

MEETING SUMMARY

Water Quality Parameter Assessment Team (PAT)

December 3, 1997

9:00 AM - 11:55 AM

Bonderson Building, First Floor Hearing Room

PAT Members: Larry J. McCollum, Lynda Smith, Stephen Murrill, G. Fred Lee, Inge Werner, J.P. Cativiela, Brian Finlayson, Robin Reynolds, Bill Alsop, William Crooks, Tom Grovhoug.

CALFED Team: Judy Heath, Sarah Holmgren, Tanya Matson, Dale Flowers

Others: Doug Morrison, Dennis Kelly, Bryan Stuart, Pat Dunn, Marguerite Young

Purpose of Meeting - Judy Heath

Judy Heath began the meeting with a short discussion of the role of the PAT in relation to the Water Quality Technical Group and the CALFED Bay-Delta Program. The PAT is an advisory body composed of technical experts which makes recommendations to the Water Quality Technical Group. The Water Quality Technical Group is also an advisory body composed of stakeholders and agencies who receive the PAT's recommendations and, with that information, decide upon recommendations to make to the CALFED Bay-Delta Program. Once a recommendation is received by the CALFED Bay-Delta Program, that recommendation goes through a decision-making process which includes CALFED's management team and policy group.

The CALFED Water Quality Program has received several requests for additions or deletions to the parameters of concern list. The PAT was convened to hear scientific evidence from the requestors and make a determination whether the addition or deletion should be recommended to the Water Quality Technical Group. Suggested Guidelines for Adding or Deleting a Parameter of Concern were posted and included in the meeting handouts. These guidelines included the criteria used by the urban, ecosystem and agriculture subteams previously convened in Phase I of the CALFED program. Some points emphasized during the discussion were: (1) CALFED does not financially support activities to meet legal or regulatory responsibilities of other entities; (2) the problem must have an impact within the study area of the legal Delta; (3) the addition or deletion needs to have a demonstrated benefit to the problem area; (4) there needs to be a defined process to determine additions or deletions. It was indicated that the additions or deletions recommended during the meeting will not appear in the draft Programmatic EIR/EIS due to the short time frame of this report. In addition, any new parameters of concern need to have target levels which will be established in subsequent PAT meetings.

Suggested Guidelines for Adding/Deleting Parameters of Concern

The guidelines cover four areas: General, Geographic Scope, Problem and Scientific Evidence. These guidelines were compiled from criteria previously used by the urban, ecosystem and agriculture subteams in 1996. Comments and suggestions on the guidelines for adding or deleting were requested during the meeting. It was indicated that adding a parameter may have long term significant implications to the CALFED Program. The CALFED implementation phase will last 25 to 30 years and resources will be dedicated to these water quality parameters of concern. The adaptive management tool allows the addition/deletion of parameters of concern based on new information.

Comments made

- Guidelines seem to deal mainly with toxicological problems but there are also ecological problems. Nutrients are a problem because there are no regulatory standards.
- Scientific evidence needs to be expanded to include other use impairments.
- Under the problem area of the guidelines, a particular constituent should fall under one of these bullets but not necessarily all of them.
- Should focus on process for identification of a problem in the estuary before spending money.
- A problem should first be recognized by regulatory and resource agencies.
- There is a need to know the reasoning for putting a parameter of concern on the list.
- A prioritization process should be defined - possibly a tiering process.
- [Previous attempts to develop single numeric values for nutrients have failed because it is not possible to reduce nutrient impacts on excessive growth of aquatic plants to a single numeric value for nutrient concentration.]

Draft Functions of PAT

A description of draft functions of PAT was provided in the meeting handouts. Suggestions and comments were requested on the functions of the PAT.

Comments made

General

- If the PAT is involved in validating parameters of concern, then recommendations should be made as to prioritization of parameters of concern to the Water Quality Technical Group. The 303(d) process prioritizes and should be evaluated. We should proceed cautiously with adding to the parameter of concern list and prioritize based on available information.
- Knowing the role of the PAT in the future will be part of the decision-making process. If the PAT determines parameters of concern, it should be able to provide recommendations in the future as to what actions are taken to address these parameters of concern. The PAT should be involved in the implementation process.
- The PAT should address all parameters of concern that have been previously suggested as parameters of concern for CALFED attention.

Target Ranges

- The function of the PAT should include selection of target ranges. *Target ranges are a function of the PAT but will not be discussed today. The vision for today's meeting was to focus on additions or deletions to the parameters of concern list and establishing target ranges only for those additions at a subsequent meeting. Many meetings have already been conducted to determine the existing target ranges; however, if new information becomes available, we could go back and revisit the target ranges.*
- Target ranges for existing parameters have been previously established. At some point, steps forward need to be taken. If more information becomes available on a parameter of concern, then we should examine it.
- The function of the PAT in examining target ranges needs to be determined.
- Comments made by others on target ranges should be available to this group to assist in decision-making process. *Comments are a matter of public record and are available to anyone upon request.*
- Criteria for establishing target ranges needs to be established. There should be consensus from the group on these criteria.
- The target ranges of the Regional Boards are used in some cases and it should be a policy not to second guess the decisions of the Regional Boards.

