

**Sacramento River Watershed Program
Monitoring and Toxics Subcommittees
Joint Meeting**

**October 27, 2004
SRWP Coordinator's Office
Woodland, CA
9:00 a.m. – 3:30 p.m.**

Attendees

Edward Salinas, Pacific EcoRisk
Dennis Heiman, CVRWQCB
Ken Lerch, Stakeholder
Lori Webber, CVRWQCB
Kathy Russick, SRWP Coordinator
Claus Suverkropp, Larry Walker Associates
Steve Nebozuk, SRCSD
Sheryl Gill, DPR
Bill Crooks, City of Sacramento
Otis Wollan, SRWP
Carol Atkins, Harris & Company

Facilitation: Otis Wollan, SRWP
Minutes: Carol Atkins, Harris & Company

Agenda

- I. Introductions, Meeting Minutes, and Agenda Review
- II. Monitoring and Toxics Subcommittees Fact Sheets
- III. Compendium Status
- IV. Straw Proposal for Year 7 Monitoring Matrix
- V. SRWP Board Feedback
- VI. Report on LWA debriefing meeting, Board presentation, CalEPA
- VII. Strategic Plan
- VIII. Facilitation Contract
- IX. Phase X Funding
- X. Monitoring Update
- XI. Liaison Reports
- XII. Next Meeting – January 12, 2005

Handouts

Agenda: October 27, 2004

Minutes: August 25, 2004; Brown Bag at Cal EPA

Presentation: Select slides from Otis' presentation to the Board

Sorting things out – which organizations should do what

I. Introductions, Meeting Minute Approval, and Agenda Review

Introductions: Meeting participants introduced themselves.

Agenda Review: The agenda was reviewed to familiarize everyone with the day's activities. Planning for next meeting was added as an agenda topic.

Minutes Approval: The minutes for the August 25th meeting received no comments during the meeting. Group members were allowed until November 3rd, end of business, to provide comments to Carol.

II. Fact Sheets

Discussion on and review of fact sheets for the two subcommittees for distribution at the general stakeholders meeting was removed from the agenda. Kathy Russick committed to having draft documents out by Thursday. Comments on these documents are due to Kathy by Monday, November 1, in the morning.

Action Item(s): *Kathy Russick will distribute draft fact sheets on the Monitoring and Toxics Subcommittees for review. Comments are due to Kathy on the morning of November 1.*

III. Compendium Status

Background: Claus Suverkropp, Larry Walker Associates, reviewed the purpose for updating the information in the DWR Compendium and noted that for the SRWP the focus was to look for gaps in monitoring and opportunities for coordination as well as to provide a filter to determine if our planning process is pointing us in the right direction. From a business perspective, the goal is to determine and catalog who is involved in monitoring within the watershed, what type of monitoring is being conducted and at what frequency, and what opportunities exist for coordination.

Update on Project: Currently, Claus has 45 programs in the updated Compendium: 16 programs are completed; 12 present the opportunity for coordination; 17 remain with limited opportunities. The compilation of information shows that there are strong and weak areas of monitoring within the watershed. It further indicates that few programs are working on the mainstem especially between Keswick and Sacramento. This demonstrates a value for the monitoring work being conducted by the SRWP as well as low "competition" in this work area.

In the Sacramento area, the information shows that several major programs are monitoring. These include the Interagency Ecological Program, the Municipal Water Quality Investigations, the Sacramento Stormwater Monitoring Program, and the Coordinated Monitoring Program. The SRWP has interacted and coordinated with these entities in the past. Additionally, the USGS National Water Quality Assessment conducts sampling in this area. This program is currently in a low sampling intensity phase, but will be gearing up for high intensity monitoring in October 2005. Claus noted that these entities rely on the SRWP to do mainstem monitoring.

The data collected also indicates the following:

§ There is little monitoring activity on the west side of the valley, with Cottonwood and Elder Creeks having the most activity. Cache and Putah Creek also have monitoring efforts ongoing.

§ There are also few toxicity investigations occurring in most tributaries, as well as in the mainstem Sacramento River.

§ Drinking water parameters are generally well covered by monitoring efforts, especially from the Sacramento metropolitan area to the Delta.

