

Response to Comments

**Draft Statewide General National Pollutant Discharge
Elimination System (NPDES) Permit
for
Residual Pesticide Discharges from Aquatic Animal
Invasive Species Control Applications
to
Waters of the United States**

**State Water Resources Control Board Meeting
March 1, 2016**

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A. Comment Letters Received

Letter Number	Affiliation	Representative
1	Association of California Water Agencies	Rebecca Franklin
2	The City of San Diego	Cathleen C. Pieroni
3	Heal the Bay	Katherine Pease Rita Kampalath
4	Metropolitan Water District of Southern California	Bart Koch
5	San Diego County Water Authority	Lisa Israel-Prus

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B. Responses to Comments

The State Water Resources Control Board (State Water Board) received five comment letters on the Draft Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Pesticide Discharges from Aquatic Animal Invasive Species Control Applications (Aquatic Animal Invasive Species Control Permit) during the public comment period. The summarized comments and staff's responses are shown below.

1. Comment Letter 1 – Association of California Water Agencies (ACWA)

ACWA Comment 1.01:

The Association of California Water Agencies (ACWA) supports several of the changes in the Draft Aquatic Animal Invasive Species Control Permit, including the addition of copper to the list of covered chemicals. This addition will allow agencies the flexibility to apply for coverage in the instance that they need to control quagga mussels. In addition, ACWA supports the new provision that gives flexibility to the State Water Board's Executive Director to add additional pesticides, without a complete reopening of the permit. The Association also appreciates that this provision is consistent with language in the Aquatic Weed Control Permit (NPDES No. CAG 990005, Order 2013-0002-DWQ).

State Water Board Response:

Comment noted

2. Comment Letter 2 – City of San Diego (City)

City Comment 2.01:

In Attachment C, Section III.C (beginning on page C-5), the prescribed monitoring plan appears to be specific to direct application of the pesticide to a receiving water body. This section does not seem to contemplate release of water previously treated with a pesticide into receiving water. For example, water in a conveyance pipeline might be treated, and then that water released into a receiving water body, resulting in significant dilution. The City requests the inclusion of an alternative monitoring process for these sorts of unique situations.

State Water Board Response:

The Draft Aquatic Animal Invasive Species Control Permit proposes to authorize only monitoring processes specified in product label requirements approved by the United States Environmental Protection Agency (U.S. EPA) for products registered by the California Department of Pesticide Regulation (DPR). The prescribed determination of the *Pseudomonas fluorescens* strain CL145A cells and spent fermentation media (Pf CL145A-S) concentrations in receiving waters in the Draft Aquatic Animal Invasive Species Control Permit is consistent with the product label requirements.

3. Comment Letter 3 – Heal the Bay

Heal the Bay Comment 3.01:

Heal the Bay is concerned about the following: 1) toxicity monitoring has been previously removed from the Vector Control and Aquatic Animal Invasive Control Statewide Permits; 2) toxicity monitoring is currently proposed to be removed

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from the Draft Spray Applications Permit; 3) monitoring on a constituent-by-constituent basis ignores the potential synergistic and complex effects of pesticides on an ecosystem; 4) the reasoning for removing toxicity monitoring is not clear or transparent; 5) a State Water Board “toxicity study” is referenced in the Draft Pesticide Permits that was completed in December 2012. However, the Draft Pesticide Permits lack citations to the study which is only available through a scientific journal article and must be purchased, but is not available on the State Water Board’s website; and 6) Toxicity Study conclusions highlight the importance of toxicity monitoring which is contrary to removal of toxicity monitoring in the Draft Pesticide Permits. Heal the Bay recommends the following: 1) a more holistic approach to monitoring that would examine the health of the stream with a focus on possible biological impacts from pesticides; 2) update the Toxicity Study regularly to examine the toxicity of new pesticides and new mixtures of pesticides; and 3) include a numeric toxicity limit and toxicity monitoring in the Draft Pesticide Permits.

State Water Board Response:

The Draft Aquatic Animal Invasive Species Control Permit proposes a balanced approach to protecting water quality while acknowledging the operational needs of entities to control aquatic animal invasive species for water resource protection.

When the State Water Board adopted the Aquatic Animal Invasive Species, Spray, and Vector Control Permits in March 2011, the permits did not include toxicity monitoring requirements. In lieu of toxicity monitoring requirements, the Vector Control Permit required the State Water Board to conduct a toxicity study to determine whether toxicity monitoring should be included in the permits. The Toxicity Study found that further monitoring would provide the same finding of toxicity in some samples due to the toxic nature of pesticides. The Deputy Director amended the Monitoring and Reporting Program in March 2014 based on the following: (1) Toxicity Study results; (2) the 2011-2012 monitoring data from Mosquito Vector Control Association of California showed no significant impact to beneficial uses of receiving waters due to application of vector control pesticides in accordance with approved application rates; and (3) the Deputy Director’s conclusion that reporting of application rates and incidents of non-compliance provided similar information that chemical and toxicity monitoring would provide. Thus, when the Aquatic Animal Invasive Species Control Permit was amended in October 2014, toxicity monitoring requirements were not added.

The proposed permit reissuance carries over October 2014 amendments and will not add toxicity monitoring requirements or effluent limitations for toxicity. The draft permit also proposes to continue requiring U.S. Environmental Protection Agency-approved application rates and appropriate best management practices, to ensure effective water resource protection while concurrently minimizing toxicity to aquatic life.

