

Subject: Algal Toxicity

Background: Algae is at the base of the food chain. Toxicity surveys conducted by the Central Valley Regional Water Quality Control Board and DeltaKeeper have detected toxicity to the algal bioassay species in both agricultural and urban drainages, as well as on the mainstem Rivers and in the Delta. Past toxicity identification evaluations (TIEs) have identified diuron as a possible toxicant but indications are that more than one toxicant is responsible for the observed toxicity. The contaminants responsible for the algal toxicity need to be determined and the ecological significance defined. If specific chemicals are identified as ecologically significant, then programs can be developed to address them.

Proposed Action: The Central Valley Regional Water Quality Control Board would coordinate the development of studies to determine the cause of the observed toxicity and to characterize its presence in receiving waters. The studies would build on ongoing work by UC Davis and DeltaKeeper. After the toxicity is characterized, the ecological significance of the toxicity needs to be determined through the completion of an ecological risk assessment. The Regional Board will receive specific funding to develop and coordinate the studies; however, a focused grant process will be used to determine the entity/entities which will complete the actual field work and the ecological risk assessment.

Geographic Area: The initial focus would be the South Delta area affected by urban runoff.

Recommended Funding: \$500,000

Coordination/Overlap with Existing Studies: The Regional Board will act as an umbrella organization to integrate the above program into ongoing studies and monitoring such as that being conducted by DeltaKeeper and UC Davis.

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