January 29, 2019

Veronica Dutch
OPP Docket
Environmental Protection Agency Docket Center (EPA/DC)
(28221T)
1200 Pennsylvania Ave., NW
Washington, DC 20460–0001

Subject: Amitraz – Preliminary Ecological Risk Assessment and Endangered Species Assessment for Registration Review of the Conventional Use in Honey Bee Hives (EPA-HQ-OPP-2009-1015)

Dear Ms. Dutch:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the Preliminary Ecological Risk Assessment (ERA) for amitraz. BACWA's members include 55 publicly owned wastewater treatment facilities ("POTWs") and sewer collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously. BACWA is especially interested in pesticides that are used in manners that have transport pathways to the sanitary sewer, as even the most sophisticated wastewater treatment plants cannot fully remove complex chemicals like pesticides.

Every day, BACWA members treat millions of gallons of wastewater that is then discharged to fresh or salt water bodies, including local creeks and rivers, bays, and the Pacific Ocean. These waterways provide crucial habitat to a wide array of aquatic species and waterfowl. In some cases, waters receiving POTW discharges ("receiving waters") may be effluent-dominated in that there is little to no dilution, either because the receiving water is small or there is a lack of mixing at certain times due to thermal or saline stratification.

BACWA has a strong interest in amitraz due to the existence of indoor uses and the associated pathway to sanitary sewers. The primary purpose of this letter is to request that EPA conduct a Preliminary Ecological Risk Assessment for amitraz that incorporates the latest available aquatic invertebrate toxicity data as well as an evaluation of sewer discharges from pet products. Several studies[1], including a recent study involving several of our member agencies, suggest that pet flea/tick control products have a direct pathway, via sewer collection systems, to POTWs While these studies have focused on pet spot-on products applied directly to pet fur, they prove the existence of the pathway for pesticides in pet collars – which release pesticides onto pet fur – to subsequently be transported to POTWs.

[1] See Appendix 1 and enclosures

BACWA appreciates that OPP has started to conduct evaluation of risks associated with pesticide discharges to the sewer system ("down the drain" risk assessments). Omitting evaluation of the sewer discharge environmental exposure pathway can be harmful to the environment and prove costly for POTWs, as detailed below.

In almost every U.S. state – including California – state law precludes any local regulation of pesticide sales or use. As we have no local option to control use of pesticides consumer products, it is essential to us that OPP's Preliminary ERA adequately evaluates potential impacts to wastewater quality, and results in mitigation measures ensuring that impacts to the beneficial uses of the receiving water are *prevented*.

For these reasons, it is of utmost importance to BACWA that all pet flea/tick control products be carefully and thoroughly evaluated.

In addition to commenting on the Preliminary ERA, we are also taking this opportunity to provide input on possible mitigation strategies for EPA to discuss with amitraz registrants. We are providing this input at this time because mitigation measures may be necessary and we understand that the next opportunity for public comment will be after such discussions and after EPA has prepared its proposed decision.

Thank you for this opportunity to present our input on each of these topics.

Background – Pesticide discharges to the sewer can harm the environment and be costly

Pesticide discharges to the sewer system can prove costly for POTWs, due to the potential for pesticides to cause or contribute to wastewater treatment process interference, NPDES permit compliance issues, adverse impacts to receiving waters, degradation of recycled water quality and/or ability to reuse biosolids, in addition to exposing POTWs to the potential for third party lawsuits under the Federal Clean Water Act (CWA).

Of particular concern is the ability of a specific pesticide to cause exceedance of a POTW's effluent toxicity limits. One universal water quality standard in the U.S., which stems directly from the CWA, is that surface waters cannot be toxic to aquatic life. NPDES permits require POTWs to demonstrate that they meet this standard by evaluating acute and chronic toxicity using EPA standard methods (set forth in 40 CFR Part 136). To evaluate toxicity, every POTW must (1) conduct toxicity screening tests with a range of species, (2) select the most sensitive species, and (3) perform routine monitoring (typically monthly or quarterly). These monitoring data are used to determine whether the discharger has a *reasonable potential* to cause or contribute to toxicity in the receiving water. If it does, the CWA requires that numeric effluent limits be imposed, otherwise POTWs may be given numeric effluent triggers for further action. In the event that routine monitoring *does exceed* a toxicity limit or trigger, the POTW must perform accelerated monitoring (e.g., monthly); and if there is still evidence of consistent toxicity, the discharger must do a Toxicity Reduction Evaluation (TRE) to get back into compliance. The TRE requires dischargers to evaluate options to optimize their POTWs sand conduct a Toxicity Identification Evaluation (TIE), the cost of which can vary from $10,000 to well over $100,000 depending on complexity and persistence of the toxicant. The goal of the TIE

is to identify the substance or combination of substances causing the observed toxicity. If a POTW's effluent is toxic because of a pesticide, it may not have any practical means to comply with CWA-mandated toxicity permit limits.

