

Mr. Danny McClure  
Ms. Melissa Dekar  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6114

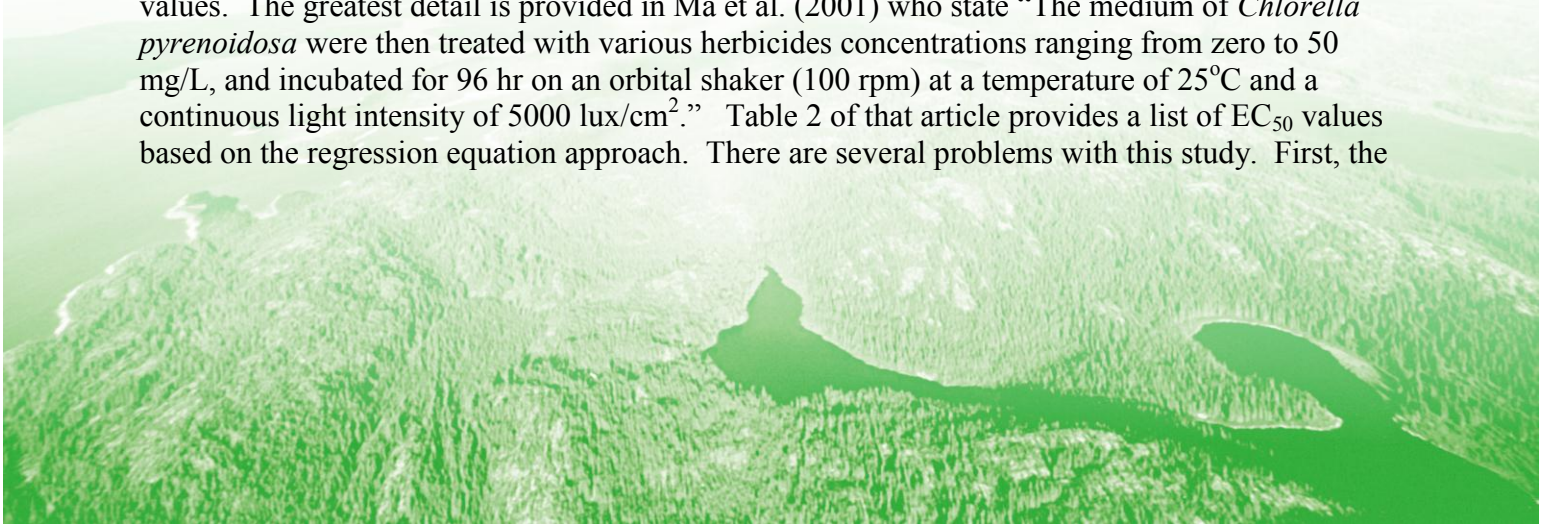
Dear Mr. McClure,

My apologies for the late submission of comments on the material provided at the October 30, 2012 scoping meeting for the Central Valley Diuron Total Maximum Daily Load and Basin Plan Amendment, the East San Joaquin Water Quality Coalition and the San Joaquin County and Delta Water Quality Coalition are providing comments on the documents provided at the meeting. Even if the comments cannot be included in the administrative record, the Coalitions hope that staff will consider the comments below as they move forward with the TMDL/BPA process.

The Coalition is particularly concerned about the four water quality objectives alternatives presented in section 3.3.1 of the informational document. These alternatives include 1) no change to current objectives which is specified as continued use of 1.3 µg/L narrative criterion as a numeric objective, 2) no detectable diuron, 3) use of the water quality objective derived by UC Davis which is 1.3 µg/L, and 4) use of the EPA aquatic life benchmark of 2.4 µg/L.

Specifically, the Coalitions are concerned with the range of concentrations covered in the four alternatives. Given the numeric value of 1.3 µg/L assigned as the objective under both alternatives 1 and 3, there is no difference between the two choices. The only difference is in the study identified as the basis for the selection. Also, given that there are concentrations below which no adverse effects are seen, the alternative of no detectable concentration is not appropriate. Consequently, the four alternatives really amount to two viable alternatives, 1.3 µg/L and 2.4 µg/L.

The Coalitions urge that the Regional Board reconsider the information provided by Dr. Aldos Barefoot in his December 5, 2009 comments on the draft Diuron Criteria Derivation document. Additionally, the Coalitions reviewed three studies by Ma (Ma and Ling 2001, Ma et al. 2002, Ma 2002) that address the EC<sub>50</sub> value of 1.3 µg/L for diuron. None of these three publications are appropriate and the 1.3 µg/L concentration should be discounted. First, none of the three studies include any data and only vaguely discuss the experimental design used to generate the EC<sub>50</sub> values. The greatest detail is provided in Ma et al. (2001) who state “The medium of *Chlorella pyrenoidosa* were then treated with various herbicides concentrations ranging from zero to 50 mg/L, and incubated for 96 hr on an orbital shaker (100 rpm) at a temperature of 25°C and a continuous light intensity of 5000 lux/cm<sup>2</sup>.” Table 2 of that article provides a list of EC<sub>50</sub> values based on the regression equation approach. There are several problems with this study. First, the

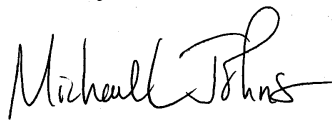


material used in the exposures was purchased from the People's Republic of China and there is no way to determine the source of the chemical or its purity. Second, the description of the experimental design is insufficient to allow replication of the experiment because no dosing levels are provided. Finally, no data are provided to recalculate the EC<sub>50</sub> or even allow a visual check on the calculations.

In addition, the journal in which the paper is published is very lax in its standards and often publishes manuscripts that have been rejected from other journals. In the toxicology academic community, the Bulletin of Environmental Contamination and Toxicology is seen as the journal in which just about anything can be published and is the journal of last resort. Peer review is not rigorous and reviewers are provided no standards for acceptance. In 2001, the impact factor of the journal was 0.490. The 2008 impact factor of the journal improved to .609 but it was still ranked near the bottom of all environmental journals for its impact on science based on citations of its articles. Top journals in the field have impact factors that range between 3 and 7. In short, it is a poor article in a poor quality journal and does not provide a sufficient basis on which to develop a water quality objective.

The Coalitions encourage Board staff to reconsider the use of the Ma et al. papers as a basis for the water quality objective for diuron.

Sincerely



Michael L. Johnson