The State Water Board finds that although the Toxicity Study showed some toxicity from pesticide applications, additional toxicity monitoring will not provide additional valuable information. Thus, the State Water Board did not finalize the

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report; however, the Toxicity Study report was recently posted and can be viewed at:

http://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/docs/vektorcontrol/vcp_tox_study_draft_final_july2013.pdf. Since the Toxicity Study report was not finalized, there is no need to update it because updating it will not provide new information.

The proposed permit reissuance is consistent with the State Water Board's resolution to reduce the cost of compliance with NPDES permits without compromising water quality protection.

Heal the Bay Comment 3.02:

Heal the Bay is concerned that pesticide applications have become standard accepted practices and that critical cost-benefit analyses on pesticide applications are not routine. The Pesticide Application Plans for the Draft Permits require "Identification of the Problem." Heal the Bay recommends the following: 1) Pesticide Application Plans should require further justification of the need and efficacy of pesticide applications to protect public and ecological health; and 2) Scientific studies documenting the impacts to public health or ecological health in addition to studies that show efficacy of pesticide application for the specific problem or pest should be required as part of the justification.

State Water Board Response:

The State Water Board believes that the processes outlined in the Aquatic Pesticide Application Plans (APAPs) are sufficient to justify the pesticide applications under the proposed reissuance of the Draft Aquatic Animal Invasive Species Control Permit. The Draft Aquatic Animal Invasive Species Control Permit requires each permittee to submit an APAP that provides the reasoning and approach to aquatic animal invasive species control pesticide applications. Pesticide applications are made only after an aquatic animal invasive species problem has been identified. Mechanical options are considered and employed when and where viable, before biological or chemical control options are employed.

Pesticides are to be applied per the product label requirements, consistent with all applicable laws and regulations, DPR, and in accordance with the Aquatic Animal Invasive Species Control Permit requirements. State Water Board staff review all of the submitted APAPs prior to the Deputy Director's issuance of Notices of Applicability. As a proposed requirement of the Draft Aquatic Animal Invasive Species Control Permit, a permittee is also required to evaluate and document any changes to their APAP in the submission of its annual reports.

Before a pesticide becomes available for use in California, the pesticide is subject to a rigorous registration process with U.S. EPA and DPR. The registration process includes submission of sufficient scientific data by registrants, evaluation by U.S. EPA and DPR of the efficacy of pesticides and their impacts to public health and the environment, and posting of the proposed pesticide registration by U.S. EPA and DPR. Thus, further documentation of impacts to public health or ecological health in the APAPs is not necessary.

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Heal the Bay Comment 3.03:

The Draft Pesticide Permits do not allow discharge of pesticides to waters that are impaired by the same pesticides, which Heal the Bay supports. However, protection should go further to include streams that are moderately contaminated by the same or similar pollutants. The addition of pollutants to a system that is already contaminated has the potential of pushing pollutants over a threshold to a toxic level. Again, monitoring for one constituent or suite of constituents is unlikely to adequately capture the impacts to the entire system of the pesticide discharge.

State Water Board Response:

The Draft Aquatic Animal Invasive Species Control Permit regulates the discharge of biological pesticides and residual chemical pesticides to waters of the U.S. Only pesticides containing copper, sodium hypochlorite, or Pf CL145A-S are registered with DPR to control aquatic animal invasive species. Due to the toxic nature of pesticides necessary to achieve their intended purpose, the State Water Board recognizes that there may be toxicity impacts to waters of the U.S. However, by using U.S. EPA-approved application rates and appropriate best management practices, water resources will be protected while concurrently minimizing toxicity to protect aquatic life. Precluding the application of these three pesticides for aquatic animal invasive species control in some areas where the waterways are impaired may lead to unwarranted risks to water resource protection without significant benefit to water quality.

Furthermore, impairment to waters of the U.S. from these active ingredients is unlikely. The Draft Aquatic Animal Invasive Species Control Permit sets receiving water limitations for each active ingredient that will be protective of water quality. In addition, treatment is conducted in such a manner that helps ensure the concentrations in the effluent meet receiving water limitations. Moreover, the active ingredients have specific characteristics that minimize the impacts to waters of the U.S. For example, chlorine is volatile and any residual concentration is likely to dissipate to levels that will not impair waters of the U.S. Pf CL145A-S is a biological pesticide which usually does not have toxic effects on non-target animals and people. Biological pesticides also do not leave toxic or persistent chemical residues in the environment. In the case of copper, its use as an aquatic pesticide has been fully documented in the Weed Control Permit. Historical data from the Weed Control Permit show there has not been any incidents of toxic events from pesticide applications using copper.

Therefore, assessing overall stream health would not provide valuable additional information beyond the information provided by existing monitoring requirements.

4. Comment Letter 4 – Metropolitan Water District of Southern California (MWD)

MWD Comment 4.01:

Metropolitan Water District (MWD) supports the changes in the Draft Aquatic Animal Invasive Species Control Permit.

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State Water Board Response:

Comment noted.

5. Comment Letter 5 – San Diego County Water Authority (SDCWA)

SDCWA Comment 5.01:

Beginning on page C-5, Section IV.C. Determination of Pf CL 145A-S Concentrations in Receiving Waters, the process to quantify receiving water concentrations appears to be specific to direct application to a water body rather than a release of treated water into a water body. Because the application point and method may vary, the San Diego County Water Authority requests inclusion of an allowance for removal or authorization of an alternative to this process by justified request for the Discharger.

State Water Board Response:

Please see Response 2.01.