Once identified, the cost to treat or remove the toxicity causing compound(s) can vary dramatically. Often, there are few ways for a discharger to mitigate the problem other than extremely costly treatment plant upgrades. Upgrading POTWs is often ineffective for organic chemicals like pesticides that appear at sub microgram per liter concentrations, largely because sewage is a complex mixture of natural organic compounds. Regardless of this, the discharger must comply with its CWA permit limits. If a discharger violates a toxicity limit, it can be subject to significant penalties (in California up to $10/gallon or $10,000 per day).

In addition, when surface water bodies become impaired by pesticides, wastewater facilities may be subject to additional requirements established as part of Total Maximum Daily Loads (TMDLs) set for the water bodies by EPA and state water quality regulatory agencies. A number of pesticide-related TMDLs have been adopted or are in preparation in California. The cost to wastewater facilities and other dischargers to comply with TMDLs can be up to millions of dollars per water body per pollutant. This process will continue as long as pesticides are approved for uses that result in water quality impacts; it is therefore imperative that EPA conducts a Preliminary ERA focusing on water quality impacts and for EPA to take action to ensure that any impacts are prevented or fully mitigated.

BACWA requests that OPP conduct a Preliminary Ecological Risk Assessment that includes an evaluation of sewer discharges from amitraz pet tick control treatments

BACWA is concerned that risks associated with indoor amitraz use were not examined and respectfully asks the EPA to include this analysis (a "down-the-drain" risk assessment) in the revised assessment. EPA has POTW predictive modeling tools which are suitable for conducting this assessment and has conducted similar assessments for many other pesticides.

We request that EPA specifically analyze sewer discharge for pet flea/tick collars.

As the amitraz human health risk assessment[2] explains, pesticides in pet flea/tick collars are released as either particles or liquid onto the pet's fur. Davis et al. quantified transfer of tetrachlorvinphos from pet collars onto the gloved hands of subjects interacting with the collared pet.[3] Similar transfer also occurs for amitraz, as documented by a study cited in the human health risk assessment.[4] Once the pesticide has transferred onto the pet's fur, human hands, and other indoor surfaces, it is available for further transfer to the sewer system, as explained in Appendix 1. Pet flea/tick control chemicals are transported within a home to an indoor drain that flows to a POTW via the pathways illustrated in Figure 1.

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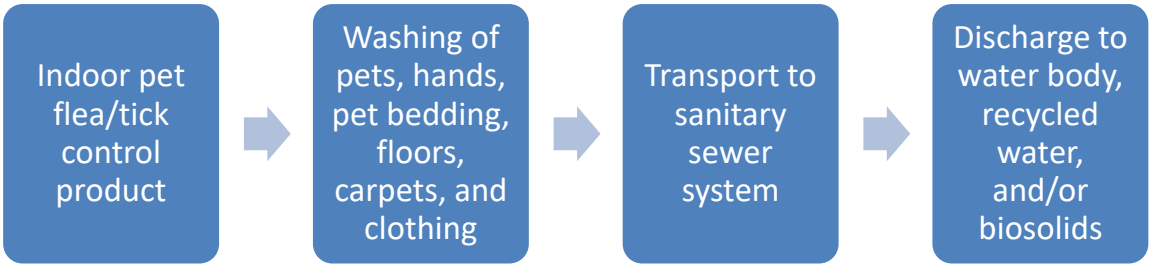
[2] US EPA Office of Pesticide Programs (2018). Amitraz. Draft Human Health Risk Assessment for Registration Review. Memorandum D435892.
[3] Davis, M., et al. (2008). "Assessing Intermittent Pesticide Exposure from Flea Control Collars Containing the Organophosphorus Insecticide Tetrachlorvinphos," *J. of Exposure Science and Environ. Epidemiology* **18**:564-570.
[4] Memo, A. Gavelek, D424229, 9/30/2015. "Determination of Transferable Residues of Amitraz from the Hair of Dogs Following the Application of the Preventic® Collar (Formulated End-Use Product 516.20)" MRID 49468801.

Figure 1. Amitraz Pathway: From Pet Treatments to Wastewater Discharge



Scientific studies detailed in Appendix 1 examined the pathways that transport pet flea/tick active ingredients from pet fur to the sewer system, both directly (through dog washing) and indirectly (such as after transfer onto human hands, socks, or clothing that are subsequently washed). Based on the data from these studies and pet population data, it is clear that pet flea/tick control products are significant sources of pesticides to POTWs that should be accounted for in the Preliminary ERA.