§ Toxicity will be part of the ag waiver monitoring programs, and will be well covered in representative ag drains.

§ A new CALFED grant will look at mercury in fish tissue, and we expect to coordinate with this effort.

The data indicate new directions to consider include:

§ Refocusing our pesticide monitoring so it is consistent with the ag waiver program;

§ Refocusing our pesticide monitoring to look for those with major uses and in current use;

§ Identify and seek partnerships to fill important knowledge gaps such as monitoring data for reservoir and west side valley tributaries;

§ Seeking partnerships and funding for special studies to better link toxicity tests to aquatic life indicators to watershed health; and

§ Work to coordinate better with programs such as USGS in major tributaries, which should allow for greater understanding of water quality in the watershed.

Claus' last efforts will be to finalize location information, respond to monitoring committee comments, and then work with Chuck Lundgren to post the document on the website.

Discussion and Questions:

Q: What is the time frame that was evaluated for new project information?

A: Claus went as far back as 1997.

Q: Was there a comprehensive review of all the tributary watersheds? If not how were tributaries evaluated?

A: Claus interviewed project managers and did subsequent follow-up with groups. He noted that this project should not be viewed as a comprehensive review of work being done in the tributaries and reminded participants that cataloging all tributary efforts was not part of the purpose of this work effort. Budget restricted the work effort to its focus on “major” programs monitoring in the mainstem and major tributaries.

Q: How will monitoring conducted by the Sacramento Valley Agriculture Coalition be handled?

A: Their monitoring sites have been identified in this review.

Q: Will it be clear what parameters each program is monitoring?

A: Each program will have a fact sheet with a list of parameters being monitored, a description of monitoring sites, a map of the monitoring area, and contact information. For information on monitoring frequency and duration for specific sites and parameters, an individual will need to follow-up with the responsible project staff for each monitoring program.

The group discussed the idea of making the Compendium a “living document” and different ideas for updating information via the internet. Other comments included:

§ US Bureau of Recreation monitors Keswick for metals should be added.

§ The Redding SWAMP monitoring effort is still a proposed program.

§ The 13267 program will provide total mercury and methyl mercury data, in addition to additional constituents.

§ Jerry Boles with the Department of Water Resources should be contacted to determine what new data have been generated in the northern office’s surface water monitoring program.

Summary and Action Item(s): *The group indicated that they would like to see the Compendium as a living document and the SRWP pursue avenues to facilitate updating the material on an annual basis as well as to find avenues for smaller tributary groups to post their metadata. The group stressed that the Compendium needed to acknowledge that the initial goal of this effort was to target major monitoring programs and that this document summarizes the information collected. The document should also invite other groups, especially tributary monitoring programs, to contribute their information. The document should define the terms mainstem, major tributary, and tributary.*

Kathy Russick will bring the idea of updating the compendium to discussions on an SRWP

portal.

IV. Straw Proposal for Year 7

Claus Suverkropp distributed a straw proposal for the Year 7 matrix. Year 7 would be the first year of monitoring from funds obtained through the consolidated grant process and is expected to begin in October 2005. Claus reviewed changes in the Year 7 matrix. He indicated that all the categories are the same, but that the urban creek – Arcade Creek - has been removed and a replacement will need to be selected. Arcade Creek has received a lot of monitoring over time and is being monitored in several storm water projects. The suggestion had been made to use an urban creek outside of the Sacramento Area. Generally, an urban creek can be defined as a watershed that is primarily influenced by urban development. The group brainstormed several criteria that could be used to select this new waterbody. These criteria include:

- § Augment where there is funding in place
- § Preferably not in the Sacramento metropolitan area
- § Place that invites us; place where a working partnership with a watershed group or surrogate can be established
- § Stream in metropolitan area where we would see an effect
- § Stream with significant aquatic resources

Currently, the following creeks would fall under these criteria:

- § Big Chico Creek
- § Other Chico streams –Little Chico
- § Churn Creek in Redding
- § Stillwater Creek, which will receive Proposition 50 funds

It was also suggested that Claus follow-up with Jerry Boles on Red Bluff urban streams.

