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February 17, 2011

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Sent via e-mail:
commentletters@waterboards.ca.gov

RE: Proposed Statewide General NPDES Permit for Residual Pesticide Discharges from Aquatic Animal Invasive Species Control Applications (AAIS Control Permit)

Dear Ms. Townsend:

The Association of California Water Agencies (ACWA) appreciates the opportunity to provide comments on the recently revised AAIS Control Permit. ACWA represents approximately 450 public water agencies throughout the state. Our members provide approximately 90 percent of the water used for agricultural, residential, and commercial purposes in California. We have provided comments to the Board and staff on numerous occasions during the evolution of this proposed permit. While there have been some significant changes to the proposed AAIS Control permit, we believe additional modifications are warranted.

For the following reasons, we encourage the Board to limit water quality monitoring under the AAIS Control Permit to the protocol set forth on page C-4 of Attachment C. (See "B. Sample Types: 1. Background Monitoring; 2. Event Monitoring; and 3. Post-Event Monitoring"). This is consistent with the monitoring requirements that have been successfully in place under the Aquatic Weed Control Permit for more than eight years. We also encourage the Board to adopt Option A under the "Toxicity Testing Requirements" section on page C-4 which eliminates any requirements for toxicity testing.

1. It is critical to recognize that the aquatic pesticides and herbicides applied by ACWA members and others are applied intentionally to surface water and are registered for just that purpose. They have had toxicity testing performed on aquatic species as a condition of their USEPA and CA DPR registration.
Conclusion: Water Quality Objectives (WQOs) for aquatic pesticides and herbicides and the associated restrictions set forth on the product label have been created to protect aquatic species and beneficial uses.

2. While Water Board staff has identified pesticides as the second most significant impairment of waterbodies in California, such impairments are associated with unintentional drift and surface runoff. Examples of these are historical detections of the organophosphorous insecticides and more recently detections of the pyrethroid insecticides by Don Weston (UC Berkeley) and others in places like Arcade Creek in Sacramento. These insecticides were never intended for use in water and never subjected to toxicity testing to allow for their registration for use in water. We are unaware of data from relevant sources (303(d) list, SWAMP, CIWQS, CEDEN, etc) that indicates that aquatic herbicides are the cause of impacts to water quality. An exception is copper for which there are multiple sources (brakes, paint, plumbing, etc.).
Conclusion: Applications of pesticides and herbicides by ACWA members and others specifically approved by USEPA and DPR for direct applications to water have not contributed to waterbody impairments.
3. Aquatic pesticides and herbicides are used in moving water, often in canals or ditches that may be as long as 75 miles. Conclusion: Dilution, degradation and the common use of this water for irrigation are reasons why aquatic herbicides are not found shortly after they are intentionally introduced into water. Because of the transient nature of water in which aquatic pesticides are applied, toxicity testing before and after a pesticide application will not measure conditions attributable to the application event.
4. The NPDES permit for aquatic herbicides has been in place since 2002 and resulted in more than 2,000 sample analyses. Very few incidents involving exceedances of WQOs were identified. See attached graph. Conclusion: The sampling results support the conclusion that additional sampling is unwarranted. We believe that similar sampling protocols and laboratory analysis will suffice for the AAIS Control Permit.
5. The WQO is *de facto* toxicity testing as the WQO is derived from toxicity endpoint data such as Maximum Contaminant Levels (MCLs), No Observed Adverse Effect Levels (NOAEL) and Lethal Concentrations that kill 50 % of a test population (LD50) divided by a safety factor of 10 or 100. Toxicity of the applied herbicide has already been evaluated by comparing its concentration to a concentration with a known toxicity end point. Conclusion: There is no need to do toxicity testing for either the invasive animal species NPDES permit or as an additional requirement for the existing aquatic weed permit when it is revisited by your staff.
6. Staff informed us that their primary justification for toxicity testing is with ingredients (primarily "inerts") contained in pesticide products that are not listed on the label. As we discussed, this concern was raised and addressed during the development of the aquatic weed permit with input from Deltakeeper and Water Board staff. The consensus was that a surrogate

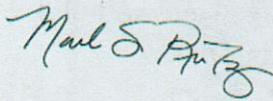
would be used to assess the presence of "inerts" or adjuvants. This surrogate is nonylphenol. Just like the legitimate use of surrogates such as ceriodaphnia exist in toxicity testing, chemical surrogates such as nonylphenol used in the existing aquatic weed control permit are a legitimate approach to evaluate for the presence and impacts of inerts. Conclusion: A scientifically sound method is in place to assess inerts and adjuvants. Nonetheless, if staff believes that additional or other surrogates need to be analyzed, that's a discussion we are most willing to pursue.

