



Testimony: SB 158: Pesticide Registration - PFAS Testing - Requirements
Submitted to: The Senate Committee on Education, Energy, and the Environment (EEE)
Submitted by: Diana Eignor, MS, on behalf of the Pesticides & Chesapeake Bay Watershed Project, a Maryland Pesticide Education Network facilitated Project
Position: In Support

February 2, 2023

Dear Chair Feldman, Vice Chair Kagan, and Members of the Committee:

Thank you for this opportunity to submit testimony in support of SB 158: Pesticide Registration – PFAS Testing – Requirements. **My name is Diana Eignor. I am a biologist/toxicologist and retired EPA scientist working with the Maryland Pesticide Education Network as coordinator of its Pesticides and the Chesapeake Bay Watershed Project.**

How Per- and Polyfluoroalkyl Substances (PFAS) harm fish and why have PFAS become a danger to human health and the environment?

The severity in which pesticides are affecting our waterways is vast. Scientists in multiple labs have found dangerous levels of PFAS in commonly used pesticides across the country. **Fish research studies report increased risk of disruption of thyroid function, reproductive effects, and adverse effects on the immune system. The strong carbon-fluorine bond in PFAS make them unable to break down in the environment naturally.** This quality and the lack of disposal methods means that these chemicals have already made their way into our water, sediment, and soil. **PFAS have entered our food supply, aquatic organisms, and our bodies through biomagnification. Biomagnification is the process where concentrations can increase and magnify in the food web. For example, a small fish eats an invertebrate, a larger fish then eats the small fish, and a human eats the large fish. When we consume fish, we are ingesting all the PFAS in this food chain.**

- **Surface water and Drinking water relationship.** In Maryland, surface water from the Potomac and Patuxent Rivers supplies a large percentage of our drinking water. In a nationwide Waterkeeper Alliance study (10/14/22), waterkeepers sampled for PFAS chemicals in 12 locations in Maryland. **All the concentrations detected for PFOS and PFOA (forms of PFAS) exceeded the EPA's interim health advisory levels in drinking water (0.02 ppt for PFOS and 0.004 ppt for PFOA).** The highest concentrations were 282.8 ppt for PFOA and 1,364.7 ppt for PFOS in Piscataway Creek. **This surface water value of 1364.7 ppt for PFOS is more than 68,000 times EPA's interim health advisory PFOS for drinking water at 0.02 ppt.**



- **In October 2021, Maryland Department of the Environment (MDE) issued its first fish consumption advisory related to PFAS/PFOS in Prince George’s County.** MDE collected fish from routine monitoring. MDE also added two fish tissue sample locations in Piscataway Creek. MDE found alarmingly elevated concentrations of PFOS in redbreast sunfish, yellow bullhead catfish, and largemouth bass. MDE then issued its first fish advisory warning people about consuming these 3 PFAS-contaminated fish species.
- In another recent study in the news this month, researchers reviewed fish tissue data from more than **500 fish fillet samples collected by the U.S. Environmental Protection Agency from 2013 to 2015.** This research shows dangerous levels of toxic PFAS in freshwater fish. Fish were found with 19,000 ppt of PFAS. **“You’d have to drink an incredible amount of water — we estimate a month of contaminated water — to get the same exposure as you would from a single serving of freshwater fish,”** –study co-author David Andrews.
- **USGS utilized archived plasma from adult smallmouth bass from sample locations at 4 sites in Chesapeake Bay watershed collected from 2013 to 2019.** PFOS was the compound detected at the highest concentrations at all sites. PFOS plasma concentrations ranged from 20,000 ppt to 574,000 ppt in the 4 sample locations. These concentrations are over 1-million times greater than the 0.02 ppt EPA interim health advisory for PFOS in drinking water.
- **Delaware River Basin Commission Research in the Delaware River.** Sampling along the Delaware River in NY, NJ, PA, and DE found that higher concentrations of PFAS were generally measured in the more developed zones. The highest PFOS concentrations were detected in fish fillets from smallmouth bass in the Delaware River (37 ng/g PFOS). Assuming a 8 ounce fillet, **eating this one fillet is equivalent to drinking water at the 0.02 ppt interim health advisory level for 315,780 years.**
- **Incomplete Maryland pesticide use numbers.** There are 14,000 pesticides registered for use in Maryland. The MD 2020 Pesticide Use Survey (https://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/Pesticide/2020-MD-Pest-FINAL-PUB.pdf) has provided information representing **only 6%** of the 12,000 farms. This survey reported over 5 million pounds used annually by this small sample. Extrapolating from 6% of farms using 5 million pounds to 100% farms, assuming similar pesticide use, indicates approximately 83 million pounds used annually.



- **The amount of pesticide products containing PFAS is unknown.** Pesticides containing PFAS are used agriculturally on crops. Pesticides containing PFAS are widely used for mosquito control. The Maryland Department of Agriculture's (MDA) mosquito control program often sprays weekly in 2,100 Maryland communities.

Act Now

Maryland residents deserve to see change and implementation when it comes to pesticide use. Maryland residents deserve to see action to remove PFAS-containing pesticides in our state. We are urging you to please pass this legislation, the SB 158 Pesticide Regulation – PFAS Testing – Requirements, ensuring that no pesticide product containing PFAS is used in the state of Maryland.

For all these reasons, we urge a favorable report on SB 158.

Sincerely,

A handwritten signature in black ink that reads "Diana M. Eignor". The signature is written in a cursive style with a large, flowing "D" and "E".

Diana M. Eignor, MS