



August 15, 2019

Tracy Perry
Office of Pesticide Programs (OPP)
c/o Regulatory Public Docket Center (28221T),
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW.
Washington, DC 20460-0001

Subject: Draft Revised Method for National Level Endangered Species Risk Assessment Process for Biological Evaluations of Pesticides (Docket ID No. EPA-HQ-OPP-2019-0185)

Dear Ms. Perry:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the Draft Revised Method for National Level Endangered Species Risk Assessment Process for Biological Evaluations (BEs) for pesticides. BACWA's members include 55 publicly owned wastewater treatment (POTW) facilities and collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously and are very concerned about pesticides entering into wastewater systems through influent flows that may compromise effluent quality, biosolids reuse, and compliance with NPDES permit requirements.

BACWA is pleased that the EPA and the Fish and Wildlife Service (FWS) are cooperating to address endangered species in pesticide registration. As managers tasked with protecting the surface waters receiving our effluent and the species in these waters—including endangered species—we appreciate the effort being put forth to create a practical and effective coordinated system.

An effective pesticide consultation system is important for POTWs. The NPDES permits issued to BACWA's member agencies include requirements that effluent limits and receiving water limits protect the beneficial uses of waters of the State including protecting rare, threatened, or endangered species. Through these Clean Water Act (CWA) permits, water quality regulators make municipalities responsible for meeting Endangered Species Act (ESA) requirements.¹

Since our member agencies do not have authority to control indoor or other upstream pesticide uses and have no practical control over subsequent discharges, we seek to ensure that the pesticides ESA Consultation process will lead to mitigations that will protect endangered species and their critical habitats. Because our responsibilities extend beyond endangered species to include all other beneficial uses in our receiving water, we also seek to ensure that Office of Pesticide Program's (OPP) pesticide Registration Review process will lead to mitigation that will protect all beneficial uses of surface waters (not just endangered species).

¹ For example, see City of Palo Alto Regional Water Quality Control Plant and Wastewater System Permit, Order No. R2-2014-0024 (June 11, 2014), Attachment F, Page F-11, Paragraph C.7.

Our goals in providing comments are to support EPA’s efforts to develop a solid, functional BE process, and to ensure that both the BE process and EPA’s Registration Review appropriately evaluate risks associated with urban pesticide use — and do so in a manner consistent with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the ESA, and the CWA.

Overview of Comments

We agree with US EPA’s assessment that the pilot BEs – including the one on malathion that we reviewed in detail and commented on – were unnecessarily complex and relatively inaccessible. Our primary concern is that both the pilot malathion BE and the proposed revised method for preparing BEs expressly exclude evaluation of environmental exposures due to indoor urban pesticide use and subsequent discharges to the sewer system. We recommend that US EPA integrate CWA compliance into BEs and the pesticides ESA Consultation process.

Based on remarks made at the June 10 public meeting, we understand that the draft method addresses only “conventional” pesticides and that other types of pesticides will be addressed in the future. When US EPA develops a process for reviewing antimicrobial pesticides, we would appreciate the opportunity to provide input, as antimicrobials are primarily used in methods that result in “down the drain” inputs to POTWs and, as a class, pose the greatest risk of interfering with the biological treatment processes that our treatment plants rely on.

Pesticides Used Indoors Must Be Addressed in BEs

On page 7 of the draft revised method for preparing BEs, Section 1a lists “indoor use” as an example of a pesticide use location with no environmental exposure pathway. This is not scientifically correct. As detailed in attached scientific papers, due to discharges associated with indoor pesticide uses, pesticides frequently occur in POTW effluent and biosolids. Endangered species may be exposed to these pesticides when effluents flow into surface waters that contain endangered species or in association with beneficial use of biosolids (such as its use for agricultural fertilizer).

Concentrations of at least half a dozen pesticides reported in undiluted POTW effluents exceed the US EPA OPP benchmarks for chronic exposure to aquatic invertebrates (Sutton et al 2019).² One indoor use – pet flea treatments – provides a clear and compelling demonstration that pesticides used indoors are washed directly (via pet washing, as measured by Teerlink et al 2017) and indirectly (via washing of human hands and other surfaces where pet flea control pesticides are transferred post-application) to the sewer system (see Sadaria et al 2016).

