

Workgroup Activities – Fourth Quarter 2013

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:

Fate workgroup will not meet this year.

Milestones:

- Conference call on September 11, 2013 with Lisa Lucas (USGS), Lee Erickson (USGS-Santa Cruz), Jim Fitzgerald (Consultant), Oliver Fringer (Stanford), Jim Cloern (USGS), Ed Gross (Bay Modeling), Craig Jones (Sea Engineering), Don Yee (SFEI), and Dave Senn (SFEI)
- Draft Nutrient Model plan (August 15th) prepared and sent to Nutrient Advisory Team and modeling team. Further work on nutrients is discussed below.

Activities for the Fourth Quarter of 2013:

- Finishing the modeling plan and schedule a nutrients model meeting for November.

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 **October 23, 2013 from 10 AM to 4 PM.**

The STLS group continues to hold monthly phone conferences to discuss project progress on the sediment RWSM and POC monitoring, and to discuss potential EMC monitoring in water year 2014.

Milestones:

Products in progress (in various stages of review):

- WY 2013 POC loads monitoring report
- RWSM 2013 regional scale water, sediment, PCB, and mercury loads report
- Draft PBDE and OC pesticides profiles to support RWSM structure submitted to BASMAA (BASMAA funding)
- Draft Sediment RWSM report submitted to BASMAA (BASMAA funding)
- Draft QAQC protocol for continuous stormwater data submitted to BASMAA (BASMAA funding)

Activities for the Fourth Quarter of 2013:

- Continued work on RWSM and EMC development.
- Stormwater monitoring for water year 2014 on-going.

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:

- The workgroup met on May 16th to discuss bioanalytical tools and EEWG projects for 2014.

Milestones:

Completion of 2008-2012 SQO Assessment report; reviewer comments were received and addressed, the final version has been posted to the web.

Activities for the Fourth Quarter of 2013:

- Continuation of work on the Mesohaline Index Development (SCCWRP).
- Continuation of work on bioanalytical tools.

The next workgroup meeting will be held in 2014. 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 ECWG met on April 5th, 2013 to discuss the recently completed strategy document, the PBDE summary report, siloxanes, and an update on the non-targeted screening of Bay Wildlife and recommendations for 2014 work.

Milestones:

- The National Mussel Watch sampling in California for chemicals of emerging concern was published in Marine Pollution Bulletin. The paper focuses on personal care products, alkylphenols, current use pesticides, flame retardants and perfluorinated compounds.
- Completion of the CEC strategy document (responded to comments).
- A manuscript on PFC sources was completed and will be submitted to a journal.
- Completion of the PBDE summary report.
- Pro bono work by AXYS Analytical on PFC precursor analyses of Bay Area effluent and sediment. The study is underway; results should be available in November.
- NIST has prepared a draft confirmation report on the seal broadscan work. Initially 9 compounds were tentatively identified using the broadscan methodology. Standards were obtained for these 9 compounds; however, only 3 were confirmed in the seal blubber samples analyzed (2,2-dichlorobenzil, 9,10 dichloroanthracene, and dichloro PAH). NIST staff concluded that for hydrophobic compounds, the bulk of the contaminants appear to be legacy POPs. A manuscript is forth-coming.
- Collection of alternative flame retardant samples in ambient Bay water during the 2013 S&T water cruise (July 30-August 8).

Activities for the Fourth Quarter of 2013:

- Evaluate Current Use Pesticides used in agricultural areas of the Bay Area.
- Continuation of NIST broadscan work. Samples of harbor seals manuscript in preparation. Mussels analyses will be conducted in the summer with a write up completed during the fall.
- Collection of alternative flame retardant samples in stormwater.

Next ECWG meeting will be held Spring 2014.

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. As discussed during the June TRC and August SC meetings, 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 would be presented to RMP stakeholders for feedback.

Meetings

The Nutrient Stakeholder Advisory Group met on June 6th, 2013. Major topics included: updating stakeholders on the major findings from the conceptual model report; updating stakeholders on the major findings from the loading study; discussion of the proposed approach to nutrient assessment framework development and of assessment white paper; and discussion of the approach for nutrient governance structure development. The Nutrient Modeling Technical Team had their second meeting on September 11th, 2013 to discuss the second draft of the Modeling Tactical Plan and plans for model development.

Milestones

- BACWA approved \$675,000 of nutrient related funding for fiscal year 2014
- 2 postdoctoral researchers were identified and hired to focus on priority studies
- Moored sensor equipment was deployed on July 3 at Dumbarton Bridge, and maintenance was conducted in late July and early August. On Sept 5th-6th, additional sensors were deployed at San Mateo Bridge and in Alviso Slough. The San Mateo and Alviso stations are pilot deployments, launched with the goal of gathering data during the fall bloom period to inform site selection in 2014. Moored sensor equipment was also included aboard the R/V Polaris full Bay cruise on 9/26/2013 and continuous data was recorded during this transect.
- Completed a draft modeling plan, and met with modeling technical advisors on September 11, 2013 (see description above under CFWG).

