April 25, 2011

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Federal Rulemaking Portal
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Docket No. EPA-R09-OW-2010-0976

Erin Foresman
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

RE: EPA-R09-OW-2010-0976 Advance Notice of Proposed Rulemaking - San Francisco Bay/Sacramento-San Joaquin Delta Estuary

Dear Ms. Foresman:

The Sacramento Valley Water Quality Coalition (Coalition) was established in 2003 to provide regulatory coverage to agricultural and managed wetlands operations under the Central Valley Regional Water Quality Control Board's (Regional Board) Irrigated Lands Regulatory Program, referenced on page 42 in the *EPA-R09-OW-2010-0976 Advance Notice of Proposed Rulemaking - San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (ANPR). The Coalition covers the Sacramento Valley, the northern part of California's Great Central Valley.

Our comments focus on the request for additional scientific information on the effects of pesticides in discharges and the potential effects on aquatic resources in the Bay-Delta Estuary. (Page 46, question 1.) We are particularly cognizant that there are ongoing concerns about pesticides contributing to the Pelagic Organism Decline (POD) in the Sacramento-San Joaquin Delta. The Coalition is committed to enhance and improve water quality for farms, cities and the environment in the Sacramento Valley and we will continue to work closely with the Regional Board to better understand water quality issues in the Sacramento Valley and to address areas where water quality problems arise. (*See* e.g., ANPR, p.35.)

Monitoring Data

The Coalition has been monitoring and analyzing water column and sediment samples for seven years throughout the Sacramento Valley, including monitoring sites at locations in portions of Sacramento, Solano and Yolo Counties within the statutory Delta. This monitoring is conducted under the Coalition's Monitoring and Reporting Program Order (MRP Order, R5-2009-0875)

approved by the Regional Board's Executive Officer on December 10, 2009. The Order describes the Coalition specific surface water monitoring and reporting requirements for the Sacramento Valley, focusing on the waterbodies that will be sampled for certain water quality parameters during both assessment and core years. The Order contains Water Quality Management Plan monitoring requirements and the technical protocol for the Quality Assurance and Quality Control Plan (QA/QC) and Toxicity Identification Evaluation (TIE)

procedures, all of which comply with the United States Environmental Protection Agency's (USEPA) requirements.

The Coalition has also had the benefit of monitoring results from other programs, such as the Sacramento River Watershed Program. The SRWP was founded in 1996 by a collaborative, consensus-based group of stakeholders initially supported by funding from U.S. EPA and the Sacramento Regional County Sanitation District, and more recently by Proposition 50 grant funding. Activities of the SRWP include monitoring for contaminants and providing watershed education and outreach. The broad conclusions based on SRWP's water quality monitoring efforts have been that the water quality in the mainstem Sacramento River and its major tributaries generally support the important beneficial uses of these waters (drinking water supply, recreation, and aquatic life).

In the SRWP's most recent monitoring report (*Final Proposition 50 Grant Monitoring Report 2005 – 2007. March 2008*), it was that toxicity due to organophosphate pesticides of concern had declined substantially due to changes in practices and decreases in the applications of chlorpyrifos and diazinon. Overall, monitored pesticides rarely exceeded or approached water quality objectives or concentrations known to be toxic to sensitive species, and were not definitively associated with toxicity in any sample collected by SRWP in 2006-2007.

These findings are generally consistent with the results of the Coalition's monitoring for the ILRP. SRWP also found there were no substantial differences in the frequency of toxicity observed in the different types of waterbodies monitored in 2006 and 2007 (mainstem river, major tributaries, agricultural drainages, and urban creeks).

