



MVCAC

May 10, 2011

**Mosquito and Vector Control  
Association of California**

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Ms. Victoria A. Whitney  
Deputy Director  
Division of Water Quality  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-0100

Re: NPDES Permit For Pesticide Discharges From Vector Control Applications

Dear Ms. Whitney:

Since the March 1, 2011 adoption of the general NPDES permit for vector control, the Mosquito and Vector Control Association of California ("Association") and its member districts have carefully reviewed the terms of the final permit. Upon review and consideration, there are a few issues that we request the State Board staff to reconsider. The first issue presents a major concern and the other three issues involve minor clarifications.

Association representatives briefly discussed some of these issues at a meeting with Jonathon Bishop of your staff on April 1, 2011. Mr. Bishop suggested that we bring significant permit issues to the attention of State Board staff, highlight any unintended consequences from permit changes, and provide the staff with an opportunity to consider whether any permit changes may be appropriate. We now follow up on that suggestion.

#### **Issue No. 1 – Scope of Prohibition For Section 303(d)-Listed Waters**

The permit prohibits the discharge of certain pesticides to impaired waters as listed pursuant to section 303(d) of the Clean Water Act. (See section IX(A)(2); Att. D, section IV(D); Att. G, p. G-7.) In the posted draft permit to be considered by the State Board, this provision read: "This General Permit does not authorize the discharge of residual pesticides or their breakdown by-products to waters of the US that are impaired by the pesticide active ingredients included in permitted larvicides and adulticides listed in Attachments E and F." This provision was acceptable to the Association.

In a change sheet that was distributed late the day before the March 1, 2011 State Board meeting, this provision was changed to read: "This General Permit does not authorize the discharge of biological and residual pesticides or their degradation by-products to waters of the US that are impaired by the same pesticide active ingredients or any pesticide in the same chemical family included in permitted larvicides and adulticides listed in Attachments E and F." This change was not addressed in the February 15, 2011 staff report or the March 1, 2011 response to comments or addressed in any detail at the March 1 meeting. It first appeared in the last-minute change sheet.

It was not until after the March 1 meeting and a careful evaluation of the final permit that we realized that the expansion to "or any pesticide in the same chemical family" is a significant change that will adversely affect mosquito control. We would look like to explain the significance and consequences of the change and request that the State Board staff reevaluate the change.

Various water bodies throughout the state are listed by the State Board as impaired ("303(d)-listed") by pesticides at levels that exceed protective water quality criteria and standards. In particular, many waters are listed as impaired by

chlorpyrifos and diazinon, which are organophosphate pesticides, and some waters are listed as impaired by malathion, which also is an organophosphate.

This raises the question of how to apply the phrase "or any pesticide in the same chemical family" to chlorpyrifos, diazinon and malathion. We understand the chemical family of these three pesticides to be the family of all organophosphate pesticides. Therefore, under the revised general permit, the permit prohibits the discharge of any organophosphate pesticide to a water of the U.S. that is impaired by chlorpyrifos, diazinon or malathion. In other words, use of any organophosphate is prohibited over or near any of the many 303(d)-listed state water bodies impaired for chlorpyrifos, diazinon or malathion. This is a vast prohibition. Was this intended by the State Board when making the last-minute change?

Vector control districts regularly use naled, which is another organophosphate pesticide. It is one of the most widely used vector control adulticides, in particular with the control of adult mosquitoes emanating from rice fields throughout the Central Valley. Naled is not on the 303(d) list. Nevertheless, because of the "or any pesticide in the same chemical family" prohibition, naled use is prohibited anywhere near any water body listed for chlorpyrifos, diazinon or malathion. With the broad definition of water of the U.S., broad definition of "discharge of a pollutant" in *National Cotton Council v. EPA*, concern of permit noncompliance, and the risk that a naled application may find its way into a water of the U.S., we expect that vector control districts will err on the safe side and avoid applying naled anywhere near the listed water bodies. Because of the scope of the listing, especially chlorpyrifos, this prohibition will have a considerable impact on the efficacy of mosquito control.