The Preliminary ERA was limited to evaluation of the use of amitraz in bee hives. The ERA should be expanded to evaluate sewer discharges from pet treatments —including analysis of the latest available aquatic invertebrate toxicity data—given that amitraz has pathways to POTWs and surface waters.

BACWA requests that EPA consider risk mitigation for amitraz

Given findings for other pet flea/tick control products, the "down-the-drain" risk assessment for amitraz may conclude that risk mitigation is warranted to reduce POTW amitraz discharges and associated invertebrate toxicity. Because 100 percent of POTWs must comply with the Federal Clean Water Act 100 percent of the time, whenever EPA identifies significant risks from pesticides discharged to POTWs, BACWA believes that a robust exploration of risk mitigation is imperative.

In response to the finding that pet flea/tick control products are major sources of pesticides to POTWs, BACWA completed an assessment of pet flea/tick control alternatives. Although it focused on flea products, this assessment also highlighted several practical oral alternatives that are also effective on ticks.

In light of these findings, BACWA requests that OPP conduct its risk-benefit evaluation for pet flea/tick control products as a group (i.e., considering fipronil, imidacloprid, indoxacarb, and pyrethroids, which are also undergoing Registration Review) and in the context of the broad range of available non-pesticide alternatives, including FDA-approved oral medications.

While we agree that pet flea/tick control has societal benefits, our review of control options detailed in Appendix 2 identified many alternatives that are likely far less environmentally problematic than on-pet or indoor pesticide treatments. For example, the new generation of FDA-approved orals seems to be more convenient, equally or more effective, and well accepted

by pet owners and veterinarians. Finally, we emphasize that we do not believe that fipronil, imidacloprid, indoxacarb, or pyrethroids are acceptable alternatives to amitraz.

BACWA suggests that EPA consider the following additional risk mitigation strategies for indoor amitraz products:

- Determine the minimum application rate (i.e., collar material concentration) necessary to achieve tick control. This would eliminate unnecessary overuse and minimize POTW discharge quantities.
- Consider adding wastewater-protective use restrictions to product labels—such as dissuading pet owners from washing their pets with the collar on.

Thank you for the opportunity to provide this feedback regarding both the Preliminary ERA and subsequent mitigation strategies. We ask that OPP evaluate amitraz discharges to POTWs and the subsequent potential impacts to effluent toxicity and explore mitigation options. BACWA requests that EPA coordinate with the California Department of Pesticide Regulation (CDPR) (which has extensive relevant information and expertise), veterinarians, and registrants; and bring in the latest scientific information – including CDPR scientific studies and modeling that are currently underway.

If you have any questions, please contact BACWA's Project Managers:

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Respectfully Submitted,

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Enclosures:

1. Sadaria, A.M. et al. 2017. Passage of Fiproles and Imidacloprid from Urban Pest Control Uses Through Wastewater Treatment Plants in Northern California. *Environmental Toxicology and Chemistry*. 36 (6), 1473-1482.
2. Bigelow Dyk, M. et al. (2012). Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, *Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes*, 47(10): 913-924
3. Teerlink, J., J. Hernandez, R. Budd. 2017. Fipronil washoff to municipal wastewater from

dogs treated with spot-on products. Sci Total Environ 599-600: 960-966.

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Appendix 1

Pet Pesticide Treatments:
Evidence for the Pathway to the Sewer

Part I – Evidence for the Pathway to the Sewer

There is mounting evidence that pesticides from on-pet products (spot-ons and collars) and indoor foggers and sprays have exposure pathways to the sewer. The research summary below is organized first by the consumer use, followed by specific studies throughout a sewer collection system and at POTWs.

Topical Pet Flea/Tick Control Products - Background

Pet topical treatments are designed to impact one or more stages of the flea cycle through direct contact with the pesticide (rather than an adult flea biting the pet and obtaining the pesticide systemically with the consumed blood). Therefore, pesticides in topicals are not meant to enter the pet's bloodstream but rather are meant to stay on the pet's fur in order to be effective.

