

Workgroup Activities – Second Quarter 2012

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 late May or early June to discuss coordination with nutrient monitoring and to develop special studies for 2013.

Milestones:

- Completion of a Draft Bioaccumulation Conceptual Model.
- Completion of the Margins Conceptual Model. The document can be found at the following link: (<http://www.sfei.org/documents/margins-conceptual-model>). The margins of the Bay are teeming with important activities: industrial activities such as airports, refineries, ports, and landfills as well as biological activities such as wetlands, bird rookeries, and seal haul-out sites. It represents a complex environment where the watersheds meet the Bay. This report identifies key processes – physical, chemical and biological – and models that can be used to help us better understand this complex environment.

Activities for the second quarter of 2012:

- Development of tactical plan. Drs. Jones, Yee and Davis will discuss an outline of a plan with a smaller group of RMP stakeholders and Water Board staff on May 1st.
- A joint meeting of the full CFWG and its nutrient analog will occur in late May or early June to review the draft modeling workplan/ tactical plan. This would be open to a broader group.

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 25th, 2011 to discuss progress on the Small Tributaries Loading Strategy multi-year plan, update on the spreadsheet model, results of the preliminary monitoring at 16 watersheds, monitoring at San Leandro Creek and Sunnyvale Channel East for 2012 and event mean concentrations (EMC) literature review.

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 Mallard Island report (submitted to Journal of Environmental Monitoring – undergoing peer review).
- Completion of Zone 4 Line A report that summarizes four years of data (will submit to a journal after revising workgroup comments).
- Completed Guadalupe HSPF technical report (responded to reviewer comments, needs final copy edit and then will post to web).
- Completion of the Update of Regional Storm Water Spreadsheet Model (Year II).
- Completion of the Regional Storm Water Spreadsheet Model and EMC literature review (Year 1 Report).

Activities for the second quarter of 2012:

- Selection of two watersheds for 2013 monitoring. STLS team is meeting to decide sites.
- Wet weather sampling activities for 2012.
 - a. Guadalupe watershed (1 storm left)
 - b. Sunnyvale watershed (2 storms left)
 - c. San Leandro watershed (No storms left)
- Writing summary report of 16 watersheds (reconnaissance work).

The next SPLWG meeting will be held the first of July. For more information, see previous 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 (EE) Workgroup

Purpose of Workgroup

The exposure and effect workgroup 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 EEWG met on October 18th, 2011 to review bird and benthic work to date. The consensus was that many of the compelling bird questions have been addressed (confirmation of mercury

thresholds and lack of significant effects to tern eggs from exposure to BDEs). There remains considerable uncertainty regarding the causes of moderate sediment toxicity in the Bay. In addition, an important knowledge gap is the lack of a mesohaline index to evaluate sediment. The RMP has set aside funding to address these two areas in 2012.

Milestones:

- Completion of the report on effects of PAH on juvenile flatfish (NOAA document will be available by the May 15th EEWG meeting).

Activities for the second quarter of 2012:

- Completion of the EEPS Summary document.
- Planning for the Mesohaline Index meeting and the Causes of Moderate Toxicity workshop.
- Work on the mesohaline assessment method report is on hold pending the workgroup recommendation that a gold standard assessment of the taxonomy in freshwater and estuarine environments be conducted. The mesohaline assessment includes a comparison of good/bad indicators in BPJ samples to good/bad indicators in reference vs. non reference samples and tables based on presence/absence have been prepared.

The next workgroup meeting will be held on May 15th, and will be a joint meeting with the Emerging Contaminants workgroup. The focus will be on sediment toxicity, fish effects, and bioanalytical tools. 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 March 25th, 2011 to discuss updates on the NIST broadscan work, the PFC sources project, the measurement of PFCs in tributaries, factsheets on profiles of select CECs, and potential pilot and special study projects. The ECWG approved a pilot study on PFC monitoring of seals, small fish, and sediment.

Milestones:

- Preparation of a draft Emerging Contaminants Synthesis report.
- Submitted article on alternative flame retardants in San Francisco Bay (accepted pending revision of minor comments).
- Completion of a draft report/manuscript on alkylphenols and PPCPs in San Francisco Bay.

- Susan Klosterhaus's paper on flame retardants in baby products named one of the top ten papers in Environmental Science and Technology in 2011. A link to this paper can be found at (<http://pubs.acs.org/doi/full/10.1021/es300730d>). This paper identified new flame retardants such as tris(1,3-dichloroisopropyl) phosphate (TDCPP) in 80 percent of the baby products analyzed.

Activities for the second quarter of 2012:

- Development of an Emerging Contaminants Strategy.
- Two manuscripts summarizing the National Mussel Watch sampling in California for chemicals of emerging concern. One paper will focus on personal care products, alkylphenols, current use pesticides and nanomaterials. The second paper will focus on flame retardants and perfluorinated compounds.
- Continuation of NIST broadscan work. Samples of harbor seals and mussels have been sent to NIST for method development and analysis.

Next ECWG meeting will be a joint meeting between the EC workgroup and EEWG. This meeting will occur on May 15th and 16th. Topics for the EC portion of the meeting will be bioanalytical tools, the EC synthesis and strategy documents and pilot studies for 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, Susan Klosterhaus, at susan@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.

The Nutrient Workgroup last met in September 2011, and provided detailed feedback on a funding proposal to the RMP for 2012, and on an early draft of the nutrient strategy for the Bay. The workgroup was ad hoc and we are in the process of discussing how to move forward with a workgroup that plays a dual role of advising on RMP related/funded projects and advising on technical matters related to the broader nutrient strategy in a way that meets both needs but minimizes redundant meetings. We discussed this at the TRC and look forward to guidance from the SC.

Feedback was incorporated into a revised RMP funding proposal that was presented to and approved by the TRC in October 2011, and approved on November 29th, 2011 by the SC. The overall approved project has three tasks:

- Problem definition: conceptual models and scenario development;
- Quantifying nutrient loads; and
- Project management, integration with other nutrient strategy work.

In addition, the SC has approved a 2012 project to fund measurement of additional nutrient analytes (ammonium, total Kjeldahl N) in stormwater samples being collected during the Small

Tributary loading studies in 2011-2012. The project idea was originally proposed during discussions in the October 2011 Sources, Pathways, and Loadings Workgroup.

Feedback from Nutrient Workgroup's September 2011 meeting was incorporated into an interim draft nutrient strategy, and this strategy will undergo further development in 2012. The approach for on-going development of the strategy is under discussion with the Regional Board and stakeholders. A revised strategy was distributed to stakeholders in mid-March and a Stakeholder Advisory Group meeting was held on March 29th. Stakeholders are providing feedback by May 10th. A revised draft strategy will be developed by September that addresses the feedback, with a final strategy distributed in December that is intended to be a living document that will be updated on an as needed basis.

Activities for the second quarter of 2012:

- Continue to develop conceptual models and scenarios for nutrients
- Collect nutrient storm water samples.

Next workgroup meeting will be scheduled in June. 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 2012:

- Develop a scope of work for dioxin analysis of cores 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 prioritize which sport fish to monitor for contaminants. The next meeting is scheduled for July 13th.

Meetings:

RMP sport fish monitoring has been deferred to a five-year cycle to coordinate with state-wide monitoring efforts. RMP monitoring will occur in 2014.

Milestones:

The SWAMP/RMP sport fish monitoring report has been released and is available on our website at <http://www.sfei.org/contaminants-fish-california-coast>.

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