Claus reviewed a handout linking beneficial uses and proposed indicators (water quality parameters). Concern was shared about linking the beneficial uses to those defined in the State and Regional Boards planning documents, and it was suggested that mention to the Basin Plans be removed. Many felt the table would be useful to demonstrate the tie between water quality parameters and how one uses the water.

Claus reviewed monitoring locations and proposed parameters for each site. The group made the following recommendations:

- § Toxicity has been added to Sacramento River at Veterans Bridge, but Claus will look to coordinate with others (primarily the Sacramento Coordinated Monitoring Program) that regularly monitor at that site to minimize overlap in analysis for other parameters.
- § Sacramento River at Keswick site will need to be evaluated to determine what

needs to be monitored.

§ The group suggested that *E. coli* should remain as the principal indicator of sanitary conditions and recreation.

§ Ag related parameters should use Sacramento River at Bend rather than Hamilton City as the upstream boundary condition.

§ Refocus pesticide scans to look for things that are likely to show up – or only look for pesticides when we see toxicity (ag waiver approach). Some present were not comfortable with this latter approach.

§ Refocus pesticide scans to those pesticides that should be present at the site to minimize analytical cost. Should continue the monitoring for chlorpyrifos and diazinon.

§ May want to line up pesticide monitoring to support TMDL efforts.

§ Biological monitoring would be a better indicator of watershed health, but is not a huge part of this monitoring proposal. The state and national studies have increased the amount of biological monitoring. Should we increase our efforts to collect the biological information – even though we may not be sure how to assess what the data mean? Follow-up with Jim Harrington should occur to see if his group has developed a procedure for deep water monitoring.

Those present determined it would be best to consult with others on how to determine what pesticide monitoring to conduct. The following people were recommended for the workgroup: Brian Finlayson, Don Weston, Sheryl Gill, Claus, and Kathy.

Claus indicated that he would be meeting with Jay Davis and others to discuss the new SFEI grant to look at mercury in fish tissue in the watershed and Delta.

Additional questions from the group included:

Q: When will monitoring data be converted over to stream loading?

A: This type of information is important for some parameters but not all.

Q: Why is there no toxicity monitoring at River Mile 44?

A: In the past, this site has not been included. It could be that SRCSD is doing it. Claus will check.

Q: Why was sampling reduced to nine events?

A: This came out of the September 2003 workshop as a way to conserve budget and maintain a good data set.

Action Item(s): Claus will refine the matrix and follow-up with Jerry Boles on a

recommendation for an urban stream in Red Bluff, Jim Harrington on developments in deep stream biological monitoring, and Jay Davis on the mercury in fish tissue grant he is managing. A small workgroup will be formed to make recommendations on pesticide monitoring.

V. **SRWP Board Feedback** – deferred to Dec/Jan

VI. **Report on LWA Debriefing, Board Presentation, CalEPA meeting**

Background: In June, a workshop was held to get feed back on monitoring needs and SRWP monitoring management questions. Forty people participated in that meeting. Suggestions were grouped into five categories at the July Monitoring and Toxics Subcommittees' meeting. At the August meeting, the list of categories was consolidated to three. Those three categories are:

- § Mainstem monitoring
- § Watershed health monitoring
- § Coordination and technical assistance

The overall process and resulting three categories were presented to the Board of Trustees at a recent meeting. In addition, the core team met to discuss outcomes of these two meetings. A third meeting was held on October 19th to discuss how to approach the issue of monitoring watershed health. Approaches being reviewed include work done by Legacy, EPIC, Bodega Marine Lab group, the Bay Institute, and the Nature Conservancy. It was noted that funds for a workshop similar in nature to that held in June exist.

Discussion: Otis indicated that mainstem monitoring category had been discussed in the previous agenda item and asked participants what a workshop on **watershed health** could be useful for, as well as other ideas to implement the coordination and technical assistance category. Brainstorming comments included:

- § The Monitoring Subcommittee's Strategic Plan had a goal to fund tributary activities. A potential mini-grant program for this or the opportunity to demonstrate how sharing information could make these more competitive would be desirable.
- § The previous effort to establish data management program – a collaborative effort between north valley Resource Conservation Districts – got too big and too expensive and was not successful.
- § Individual watershed programs are looking to fund water quality/watershed monitoring within their subregions and are not looking to have SRWP do that. Some have been successful – including the Feather, Pit, and Yuba watersheds. These groups have money, strong monitoring programs overseen by technical advisory committees, and are not likely to request assistance for monitoring from the SRWP
- § Training on BDAT was recently offered to coordinate and facilitate information

exchange. This is an example of assistance that the SRWP could offer.

