

## MINUTES OF MEETING

### Water Quality Technical Group

April 1, 1997

1:00 - 4:30 PM

### State Water Resources Control Board, First Floor Hearing Room

**Water Quality Technical Group:** M. Alemi, Lance Johnson, Tom Zuckerman, Joan Patten, Dave Jones, M. Neays, Leo Winternitz, Darell Slotton, Jerry Troyan, Elaine Archibald, John Ladd, John Sanders, Gail Louis, Dan Nelson, G. Fred Lee, Steve Ritchie, Neil Dubrovsky, Tom Mumley, Bob Berger, Nigel Quinn, Joe McGahon, Russ Grimes, Russell E. Fuller, Andy Rudledge, Gerald Bowes, Linda Mercurio, Byron Buck, Brian Finlayson, Raymond Tom, Charlie Kratzer, Tom Maurer, Diane Hinson, Bryan Stuart, John Birth, Deborah Condon, Larry Joyce, Jerry Bruns, Val Connor, Jim Gray, Bill Crooks, Robert Brodberg, Jerry Boles, Tom Grovhoug, Kati Buehler, Glen Birdzell, Stephen Murrill

**CALFED Team:** Rick Woodard, Judy Heath, Carol Howe, Sarah Holmgren, Dale Flowers, Peter Mangerella

#### Program Status

Rick Woodard began the meeting by explaining the purpose of the recently formed interagency *Impact Analysis Team*. As part of the EIR/EIS process the team is charged with identifying potentially significant impacts to water quality and potential mitigation strategies.

Pre-feasibility has started and will continue into Phase III. Rick discussed how pre-feasibility studies will help us to figure out which actions are and aren't important. Information generated, such as documentation of action costs, will help to prioritize actions. The original 32 actions have been condensed for programmatic analysis. At a programmatic level actions are required that state what will be accomplished where but not how it will be done. Rick proceeded to explain the difference between environmental targets (legal basis) versus performance targets (ability to do something). A draft example of environmental and performance targets for copper on the Upper Sacramento River was referred to in the meeting hand-out packet. **Any comments on the draft example approach must be received by April 7, 1997 in order to be considered for the April 10, 1997 BDAC meeting.**

Rick briefly summarized the April 1, PAT meeting including the team's recommendations regarding use of the Basin Plan numbers as environmental targets and team assignments

concerning use of other numbers or narrative statements.  
The following questions or comments were noted:

- How is success measured-by performance target (short term project specific) or environmental target (long-term)?
- How will target be monitored for hidden costs?
- What level of detail will be needed for EIR/EIS -specific mines or parameter based?

Rick discussed potential funding and criteria for early implementation projects. He referred the group to the hand-out in their packet that summarized the existing or upcoming Requests for Proposals (RFP) where funding for early implementation projects might be obtained. Two sources include the State Water Resources Control Board (SWRCB) and CALFED's Ecosystem Restoration Program. Rick stated that in order for early implementation projects to be implemented through the Ecosystem Restoration Program they must have ecosystem benefit. Drinking and agricultural water would not be eligible through this mechanism. Funding for these programs may be available through other mechanisms. Rick will notify the WQTG of opportunities as they become available. Currently the SWRCB has three RFPs out (e.g., CWA 205(I) and CWA 319(h) planning/implementation grants and agricultural drainage management loans) with an additional RFP for Watershed Tributary Grants coming out soon. John Ladd of the State Board briefly summarized these programs and provided copies of the RFPs to the group.

### **Presentations**

Carol Howe discussed format for the rest of the meeting. She explained that presenters had been asked to review specific CALFED water quality action. The presenters were to comment on action appropriateness given the current status of activities and the expected benefits of the CALFED water quality actions versus other alternatives. Summaries of these presentations are found below with overheads or hand-outs attached as noted.

### **Water Treatment**

*Elaine Archibald - CUWA*

\* Overheads attached

The following questions or comments were made in response to Elaine's presentation.

- Are there any parameters of concern that technology can't handle? [Bromide will be problematic when you have to disinfect for cryptosporidium - will need membranes that reject 20-30% of water and produce brine.]
- Do the numbers represent averages? [The numbers are average except for TOCs and bromide which are upper limits.]

### **Agricultural Drainage**

***Dan Nelson - San Luis and Delta-Mendota Water Authority***

Dan was speaking on behalf of the districts that had entered into an inter-agency agreement to bypass drainage around the grasslands areas to the San Joaquin River. A regulatory program is in place regarding use of the drain. It is administered by an umbrella organization, comprised of 32 local water districts that have federal contracts through Tracy Pumping Plant.

Dan said that evaporation ponds are not used in the Grasslands District, but holding ponds are used. A real-time monitoring system is in use that needs to be expanded up into the sloughs and water districts. Dan mentioned that they will be monitoring for pesticides in tailwater and for nutrients in subsurface drainage. There are no pesticides in subsurface drainage. Concerning land retirement, Dan said the group is looking at ways of managing lands more efficiently vs. retiring them. For example, cropping can be changed from tomatoes to safflower which has a deeper root system. These roots will go into the high water table resulting in less drainage. They are still in the process of developing understanding of cause-effect relationships. There is on-going change into more efficient water use practices. When water conservation is maximized pesticides become less of a problem because the water does not drain from sites. Concerning reverse osmosis treatment, Dan said that they are investigating appropriate technologies and have trialed two or three plants over the last ten years. In summation Dan said that the future will probably be a combination of sophisticated irrigation, treatment, and strategic ponding and release.

