



November 13, 2012

VIA ELECTRONIC-MAIL: dmcclure@waterboards.ca.gov

Mr. Daniel McClure, P.E.
Central Valley Regional Water Quality Control Board Office
11020 Sun Center Drive, Ste. 200
Rancho Cordova, CA 95670

Sub: Central Valley Pyrethroid and Diuron Pesticides Total Maximum Daily Load and Basin Plan Amendment

Dear Mr. McClure:

The Western Plant Health Association (WPHA) welcomes the opportunity to comment on the scope of the proposed amendment to the Sacramento and San Joaquin River Basin Plan and establishment of TMDLs for water bodies listed as impaired by pyrethroid insecticides and diuron. WPHA represents the interests of fertilizer and crop protection manufacturers, distributors, formulators and retailers in California, Arizona, and Hawaii.

WPHA has previously commented on the technical documents authored by Tessa Fojut, Ph.D., Amanda Palumbo, Ph.D., and Ronald Tjeerdema, Ph.D., of the Environmental Toxicology Department, University of California at Davis, concerning the derivation of freshwater water quality criteria (WQC) for bifenthrin, malathion, lambda-cyhalothrin and diuron using the methodology that was previously developed (TenBrook et al. 2009). WPHA supports the comments provided by the Pyrethroid Working Group and DuPont Crop Protection, the lead registrant of diuron and member of WPHA.

WPHA continues to be concerned about the Central Valley Regional Water Quality Control Board (CVRWQCB) embarking on a narrowly focused policy of developing an excessively conservative WQC method for active ingredients to then be applied to listed "water bodies" within the Central Valley. Implementation of programs intended to attain the beneficial uses of listed water bodies through TMDLs and all other water bodies in the Basin through adherence to water quality objectives based on the UC Davis methods will subject growers/agricultural dischargers to rigorous monitoring and compliance activities through your agency's regulatory enforcement. These enforcement activities will have a significant economic impact and should be undertaken only after consideration of realistic and reasonable goals for altering the physical structure, habitat and riparian zones of water bodies in the Central Valley. WPHA respectfully suggests, once again, that the CVRWQCB staff be judicious in its selection of water quality objectives and direct your attention to the ongoing harmonization effort between the Clean Water Act (CWA) and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) by the United

States Environmental Protection Agency (U.S. EPA) Office of Water (OW) and Office of Pesticide Programs (OPP). As you may be aware the OW/OPP harmonization effort produced a series of technical reports to address questions on development of water quality criteria for limited aquatic toxicity datasets.

In accordance with the request for public comments, WPHA is providing the following items for your consideration during the preparation of the scope of the Basin Amendments and establishment of TMDLs.

The pyrethroid CEQA scoping documents suggest that the Irrigated Lands Program will implement Water Quality Objectives (WQO) in all water bodies with an aquatic life beneficial use or a subset in the project area (Sacramento River and San Joaquin River basins). The geographic scope of the project includes all waters in the Sacramento and San Joaquin Basins with designated aquatic life beneficial use without exception and without consideration of the potential for attaining the beneficial use by regulation of pesticides. The information documents note that the concentrations of the pyrethroids and diuron cannot adversely affect the beneficial use. However, if it is not feasible to attain the beneficial use through coordinated, economically viable actions, including regulation of pyrethroids and diuron; establishing stringent water quality criteria will not contribute to the CVRWQCB board's goal of creating habitat consistent with the beneficial use. The UC Davis methodology for determining water quality criteria and all of the alternatives for water quality criteria are based on effect levels that produce no effects on the most sensitive species. The selection of an objective based solely on toxicity endpoints neglects other considerations such as the species diversity, population density and other measures of the biological integrity of the water body that are relevant to determining whether stringent control of pesticides will provide any improvement in habitat that is necessary to protect the beneficial use. The scoping documents do not indicate that any factor other than toxicity to sensitive organisms has been considered in selecting the alternatives for the WQO or the water bodies to which the WQO will apply. There is no indication in the scoping document that the economic impact of any of these extremely protective levels of control has been considered in selecting the alternatives. Additional alternatives that will give a WQO that is a more reasonable goal should be considered. Several alternatives have the potential to provide a target that is consistent with the goal of attaining the beneficial use, but will reduce the economic impact on users who depend on pyrethroids and diuron for protection of crops and public safety.

The scoping document notes that the water quality objective will apply to all or a subset of the water bodies in the Sacramento and San Joaquin River Basins. The process for determining the water bodies to which the objective will apply is not clear. The Board may consider changing beneficial use designations if it is infeasible to attain a designated use and could eliminate some water bodies from consideration. The statement in the document "there is no indication that the current designations are infeasible" suggests that the CVRWQCB has already made the decision. It is not possible to ascertain whether or not any of the existing designations are appropriate without knowing the specific list. We assume that the public draft language for the OP insecticide Basin Plan amendment will give the specific list that will also apply to the pyrethroids and to diuron. WPHA recommends a specific list be made available and the beneficial uses and feasibility of attaining the beneficial use be confirmed prior to completion of the project.

The alternatives for WQOs for pyrethroids in sediment do not include the triad approach advocated by the State Board. Considering the costs involved, WPHA would ask that the CVRWQCB reconsider whether development of a new method for setting sediment quality criteria is necessary, given the significant resources expended by the State to accomplish the same objective.

Some of the challenges associated with developing sediment quality criteria for chemicals such as pyrethroids are:

- Insufficient high quality sediment toxicity data across a range of appropriate benthic taxa (infaunal and epifaunal taxa). When data are limited then uncertainty factors are often imposed, resulting in overly-protective criteria that should not be the sole basis for determining sediment quality objectives.
- Bioavailability of lipophilic chemicals (i.e. pyrethroids) in sediment needs to be understood.
- Sediment toxicity data should be standardized across a range of sediment types (% fine clays and TOC etc.). It is very likely that this information will be lacking.
- Developing science-based sediment quality objectives is not a task that can be done by a single individual. The State Board implicitly recognizes the challenge by requiring three lines of evidence for establishing sediment quality criteria. This is a task for an expert panel with expertise in aquatic toxicology, benthic ecology, sediment chemistry, and statistics.
- Using sediment concentration data for control of pyrethroid exposures in sediments is complicated by the spatial variability of residues in stream bed locations within a few meters of one another. In part, these inhomogeneities are due to the nature of zones where sedimentation can occur, to variation in the sediment sampling protocols as well as to the lack of mixing. The key point is that sediment residue data cannot be treated in the same way as water concentrations in the estimation of potential exceedences of water/sediment quality criteria.

WPHA thanks the CVRWQCB for its consideration of our comments, and we look forward to continuing to work with the CVRWQCB staff on this and other water quality related issues. If you have any questions, please feel free to contact me at (916) 574-9744.

Sincerely,



Afiquir Khan, Ph.D.
Director, Environmental & Regulatory Affairs

cc via email: Tessa Fojut, CVRWQCB
Melissa Dudley, CVRWQCB