the PFOS precursor study results, alternative flame retardant work, and current use pesticide result will be discussed.

Milestones:

- Completion of the CEC strategy document.
- Completion of the PBDE summary report.
- Collection of alternative flame retardant samples in ambient Bay water during the 2013 S&T water cruise (July 30-August 8), USGS cruise (October) and City of San Jose cruise (November). Stormwater samples were also collected in November.

Activities for the First Quarter of 2014:

- Completion of the current use mapping pesticide project. The results of this study will be presented at the ECWG meeting.
- Continuation of NIST broadscan work. Samples of harbor seals manuscript is in preparation. The mussel work will be summarized in a report that will be available by the April 15th ECWG.
- Completion of the final pharmaceuticals and personal care products report which will be presented at the ECWG meeting
- Preparing for the collection of effluent and seal samples.

For more information, see previous EC workgroup minutes and agenda at our website <http://www.sfei.org/rmp/ecwg> or contact the ECWG lead, Meg Sedlak meg@sfei.org.

E. Nutrients

Purpose of Workgroup

The purpose of this workgroup is to evaluate nutrients status and trends, methods for monitoring nutrients/ indicators, and scenarios that may result in adverse impacts to the Bay. A governance structure for the broader nutrient effort is under development. The role of a nutrient workgroup and the mechanism(s) for RMP input and oversight are part of that discussion, and it is anticipated that a draft governance plan will be presented to RMP stakeholders for feedback.

Meetings

The Nutrient Modeling Technical Team met on January 16th – 17th to begin a detailed work plan for model development in accordance with the approach laid out in the recently completed modeling tactical plan, “Model Development Plan to Support Nutrient Management Decisions in San Francisco Bay”. A core group of SFEI staff and regional monitoring experts met on February 3rd and March 12th to begin drafting a Nutrient Monitoring Program Development Plan.

Milestones

- Moored sensors are currently deployed and regularly serviced at three sites in the Bay (2 with real-time data). Moored sensors also are placed on monthly cruises of the *R/V Polaris* to high spatial resolution data. Near-term priorities include data quality, calibration and visualization.
- A final draft of the “External Nutrient Loads to San Francisco Bay” was completed in January 2014.
- A final draft of “Model Development Plan to Support Nutrient Management Decisions in San Francisco Bay” was completed in January 2014.
- WY 2014 nutrient stormwater sampling occurred during several large storms in January and February 2014. The RMP funded the addition of ammonia, total kjedahl nitrogen and nitrite to nutrients already monitored through the RMP/BASMAA funded Pollutants of Concern study (nitrate, total phosphorous and orth-phosphate)

Activities for the First Quarter of 2014:

- Continued development and documentation of laboratory and field calibration procedures for the moored sensor equipment.
- Completing the stormwater nutrient loads assessment for WY 2012/2013 data (March 2014)
- Revise RMP-funded conceptual model report.
- Prepare a draft monitoring program development plan that lays out overall approach and identifies key next steps (March 2014). This document will be updated regularly as the results of data investigations and special/pilot studies become available.

For more information, please contact David Senn at davids@sfei.org or Emily Novick emilyn@sfei.org.

F. Status and Trends Sport Fish

Purpose of Workgroup

The purpose of the workgroup is to design RMP studies relating to sport fish contamination. RMP sport fish monitoring has been switched from a three-year cycle to a five-year cycle to maximize cost-effectiveness and to coordinate with state-wide monitoring efforts. The next round of sampling will occur in 2014.

Meetings

The SFWG met on December 20th, 2013 to discuss the RMP's 2014 sport fish sampling effort, including the contaminants, species, and regions that will be sampled. Sampling will occur in the spring for Shiner Surfperch and in the summer for all other sport fish species.

For more information, please contact Jay Davis at jay@sfei.org.

H. Items of Interest

Delta RMP:

The technical work of the Delta RMP is finally springing into gear. The Technical Advisory Committee has started its work and appointed technical subgroups to develop monitoring plans for the four constituent groups that were identified as the initial priorities of the program: current use pesticides, methylmercury, nutrients, and pathogens (*Cryptosporidium* and *Giardia lamblia*). Meanwhile discharge permittees and Regional Board staff are collaborating to identify a network of key locations to be monitored by the RMP that would satisfy the needs of permittees for purposes of ambient background characterizations. The plan is to integrate these various elements into a unifying design by September, with the intent to start collecting samples in 2015. For more information, contact the Delta RMP Project Lead, Thomas Jabusch, at thomas@sfei.org.

Recent Historical Ecology Projects and Presentations:

Robin Grossinger and Sam Safran co-presented with UC-Davis collaborators at the California Water and Environmental Modeling Forum in Folsom on their work to construct a 3-dimensional elevation model of the historical Delta. The project draws upon the 2-dimensional habitat layers developed by the Delta Historical Ecology project completed in 2012 and will aid efforts to model the Delta's historical hydrodynamics.

Robin Grossinger presented a talk titled "Landscape Change in the Delta, 1850 - 2000: Implications for Ecological Function" at the 2104 Annual Interagency Ecology Program Workshop in Folsom. The presentation highlighted landscape ecology analyses developed for the Delta Landscapes Project that help to compare past/present ecological functions offered by the Delta and to identify opportunities for landscape-scale restoration.

EcoAtlas and Clean Water for Clean Bay Project Updates:

In February, the San Francisco Bay and Central Valley Joint Ventures joined with SFEI-ASC in signing an MOU that fosters a shared future for EcoAtlas, the tool for visualizing the condition and extent of California's aquatic resources. This is an exciting development. All three parties have pledged to pursue funding opportunities and outreach efforts in support of the tool and its wetland project tracking capacity. Meanwhile, the Data Technical Services team has processed and reviewed two phases of data for the Clean Water for Clean Bay (CW4CB) project (Task 3 Phase 2 and Task 5 Phase 1). They will be working on datasets from two additional phases over the next few months.