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December 6, 2002

Mr. Van Cheney
California Department of Pesticide Registration
Pesticide Registration Branch
California Environmental Protection Agency
1001 I Street
Sacramento, CA 958914

Dear Mr. Cheney:

Re: Request for Evaluation of Water Quality Impacts of Proposed New Pesticide Product (Bug Juice, ID No. 196089, Registration No. 47332-11, by Walla Walla Environmental Inc.)

The purpose of this letter is to request an evaluation of potential adverse water quality impacts from use of the product Bug Juice (ID No. 196089, Registration No. 47332-11). On October 9, 2002, the California Department of Pesticide Registration (DPR) listed this product as a Material Entering Evaluation, meaning that a request to register the product for use in California has been received by DPR. The proposed registration of Bug Juice would allow its application to sewer manholes for control of cockroach infestations. Tri-TAC is concerned about this product because of the high potential for Bug Juice to be conveyed to downstream wastewater treatment plants. As the removal of deltamethrin, the active ingredient in Bug Juice, in wastewater treatment plants is not well characterized, deltamethrin may pass through wastewater treatment plants and be discharged to surface water bodies.

As background, Tri-TAC is a statewide technical advisory group for the California Association of Sanitation Agencies, the California Water Environment Association, and the League of California Cities. Together these groups represent approximately 90% of the publicly owned treatment works (POTWs) that treat sanitary wastewater in California.

Because California POTWs generally discharge treated wastewater to surface waters that support aquatic habitats, they must meet stringent limits on the acute and chronic toxicity of their effluent to aquatic species. Deltamethrin is very highly toxic to some aquatic species. Average 96-hour LC50s for some species include: water flea (*daphnia magna*) 0.057 ug/L, western mosquitofish (*gambusia affinis*) 1 ug/L, opossum shrimp (*mysidopsis bahia*) 2.7 ug/L, and guppy (*poecilia reticulata*) 16 ug/L.¹

¹ From the Pesticide Action Network Pesticide Database (www.pesticideinfo.org), based upon data from the U.S. EPA AQUIRE Database (www.epa.gov/ecotox/).

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Most of the deltamethrin applied to sewer manholes as Bug Juice has the potential to be conveyed to downstream wastewater treatment plants. A certain portion of the Bug Juice applied will adhere to manhole walls, but the very humid environment in a manhole will promote "washing" of the material from the manhole walls, particularly during high flow events. Insects that absorb the deltamethrin and are killed by it will fall into wastewater flowing through sewers. Additionally, overspray of Bug Juice during application will directly enter sewer wastewater. The amount of deltamethrin in the effluent of wastewater treatment plants after application of Bug Juice to sewer manholes will be dependent upon several factors, including the number of manholes sprayed per day, the amount of Bug Juice sprayed in each manhole, the percent of Bug Juice that is oversprayed, and the removal efficiency of deltamethrin in wastewater treatment plants. To ensure protection of downstream aquatic life, the DPR needs to conduct a study of potential water quality impacts of Bug Juice usage that considers these factors. As literature values for the percent removal of deltamethrin in sewage treatment plants may not be available, the registrant may need to conduct a sewage treatment plant fate study to obtain information on removal efficiencies.

In general, Tri-TAC encourages the development of new products for sewer cockroach control. California POTWs routinely experience cockroach infestations in their sanitary sewer lines and manholes, and are interested in adequately controlling these infestations in a manner that is cost-effective and environmentally safe. However, we would like DPR to ensure that any new sewer cockroach control products that are brought onto the market will not cause aquatic toxicity downstream of wastewater treatment facilities. In general, we encourage the DPR to fully consider potential adverse water quality impacts of all urban pesticide uses, not just this particular product.

Thank-you for your consideration of our comments. We appreciate the opportunity to work with the DPR to ensure that new pesticide products do not adversely impact water quality.

Sincerely,



DAVID R. WILLIAMS, Chair
Tri-TAC

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