

Workgroup Activities – Third Quarter 2007

A. Contaminant Fate Workgroup

Meetings:

The group met May 29th 2007 to discuss progress to date on the PCB model, sediment coring project, and the PBDE mass budget. Pilot and special study ideas were presented to the group and were ranked by the key members. The next workgroup meeting is planned for September 14th and will focus on developing a five-year plan and mercury strategy.

Milestones:

- PCB Model
 - The PCB model project is nearing completion. A detailed presentation was given to the workgroup outlining progress-to-date and major achievements.
 - Following recommendations from the previous workgroup meeting, 10,000 model runs were re-analyzed to determine the aggregate model uncertainty.
 - Calibration of the model has been revised and improved from the outcome of sensitivity and uncertainty analyses.
 - USGS made improvements to the sediment code to account for sea level rise, subsidence, and to redefine box geometry. These changes were incorporated into the PCB code during the 3rd quarter of 2007. The model version number has been changed to v2.1 to reflect these updates.
 - Draft report on v2.1 is planned for 4th quarter of 2007.
- PBDE Mass Budget
 - A preliminary conceptual model was presented to the group in October 2006. This conceptual model has been further developed and now presents a mass budget of BDE 47 and BDE 209 in San Francisco Bay. The mass budget is in manuscript form is currently being reviewed by workgroup members and SFEI scientists.
 - PBDE mass budget was part of the CM/IA funded by the CEP. The CM/IA is final as of September 6, 2007 and is posted on the CEP website.
- Sediment Coring Project
 - All bay and wetland sites planned (11+6) have been cored. Cores have been sectioned, and sections at coarse intervals (mid- and bottom-core) are currently being radiodated at USC to identify sections for subsequent contaminant analyses and finer resolution radiodating.
- 2008 Special Study Development
 - Discussions were conducted with UCSC and U Michigan for developing and revising mercury study proposals for 2008 examining mercury fractionation and partitioning.

Activities for the fourth quarter of 2007:

- PCB model final report (v2.1)
- Submit PBDE manuscript to peer-reviewed journal (possibly ES&T)
- Radiodating of remaining cores at large intervals to identify rough cuts for subsequent sectioning and chemical analysis (gamma counting typically requires ~2 days/section or longer, x17cores x 10sections/core = ~1 year).
- Development of 5 year plan and Hg strategy.

For more information, see previous CFWG minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the CFWG leader, John Oram, at Joram@sfei.org.

B. Sources Pathways and Loading Workgroup (SPLWG)Meetings:

No meetings this quarter. Next meeting date is not yet set.

Milestones this quarter:

1. Zone 4 Line A small tributaries loading study. Received all of the data from the labs. QA of the data sets is ongoing. Data manipulation has begun via the collection of supporting data sets from other agencies (rainfall and land use) and the development of a hydrological model. Presently, there appears little likelihood that equipment will be reinstalled before October 1st. Lester McKee will work with the County to obtain the permit and get sampling gear in by November 1st.
2. Nicole David and Lester McKee continued work on the Mallard Island Hg manuscript. It is nearly ready to pass to our coauthors (Flegal Conaway, Schoellhamer, and Ganju for their input).
3. Jon Leatherbarrow is working on a manuscript for PCBs and OC pesticides in Guadalupe River.
4. John Oram led the development of a manuscript on PBDEs in SF Bay (co-authors are McKee, Werme, Connor, and Oros). We are presently addressing review comments provided by Jay Davis and once we have addressed his comments, it will go out for WG review and Journal review.
5. Lester McKee has been working on a paper on trace metals in Guadalupe River.
6. Lester McKee continued working with RB2 staff to develop a session for the State of the Estuary Conference titled: Urban Pollutant Challenges & Solutions Session Chairs: Tom Mumley, SF Bay Water Board, Geoff Brosseau BASMAA.

7. Lester McKee, John Oram, and Don Yee have been actively involved in the development of the CFWG 5-year plan and the development of an RMP Hg strategy.
8. Lester McKee has been working with SCVWD to obtain funding for continuing work on Guadalupe River for Hg. We anticipate funding being in place for a November 1st sampling date.

Activities for fourth quarter 2007:

1. Complete Z4LA reporting
2. Rewrite SPLWG 5-year work plan
3. Write subcontracts and begin sampling for WY 2008 in Z4LA and Guadalupe River at Hwy 101 and 23B (Guadalupe River at Foxworthy).
4. Hold the 2nd SPLWG meeting in October or November (date to be set during September)

For more information, see previous SPLWG minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the SPLWG lead, Lester McKee, at Lester@sfei.org.

C. Exposure and Effects Pilot Study (EEPS) Workgroup

Meetings:

A workgroup meeting was held on September 6th to review the pilot and special studies and to discuss two elements of the five-year workplan: benthos and fish effects. Key priority questions for each of the elements were agreed upon.

Milestones:

- Completion of draft five-year plans for the benthos and fish effects portion of the EEPS five-year plan.

Activities for the fourth quarter 2007:

- Continuation of analyses of fish tissue for contaminants as well as examining thyroid hormones.
- Continuation of USGS and USFWS study on terns and hatchability success and mercury egg concentrations.
- Completion of the EEPS five-year plan

The next workgroup meeting will be held in the November 26th of 2007 to discuss sportfish monitoring and bird effects.

For more information, see previous EEPS minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the EEPS WG lead, Meg Sedlak, at meg.sfei.org.

D. Emerging Contaminants Workgroup

Meetings:

The workgroup met on June 8th to discuss progress of 2007 pilot and special studies and to review a five-year plan.

Milestones:

- Preparation of a report on the presence of pharmaceuticals in influent, effluent and Bay water samples. This report is currently being reviewed by the workgroup.
- Development of a five-year plan which outlines a strategy for identifying emerging contaminants. The panel recommended focusing on brominated flame retardants and perfluorinated compounds.
- Spring collection of harbor seal samples by the Marine Mammal Center; samples have been sent to laboratory for analyses.

Activities for the fourth quarter 2007:

- Synthesis of seal blood data.

Next meeting is scheduled for Winter 2007/2008.

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

E. Causes of Toxicity

The following four sites were sampled and tested for sediment toxicity to amphipods in early April-2007:

- Rheem Creek (San Pablo Bay –east)
- Mission Creek (Central Bay – west)
- San Leandro Bay (Central Bay –east)
- San Mateo Creek (South Bay –west)

Note: The targeted Fruitvale site did not have appropriate sediment, so we did not use that site (too much shell debris, insufficient fine-grained sediment).

Mission Creek was sufficiently toxic to perform a TIE on those sediments (work is in progress).

SFEI staff will sample again next winter to find a second toxic site to perform the second TIE.

For more information, please contact Sarah Lowe at Sarahl@sfei.org.

F. Benthos Analyses in the Delta

The SFEI - Contaminant Monitoring and Research program's Delta-SQO project will perform three tasks:

- Participate in the Scientific Advisory Committee and other technical activities to develop SQOs for the Delta's estuarine regions (Lead Bruce Thompson)
- Assist in sampling logistics, analyses, and data management for ambient monitoring of the "triad" parameters (e.g., sediment chemistry, toxicity, and benthos). Sampling to occur in October, 2007. (Lead Sarah Lowe)
- Refine the SQO Framework and tools for indirect effects. (Lead Ben Greenfield)

For more information, please contact the leads on each task.

G. Status and Trends Sport Fish

No committee meetings were held in the last quarter. Results of 2006 sampling event (except striped bass) have been reported for metals and organics. The first round of otolith data are in and will be reviewed by SFEI and OEHHA.