

**SAN JOAQUIN RIVER
DISSOLVED OXYGEN TMDL
TAC MEETING**

September 10, 2002
9:30 AM 12:30PM

Attendees

Name	Affiliation	E-Mail
Marc Beutel	Brown & Caldwell	mbeutel@brwncald.com
Russ Brown	Jones & Stokes	rbrown@jsanet.com
Chris Foe	CVRWQCB	foec@r.b5.swrcb.ca.gov
Alex Hildebrand	SDWA	hildfarm@gte.net
Dan Hinrichs	DJH Engineering	djhengr@cal.net
Lisa Hunt	URS	lisa_hunt@urscorp.com
Lowell Ploss	SJRG	lowellploss@aol.com
Tom Quasebarth	CDM/Modesto	quasebartht@cdm.com
William Stringfellow	LBNL	wstringfellow@lbl.gov
Alice Tulloch	TE	tullocheng@aol.com
Erwin Van Nieuwenhuysse	USBR	evannieuwenhuysse@mp.usbr.gov

Meeting Notes:

1. The TAC discussed the comments on Fred Lee's Response to Peer Reviewer's comments:
 - a. Editorial comments should be eliminated from the Peer Review response and references to Fred Lee's monitoring plan should be removed since the Peer Review did not review that document.
 - b. Comments regarding "Teamwork" should be removed
 - c. U/S sources needs to be quantified
 - d. The Peer Review response should not include new conclusions but should summarize peer reviewers comments
 - e. Development of the monitoring design is not part of Task 5
 - f. Lowell Ploss will incorporate final comments to the peer review response

2. The TAC discussed the proposed barrier operations scheduled to begin next summer as part of the South Delta Improvements Project.
 - a. There may be a commitment of a 1,000 cfs minimum flow rate?
 - b. Barrier operations should consider effects of 8,500 cfs pumping level that are likely to lower high tide elevations and prevent freshwater from filling in behind barriers.
 - c. Stable flow rates with predictable or minimal variability will be very important to the Dissolved Oxygen TMDL aeration projects
 - d. Dan Hinrichs will prepare a presentation for the October 7 South Delta Improvement Project Scoping meeting. This will include a summary of the Peer Review results.

- e. Chris Foe will prepare a letter from RWQCB regarding the need for stable and predictable minimum flow rates along the DWSC.
3. Completion and closure of the 2001 Directed Action Studies
 - a. Need to provide guidance and feedback to PI s for academic closure, contractual completion reports
 - b. Free Lee needs to provide summary of receipt of final reports from all PIs and outstanding contract completion requirements (if any)
 4. The TAC discussed the a need for a comprehensive data management effort for the SJR DO TMDL.
 - a. Should include ongoing modeling efforts and provide additional analyses
 - b. Should build on what has already and identify pilot monitoring studies
 - c. RWQCB has provided initial ideas in the “Next Steps” document prepared by Chris Foe and Mark Gowdy
 - d. Randy Dahlgren will be involved with San Joaquin River water quality monitoring for at least one more year.
 - e. Involvement by Fresno State is a concern to the RWQCB because Karl Longley CV RWQCB Board Member will recuse himself from any RWQCB decision regarding the SJR DO TMDL
 - f. The TAC will continue development of a plan for future U/S monitoring at Westside Technical Committee 19th meeting in Los Banos
 5. The ongoing Salt/Boron TMDL process may impact the approach to the Dissolved Oxygen TMDL by addressing removal/reductions of these constituents from the River
 - a. An “out of valley” drain should be considered during development of alternative under CEQA
 - b. USBR has stated that it is not assuming responsibility for dissolved oxygen problems in the san Joaquin River
 - c. SJR DO TMDL should coordinate with USBR San Ja=oaquin Storage Investigations (Jason Phillips is USBR PM)
 - d. Chris Foe indicated that the RWQCB may perform a review of Carl Chen’s model and DSM2? Concerns are the RWQCB’s role is typically to integrate the data for regulatory actions and not write model reviews