Malathion also is sometimes used for adult mosquito control. Similarly, even though malathion is listed for only a few water bodies, with the "or any pesticide in the same chemical family" prohibition, malathion use also would be prohibited anywhere near waters impaired by chlorpyrifos or diazinon.

The revised permit presents a similar problem regarding pyrethroids and pyrethrins. Pyrethroids are synthetic chemical insecticides. Pyrethrins are botanical insecticides derived from chrysanthemum flowers. Both work by altering nerve function, which causes paralysis and death in target insect pests.

Several water bodies in the Central Valley are listed as impaired by pyrethroids, but not pyrethrins. Are pyrethroids and pyrethrins in the same chemical family? Yes, if chemical family is determined based on mode of action. Sometimes, both are included under a listing of the pyrethroid chemical family. Again, with the ambiguity and because of the concern of permit noncompliance, we expect vector control districts will construe the permit conservatively to treat both pyrethroids and pyrethrins as in the same chemical family.

Again, therefore, the "or any pesticide in the same chemical family" prohibition will have a major impact on the use of pyrethrins in the pyrethroid-listed water areas. For example, many urban creeks in Sacramento County are listed for pyrethroids. In recent years, in control of West Nile virus in Sacramento County, the local vector control district has used pyrethrins for adult mosquito control in some urban areas. With the State Board's last-minute change, future pyrethrin usage will be limited and the local vector control district will need to evaluate alternative control measures. Many urban creeks also are listed for chlorpyrifos, which restricts naled use. The result may be that adult mosquito control is entirely prohibited in areas with creeks impaired by both pyrethroids and chlorpyrifos, which will result in much greater exposure to mosquitoes. Did the State Board intend this significant prohibition?

We urge and request the State Board staff to evaluate the consequences of its last-minute addition of "or any pesticide in the same chemical family." If the staff did not intend these adverse consequences, then we request the staff to ask the State Board to revise section IX(A)(2), Attachment D, section IV(D) and Attachment G, page G-7 to remove the expansive language.

Shortly after the State Board's March 1, 2011 action, U.S. EPA released its draft Pesticide General Permit for Point Source Discharges to Waters of the U.S. from the Application of Pesticides. The draft EPA permit also addresses

the 303(d)-listed waters issue. The EPA permit is less burdensome than the California permit and it does not significantly expand the prohibition as does the California permit. Here is the pertinent provision from the draft EPA permit:

"Discharges to Water Quality Impaired Waters. You are not eligible for coverage under this permit for any discharges from a pesticide application to waters of the U.S. if the water is identified as impaired by that pesticide or its degradates. For purposes of this permit, impaired waters are those that have been identified by a State, Territory, Tribe or EPA pursuant to Section 303(d) of the CWA as not meeting applicable State, Territorial, or Tribal water quality standards. Impaired waters for the purposes of this permit include both waters with EPA-approved or EPA-established Total Maximum Daily Loads (TMDLs) and waters for which EPA has not yet approved or established a TMDL. A list of these waters is available on the Internet at [www.epa.gov/OWOW/tmdl/](http://www.epa.gov/OWOW/tmdl/). If your discharge would not be eligible under this permit because the water is listed as impaired for that specific pesticide, but you have evidence that shows the water is no longer impaired, you may submit this information to EPA and request that coverage be allowed under this permit."

EPA's provision is a more reasonable and appropriate implementation of section 303(d). In implementing section 303(d), the State Board's language expands the prohibition beyond the scope of the statute. We request the State Board to modify the provision to be more consistent with the EPA provision.

### **Issue No. 2 – Clarify Toxicity Testing**

At the March 1, 2011, the State Board considered the toxicity testing requirement and decided that the State Board initially will fund and implement toxicity studies. Accordingly, the State Board did not impose toxicity testing on the permittees. Rather, the permit may be reopened to add toxicity testing in the event subsequent studies indicate the presence of toxicity.