Pet Washing Discharge Pathway

Pet washing is likely a major discharge pathway for pet products. A study by California Department of Pesticide Regulation (CDPR) (Teerlink et al. 2017; enclosed)[5] measured the washoff of fipronil spot-on products when bathing treated dogs. Fipronil was detected in all samples – even those collected 28 days post-application. According to the authors of the study:

> "Results confirm a direct pathway of pesticides to municipal wastewater through the use of spot-on products on dogs and subsequent bathing by either professional groomers or by pet owners in the home. Comparisons of mass loading calculated using California sales data and recent wastewater monitoring results suggest fipronil-containing spot-on products are a potentially important source of fipronil to wastewater treatment systems in California. This study highlights the potential for other active ingredients (i.e., bifenthrin, permethrin, etofenprox, imidacloprid) contained in spot-on and other pet products (i.e., shampoos, sprays) to enter wastewater catchments through bathing activities, posing a potential risk to the aquatic organisms downstream of wastewater discharge."[6]

Indirect Sewer Discharge Pathways

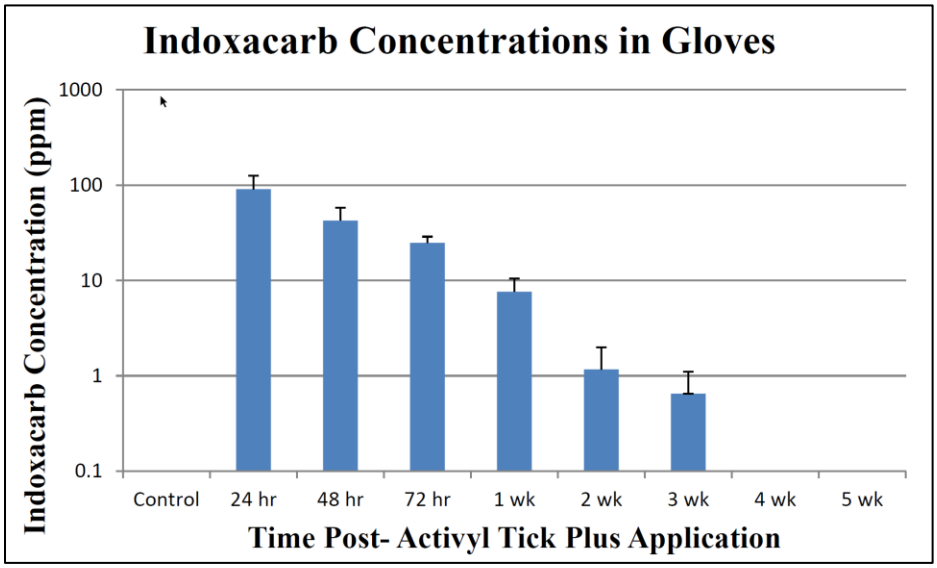
Several scientific studies have examined the transport of active ingredients from pet products onto surfaces, such as human hands, that are subsequently washed, completing a transfer pathway to the sewer system.

- *Spot-on treatment product to glove (hands) pathway*: A 2015 study by Litchfield et al. evaluated the transfer of permethrin and indoxacarb from a topical pet flea control

[5] Teerlink, J., J Hernandez, R Budd. 2017. Fipronil washoff to municipal wastewater from dogs treated with spot-on products. Sci Total Environ 599-600: 960-966.
[6] Teerlink, J., J Hernandez, R Budd. 2017. Fipronil washoff to municipal wastewater from dogs treated with spot-on products. Sci Total Environ 599-600: 960-966.

treatment to people's hands.[7] In the study, the topical treatment was applied to dogs that had not received a topical treatment for at least two months. To simulate human exposure to the pesticides, "Glove sampling included the wipe sampling technique, which consisted of petting the dog forward and back along its back and sides, while avoiding the application site, for five minutes while wearing a 100% cotton glove." The cotton glove samples were collected at days 0, 1, 2, 3, 7, 14, 21, 28, and 35. While the results showed that the largest mass of indoxacarb was transported within the first week, there continued to be measurable transfer to the gloves, even at day 21. The study did not measure indoxacarb degradates, which likely formed during the study period.

Figure 2. (from Litchfield et. al. 2015) Indoxacarb concentrations in gloves after petting dogs who had application of indoxacarb ("Activyl Tick Plus") spot-on flea control (µg/L)



- *Spot-on treatment product to glove (hands) pathway:* A 2012 study by Bigelow Dyk et al. presents additional evidence of transport of a pet flea control product onto human hands and through homes.[8] In the study, researchers monitored transfer of fipronil (from a commercially available spot-on product) onto pet owners' hands and within their homes over a four-week period following spot treatment application. Participants used cotton gloves to pet their dog or cat for 2 minutes at a time at specific intervals after the application (24 hours, 1 week, 2 weeks, 3 weeks, and 4 weeks). Participants also wore cotton socks for 2 hours a night for 7 nights in a row, for four consecutive weeks following application. The gloves, socks, and brushed pet hair were subsequently analyzed for fipronil and its degradates. Bigelow Dyk and colleagues also incorporated a

[7] Litchfield et al., "Safety Evaluation of Permethrin and Indoxacarb in Dogs Topically Exposed to Activyl® Tick Plus," J Veterinar Sci Technology 2015, 6:2 http://dx.doi.org/10.4172/2157-7579.1000218. (enclosed)
[8] Bigelow Dyk, M., et al. (2012) Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes, **47**(10): 913-924

fluorescent dye into the spot treatment to provide photographic evidence of spot-on pesticide transfer. The photographic results shown in the paper illustrate the transfer from the application location to other areas of the pet's fur and onto the pet owners' hands.

