



Watershed Monitoring Committee

March 19, 2008 Meeting Summary

Meeting Participants:

Kathy Russick, SRWP

Stephen McCord, Larry Walker Associates

Sheryl Gill, CA Department of Pesticide Regulation

Rebecca Hager, Teichert

Janet Parris, Sacramento County, DWR

Chris White, Balance Hydrologics

Stephen Clark, Pacific EcoRisk

Claus Suverkropp, Larry Walker Associates

Robert Holmes, Central Valley Regional Water Quality Control Board (by phone)

I. Results of SRWP Prop 50 Monitoring (Claus Suverkropp, Stephen Clark)

- The SRWP has a draft monitoring report for the two years of monitoring conducted under its Prop 50 grant. Claus summarized the results presented in the draft report. An electronic copy of the final report will be posted on the SRWP website sometime in April 2008.
→ **Stephen McCord will notify the Monitoring Committee when the final report is released.**
- Monitoring Period – The Prop 50 grant funded two years of SRWP monitoring that was condensed into a shorter period, April 2006 – August 2007, due to late approval. Eighteen monitoring events were conducted during that time period.
- Parameters – The Prop 50 grant funding allowed more complete coverage of water quality parameters including three-species aquatic toxicity testing and toxicity identification evaluations (TIEs). Monitoring also included analyses of a broad range of pesticides, drinking water quality parameters and several nutrient species. As in previous years, trace metals were not analyzed (except for mercury) since the SRWP has found low levels in the past. Several forms of mercury and methylmercury were analyzed as well as sulfate to look for relationships with mercury methylation. SRWP paid for some fish tissue analyses in conjunction with the Delta Fish Mercury Project; contributing analyses of trace organochlorines, PCBs and PBDEs.
- Sampling Approach – The goal in the events targeted for sampling was to characterize different types of weather and agricultural events.
- The report discusses the results in three categories:
 1. Drinking Water and Recreational Uses
 2. Aquatic Toxicity and Pesticides
 3. Bioaccumulative Pollutants in Water and Fish
- Drinking Water Quality/Recreational Uses – Almost all concentrations measured were within drinking water limits. The results were consistent with previous years. Constituent levels were low in main stem water bodies, higher in ag and urban drainages.

- Nutrient levels are not problematic within the Sacramento River, but may contribute to nuisance algae growth in downstream water bodies (e.g., the Delta and water supply storage reservoirs outside of the watershed).
- Elevated bacteria levels were of concern mainly for water contact recreational uses. There were occasional bacteria exceedances throughout the watershed.
- Pesticides were infrequently detected in the mainstem. On no occasion did pesticide concentrations approach toxic levels in the mainstem. Higher concentrations were observed in the Churn Creek sample.
- Toxicity Testing results were fairly similar to past monitoring: low algae toxicity; 10-30% toxicity to *Ceriodaphnia*.
- What was unusual was an elevated toxicity to fathead minnows. For instance, 47% of fathead minnow testing on the Sacramento River @ Bend Bridge (between Redding and Red Bluff) were toxic. No other consistent geographic or water-body type pattern to this toxicity. Consistent findings with the fathead minnow toxicity were the following:
 - Unlike previous years, they had a much harder time recovering and determining the cause of the toxicity.
 - Previously, organophosphate pesticides often caused the toxicity, and they could readily conduct follow-up toxicity work and reproduce the toxicity. This was not happening during the Prop 50 monitoring. This same pattern was observed for *Ceriodaphnia* toxicity, and has also often been observed in ILRP monitoring.
- Dec. 2006 monitoring event – We had very unusual toxicity results for this event, finding toxicity to fathead minnows throughout the watershed. This event was a very late first significant rain event of the season. Also, they collected samples during the rising hydrograph rather than at the peak of or the decline of the hydrograph. They saw a delay in the onset of toxicity, between days 4 and 6. The toxicity was not stable in the samples.
 - The characteristics of the toxicity were not always the same.
 - OP pesticides or pyrethroids did not appear to be the cause based on the chemical analyses of the samples.
 - Recommendations to look for this toxicity in the future:
 - Expand analyte list,
 - Expand testing period,
 - Stabilize samples quickly.
 - We could not do as much follow-up analytical work as we could due to limited grant funds. Consequently, we do not know what caused the toxicity, although it appears there could have been more than one cause at the different locations.
- Bioaccumulative Pollutant/Fish Tissue – The SRWP augmented the Delta Fish Mercury Project monitoring by paying for organochlorine, PCB, and PBDE analyses of fish samples that were already collected. PCBs were above the screening values (PCBs come from historic uses in heavy electrical equipment, pesticides, and a wide variety of other uses). Organochlorine levels were below new screening values. PBDEs (fire retardants) were well below an estimated screening value.

