

Workgroup Activities – First 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:

The Contaminant Fate Workgroup (CFWG) will meet in the Spring to review tactical plans developed in coordination with the nutrient monitoring and modeling efforts and to further refine modeling work for 2013.

Milestones:

Activities for the Second Quarter of 2013:

- Development of tactical plan. Drs. Jones, Yee, Senn, and Davis have discussed an outline of a plan with a smaller group of RMP stakeholders and Water Board staff. There was support for integrating the modeling efforts as much as possible, but some differences in the spatial and temporal scales of interest and timelines for products needed for various management questions. Partnering efforts with other agencies already modeling in the Bay will be explored and developed.
- A joint meeting of the CFWG and Nutrient Workgroup will be held in late April.

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)

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 SPLWG met on October 24th, 2012. The Small Tributary Strategy Loading team meets almost monthly to assure that RMP activities are coordinated with the Municipal Regional Permit requirements, Regional Board staff and BASMAA staff.

Milestones:

- Completion of the draft report: Pollutants of Concern Loads Monitoring Data Water Year 2011.
- Completion of the draft Technical Memorandum: Event Mean Concentration Development for the Regional Watershed Spreadsheet Model.
- Completion of the Copper Test Case Model for the Regional Watershed Spreadsheet Model.
- Draft Report: PCB and Hg GIS Source Layer Development
- The first three of these reports were discussed at the October 24th SPLWG meeting. Comments are being addressed. The Draft PCB and Hg GIS report should be released at the end of February.
- STLS met on January 31st, 2013 to finalize source area layers for PCB and Hg for the sediment RWSM (funded by BASMAA), and to discuss BASMAA reporting needs.
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Activities for the Second Quarter of 2013:

- RMP and BASMAA-designated staff are continuing to sample at the wet weather sites: North Richmond, Pulgas pump station, San Leandro Creek, East Sunnyvale Channel, Lower Marsh, and Guadalupe. The sites that will be covered by the RMP are North Richmond and Sunnyvale. These watersheds are being monitored for a variety of constituents including: PCBs, PAHs, PBDEs, pyrethroids, mercury, copper, selenium, suspended sediment, nitrate, and toxicity.

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.

Next SPLWG meeting is scheduled for mid-summer.

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 with the Emerging Contaminants workgroup to discuss bioanalytical tools and EEWG projects for 2013. The workgroup reviewed the progress on the copper and olfactory nerve project and the PAH and juvenile flatfish. The “Impact of dissolved copper on the olfactory system of seawater-phase juvenile salmon” report suggests that there is relatively little toxicity to the olfactory nerve at levels that are observed in the

estuary. Similarly relatively few adverse outcomes were observed for juvenile flatfish at levels observed in the estuary; however, histology work remains to be completed.

Milestones:

- Completion of the 2012 Cu and Olfactory nerve report (posted at <http://www.sfei.org/documents/impact-dissolved-copper-olfactory-system-seawater-phase-juvenile-salmon>).
- Completion of the Moderate Toxicity workshop and the summary of the meeting
- Completion of the EEPS summary report
- Completion of the NOAA report on the effects of PAH on Juvenile Flatfish

Activities for the Second Quarter of 2013:

- Continuation of work on the Mesohaline Index Development (SCCWRP).
- Completion of the Sediment Hotspot Followup Study and 2011/2012 benthic studies.
- Commencing work on bioanalytical tools.

The next workgroup meeting will be held on May 16th 2013. 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 May 16th, 2012 to discuss the recently completed synthesis document, a strategy for prioritizing chemicals of emerging concern in the RMP, siloxanes, and an update on the non-targeted screening of Bay Wildlife and recommendations for 2013 work.

Milestones:

- A manuscript was completed and submitted that summarize the National Mussel Watch sampling in California for chemicals of emerging concern. The paper will focus on personal care products, alkylphenols, current use pesticides, flame retardants and perfluorinated compounds. This work is being conducted by SCCWRP.
- Completion of the CEC synthesis document (responded to comments).
- A manuscript on PFC sources was completed and will be submitted to a journal.