- *Pet collar to glove (hands) pathway*: One such study by Davis et al. quantified glove transfer of tetrachlorvinphos from pet collars.[9] We understand that the U.S. EPA team reviewing tetrachlorvinphos (EPA-HQ-OPP-2008-0316) has examined this paper and is planning to use the glove residue data following feedback from the U.S. EPA's Human Subjects Review Board.[7]
- *In-house fogger and spray pathway*: A UC Riverside study from 2010 sought to better understand the human health consequences of indoor insecticidal treatments, comparing a fogger, a perimeter spray, and both crack-and-crevice sprays, and spot sprays.[10] Researchers selected registered commercial products and applied per label instructions in rooms of unoccupied homes. They then evaluated the deposition of active ingredients, which included permethrin, chlorpyrifos, cyfluthrin, cypermethrin, and deltamethrin. They found that:

> *"Each application type produced a surface residue, but the residues differed sharply in deposition and distribution. Relative to the general distribution of residue following fogger applications, perimeter, crack-and-crevice, and spot applications resulted in less total chemical residue and limited distribution to within 0–40 cm of the wall."*
>
> *"…fogger applications differ from all other methods of application that rely on directed sprays examined in this paper. This supports our proposal that deposition and spatial distribution are principally determined by the type of pesticide application (i.e. fogger vs. crack-and-crevice) and the actions of the applicator (i.e. heavy vs. light applications)."*

In 1990, the California Department of Food and Agriculture published a dermal contact study presenting findings regarding the transfer of residue to people and their clothing following a chlorpyrifos/allethrin fogger treatment in carpeted rooms.[11] The rooms were all located in a new hotel so as to eliminate background pesticide residue and to provide repeatability from room to room. The foggers were set up per label instructions and were activated for two hours followed by ventilation of the room. Male and female participants later conducted a standardized exercise routine in specific locations in the room. Shirts, tights, gloves and socks were subsequently collected for analysis. Both allethrin and chlorpyrifos were detected in all exposed samples exceeding the minimum detection limits. Had these garments been placed in the laundry, this would have resulted

[9] Davis, M., et al. (2008). "Assessing Intermittent Pesticide Exposure from Flea Control Collars Containing the Organophosphorus Insecticide Tetrachlorvinphos," *J. of Exposure Science and Environ. Epidemiology* **18**:564-570.
[10] Keenan, James J., John H. Ross, Vincent Sell, Helen M. Vega, Robert I. Krieger, "Deposition and spatial distribution of insecticides following fogger, perimeter sprays, spot sprays, and crack-and-crevice applications for treatment and control of indoor pests," Regulatory Toxicology and Pharmacology 58 (2010) 189–195.
[11] Ross, J., T. Thongsinthusak, H.R. Fong, S. Margetich, R. Krieger, California Department of Food and Agriculture, "Measuring Potential Dermal Transfer of Surface Pesticide Residue Generated from Indoor Fogger Use: An Interim Report," Chemosphere, Vol.20, Nos.3/4, pp 349-360, 1990.

> in discharge to the sewer. Similarly, when the volunteer participants showered, the residue on their heads and other bare skin transferred to the sewer.

Based on the data from these studies characterizing pet-applied active ingredient transfer to owners' hands and the transfer of fogger active ingredients to room occupants, it appears that washing of hands, clothing, carpets and floors could be significant sources of pesticides to POTWs.

Evidence from Collection Systems

CDPR is in the process of completing a collection system ("sewershed") study within the City of Palo Alto's Regional Water Quality Control Plant.[12] The study involved twenty-four hour time weighted composite samples (influent, effluent, and ten sites in the collection system). Samples were collected from several discharge-specific sites with potential for relatively large mass flux of pesticides (i.e., discharges from pet grooming operation, pest control operator, and a laundromat). The samples were analyzed for a suite of pesticides. Preliminary results from the pet-grooming site provide evidence that pet washing is a pathway for pesticide discharges to sewer systems.

We encourage OPP to obtain the final results of this study, which should be available within the timeframe of OPP's exploration of mitigation strategies for amitraz.