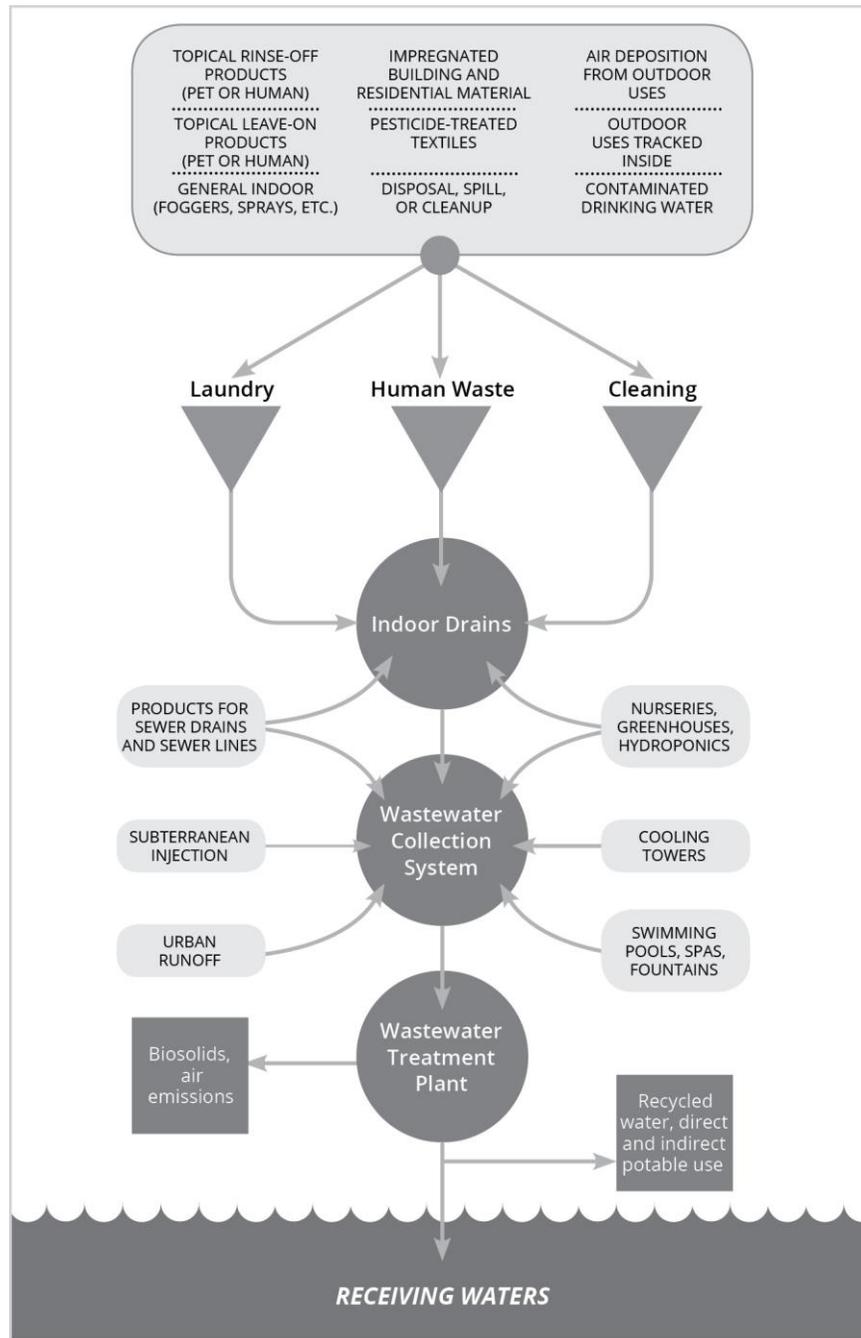
US EPA has been evaluating POTW discharges from indoor pesticide use in its pesticides risk assessments since the late 1990s. As described by a US EPA scientific team (Shamim et al 2014), US EPA uses simplified models like its Exposure and Fate Assessment Screening Tool (E-FAST) in combination with monitoring data and benchtop studies to estimate POTW effluent concentrations.

Available data suggest that typical municipal wastewater treatment processes do not reduce concentrations of some pesticides (e.g., imidacloprid), i.e., that these pesticides pass through POTWs (e.g., Sadaria et al 2016). While other pesticides have lower concentrations in effluent

² The “chronic” benchmark comparison is made because POTWs continuously discharge.

than in influent, this often reflects transfer into biosolids (e.g., pyrethroids – see Markle et al 2014).

The figure below, from Sutton et al. (2019) presents a well-documented conceptual model illustrating how pesticides used indoors flow to the sewer system, to POTWs, and ultimately into the environment via effluent, air emissions, and biosolids.



Clean Water Act Compliance Assessment Must Be an Integral Part of BEs and the Pesticide Endangered Species Act Consultation Process

CWA compliance is an integral part of endangered species and aquatic habitat protections. As mentioned above, through our CWA NPDES permits, water quality regulators effectively make municipalities responsible for meeting ESA requirements. 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. In some cases, 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. These waterways provide crucial habitat to a wide array of aquatic species and waterfowl, including listed and non-listed endangered species.