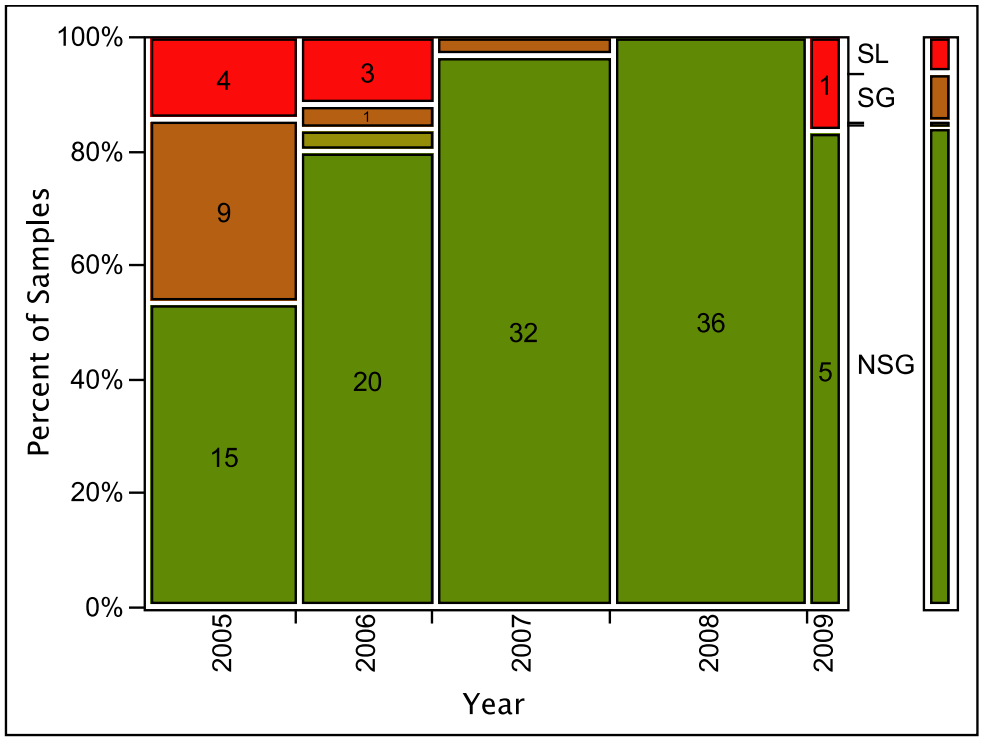
Pesticides

The ANPR calls out that "the two pesticide groups of recent concern and attention are organophosphate (e.g., diazinon and chlorpyrifos) and pyrethroids." (p. 37.)

With respect to **organophospates**, their use in the Sacramento Valley has decreased in recent years. The Coalition has observed only 25 exceedances in 655 samples analyzed for the most commonly used organophosphate pesticides (chlorpyrifos and diazinon) in the past seven years of ILRP monitoring. In fact, in part as a result of the Coalition's program to address a Total Maximum Daily Load (TMDL) for diazinon and chlorpyrifos on the Feather River, the State Water Resources Control Board (SWRCB) delisted the Lower Feather River for organophosphates in its 2008 update of the 303(d) list. In the most recent monitoring conducted by the SRWP (2006-2007), it was found that chlorpyrifos and diazinon were rarely detectible in Sacramento Valley waters (in less than 3% and 5% of 163 samples, respectively). Only one exceedance was observed for each of these pesticides, and there was no aquatic toxicity associated with any of the detections by SRWP.

For **pyrethroid** insecticides, their use has increased in recent years as an alternative to organophosphate pesticides for control of insects on many crops. Use in urban settings has also increased dramatically because they have replaced many of the organophosphate pesticide-based formulations that were banned for consumer retail use.

As a result, pyrethroid pesticides were monitored by the Coalition in 117 water samples from 19 sites in 2005 and 2006. Although analyses for eleven (11) individual pyrethroids were conducted at very low detection limits (<0.005 ug/L), no pyrethroids were detected in 1,108 total analyses in water. Because pyrethroids partition so strongly to sediments, the Coalition in 2007 changed its strategy to monitor pyrethroids in sediment samples with significant toxicity. From 2007 to 2009, only one of the 75 sediment samples tested with the sensitive invertebrate *Hyalella azteca* was toxic enough to trigger the more detailed pyrethroid analyses. The concentrations of pyrethroids in this particular sediment sample were sufficient to explain the observed toxicity, but the fact remains that sediment toxicity has rarely been observed in Coalition monitoring to date. Sediment toxicity was also the only Coalition toxicity parameter with a statistically significant trend from 2005-2009. based on a trends analysis conducted by the Coalition to help guide future actions. As illustrated in the figure below, the proportion of samples with statistically significant toxicity decreased over this five-year period. While this trend may not be due entirely to changes in management of pyrethroid pesticides, it indicates that the Coalition's efforts to increase grower awareness of the risks of these pesticides and of appropriate management practices to reduce those risks has already been effective.

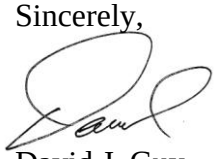


***Percent of samples toxic to Hyalella azteca. Red** indicates samples with significant toxicity with less than 80% survival (SL); **Orange** indicates significant toxicity with greater than 80% survival (SG). **Green** indicates the percentage of samples that were not significantly toxic (NSG and NSL). Boxes are proportional to the number of samples, which are indicated by the values in each box of the mosaic plot.*

This trends analysis supports the statement in the ANPR that agriculture does not seem to be the primary source of pyrethroid pesticides. (p.36.) With this said, the Coalition will continue to monitor pyrethroids as part of its Order and address any exceedances pursuant to the Regional Board's Irrigated Lands Regulatory Program.

The Coalition appreciates the opportunity to provide these comments to supplement the information contained in the ANPR. Please call me or Bruce Houdesheldt if you have any questions.

Sincerely,



David J. Guy
President
Northern California Water Association