

**SAN JOAQUIN RIVER DO TMDL  
TAC MEETING**

December 18, 2002

**Attendance**

Name	Affiliation	e-mail
Bryan Bemis	USGS	bebemis@usgs.gov
Brian E. Smith	DWR – Fresno	besmith@water.ca.gov
Norman Crow	ESRCD & WSRCD	crows5@inreach.com
Lisa Hunt	URS	lisa_hunt@urscorp.com
Gary Litton	UOP	glitton@uop.edu
Cindy Paulson	TID/Brown & Caldwell	cpaulson@brwnncald.com
Debra Liebersbach	TID	dcliebersbach@tid.org
Lowell Ploss	SJRGA	lowellploss@aol.com
Danny Gottlieb	Citizens for Safe Water in Habitats	gottlieb@ainet.com
Victor Pacheco	DWR	vpacheco@water.ca.gov
Russ Brown	Jones & Stokes	rbrown@jsanet.com
Randy Dahlgren	UCD	radahlgren@ucdavis.edu
G. Fred Lee	GFL	gfredlee@aol.com
Mark Gowdy	Regional Board	gowdym@rb5S.swrcb.ca.gov
Chris Foe	Regional Board	foec@rb5S.swrcb.ca.gov
Charlie Kratzer	USGS	ckratzer@usgs.gov
Diane Rathmann	San Joaquin Valley Drainage Authority	drathmann@aol.com
Watt Ward	Modesto I.D.	walterw@mid.org
Will Stringfellow	Lawrence Berkeley National Laboratory (LBNL)	wstringfellow@lbl.gov
Tom Quasebarth	CDM/Modesto	Quasebarth@cdm.com

**Meeting Summary**

Lowell Ploss stated that URS is under contract with the Drainage Authority to perform technical editing of the draft proposal. Schedule is to complete the draft proposal in early January review by authorities SJRGA/San Joaquin Valley Drainage Authority

Will Stringfellow stated that the draft proposal still has several missing elements including resumes and qualifications that are to be appended to final document.

Lowell Ploss reported on his briefing on the Environmental Water Caucus (EWC) . Members of the EWC asked why the upstream monitoring was limited to Dissolved Oxygen (DO) related constituents

*Action Item:* Need to add discussion to introduction to address big picture issues (Why not pesticides?). Reliance to Calfed expand to include other TMDLs

**Upstream Monitoring Scope and Budget**

G. Fred Lee asked if CALFED is willing to expand the upstream monitoring program to address other water quality issues?

- Lowell Ploss noted that Proposition 13 specifies that funding be directed to solving the DO problem
- Chris Foe noted that the TAC should focus on DO (other TMDL efforts may piggy back on DO TMDL). He hopes that upstream monitoring be out in the field by Spring 2003
- G. Fred Lee noted that it will be important to get buy-in from the CALFED drinking water group (Sam Harder)

Danny Gottliel asked whether the monitoring a duplication of manure (nitrogen) loading to SJR?

- G Fred Lee noted that the UC-Davis proposed Ag Waiver monitoring efforts are unknown
- Lowell Ploss noted that there is a linkage between upstream algal studies and DWSC monitoring.

G Fred Lee asked whether the proposed modeling duplicates the HydroQual modeling scope?

- Russ Brown noted that the Hydroqual modeling contract continues to be delayed. Therefore the TAC is not waiting for complimentary modeling

Mark Gowdy asked what the estimated budget for QA/QC included.

Will Stringfellow stated that the budget was a rough estimate of annual costs that included, preparation of a Quality Assurance Project Plan (QAPP), training, review of sample results, and preparation of blanks and blind standards.

Russ Brown stated that the budget for the first year of the modeling was \$300K not \$500K

Randy Dahlgren asked about the per sample cost? Will Stringfellow noted that \$600 per sample including collection and analyses was assumed

Will Stringfellow noted that all laboratory analyses was assumed to be performed by Lawrence Berkeley National Laboratory (LBNL) Labs and UC-Davis Labs

Will Stringfellow noted that the upstream monitoring proposal for future years would likely include hand off the analytical work to other labs and/or include a significant scaling down of the number of analyses.

### **Storm Event Monitoring**

Will Stringfellow noted that very limited storm water sampling is proposed for the 1st year of monitoring

G. Fred Lee noted the relationship between storm events and DO depression in the DWSC is not well understood. He noted that the DWSC dissolved oxygen was severely depressed after the November 2002 storm but remained above the WQO after the recent December storm relationship.

- Chris Foe noted that the RWQCB will be conducting some limited analysis of storm problems during 2003

Randy Dahlgren asked whether the USGS is currently monitoring storm events?

- Charlie Kratzer noted that limited event monitoring was being performed by the USGS due to resource constraints

Lowell Ploss suggested including a placeholder for future storm monitoring in the text of the proposal.

*Action Item:* Review storm sampling approach during January 2003 prior to submittal of the proposal. Discuss possible 2nd year amendment to modify approach to include additional storm event monitoring.

### **Peer Review**

Chris Foe noted that the proposal is for a 3-year period- CALFED specifically requested a multi-year proposal- and should include an external peer review to facilitate adaptive management.

