Minutes of the Technical Advisory Committee Meeting – February 14, 2007

CALFED-funded Project: Pyrethroid Insecticides:
Analysis, Occurrence and Fate in the Sacramento and San Joaquin Rivers and Delta

In Attendance:

Principle Investigators:
Michelle Hladik, US Geological Survey
David Crane, California Department of Fish and Game
Kean Goh, California Department of Pesticide Regulation

Scientists:
Abdou Mekebri, California Department of Fish and Game
Kathleen Regalado, California Department of Fish and Game
Jane White, California Department of Food and Agriculture
Stephen Siegel, California Department of Food and Agriculture
Paul Lee, California Department of Food and Agriculture

Technical Advisory Committee:
Robert Holmes, Central Valley RWQCB
Karen Larsen, Central Valley RWQCB (Sacramento River Watershed Program)
Jeff Miller, AquaScience (Toxicology)

Minutes

• Project Update: One year no-cost extension was granted last year. The new timeline for deliverables is:
  o Public Meeting, April 2007
  o Validated Methods, July 1, 2007
  o Draft Report, October 1, 2007
  o Final Report, December 31, 2007

• Summary of water and sediment methods: All labs have validated methods for water and sediment; water detection limits are 1-8 ng/L and sediment detection limits are 1-5 ng/g. CDFG has tested their sediment method for tissue and found it to work well (detection limits 2-6 ng/g).

• CDFA has tested pyrethroid storage in water and sediment. Water samples have decreased recovery in 4 days; water samples need to be analyzed as soon as possible. Addition of a keeper solvent (hexane) to the sample did increase 4 day recoveries; if samples cannot be analyzed within a day then a keeper solvent could improve recoveries. Sediment samples can be stored for over a month frozen (other data for select pyrethroids found that they sediment can be stored for over a year with no loss of target compounds).

• Laboratory inter-calibrations (sediment and water). Data was present from two round-robin samples. The water samples were spiked with pyrethroids in the lab. One group of samples was spiked into American River Water with 500 mg/L of sediment added, the other group was spiked into water collected from Colusa Basin Drain (DOC = 6 mg/L and suspended sediment of 14 mg/L). Water data for the 10 ng/L spikes was
inconclusive, concentration too low. American River sediment water at 100 ng/L showed recoveries of ~ 50-70% for all labs. Colusa Basin Drain water at 100 ng/L had higher recoveries (>70%) and all labs were within one standard deviation. Low recovery with American River Water most likely due to amount of sediment that complicated extraction. Sediment samples were an environmental sample collected from Salinas area. All labs detected the three pyrethroids at similar concentrations (one lab was lower, used an ambient temperature and pressure system). One lab detected more pyrethroids that they were able to confirm with additional instrumentation.

- CDFG gave additional update on their progress using GC/MS/MS (TSQ)
- Public meeting:
  - Currently there is a room reserved at Cal-EPA for April 25 (9 am – 1 pm). There was a discussion of changing venue, Karen is checking into getting a room at the regional board. This location would have the benefit of easier parking access. Karen has reserved the Board from at the Central Valley Regional Board Offices.
  - It was noted that the project title includes “occurrence and fate” from the original proposal which was to include a field study. The title of the project will be changed for the public meeting to better reflect the scope of the project.
  - Topics to be included in the public meeting: an overview of the project including toxicity levels, use and Efate. Each lab will present their own methods. Michelle will prepare the overview and the presentation of the round-robin samples and a summary. Handout will be made to give out to those in attendance.
  - Time will be allowed for a question and answer session.
  - Karen needs the slides a few days before the meeting to get them loaded (Monday April 23). Michelle will try to get overview and summary slides distributed to the group a week before they are due for input.
  - Meeting will be distributed through various email lists that include registrants, SWAMP, commercial labs, etc.
- Validated methods: CDFA has finished their SOPs for water and sediment. USGS (water, sediment and colloids) and CDFG (water, sediment and tissue).
- Discussion of final report: Due October 1, 2007. Will add in additional information not included in the validated methods: sorption, stability of standards and samples, round-robin samples.
- The draft report will be distributed to the group and TAC. If there is a need for another TAC meeting one will be held around October or November.