Deletion of Carbofuran, Chlorpyrifos, Diazinon

Stephen Murrill made a request to delete carbofuran, chlorpyrifos and diazinon. Murrill indicated that it was not his contention that pesticides should not be an issue of concern. However, rather than singling out particular pesticides, pesticides should be listed in general as an area of concern because use patterns of pesticides change and new chemicals are introduced. He indicated a concern with the process of establishing parameters of concern and whether CALFED is establishing the target levels or the appropriate agency is establishing target levels. Murrill indicated that if CALFED sets target levels, those levels should come from the proper authorities such as DPR and the SWRCB. *It was pointed out that CALFED does not have the authority to set or enforce regulations. CALFED uses existing standards and criteria to the extent possible in the establishment of target ranges for parameters of concern.*

Comments made

- Exceedances of carbofuran are known.
- The parameter of concern list should be expanded to include other pesticides.
- DPR focuses on pesticides, however, target ranges should be broadly researched including National Academy of Science, USEPA, and Regional Water Quality Control Boards.
- Only using existing criteria may not be an adequate approach.

Result After Poll: Carbofuran, Chlorpyrifos, and Diazinon will remain on the parameter of concern list.

Addition of Chromium VI

G. Fred Lee made a request that chromium VI be added to the parameter of concern list and presented his reasoning. As cited in the paper Mr. Lee provided to the PAT, chromium VI is regulated in discharges to 10 $\mu\text{g/L}$ by the USEPA in the National Toxics Rule ambient water quality criterion. He indicated that based on a variety of tests, chromium VI is well known to be toxic to zooplankton at .5 $\mu\text{g/L}$. If chromium VI is found in the estuary above 1 $\mu\text{g/L}$, consideration should be given as to where it is found and if it is toxic at that location.

Comments made

- Does the CVRWQCB have a standard for chromium VI? No.
- What are the sources of chromium VI? It may be strictly urban or highway runoff.
- It seems that there is not enough ambient data to determine if there is a problem.
- An action plan should be to monitor selected places in the watershed to determine if chromium VI is present above 1 $\mu\text{g/L}$ and if it is toxic in those places where it exists.
- Chromium VI is probably a lower priority than other parameters of concern. It should be placed in a potential parameters of concern list and prioritized.
- Chromium VI may fall under the "Unknown Toxicity" category. There should be another category for "potential" parameters of concern. Potential parameters of concern would make it to the parameters of concern list if, after monitoring, a concern to beneficial uses is identified. Chromium VI should be placed on the "potential" parameters of concern list and prioritized accordingly.

Result After Poll: It is recommended that chromium VI be placed in the new category called "potential" parameter of concern list.

Addition of Nutrients (Nitrogen and Phosphorus) and Light Attenuation as Environmental Parameter of Concern

Doug Morrison of the USFWS made a presentation on the addition of nutrients as an environmental parameter of concern. Nutrient loading primarily from wastewater treatment plants is a water quality concern in south San Francisco Bay. Nutrients, along with salinity and light, are important factors determining nuisance macroalgal blooms in San Francisco and San Pablo bays. Nutrients and light are essential to ecological health and are important to the ecological process in all aquatic ecosystems, especially estuaries. Light availability is a major factor affecting phytoplankton abundance and productivity in much of the Bay-Delta estuary. Turbidity is not a sufficient surrogate measure for in situ irradiance or light availability.

Comments made

- This issue has been raised before and nutrients should be included in light of a downstream eutrophication problem - independent of an ecological problem.
- Nutrients as nitrate are included on the parameter of concern list but phosphorus would be an important addition under nutrients.
- Phosphorus may be factor in algae blooms in reservoirs. Both nitrogen and phosphorus should be measured as indicators of raw sewage.

- With respect to drinking water concerns, work has been accomplished in small reservoirs adjacent to treatment plants and both nitrogen and phosphorus are of concern. There is value in adding phosphorus to the list. Phosphorus has met the criteria and there is enough scientific evidence to show it is a problem.
- Primary productivity has changed due to the presence of dams which prevent movement of nutrients and improved wastewater treatment.
- The PAT wants to hear more from urban water users about nutrients in reservoirs.

Result After Poll: There was consensus reached to add bioavailable phosphorus, nitrogen, and nitrite to clarify nutrients in the parameter of concern list. More data is needed regarding nutrients.

PAT Recommendations to the Water Quality Technical Group

- Leave carbofuran, chlorpyrifos, and diazinon on the parameter of concern list.
- Chromium VI is a potential parameter of concern.
- Add bioavailable phosphorus as well as nitrogen and nitrite. Use nitrogen and nitrite to clarify nutrients and more data is needed on these.

Conclusion - Judy Heath

Due to the time frame, it was not possible to cover the entire agenda. The Water Quality Program appreciates the participation of the Parameter Assessment Team in the development of the program. The participation of the presenters of requests for additions and/or deletions to the parameters of concern list is also appreciated. It was decided that the Team should meet again in the future to further discuss its role as well as establishing the process for adding or deleting parameters of concern, how those parameters of concern should be prioritized, and to address the remaining requests for additions to the parameters of concern list. Further discussion regarding the determination of target ranges should also occur. In light of the schedule of the Programmatic EIR/EIS, it is not critical that the Team meet immediately after this meeting. A future meeting was tentatively scheduled for the last week in January.