Activities for the Second Quarter of 2013:

- Development of an Emerging Contaminants Strategy.
- Preparation of PBDE summary report (due by March).

- Convening a Current Use Pesticide focus meeting (likely April/May).
- Completion of NIST broadscan work. Samples of harbor seals manuscript and report are expected in March. Mussels analyses will be conducted in early Spring with a write up completed during the summer.

Next ECWG meeting will be held April 5th 2013.

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, methods for monitoring nutrients/ indicators, and scenarios that may result in adverse impacts to the Bay.

Meetings

The Nutrient Conceptual Model Technical Team met on September 14th, 2012 to revise conceptual models for nitrogen, phytoplankton biomass, and phytoplankton community composition. The Nutrient Stakeholder Advisory Group met on November 19th, 2012 to discuss the approach and next steps of the Assessment Framework project, discuss revisions to the November 2012 draft of the Nutrient Strategy and receive updates on 2013 projects and funding.

Milestones

- Field work for nutrient stormwater measurements for water year 2013 is underway. This year, sampling will occur for 4 storms at each of 6 watersheds for the following analytes: total kjedhal nitrogen (TKN), total phosphorous, PO₄, NH₄, NO₃ and NO₂ (as the budget allows).

Activities for the Second Quarter of 2013:

- Work on the Nutrient Conceptual Model Report will continue through April 2013. A draft report is expected in March, and will be discussed at a meeting of the Conceptual Model Technical Team in late March/early April.
- Nutrients stormwater monitoring for water year 2013 will continue through Winter 2012-2013.
- Work will begin on exploring potential goals, structures and costs of a Nutrient Monitoring Plan for San Francisco Bay. Currently San Francisco Bay has no regionally-funded and regionally-coordinated nutrient monitoring program. 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. The technical advisory team will meet in early 2013, and draft report of recommendations will be completed by November 2013, with a final draft in December 2013. [This work is funded by the State Water Resources Control Board]

- Work will continue on the nutrient loading study in Q1 and Q2 2013. Key goals include refining WWTP loads to individual Bay segments based on actual historic data (2004-2011) that will become available through a request from the Regional Board, and through individual requests by SFEI staff to WWTP managers. Nutrient data from past stormwater studies data collected in the region will be used, along with a “spreadsheet” hydrological model, to calculate approximate seasonal or monthly loads from stormwater to individual Bay compartments. Effort will also be directed toward improving the estimates of seasonally- and temporally-varying loads from the Delta to Suisun Bay. A draft of this report is expected in March 2013, with a final draft in June 2013.
- Selection of a moored sensor platform is expected in March 2013, with laboratory and dock calibrations to be conducted in Q2 2013.

The next meeting of the Nutrient SAG will be March 8th, 2013. The Conceptual Model Technical Team will meet in late March/early April to review the draft Nutrient Conceptual Model. The Nutrient Work Group will have a joint meeting with the CFWG in late April to discuss the modeling tactical plan and model development.

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

F. Dioxin

The dioxin strategy team met on October 26th, 2011 to review the sediment, water, and biota samples that have been collected to date. The water samples were dominated by the octa and the hepta congeners. Sediment samples were collected in both wet and dry seasons and no significant differences were noted; similarly, concentrations remain the same as those observed in 2000. Spatial patterns suggest broad regional trends. Again sediments are dominated by octa and hepta congeners. In the sediment cores, there appears to be a peak after WWII followed by a decline. Dioxin concentrations in shiner surfperch and white croaker continue to exceed the RWQCB guidelines. It was proposed that upon completion of the dioxin studies, it would be appropriate to conduct a dioxin synthesis (2014). Some members thought mass balance and food web model products should be folded into the synthesis rather than as separate reports.

Activities for the Second Quarter of 2013:

- Develop a scope of work for dioxin analysis of sediment (2012 work) based on strategy team recommendation.

For more information, please contact Don Yee at don@sfei.org.

G. 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.