Because local agencies in most states (including California) lack the statutory authority to regulate pesticide use in urban areas, it is essential that EPA and the Fish and Wildlife Service and National Marine Fisheries Service employ the pesticide consultation processes to assess and prevent urban water pollution as defined by the CWA and our NPDES permits. Since OPP controls pesticide labels, even our state pesticide regulatory agency cannot readily address pesticide water pollution and compliance with our NPDES permit if the pesticide discharges stem from consumer pesticide products. It is therefore essential that BEs, pesticide registration, and pesticide registration review processes adequately consider potential impacts to wastewater quality, so that such impacts to the beneficial uses of the receiving water are *prevented*.

If the pesticides ESA Consultation process fails to prevent toxic releases of pesticides to the aquatic environment, an undue burden to address the problem is placed on local governments. Often, there are few ways for a POTW to mitigate a toxic pollutant problem other than extremely costly treatment plant upgrades. In addition, wastewater facilities may be subject to additional requirements established as part of Total Maximum Daily Loads (TMDLs) set for the water bodies by U.S. EPA and state water quality regulatory agencies. The cost to wastewater facilities and other dischargers to comply with TMDLs can be up to millions of dollars per water body per pollutant.

Other comments:

1. **BEs must consider combined exposures from all pesticide uses in a watershed/sewershed.** The ESA requires consideration of “interrelated” and “interdependent” actions in every BE. POTWs often discharge to water bodies (e.g., San Francisco Bay) that also receive urban and agricultural runoff. Therefore, the evaluation of potential cumulative discharge of pesticides to POTWs as well as to water bodies where POTWs discharge needs to be evaluated in BEs.
2. **BEs must address all discharges to POTWs – not just those within 2,600 feet of the POTW.** The proposed 2,600-foot geographic limitation is inconsistent with sources of pesticides to POTWs. Wastewater collection systems may extend miles from the downstream POTW. All uses of a pesticide within the entire sewershed typically combine into a single POTW influent stream.

3. **BEs must evaluate all pesticide uses that US EPA is approving – not just historic usage.** When US EPA reviews a pesticide, it licenses each individual use of that pesticide as described on product labels. If US EPA restricts its analysis to select uses or geographic areas (the effect of the hindcasting usage data methodology proposed), it is effectively licensing uses that it is not evaluating, which is inconsistent with the ESA.
4. **BEs must use chronic invertebrate toxicity data.** The proposal to use only lethal toxicity (LC50) data for aquatic invertebrates deviates from the CWA regulation of aquatic ecosystems to protect food supplies for endangered species, which may include chronic toxicity testing of POTW effluent.
5. **Urban pesticide use estimates could be greatly improved with use of sales data collected annually by California Department of Pesticide Regulation (CDPR).** Each year, California DPR mandates reporting of pesticide product-specific sales. These data provide the quantity of active ingredients sold under every product brand-label combination. While CDPR considers its product-specific sales data as confidential, these data could be requested by US EPA and consolidated (e.g., by use category) before publishing in risk assessments.

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

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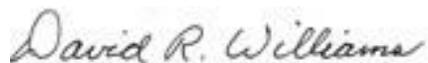
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Respectfully Submitted,



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Enclosures:

1. Sutton, R. et al. 2019. Occurrence and Sources of Pesticides to Urban Wastewater and the Environment. In Goh et al.; *Pesticides in Surface Water: Monitoring, Modeling, Risk Assessment, and Management*, ACS Symposium Series 1308; American Chemical Society: Washington, DC, 2019; pp 63-88.
2. 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.
3. Teerlink, J., et al. 2017. Fipronil washoff to municipal wastewater from dogs treated with spot-on products. *Sci Total Environ* 599-600: 960-966.

4. Markle, J. C. et al. 2014. Pyrethroid Pesticides in Municipal Wastewater: A Baseline Survey of Publicly Owned Treatment Works Facilities in California in 2013. In Jones et al. *Describing the Behavior and Effects of Pesticides in Urban and Agricultural Settings*; ACS Symposium Series 1168; American Chemical Society: Washington, DC, 2014; pp 177-194.
5. Shamim, M. et al. 2014. Conducting Ecological Risk Assessments of Urban Pesticide Uses. In Jones et al. *Describing the Behavior and Effects of Pesticides in Urban and Agricultural Settings*; ACS Symposium Series 1168; American Chemical Society: Washington, DC, 2014; pp 207-274.

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