7. Monitoring obligations under a NPDES permit should focus on the presence of chemical(s) being introduced into water, as authorized by the NPDES permit. The use of toxicity testing is not appropriate as part of a compliance permit because toxicity testing is intended to determine general toxicity in the water body, not the presence of residual pesticides. When measuring toxicity, information is gathered on impacts to an organism from the entire water column, not just the presence of a specific chemical. There may be toxicity contributions to the water column from other than that caused by the chemical intentionally introduced. This causes confusion. The causes of toxicity are extremely difficult to determine, the process is expensive and the answer is often "unknown cause of toxicity." Conclusion: Toxicity testing is not a good tool to determine compliance associated with approved application of specific pesticides. Analytical chemistry, as required under the existing weed control permit, is the most appropriate tool for assessing whether specific applications are adversely affecting water quality (i.e. exceeding WQOs).
8. The AAIS Control Permit (i.e. application of sodium hypochlorite to control quagga mussels) states that toxicity testing is not required. However, the provisions of the permit include numerous references and instructions for toxicity testing. This can be very confusing for potential permittees. Recommendation: We recommend removing all the provisions that reference toxicity testing. If, at a future date, such testing is warranted (e.g. new pesticides are approved to control invasive animal species), staff can take advantage of the reopener provision to address whether toxicity to require toxicity testing. It should also be noted that the revised permit does not provide for an expedited process for reopening the permit, as discussed at the November 2010 Water Board hearing and our previous comments.
9. The aquatic invasive animal permit is currently written to allow for the use of chlorine. Chlorine, like aquatic herbicides, is intended for use in water, has known aquatic toxicity and corresponding WQOs, and is not combined with any inerts. Conclusion: We do not believe toxicity testing associated with these applications is warranted. The monitoring requirements set forth on page C-4 of the revised draft AAIS Control Permit (See "B. Sample Types") should provide sufficient analysis to ensure compliance with the established WQOs.

10. In the staff's response to our earlier comments, they stated that if discharges are covered under another permit, than the AAIS Control Permit will not be required. Recommendation: We recommend language should be added to the permit, perhaps under the "Applicability" section, to clarify when an AAIS Control Permit is not required. The permit should provide a complete list of all the agencies and related permits. For example, the revised draft AAIS Control Permit fails to recognize the provisions of Department of Fish and Game plans and Regional Water Quality Control Board permits that cover chlorine for potable water discharges.
11. Several ACWA members previously commented on the chlorine limits in the permit which are set at a limitation of 10 ug/L monthly average and 20 ug/L daily maximum. These levels are set well below the practical detection limits for widely used field testing methods for chlorine residual, and are below the chlorine limits in other discharge permits for potable water which is dechlorinated prior to discharge. Recommendation: We encourage staff to review the comments submitted on this issue, and reconsider the limits contained in the permit.
12. The permit includes a provision for public notification and posting for public comments. The requirement refers to website posting; however it is not clear as to the purpose of the posting and whether the posting is on SWRCB's website, the website of the permit applicant, or both. Recommendation: We are requesting staff to clarify this requirement.

This concludes ACWA's comments on the revised draft AAIS Control Permit. We appreciate the opportunity to provide additional input to the Board as it deliberates on this very important regulatory matter. If you have any questions regarding our comments please do not hesitate to send me an e-mail at markr@acwa.com, or give me a call at (916) 441-4545. \

Sincerely,



Mark S. Rentz
Director of Regulatory Affairs

Cc: Tom Howard, Water Board Executive Director

Summary of Post-Application Detection of Pesticides Applied to Water to Control Aquatic Vegetation in California: 2002-2009