§ Kathy Russick noted that the SRWP August workshop on monitoring was very successful.

§ What about making funds available to watershed groups to enter the data to keep the compendium updated? Would it be possible to hire a data coordinator to assist watershed groups? Who would be responsible for QA/QC on the data?

§ The upcoming workshop on watershed health should be for SRWP education to help define what we can and how the program can better assist other groups.

§ The workshop will need to give out information to achieve good participation.

The participants discussed what the workshop could look like and what type of information could be presented. Two models emerged:

§ Coordination with all the agencies would accentuate connective function between state and federal agencies. A panel could be convened with participants from a dozen agencies. Each participant would be given 20 minutes to present, then the program would have each participant lead/be part of a discussion group related to either their work or on an otherwise identified topic. Following this break out session, the attendees would reconvene and discuss what occurred in each breakout session.

Other permutations included:

- Allowing the breakout session to allow interaction with panel members
- Having panel members prepare posters along a unifying theme

§ Invite in folks who have the experience developing watershed health models indices and structure agenda so all participants could learn and the SRWP would have a foundation to build our discussion from. Groups with success within the Sacramento River watershed were identified and included the Feather, Pit, and South Yuba rivers and Cow, Battle, and Dry creeks. Watersheds outside of the Sacramento River identified included the Cosumnes, Truckee, and Matole rivers. A program for this agenda would include presentations and breakout groups that look at specific watershed health issues or indices.

The need to keep presenters involved in the breakouts and to have facilitated breakout groups was identified. Workgroups could evolve out of discussion groups. Caution was given not to repeat the EPIC study. Meeting attendees discussed the need to make linkages to what the funding agencies are looking for to bring value to the workshop attendees and make this effort compelling.

Suggestions for **Coordination and Technical Assistance** category were as follows:

Coordination and assistance

Training - BDAT

Compendium for wider WS
Monitoring Education workshop
Project management training
Help in data management and development of QA plans
Email/phone call coordinators to assist with co-design
Performance Measures

Public education

Portal

Special studies

Establish Data management program

Monitoring by request

Next Steps: Kathy is currently reviewing case studies. Participants asked to have presentation on this material. The core team will also meet to discuss brainstorming session and begin planning. There is also an ad hoc workgroup for watershed health that can feed into further exploring this idea prior to the next meeting in January.

Action Item(s): Bring watershed health topic to other venues and include presentations on this topic for the next meeting's agenda

VII. Strategic Plan

See discussion above

VIII. Facilitation Contract

Steve Nebozak indicated that the contract with Otis Wollan for faciliation of the joint meeting of the Monitoring and Toxics Subcommittees will expire in November. He asked the group to determine whether Otis' contract should be continued. The group agreed to renew Otis' contract for another year.

Action Item(s): Steve will work with Otis on contract language.

IX. Monitoring Update

Ed Salinas, Pacific EcoRisk, reported on follow-up Phase I toxicity identification evaluations (TIEs) for Event 48 monitoring samples collected from Feather River at Nicolaus and Sacramento Slough June 9-11, 2004.

Following approval from the Toxicity Focus Group, TIEs were performed on samples

collected from the Feather River at Nicolaus and Sacramento Slough. Both samples exhibited complete mortality in the TIE, and toxicity was removed in the C-8 treatment and at least partially removed using PBO. While these data indicate that the toxic constituent is a non-polar organic that is metabolically activated, there were no detectable levels of organophosphate pesticides in these samples – as measured during the original sampling event.

To further characterize the toxic constituents, a follow-up TIE was performed. Due to budgetary constraints, only a 100% methanol elution coupled to a 96-hour acute toxicity test at two and four times the original concentration equivalents could be performed. The results showed some toxicity in the eluted material. The new eluate was sent for chemical analysis and results are pending.