POTW Influent and Effluent

Lastly, further insights regarding transport of indoor flea control products to POTWs comes from a study of fipronil and imidacloprid at eight POTWs that was recently conducted by the San Francisco Bay Regional Monitoring Program in collaboration with BACWA, CDPR and Arizona State University.[13] The study monitored imidacloprid and fipronil, as well as its degradates, in the influent and effluent of eight urban California POTWs. The results indicated that fipronil, its degradates, and imidacloprid were ubiquitous in the influent sewage and final treated effluent of all eight participating POTWs, and – based on a detailed analysis of the sewer discharge sources of these two chemicals, which have relatively little indoor use other than pet flea control – provide compelling evidence that pet products may be the primary source of both chemicals in wastewater.

[12] See http://www.cdpr.ca.gov/docs/emon/surfwtr/presentations/presentation_130_targeted.pdf

[13] Sadaria, A.M., Sutton, R., Moran, K.D., Teerlink, J., Brown, J.V., Halden, R.U., 2017. Passage of fiproles and imidacloprid from urban pest control uses through wastewater treatment plants in northern California, USA. Environ. Toxicol. Chem. 36:6 1473-1482.

Appendix 2: List of Currently Available Oral Pet Treatments for Fleas and Ticks (Alphabetical)

Active Ingredient	Example Product Names and Manufacturers	Dogs, Cats or Both?	Flea, Tick, Both	Dose Schedule	Adulticide?	Insect Growth Regulator?	Chemical Family	Year Registered
Afoxolaner	Nexgard (Merial)	Dogs only	Both	1 month	X	No	Isoxazoline[14]	2013
Fluralaner	Bravecto (Merck)	Dogs only	Both	2-3 months	X	No	Isoxazoline	2014
Lotilaner	Credelio (Elanco)	Dogs only	Both	1 month	X	No	Isoxazoline	2018
Lufenuron	Program (Novartis) and Sentinel (that also includes a heartworm pharma)	Both	Flea eggs, as well as hookworms, roundworms	1 month	No	X	Benzoylurea	1995 (for dogs)
Nitenpyram	Capstar (Novartis), Capguard (Sentry)	Both	Flea	A few hours only (meant for immediate infestation control)	X	No	Neonicotinoid	2000
Sarolaner	Simparica (Zoetis, a subsidiary of Pfizer)	Dogs only	Both	1 month	X	No	Isoxazoline	2016
Spinosad	Comfortis and Trifexis (Elanco)	Both	Flea	1 month	X	No	Spinosyn, macrocyclic lactone	2007 (approx.)

[14] Flea products from the isoxazoline chemical family are new to the marketplace; therefore, pet health insights are largely limited to the studies conducted by the manufacturers and the packaging text required by the FDA. There appears to be no published information about health and safety beyond the manufacturer guidance in the MSDS. Due to the application method (pill), human exposure is likely small, though no data are available to verify this assumption.

January 29, 2019

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OPP Docket
Environmental Protection Agency Docket Center (EPA/DC)
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1200 Pennsylvania Ave., NW.
Washington, DC 20460–0001

Subject: Metam Sodium and Metam Potassium, Draft Risk Assessment (EPA-HQ-OPP-2013-0140)

Dear Ms. Rimmer:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the Draft Risk Assessment for the root control chemical metam sodium. BACWA's members include 55 publicly owned wastewater treatment facilities ("POTWs") and collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously.

BACWA is especially interested in the Draft Risk Assessment for metam sodium because it is an effective chemical commonly used to control root invasion in wastewater collection systems. Controlling roots prevents collection system blockages. Blockages can cause untreated wastewater to spill out of the collection system.

The Draft Risk Assessment did not assess risks related to metam sodium's use in wastewater collection systems. BACWA seeks to protect the safety of workers who regularly enter wastewater collection systems for monitoring and maintenance. BACWA respectfully requests that EPA:

(1) recognize the potential for significant risks from exposure to metam sodium and its degradate, methyl isothiocyanate (MITC), if workers inadvertently enter collection systems undergoing treatment, and
(2) implement a minor label language change to ensure worker safety protection.

Use of Metam Sodium in Wastewater Collection Systems is Significant

While nationwide data on metam sodium use in sewer collection systems may not be readily available, data from California alone demonstrate that there is a significant use of metam sodium. In California, all pesticides applied by professional applicators are reported to California Department of Pesticide Regulation (CDPR) and – after quality assurance – this information is

made publicly available by CDPR in its Pesticide Use Reporting (PUR) database. According to this database (which can be searched for applications of products registered solely for sewer root control), in 2016, more than 50,000 pounds of metam sodium were applied for sewer root control. In 2014 and 2015, usage levels were similar.