Nevertheless, a few parts of the permit still refer to the permit requiring toxicity testing, which is inconsistent with the final position adopted by the State Board. (See sec. III(K) & (L); Att. D, sec. IV(C)(4).) These provisions should be clarified.

### **Issue No. 3 – Clarify Pesticide Application Log Requirements**

Permit section VIII(E) requires a discharger to prepare and maintain a pesticide application log for each pesticide application. For larvicide applications, the log must "include flow rate of the target area, surface water area, and volume of water treated." (Section VIII(E)(5).) In reviewing the final permit, several of the member districts have expressed concern about how to comply with this requirement.

Vector control districts regularly make 100s to 1,000s of larvicide applications to a variety of water sources, including wetlands, riparian areas, flooded areas, ditches, and other standing water sources. It will be extremely difficult for district field technicians to determine the treated area's flow rate, surface water area and volume. The technicians generally lack the tools and training to calculate or otherwise determine this data.

In the response to comments dated March 1, 2011 concerning this issue, the State Board staff responded that, "Most of the information required can be observed and estimated. Information on flow rates of receiving water is readily available on web from such sources as the California Department of Water Resources and the US Geological Survey." This response evidences a misunderstanding of mosquito control practices. First, with respect to flow rates, the DWR and USGS data show flow rates for rivers and streams. (See, e.g., <http://cdec.water.ca.gov/river/rivcond.html> and <http://water.usgs.gov/osw/>.) A flowing river or stream without weeds generally is not a mosquito source or problem. Rather, mosquitoes tend to breed in standing water sources, which are not sources monitored by DWR or USGS. Second, we fail to understand how water volume can be estimated by merely observing the water source. To determine water volume, one must know water depth and area, which are

measurements that vector control field technicians, with current practices, tools and training, are unable to calculate or even fairly estimate.

We request that the provision be changed to "For larvicides, application details shall also include a description of the treated water source."

#### **Issue No. 4 – Scope of "Each Application" Informative Notice Requirement**

Attachment C, section IV(A)(1) requires that, "The Discharger or Coalition shall inform the State Water Board and the appropriate Regional Water Board 24 hours before the start of each application or the earliest feasible time." (Emphasis added.) The Association as the statewide Coalition will handle monitoring and related reporting requirements. However, the Coalition will not be involved in or aware of all of the applications by all vector control districts throughout the state. Therefore, this permit requirement and burden will fall on each district/permittee.

Again, in reviewing the final permit, several of the member districts have identified this provision as excessive and burdensome. This provision will require notice to the State Board and regional board of each larvicide and adulticide application to a water of the U.S. by every vector control district in the state. There are 63 member districts in the Association. During the mosquito control season, each of those districts will make larvicide and/or adulticide applications on a daily basis, and often dozens to 100s of application per day. Furthermore, with the uncertainty about what constitutes a water of the U.S., you may expect districts to err on the side of over-notification.

Under this provision as drafted, the State Board and regional boards will be inundated with notices on a daily basis and perhaps several times per day from up to 63 dischargers. What will the State Board and regional boards do with this information? Is this necessary? Isn't this subject matter adequately covered by the pesticide application log requirement? The log will be a public record available to the State Board and regional boards at any time. What does it mean to "inform ... of each application?"

We request the State Board to delete this unnecessary requirement. If the State Board insists on retaining it, then we request that it be modified to clarify the requirement in a practicable way that will conform to the districts' daily applications and practices.

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With the court-ordered delay of the NPDES permit requirement to October 31, 2011, this time presents an opportunity for the State Board staff to consider permit refinements and clarifications. If you concur with our requested changes, we request the State Board staff to initiate and process a permit amendment through the State Board.

Thank you for your consideration of our request. We look forward to your response. Please contact me if you have any questions.

Sincerely,



Catherine Smith  
Executive Director