6. Russ Brown provided a summary of pilot aeration directed action grant activities
 - a. USACE was not involved in this study and could not provide access to their aeration facilities for this work.
 - b. Jones & Stokes developed a prototype Mounted Oxygen Bubble Injector (MOBI) that achieved ~ 15-20% efficiency and flow velocities of 2 ft/sec. The device is completely concealed under dock and has no moving parts. Russ envisions 15-20 of these devices could be deployed along 1.5 mile of DWSC docks
 - c. Efficiency may be improved by further refinements including recompressing O_2 and reinjection. N_2 gas stripping appears to be occurring in the water column.
 - d. Gary Litton performed limited dye testing of discharge and reported that there did not appear to be short-circuiting between the inflow and outflow ports.
 - e. A major unknown is how well this device disperses oxygen laterally across the channel. Russ Brown will require a contract modification to complete the testing and finalize the aeration report. There was consensus among the TAC to support a contract amendment for Russ Brown to complete this work.
 - f. Marc Beutel is aware of a 'robot' fluorimeter device that can readily acquire dye measurements throughout the water column.
7. Lisa Hunt discussed some of the outstanding issues related to development of a scope of work for the demonstration aeration project. These issues must be resolved in order to define activities during 2003 and 2004. A December 2002 start date is necessary to initiate pilot aeration activities during 2003.
 - a. Lead agency for CEQA/NEPA will be identified in the assurance package and is not yet known. NEPA will be required only if the USACE is the lead agency. CEQA documentation would be submitted to the RWQCB. The USACE and Port of Stockton will have to be involved with the demonstration aeration project.
 - b. The scope of the demonstration project should include the entire DWSC although this may require several years for pilot testing and scale up. Initially (summer 2003) the project might only include small scale pilot designs (say up to 3 different concepts). There should be an initial screening of the technology to identify the most promising approaches.
 - . Availability of CALFED funding is not known. Lowell indicated that a Directed Action grant with a local agency and a well-defined set of deliverables may still require 6 months to get GSA approval. The CALFED RFQ Consultant contract may be another avenue to get funding

- c. Permits may be needed for the Demonstration Aeration Project. At a minimum coordination with permitting agencies will be required
 - d. Modifications to the existing aeration system may include: 1) conversion to pure oxygen, 2) testing of various types of diffusers (e.g., MOBI, cones, soaker hoses, etc.).
 - e. A competition to test different aeration designs in the DWSC was discussed. There is a need to establish performance criteria. The USACE Platform would be a good location for pilot testing various technologies because it can be raised and lowered to 25 feet. The Port is interested in acquiring ownership of this platform
 - f. "Side of Channel" aeration seems promising but there is a need to confirm the dispersal of oxygen laterally across channel
 - g. TAC consensus is to target a Pilot Aeration Technology Assessment during summer 2003 using USACE platform. Testing would include: Dye tracer testing to quantify dispersion and diffusion. The 2003 pilot might target achieving about 10% of the full-scale demonstration or about 1,000 lbs/day.
 - h. The TAC consensus was that the goal of the full scale demonstration should be to achieve the interim DO target across the DWSC. Location(s) of the compliance monitoring points will need to be identified
 - i. Erwin VanNieuwendwyse has submitted a proposal to IEP to purchase 6-12 self contained monitoring instruments that include probes for DO, fluorimetry, pH, and temperature. These could be hung from buoys to provide performance monitoring data.
8. The TAC discussed elements of additional D/S monitoring studies including:
- a. Analyses of the impact of labile ammonia
 - b. Augmenting existing studies to include DO/pH monitoring at Vernalis and Crow's Landing
 - c. Additional water column profile sampling
 - d. Comprehensive data analyses and data integration
 - e. Inventory of existing data collection studies.
 - f. Russ Brown's initial draft of a monitoring plan will be revised expanded to serve as the basis for
9. Future meetings will include Westside Upstream technical committee meeting on September 19 and Eastside Upstream Technical Committee meeting on October 3.