BACWA Requests Minor Label Modification to Protect Worker Safety

BACWA appreciates that current metam sodium labels include a requirement to notify downstream POTWs about impending metam sodium applications. We appreciate and support the existing requirements to inform the POTW of the maximum application quantity (essential for protection of POTW operations) and to notify POTWs about metam sodium's process interference hazard, as some POTWs may not be aware of this risk.

We request that the current language be slightly modified to require POTW notification at least 24 hours prior to applications and to specifically address worker safety protection. Our suggested revisions to these elements of the proposed label language are shown (underlined and in bold font) in the box below.

Requested Modifications to Metam Sodium POTW Notification Label Instructions (Based on Existing Metam Sodium Root Control Product Label Language)

"This product must be used only where wastewater treated for root control will be processed through a wastewater treatment facility. Applicators must notify downstream waste water treatment facilities **at least 24 hours** prior to the start of metam sodium applications so **they can protect worker safety by restricting staff from entering downstream collection system lines** and that they may monitor the operations of the wastewater treatment plant. Applicators must report how much product will be applied to the sewage system to operators of downstream water treatment plants and ~~**to**~~ inform these operators that high concentrations of these chemicals in wastewater may adversely affect the biological sewage breakdown process in wastewater treatment plants. Never exceed the daily use of more than 15 gallons of Sanafoam Vaporooter II Liquid Concentrate for each million gallons of sewage flow (MGD) into the wastewater treatment plant (WWTP). *Example:* Inflow into the WWTP is 2.4 MGD, therefore, use a maximum of 36 gallons (2.4 x 15) of Sanafoam Vaporooter II per day. When Vaporooting within one mile distance of the WWTP or when applying at night reduce the maximum application use by 50 % to 18 gallons (36 x .5). The above maximum daily use must extend over an eight hour work period."

A minimum of 24 hours between notification and the start of metam sodium application is essential to provide POTWs with the time necessary to provide worker safety and operational protections. Under current labels, the notification could occur within a few minutes before the metam sodium application. With less than a 24-hour notice, it is possible that workers could already be in the collection system when the metam sodium application occurs. Labels for other root control pesticides will soon require a 24-hour advanced notice to the downstream POTW.

Due to the health risks associated with direct exposure to metam sodium treatment solutions and the rapidly formed degradate MITC, it is imperative that collection system workers do not open and enter manholes in areas undergoing treatment. Treatment zones are so long that the root control chemical applicator is unable to view all manholes affected by the treatment, so it is not possible to guarantee worker safety through visual measures alone. Due to the paramount importance of our workers' safety, we urge EPA to ensure that the label notification requirements contain the information necessary to alert wastewater collection system agencies of the potential danger, so they and applicators can appreciate the critical need to restrict workers from entering manholes and the collection system downstream from treatment areas.

Conclusion

Our goal in submitting this letter is to ensure that metam sodium product label instructions provide the necessary time and information to be effective in protecting our treatment processes and our workers' safety.

If there is anything that our member agencies or our national association, the National Association of Clean Water Agencies (NACWA) can do to clarify our request or to discuss alternative language to meet our goals, please do not hesitate to contact us.

Thank you for your consideration of our comments. If you have any questions, please contact BACWA's Project Managers:

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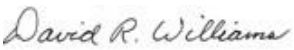
Respectfully Submitted,



David R. Williams, P.E.
Executive Director
Bay Area Clean Water Agencies

cc: Yu-Ting Guilaran, Director, Pesticide Re-Evaluation Division
Rick P. Keigwin, Jr., Director, EPA OPP
Tracy Perry, EPA OPP Pesticide Re-Evaluation Division
Kevin Costello, Branch Chief, EPA OPP, Pesticide Re-Evaluation Division (PRD)
Andrew Sawyers, Director, EPA Office of Water, Office of Wastewater Management
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Nicole Zinn, Risk Management and Implementation Branch 2, (PRD)
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Matthew Freese, California State Water Resources Control Board
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Chris Hornback, National Association of Clean Water Agencies
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BACWA Pesticides Workgroup
BACWA Executive Board

January 29, 2019

Ms. Kimberly Wilson
OPP Docket
Environmental Protection Agency Docket Center (EPA/DC)
(28221T)
1200 Pennsylvania Ave., NW.
Washington, DC 20460–0001

Subject: Zinc and Zinc Salts – Draft Risk Assessment (EPA-HQ-OPP-2009-0011)

Dear Ms. Wilson:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the Draft Risk Assessment for zinc and zinc salts, which are used in swimming pools, spas, and hot tubs. BACWA's members include 55 publicly owned wastewater treatment facilities and collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously.