II. Regional Board's Delta Strategic Work Plan (Robert Holmes)

- In December 2007 the Central Valley Regional Board adopted a resolution that identified specific water quality and water right activities that the State and Regional Board will take to address declining fish populations in the Delta. Developing a monitoring plan for the Delta is one of the actions. In June 2008 the Regional Board will present and adopt a strategic work plan for the Delta. The SRWP has been working with the Regional Board so that the SRWP's work on a regional monitoring plan can be included in the Delta strategic plan.
- Today there was a public workshop for the State Water Board to receive information from representatives of the Delta Vision, BDCP, and CalFed regarding the proposed activities and timelines related to the Delta Resolution (2007-0079) and development of the Bay-Delta Strategic Work Plan.
- POD and IEP staff have joined together to form a Delta Team to coordinate activities that address the POD. A current activity is they are assessing available contaminant data.
- Actions outlined in the Strategic Work Plan
 - Integrate Existing Activities:
 - a. Salinity Management Plan
 - b. TMDL
 - c. Central Valley Drinking Water Quality Policy
 - Develop and Implement New Activities:
 - d. Regional Monitoring Program
 - e. Delta Island drainage & monitoring
- Regional Board will be doing an update on their Delta Strategic Work Plan for their April 24/25, 2008 Board meeting.
- Regional Board will present their full Delta Strategic Work Plan at the June 12/13, 2008 Board meeting.
- Listserv subscription – If you are interested in receiving e-mail notices regarding the Delta Strategic Work Plan go to go to Cal EPA website, scroll down to http://www.waterboards.ca.gov/lyrisforms/reg5_subscribe.html to subscribe and check the box for “Delta Water Quality Issues.”
- There is a new joint powers authority agreement to form the Aquatic Science Center between SFEI, SF Regional Board, CV Regional Board, and State Board. This will facilitate further work on developing a regional monitoring program for the Delta. They are currently setting up a \$200,000 contract to conduct further investigation into a Delta regional monitoring program. SFEI will perform this work.

III. Status Report on SRWP New Approach for the SRWP Monitoring Program (Stephen McCord)

- Stephen distributed a fact sheet, updated 3/6/08, that provides background on the current SRWP investigative effort and describes the purpose and objectives of a regional monitoring effort for the Sacramento River Watershed.
- The SRWP is currently proposing that separate regional monitoring efforts be conducted within each of the regions of the Central Valley (Sacramento, Delta and San Joaquin). However, they should be coordination throughout the larger Bay-Delta region to ensure consistency in sampling, analyses, reporting and synthesis.
- It is important to strive for consistency between the regions.
- The biggest difference between the RMP in the SF Bay Area vs. a potential RMP in the Sacramento Watershed or Central Valley is the difference in

geographic scale and population density. The Central Valley does not have the population density and number of regulated dischargers to sufficiently fund a regional monitoring program. The SRWP RMP proposal will likely call for external funding.

- Regulated participants in an RMP should benefit by having concessions on their permit-required monitoring.

IV. Future of SRWP Monitoring Committee (Kathy Russick, Stephen McCord)

- The traditional focus of the Monitoring Committee has ended for now with the completion of the SRWP Prop 50 monitoring.
- The SRWP has formed a separate RMP Work Group that has been meeting over the last couple of months and includes wastewater dischargers, SRWP staff, and Regional Board staff.
- Should we combined the Monitoring Committee and the RMP Work Group? Suggestions – Keep the two groups separate because they bring different levels of expertise. The RMP Work Group should work on the logistics of developing an RMP for the Sacramento River Watershed. **We should put the Monitoring Committee on hiatus and restart it if a new monitoring program in the Sacramento Watershed starts up again in the future.**
- Keep folks updated on the RMP process through the SRWP monthly newsletter. Consider including an update in the newsletter at least on a bi-monthly basis. → ***Stephen McCord will follow-up with Mary Lee Knecht on this.***

V. Parts of the SRWP Monitoring Program to Preserve (group discussion)

- It is important to maintain the basic indicator monitoring in the main stem Sacramento River to preserve the work the SRWP has been doing since 1998. Nobody appears to be arguing against this.
- It is important to maintain the following three basic monitoring functions:
 1. Maintain status and trends monitoring,
 2. Look for emerging water quality issues, and
 3. Conduct special studies and research.
- Also, it would be a good to use the approach used by the Bay Area RMP monitoring where they have an annual and five-year review process.