Lowell Ploss asked whether the proposal budget includes an intermediate peer review during the 3-year period

G. Fred Lee noted that peer review was budgeted in previous Directed Action grant

Chris Foe noted that a peer review would require prior submission of written reports:

- Lowell Ploss noted that an annual report will be provided to the Regional Board
- Chris Foe noted that proper Peer Review will help ensure continued support from CALFED
- G Fred Lee noted that CALFED may establish a standing peer review panel for the DO TMDL

Lowell Ploss suggested including at Workshop/seminar panel with annual report

Charlie Kratzer noted that a formal peer review process would likely cause loss of 1-year data collection because the time required to receive labs results, write reports and conduct review

Russ Brown suggested adding the Peer Review to Task 9 but to be clear that this would not stop monitoring. Peer review recommendations would be incorporated into 2<sup>nd</sup> year of the monitoring program.

Will Stringfellow noted that it was anticipated that the 3<sup>rd</sup> year would be a very lean targeted monitoring program pending peer review direction

Gary Litton noted that the Task 8 budget "Linking SJR to DWSC should be \$350K

Lowell Ploss asked about the estimated budget for Task 9 budget?/\$50-100K

- Lisa Hunt noted that the June 2002 peer review cost ~ \$100K

### **Adaptive Management/ Coordination with other Studies**

Lisa Hunt noted that Task 4 assumed that an annual draft/final monitoring plan would be developed to address year-to-year changes to the monitoring program

Russ Brown asked how the UC-Davis monitoring is incorporated into upstream monitoring program.

Randy Dahlgren responded that:

- 14 of 21 sampling sites were the same
- Funding for the UC-Davis monitoring ends 9/2003
- The upstream monitoring proposal would extending UC-Davis program for 3 years with about a 3-month overlap (assuming start in June 2003)

Lisa Hunt described the schedule that was assumed for initiating the upstream monitoring program:

- Proposal Submitted to CALFED January 2003 for science review
- Award April 2003
- Field work initiated June 2003

Randy Dahlgren noted that he assumed two full-time field staff would be necessary to perform the upstream monitoring program.

Randy Dahlgren suggested splitting the chlorophyll-a and nutrients samples between the UC-Davis and Lawrence Berkeley National Laboratory (LBNL) because it is much more efficient for the lab to do set of >10 samples.

### **Data Management**

Russ Brown asked about the interaction California Data Exchange Center (CDEC) real time data collection with Interagency Ecological Program (IEP) data databases?

- Russ Brown noted that certain time steps were changed from 15-minute to hourly
- Russ Brown noted that certain parameters not reported

Victor Pacheco replied that IEP responds to requests from users for inclusion of specific data into the IEP system

- Data is typically fully reviewed and qualified (post QA/QC, not raw data)
- IEP moves approved data to DWR host server
- IEP will initiate a new front end (i.e., user interface) that is much more "user friendly" in Feb. 2003

Russ Brown noted that once data is in the IEP relational database it is to extract into spreadsheets for graphical display

Lowell Ploss noted that the new IEP database "front end" will provide a link back to original data format

Russ Brown noted that the Task 4.8 data interpretation budget should be approximately \$100k

Russ Brown will add a paragraph regarding initial analysis of upstream monitoring data

Chris Foe noted that Task 4 needs a responsible leader for data collection/interpretation

Russ Brown agreed that there was a need to identify a technical lead for upstream monitoring tasks

### **Selection of Parameters for Analyses**

Russ Brown suggested dropping N-BOD - SBOD from Table 4.1 (include in BOD special study).

Russ Brown suggested performing NO<sub>2</sub> + NO<sub>3</sub> (combined) measurement. Will Stringfellow indicated that NO<sub>2+3</sub> was the intended analysis.

*Action Item* : Revise N-BOD10, S-BOD10 to include targeted sampling when requested by BOD special study PI. Add detection limit/method to Table 4.1

Russ Brown suggested adding turbidity and other field measurements including

- EC, pH, temp. DO, fluorescence
- Secchi Disk (or Tube)

Russ Brown suggested dropping TDS but including EC

*Action Item*: Add table of field measurements

G Fred Lee asked whether ortho-P specified soluble (filtered) OP

Russ Brown asked whether there was any measurement of aquatic vegetation/algal mats

Charlie Kratzer noted that mats of water hyacinths are often noted on the Merced River events

Lowell Ploss noted that the future real-time monitoring for SJR management might include additional parameters

### **Proposed Monitoring Station Locations**

Russ Brown asked whether it was necessary to include two additional in-river stations as well as the Station @ Channel Point. Is there a need for the Lathrop and Old River stations?

Charlie Kratzer stated that the paired sites should be identified in the table of monitoring locations

- Stanislaus R.
- Tuolumne R.
- Merced R.

*Action Item*: Note paired flow and water quality sampling location in the sampling site table

Russ Brown noted that the upstream stations immediately below the dam releases on the Merced, Tuolumne, and Stanislaus Rivers were not included even though these tributary systems will be modeled.

- Charlie Kratzer noted that the dam releases have historically had very low nutrient concentration. Russ Brown agreed to assume zero concentrations for the initial model runs

Chris Foe noted that it is necessary to check calibration of fluorimetry data along mainstem. Reliability of fluorimeters is unknown

Randy Dahlgren suggested including quarterly groundwater sampling?

- Will Stringfellow noted that there was insufficient time to include groundwater sampling in the proposal. This might be an adaptive management issue for future years

Russ Brown suggested adding continuous field measurements of DO, pH, temperature, EC turbidity during May-October at the 5 river sites - Instrument might include Turner/Synder

*Action Item:* Continuous monitoring at the in-river station will be included into Task 4.4