

Carol - I'd like this quickly to document our  
comments (because I won't be here  
Oct 2)

72600610-6.3  
Phase II -  
Ecosystem  
Stakeholder

September 18, 1996

**TO:** Carol Howe, CALFED Consulting Team

**FR:** Palma Risler, USEPA

**RE:** CALFED Bay/Delta Program Ecosystem Water Quality

I have compiled input for the CALFED Ecosystem Water Quality Program's materials for the September 19th meeting. This input was gathered from many EPA staff in many water quality programs. I have divided our input into two categories: 1) Parameters of concern, and 2) Water Quality Actions. As I will be going on extended leave, please contact Karen Schwinn at 415/744-1861 for further input. She is the new EPA lead for Bay/Delta CALFED. In addition, please send Maria Rea the materials for meetings on water quality, she is temporarily coordinating staff input on water quality. They both have my same address and fax number.

**PARAMETERS OF CONCERN:**

I would like to discuss briefly adding the following parameters to the Sept 5 list

**Chromium:**

**Weight of Evidence:** Monitored levels over the MCL have been found. Questions exist as what form of chromium is important.

**Temporal:** In high flow periods, Putah creek flows into the Yolo Bypass, an area of some significance for native species.

**Spatial:** Putah creek; possibly on westside in general

**Sources:** Not well categorized: Geological source? Landfill?

**Dioxin:**

I would like to revisit why we took this off the list at the last meeting. Sources may include the refineries (I believe the Mill at Anderson and the Stockton source have been addressed by RB5).

**Methidation:**

Although this is not found often, as it may be used as a substitute for diazinon we may want to continue to track it. As discussed below, there are many cases where one pesticide was targeted for reduction in surface water only to be replaced for another pesticide that was later found to cause problems.

**Methyl Parathion:**

Even though the problem is being addressed, shouldn't we keep it on the list because it still causes problems?

**TURBIDITY**

We include turbidity because of its relationship to sediment loading. Elevated sediment deposition results in the mortality of fish (salmonids) eggs due to a variety of factors including depletion of oxygen, trapping of emergent fry and degrading habitat used by emergent fry (filled spaces between rocks and deeper pools.)

**Evidence of Effect:** The AFRP Working Paper discusses the importance of sedimentation as a limiting factor in many central valley streams.

**Temporal & Spatial:** The AFRP Working Paper evaluated each Central Valley Tributary for limiting factors. Siltation was a limiting factor in almost all the Central Valley tributaries (see AFRP.)

**Sources:** Improper building construction practices, road construction, improper forestry practices (both timber harvest and forestry roads), improper grazing and improper fish suppression activities etc. In practice, each tributary needs to be evaluated for loading and sources.

**TEMPERATURE:**

**Evidence of Effect, Temporal & Spatial:** Again see AFRP Working Paper (May 1995.) Problems exist to varying extents on many tributaries. In the delta, the SWRCB has developed a 68 degree standard in the Spring, however, we believe it is not implemented.

**SALINITY:**

EPA's rules (Jan 24, 1995) promulgated a 0.44 micromhos EC criteria on the lower San Joaquin to protect striped bass (see attached rule and description.)

**What is an impact?**

In the most recent meeting notes, I saw that we were using aquatic species as our sole target. We need to discuss adding waterfowl, given that some have concerns with bioaccumulation in diving ducks in Suisun. I do not believe that we would have to cover new parameters (possibly PAHs.)

**WATER QUALITY ACTIONS LIST**

We should make the actions far more specific at this point in time. I believe they are so general that it is not useful to evaluate or model them. Other workgroups (levees, ecosystem) are getting far more specific. In general, the actions need to be linked to the parameters (especially spatially) so we can cost-effectively design a program where problems are most acute. The actions as expressed so far need to better acknowledge the current programs in place and evaluate where there are still barriers. Especially with regard to actions on the Sacramento River, the

CALFED process should support the ongoing process and not duplicate their efforts at determining problems, loadings etc. Below I outline some of the issues involved.

**Flow management: (#1-6)**

o Dilution is a particularly difficult issue. Dilution should not be part of any strategy on contaminants like metals or organics. This is State Board policy that EPA strongly supports (diluting pollution is not a beneficial use of water.) USEPA will oppose any actions using dilution water to reduce contaminants. However, in the case of salinity the situation is more complex and in practice dilution and flows are used to meet standards.

In addition, as an action category, CALFED agencies need to carefully think about whether or not this is "re-directing impacts". The solutions and actions should not be re-directed away from the sources of the salt problem (over-allocation of the system) and re-directed to the Sacramento River or the delta. In this vein, land retirement should be in the solution set.

o Acquiring new water (thru treating ag drainage, developing groundwater or constructing new storage) to solve water quality problems again has no support in the case of contaminants. In addition, permanent land retirement needs to be added to the list of actions.

**AGRICULTURAL DRAINAGE:**

General approach to agricultural drainage:

As we have noted before (on several occasions) these actions are so broad that they are virtually indecipherable. They need to be linked to the problems & parameters and not overgeneralize the problems of agricultural drainage. I suggest separate categories that deal with tile water (e.g. the San Joaquin Drainage problem and the parameters of salt and selenium) and a general category for pesticides of concern. A good place to start would be RB5 materials for the WMI.

Our sustainable agriculture experts commented as follows: "Beware superficial approaches to agricultural pollution that focus on elimination of single pollutants and inefficient management practices." Especially for pesticide reduction, single-objective BMPs often result in unintended consequences where pollutants are simply shifted to another media (groundwater etc.) or substitute pesticides with similiar ecosystem impacts are used (e.g. EDB and Carbon Tet etc.) If CALFED want to comprehensively address the parameters of concern, we need to work extensively with those agencies, institutions and individuals that know extensively about the "ecosystem approach" to conservation planning.

#18 & #19: Do you really mean to imply that land should be fallowed or retired because of pesticide problems? I don't think so.

#20&#21: Treating ag drainage in wetlands and treating by reverse osmosis appear to me to be costly solutions that are not practical.

#### **URBAN RUNOFF**

The stormwater NPDES permits program is in place for urban areas over 100,000 (I will give you a list of the communities covered.) This recommendation (20% more detention) is not familiar to those in our stormwater program as a reasonable or effective objective. Again you need to tie the action back to specific problems before creating any new requirements, either for smaller communities or greater requirements of those over 100,000. Our stormwater staff thought that (on a cursory level only) that everyone in the delta area had approved permits.

RB5 has identified the newly developing areas of the delta as areas needing assistance in DESIGNING stormwater systems into new development. This could be a very specific, cost-effective and voluntary action.

#### **WATERSHED MANAGEMENT:**

Efforts to reduce sediment and turbidity problems in tributaries (areas identified in the AFRP) need support. I was not able to conduct a review of where efforts exist and need support and where efforts have not started. However, concentrating efforts and "moving through" the watershed is generally accepted as an effective way to succeed.

#### **MINE DRAINAGE:**

Iron Mountain Mine needs to be deleted from this discussion until the Superfund process (including cost-recovery) has been completed. At this point, it would be counterproductive to discuss pollution trading or new funding mechanisms. In addition, the "moderate on-site" mine drainage remediation discussed as an action does not apply to Iron Mountain Mine which has already reduced loads of metals substantially.

#### **BOAT DISCHARGES**

See the outreach materials for information on current programs.

#### **WATER SUPPLY TREATMENT**

#35: I would delete or rework this action. What types of incentives for upgrading water treatment are envisioned? Something more than the proposed EPA rules on DBP? These rules are mandatory, which seems like a strong incentive. Why is filtration singled out?