

Subject: Baseline Pesticide Monitoring

Background: The USGS has conducted detailed monitoring studies of pesticide concentrations in the Sacramento River, San Joaquin River, and the Delta. However, most of this monitoring has occurred during the low flow years of 1991-1994. More monitoring is needed during normal and wet years in order to gain a total picture of the waterbodies most at risk from pesticide exposure. This information is important for directing the initial implementation of Best Management Practices and for use as baseline information to evaluate their success.

In addition, the known problem pesticides do not account for all the toxicity that has been measured in bioassay organisms. Other pesticides undoubtedly contribute to the toxicity. It is not unreasonable that they have not been identified, since only half of the most commonly used pesticides have analytical methods that allow testing at ecologically significant levels.

A monitoring program is necessary to (a) evaluate the effectiveness of management practices that are being implemented to control known problem pesticides and to (b) identify new pesticides that are potentially causing toxicity problems.

Proposed Action: The Interagency Ecological Program's Contaminant Effects Group was formed at the request of Agency Directors; its mission is to acquire and disseminate information on the effects of contaminants on aquatic resources in the Central Valley and Estuary. The Contaminant Effects Group will be asked if they would like to develop a multi-year monitoring program to determine the sources, concentrations, and durations of pesticides in the mainstem Rivers and the Delta. Pesticides evaluated should include chemicals already identified as causing toxicity in surface water and sediment bioassays, as well as new chemicals used in large amounts in the watershed but for which inadequate information exists. Once the study has been designed by the Contaminant Effects Group, CALFED will use a focused grant program to determine the entity/entities which will conduct the work.

Geographic Area: The monitoring program would focus on the Delta, Sacramento River, San Joaquin River, and major tributaries.

Recommended Funding: \$500,000

Coordination/Overlap with Existing Studies: There is no comprehensive program that meets our needs. However, the results from this monitoring program would be integrated with those from specialized ongoing monitoring programs including: (a) the USGS' monitoring program to collect monthly pesticide data from the mainstem Sacramento River, (b) the Department of Pesticide Regulation's monitoring for dormant spray pesticides at two locations in the Sacramento River watershed and two locations in the San Joaquin watershed, (c) the Sacramento Coordinated Monitoring Program's monthly sample collection for pesticides upstream and

downstream of the Sacramento Regional Wastewater Treatment Plant, (d) the Sacramento River Watershed Program's 1999 collection of water samples at 26 sites and use bioassays employing *Ceriodaphnia dubia* and fathead minnow, and (e) a 1997 CALFED Category III funded proposal by DeltaKeeper to conduct limited bioassay monitoring in the Delta.

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