BACWA is concerned that the Draft Risk Assessment assumed discharges of zinc-containing pool water would create "no major risk issues."[1] In the paragraphs below, we outline why these pool discharges are a concern and request risk management through updated label language for this pesticide. It should be noted that it only takes the discharge of one zinc-containing swimming pool to exceed water quality standards for zinc during low creek flow conditions (which occur during dry weather, the preferred time for pool maintenance).[2]

BACWA is not concerned about zinc and zinc salts discharges to sanitary sewers from treated pools, spas, and hot tubs. Our comments focus on the issue of draining location and flow rates when draining treated pools, spas, and hot tubs. We are writing to request that the zinc and zinc salts Registration Review decision follows the precedent for improved labels for swimming pool, spa, and hot tub products that was established by the decisions for other pool, spa, and fountain chemicals, such as lithium hypochlorite and copper. In those Registration Review decisions, EPA worked carefully through the various issues to develop practical label language that mitigates possible aquatic impacts from discharge of treated pool, spa, and hot tub water, while preventing excess flows into sewer collection systems.

[1] U.S. EPA OPP, Registration Review Draft Risk Assessment for: Zinc and Zinc Salts, September 18, 2018
[2] A single pool treated with a zinc product would need to be diluted with a volume exceeding ten times of that of the pool itself in order to not exceed the zinc acute water quality criteria. This level of dilution would require creek flow rates higher than typical in dry weather conditions, particularly in the western and southwestern US.

BACWA's Interest in Pool, Spa, and Hot Tub Pesticides

Pools may be emptied for cleaning every two to seven years and spas may be drained as often as every three months.[3] The water is discharged to storm drain systems, to sanitary sewer lines flowing to wastewater treatment facilities, or to surrounding landscaped areas. However, neither storm drain systems nor wastewater treatment facilities are necessarily prepared to handle the antimicrobial and conventional pesticides in water.

Due to concerns about these constituents flowing untreated to surface waters and Clean Water Act NPDES permit requirements, many California stormwater agencies are directing pool, spa, hot tub, and fountain owners to discharge to their local sanitary sewer. Many wastewater agencies support this practice because some constituents, such as pH and suspended solids, may be effectively reduced through treatment; however, wastewater treatment plants are not specifically designed to remove pesticides. Some antimicrobials, if discharged in sufficient quantities, have potential to interfere with the biological treatment processes at municipal wastewater treatment plants. Additionally, while some agencies have the resources to work with institutional, public and commercial swimming pool operators regarding swimming pool best management practices and the types of pool chemicals they use, the vast majority of swimming pools are privately owned residential pools, the owners of which are not easily reached. With approximately 1.2 million in-ground pools in California and 5 million pools nationwide[4], and countless more spas, hot tubs, and fountains, wastewater agencies have limited authority and resources to regulate the frequency, volume and constituents of discharges.

While this is not a pesticide regulatory issue, high-flow swimming pool discharges to the sanitary sewer can cause a sewer back-up, potentially spilling untreated sewage onto streets and into storm drains, which could also create an acute hazard. Maintaining low flow rates (e.g., discharge through a garden hose rather than a fire hose) prevents such problems.

BACWA Requests Revised Labeling as a Mitigation Measure

BACWA requests that the current language be changed to match the lithium hypochlorite label, which would also provide consistent label language across pool, spa, and hot tub chemicals.

> *"Before draining a treated pool, spa, or hot tub, contact your local sanitary sewer and storm drain authorities and follow their discharge instructions. Do not discharge treated pool or spa water to any location that flows to a gutter or storm drain or natural water body unless discharge is allowed by state and local authorities."*

We have attached our comment letter on the proposed Registration Review decision for lithium hypochlorite, which details the importance of the discharge control label language – including the discharge prohibition in the second sentence.

For all swimming pool, spa, and hot tub products including those containing zinc and zinc salts, we also recommend that the "Environmental Hazards" label statements be applied on the basis of product end use rather than product size. This would mimic EPA's decision for lithium

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[3] Pool Corp (2016). Frequently Asked Questions. Available at http://www.swimmingpool.com/faq.
[4] P.K. Data, Inc. (2012). Phone conversation with staff member Joshua Darling, August 15, 2016.

hypochlorite products. As explained in our attached lithium hypochlorite comments, this approach avoids potential conflicting language on product labels.

Thank you for your consideration of our comments. If you have any questions, please contact BACWA's Project Managers:

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Respectfully Submitted,

David R. Williams

David R. Williams, P.E.
Executive Director
Bay Area Clean Water Agencies

Enclosure: BACWA's September 9, 2016 Letter to Lithium Hypochlorite Registration Review, Proposed Interim Decision, Case # 3084 (EPA–HQ–OPP–2013–0606).

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