Dan saw CALFED's role as:

- Assisting in a better real-time monitoring program and providing better expertise in coordination of monitoring at a centralized location.
- Providing incentives or low interest loans for drip irrigation systems which are capital intensive.
- Assisting in treatment research.

**Agricultural Drainage and Urban & Industrial Runoff  
Pesticide Source Control**

***Steve Murrill - S. D. Murrill & Co.***

\* Overheads attached.

Steve said that urban homeowner use presented the greatest challenge because no licensing is required for pesticide use by homeowners. An outreach program is needed.

Steve saw CALFED's role as:

- Broadening knowledge of BMPs and IPM.

## **Urban and Industrial Runoff**

*Tom Mumley - San Francisco Regional Water Quality Control Board*

\* Hand-out attached.

In addition to his hand-out Tom made the following points.

- Most urban runoff goes to Bay through creeks.
- MTBE is not on the Board's target list yet but is being found everywhere.
- Many pollutants we see are connected with autos.
- There is a lack of a State regulatory function as umbrella organization to deal with urban runoff - may be a role for CALFED.

## **Municipal Discharges - Boats**

*Joan Patten - San Francisco Estuary Project*

\* See attached write-up.

Joan stated that there are 241,000 registered boats in the Bay and Delta. There are 80 marinas, harbors, and parks. Half of these facilities have pumpouts. Of these six are free and the others charge up to \$30 to use the pumpouts. In connection with boat discharges, Joan made the following additional points.

- Current status - not enough pumpout facilities for boats. It has been shown that where adequate, cheap pumpouts exist the boating community uses them.
- Agency authority unclear in many instances (e.g., overlapping jurisdictions, etc.).
- Recommendations:
  1. Enforcement critical but pumpouts need to adequately cover the area.
  2. More extensive boater education program needed.
  3. Better indicators needed for pathogens other than coliforms.
- \$40 million grant proposed to build new pumpouts and renovate old pumpouts.
- Need more marina support to build pumpouts.

Joan's recommendation to CALFED was to add education as a component of the CALFED boat discharge water quality action.

## **Wastewater Discharges**

*Glen Birdzell - City of Stockton*

Glen gave a brief overview of the current status of wastewater treatment in the Bay-Delta area. He said that most wastewater facilities employ a minimum of secondary treatment. In addition most facilities are aiming for nutrient removal to meet beneficial uses of water. Some facilities are at zero discharge. The City of Stockton employs tertiary treatment. To varying degrees the City of Stockton, Lodi and Sacramento Regional are recycling their effluent. All facilities have

source control programs in place.

Glen recommended that city administrators be invited to WQTG meetings as they are the group who needs to fund and implement programs. In order to institute a rate increase to fund improvements the entire service area population must now be noticed. He mentioned that standards need to be site-specific and not cookbook for everyone. Glen talked about a reclamation study that Stockton had conducted. Stockton has no water rights so this maybe a source of water for future needs. He mentioned the relative cost of options for using reclaimed water in the community versus agricultural use, agricultural use with storage, and groundwater recharge. Community based use incurred the highest cost and recharge the lowest. An issue with recharge was whether there was adequate capacity available within sixty miles of Stockton. When the agricultural community was queried regarding reclamation they stipulated that they would want it to be in conjunction with a community based program and that **local studies** would need to be conducted. In relation to CALFED's wastewater discharge action, Glen questioned whether wetlands were feasible in this area given our high summertime temperatures. Glen mentioned some possible funding sources for reclamation including the State Revolving Fund (must be in violation to be eligible), SWRCB low interest loans, and water conservation, recharge and supply loans. He mentioned that pesticides were monitored in wastewater effluent but that no toxicity was found. However, in stormwater they always saw a hit of diazinon and chlorpyrifos.

#### **Mine Drainage - Mercury**

*Darell Slotton - University of California at Davis*

\*See attached write-up & overheads

Darell said that Northern California has very high levels of mercury from geologic sources. However, the ambient water also has a high assimilative capacity for mercury. Most of the mercury found in this region is unavailable to biological organisms. Total mercury is not the problem, it is the dissolved form that is an issue. Most mercury is ending up in the reservoirs. Darell made the following points concerning mercury associated with mining activities.

- Davis Creek Reservoir has high levels of mercury in its sediment.
- Mercury is a concern because it is found in the tissue of large mouth bass. The bass are top predators which means it is moving up the food chain.
- On Clear Lake the Sulphur Bank Mercury Mine is a significant problem.
- Yuba River and Bear River show consistently high levels of mercury.
- Consumnes River has no dam so high spikes of mercury are observed.
- Marsh Creek & Marsh Creek Reservoir at Mt. Diablo is a big problem-drains straight to Delta.
- Mercury from geothermal sources may also be a significant problem.



Elaine Archibald's Overheads

Joan Patten's Notes