The following questions were asked by attendees:

Q: Why were the results from a repeat of the original toxicity test different from those of the original test? Is this indicative of a problem with the test?

A: This is not a problem with the test; degradation of toxic components of the water sample can occur over time for many reasons including interactions between chemical constituents and natural biological degradation.

Ed also presented Event 49 monitoring results from samples collected July 27-29, 2004.

Aquatic Toxicity - *Selenastrum capricornutum*: None of the samples were toxic to the algae.

Aquatic Toxicity - *Ceriodaphnia dubia*: No significant survival toxicity was observed. Significant reproduction toxicity was observed for all samples except Arcade Creek at Norwood Avenue and Sacramento River at Freeport.

Aquatic Toxicity - *Pimephales promelas* (fathead minnow) Significant fathead minnow survival toxicity was observed for the Sacramento River below Keswick, Sacramento River above Bend Bridge, Sacramento River at Hamilton City, and Yuba River at Marysville. Fathead minnow growth was significantly affected in the Sacramento River at Colusa, Colusa Basin Drain, and Feather River at Nicolaus samples. All of the upper Sacramento River samples were retested; however, survival toxicity only persisted in the Sacramento River at Keswick sample, while growth was affected in the retested samples from Sacramento at Bend Bridge and Sacramento River at Hamilton City.

Action Item(s): None

X. Phase X Funding – Kathy Russick

Consolidated Grant: Kathy reported that she anticipated that an agreement with the State Board would be in place in January.

SRTPCP Phase X Grant: Kathy indicated that the majority of the Phase X funds had been tentatively allocated. She asked the group if they had ideas on how to spend funds up to \$100,000. She indicated that one criterion for a successful idea would be that it builds off of an existing SRWP effort. The following recommendations were made:

§ Use funds as seed money for watershed groups as an incentive to facilitate greater coordination between groups especially in areas of – data collection, quality assurance protocols, management questions, and performance evaluation. Otis will email additional details to Kathy

§ Use funds for mini-grants for tributary watershed groups

§ Use funds (approximately \$100,000) to prepare an initial Sacramento River “health report”. This level of funding would appropriate for development of a full plan for watershed health or for report to pull in data on this topic. Something less (\$10,000) would allow for work on a subwatershed basis

Action Item(s): Kathy Russick will report to the SRTPCP Grant Subcommittee on the recommendations for potential projects suggested during this joint meeting of the Monitoring and Toxics Subcommittees.

XI. Liaison Reports –

General Stakeholders Meeting: Kathy Russick reported that the general stakeholder meeting would be held in Redding on November 3rd.

Ag Interest Group: Otis Wollan indicated that the time for development of a white paper has been stretched out a bit. He is working with Fred Thomas on this effort, which will include interview of people as well as the development of topics of interest to those interviewed. The white paper will be presented to the Board.

Delta Tributaries Mercury Council: Carol Atkins reported that the DTMC met last on October 21, 2004. Presentations were focused on mercury monitoring projects that are getting underway. Roger Fujii and Jacob Fleck with USGS discussed amendments to an existing CALFED proposal that will allow them to look at mercury methylation and demethylation and affects of organic matter on these reactions. Jay Davis with the SFEI Regional Monitoring Program discussed their new contract with CALFED, which will

include fish tissue monitoring, risk communication, and community outreach. Claus Suverkropp with Larry Walker Associates updated the attendees on the status of the SRWP monitoring plan and revision of the Compendium document. Stacy Stanish gave an overview of the TMDL of Sulphur Creek (Cache Creek watershed). Participants also received updates on other mercury efforts being conducted by members of the group and reviewed the DTMC fact sheet Carol for distribution at the General Stakeholders meeting. The next meeting of the DTMC will be on January 6, 2005.

XII. Next Meeting

The next meeting will be held on January 12, 2005 in Woodland from 9:00 a.m. to 3:30 p.m. The meeting participants were interested in having two presentations on watershed health. It was noted that as there is no monitoring being conducted this water year, the Monitoring and Toxics Subcommittees could use meeting time to further investigate this topic. Other agenda topics include an update on the consolidated grant proposal and about continuing the compendium update as a living document.