Activities for the Fourth Quarter of 2013:

- Continued development of laboratory and field calibration procedures for the moored sensor equipment. Sensor packages will be plumbed to the flow-through system on the USGS Polaris during additional monthly cruises. This will allow for calibration and testing across a range of conditions encountered throughout the Bay, and greatly speed up the rate at which calibration data is collected.
- Maintenance and improved deployments (e.g., installing flotation at Dumbarton, real-time infrastructure at San Mateo) at three moored sensor stations throughout September and October, and data analysis.
- Continued work on stormwater nutrient loads assessment and modeling.
- Revise RMP-funded conceptual model report and loading study.
- Begin exploring potential goals, structures and costs of a Nutrient Monitoring Program for San Francisco Bay. With the guidance of a technical advisory team, key goals of a monitoring plan will be identified, possible programmatic structures and institutional

agreements will be explored and costs estimates will be developed. A draft report of recommendations will be produced in November 2013 [This work is funded by the State Water Resources Control Board and BACWA]

- If possible, a nutrient workgroup meeting will be held in November to solicit feedback on the modeling plan, monitoring program development, and other projects..
- Work on several BACWA-funded synthesis reports and science plan development

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

Meetings

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. A planning meeting will be held late in 2013.

For more information, please contact Jennifer Hunt at jhunt@sfei.org.

G. Monitoring and Management of Restored Tidal Marshes Workshop

The Tidal Marsh Workshop, scheduled for October 9th, has been postponed due to the shutdown of the federal government. The workshop will be rescheduled and will be held at CDPH in Richmond, CA. The purpose of the workshop is to review information needs relating to managing mercury in restored tidal marshes and salt ponds in San Francisco Bay. The RMP mercury synthesis (Davis et al. 2012) recommended a focus on the design and maintenance of restored marshes and managed ponds as a means of potentially reducing methylmercury impairment in Bay wildlife. Additionally, the Mercury TMDL Implementation Plan includes monitoring of wetland restoration projects to address concerns that as restoration projects develop into fully functioning tidal marshes, they may increase the exposure of fish and wildlife to mercury. There is a need for a consistent regional approach to monitor these wetland restoration projects. The workshop will address the role wetland restoration and management play in mercury impairment locally and regionally, and the workshop will help inform decision-making about monitoring efforts.

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

H. Items of Interest

Delta RMP

The Delta RMP is progressing with monthly meetings of the Steering Committee (SC). There are three things to look out for over the next couple of months: 1) Upcoming meetings are on September 23 and October 10 and are likely going to result in a decision on the initial assessment targets between methylmercury, nutrients, pathogens, pesticides, and toxicity; 2) A resolution regarding participation in the Delta RMP in lieu of individual monitoring efforts will be proposed for adoption at the October 3/4 Central Valley Water Board meeting; 3) The October 10 SC meeting will feature an informational panel discussion with participants of the San Francisco Bay RMP and the Southern California Bight Program. Adam Olivieri (BAASMA), Dave Williams (BACWA), and Kevin Buchan (WSPA) will represent the San Francisco Bay RMP. For more information, contact the Delta RMP Project Lead, Thomas Jabusch, at thomas@sfei.org

Exploratorium Museum

SFEI was a technical resource for developing the new Exploratorium exhibit “Bay Observatory Gallery.” The gallery features a relief map of the Bay that projects data about the region, sensors attached to the pier that collect water and weather condition data, and an interactive dictionary that describes the Bay landscape and dynamic shoreline. SFEI staff attended the opening reception for Bay researchers on Sunday, June 29th. The Exploratorium is now located at Pier 15 and is open Tuesday and Thursday-Sunday from 10 a.m. to 5 p.m.; Wednesdays the museum is open from 10 a.m. to 10 p.m. For more information on the gallery, please visit <http://www.exploratorium.edu/visit/bay-observatory-gallery>.



Oakland Museum

The Oakland Museum exhibit “Above and Below: Stories From Our Changing Bay” opened on August 30th, 2013 and will run until February 23rd, 2014. The Gala for the State of the Estuary/RMP Annual Meeting will be held in the exhibit. SFEI Historical Ecology and RMP staff, led by Robin Grossinger and Ruth Askevold, helped develop the Bay exhibit. The exhibit celebrates the opening of the Bay Bridge, explores the complex ecosystem of the Bay, and encourages viewers to

discuss the Bay's future. For more information on the exhibit please visit the webpage:
<http://www.museumca.org/exhibit/above-and-below>.
<http://oaklandlocal.com/2013/09/omca-our-changing-bay-831/>

