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Subject: Re: Summary from 6/23 meeting on CALFED Water Quality Program
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Gail, thank-you for organizing the meeting. Again I want to emphasize that many of the problems discussed at the meeting were being addressed by the CALFED water quality common program many months ago. I fear, because few appear to have been resolved, that the water quality program is being deemphasized within CALFED. If true, I believe our highest priority should be to insure that management understands the importance of water quality problems. On a related topic, I have never understood where the money was going to come from for the water quality common program. This is important because money comes with attached strings and we need to understand these when critiquing the program.

Below I have attempted to organize my comments by action.

ACTION 1. Four comments. First, periodic invertebrate water column toxicity is seen in bioassays below Shasta dam which have been traced through TIEs to zinc. Problem seems to occur when a wet winter follows a dry water year. Perhaps the zinc is being resuspended from reservoir sediment. Second, I know of no data that copper run-off from applications on orchards or rice caused toxicity in water column bioassays and there has been some evaluation of this concern. Third, I know of no research demonstrating that elevated body burden levels of these three metals cause detrimental effects to either the organisms themselves or higher trophic levels (people or wildlife). Therefore may not want to list this as an indication of success. Finally, almost no information exist on the toxicity of central Valley and Delta sediments to aquatic organisms. Metals may be a problem here and should be listed as a high priority research area.

ACTION 2. Sources are threefold: old mercury mines in COAST range, hydraulic mining debris in Sierras, and mercury in eroded sediment already in estuary from both of the above sources. Cache Creek and Mt Diable mine are examples of old mining activities in the coast range.

ACTION 4. I don't understand the distinction between acute and chronic toxicity. Both can potentially be disasterous to aquatic populations. Seems like we want to say "reduce synthetic organic compound toxicity in

surface water to protect aquatic life". I know of no data where metal-pesticide mixtures caused toxicity although I have seen a good deal of multiple pesticides mixtures where each was singly at concentrations causing toxicity and the mixture appeared to be acting in an additive fashion. Research needs are twofold. First, establish the ecological significance of the elevated pesticide concentrations to local populations. Second, fund agricultural and urban BMP development to reduce offsite movement of chemicals. Information on ecological damage and the cost and feasibility of control are needed for regulation.

ACTION 5. Bruce H. provided the salmonid information. In problem statement need to clarify that have two problems. One is a dissolved oxygen sag in Stockton back sloughs after the first flush. This results in annual shad kills and, I am told, eliminates predatory fish from back sloughs like Smith Canal. Ecologically may not be important to estuary but is a very heavily fished waterway and the public would probably appreciate having the problem fixed. The second is the annual oxygen sag which develops off rough and ready island each fall. Bruce says this may obstruct the fall salmon migration. The sag is caused by excess nitrogen from upstream on the San Joaquin and from cannery waste discharged to the regional wastewater treatment plant coupled with reduced flows and increased water residence time in the southern delta. Problem is being addressed by the upgrade at the Regional Plant.

ACTION 13. Ammonia concentrations from sewage treatment plants discharging into waterways with minimal dilution can be sufficiently elevated to kill fathead minnows in acute bioassays and when compared to the literature may also be at concentrations negatively impacting other warmwater fish.

ACTION 18. Problem is that about half the samples collected in the upper watershed test toxic in bioassays. Limited follow-up studies have been conducted. Monitoring and directed research should be undertaken to define the toxicity patterns, identify the chemicals responsible, determine sources and fate, establish the ecological significance to local critters, and develop BMPs to keep chemicals out of surface water. Basically we need to repeat for the unknown toxicants the same paradigm begun for diazinon and chlorpyrifos.

Hope some of this helps. Chris Foe

On Thu, 26 Jun 1997 Louis.Gail@epamail.epa.gov wrote:

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- > Attached is my attempt at capturing the discussion at our meeting this

> week. This, clearly, is a very rough draft needing a fair bit of input and
> refinement from you. I tried to articulate problem statements and indicate
> where they link to the programmatic actions contained in Appendix B. I
> have noted names in italics next to the actions to indicate who provided
> most of the comments (and, I hope, will also assist in refining and
> correcting the statements). Please feel free to also comment on the
> summary at the beginning of the text. I apologize in advance for any
> inaccuracies, misstatements, misinterpretations, etc.
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> I'd appreciate receiving your comments within the next week (say by COB
> 7/3). I will then incorporate all comments into the next draft and
> redistribute. I imagine this will be somewhat of an iterative process.
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> This file is a Word Perfect version 6.0. Please let me know if you have
> problems opening it and I will send the text directly.
>
> Also, I want to let you know that I spoke with Rick Woodard on Tuesday to
> let him know of our efforts and discussions. He indicated that there is
> much more information that, overall, comprises the water quality program
> including pieces of the "affected environment" and "no action" reports that
> are currently being drafted. I encouraged Rick to share as much
> information as he can ASAP to assuage people's concerns that CALFED is not
> going to develop a viable water quality program. I also told Rick I would
> share my summary of our meeting - as a rough draft, work-in-progress - with
> him so he could get a sense of where we are going through our discussions.
> I want to ensure that what we develop is both useful and also not redundant
> with other pieces that have been or are being developed through CALFED.
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> Many thanks for your input and assistance. I can be voice mailed at (415)
> 744-2019; faxed at (415) 744-1078; and e-mailed at
> "louis.gail@epamail.epa.gov".
>
> (See attached file: WQPROB.623)
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