HB1153: Environment - Water Pollution Control - Protecting State Waters From PFAS Pollution (Protecting State Waters From PFAS Pollution Act)
Education, Energy and the Environment
March 1st, 2024
Emily Scarr, Maryland PIRG Director
FAVORABLE

Maryland PIRG is a state based, small donor funded public interest advocacy organization with grassroots members across the state. We work to find common ground around common sense solutions that will help ensure a healthier, safer, more secure future.

The best way to address PFAS contamination and all that comes with it, is to prevent it in the first place. We need to phase out the use of PFAS, but for the time being, we should do everything we can to keep industries from sending PFAS contaminated water to our water treatment plants and into our ecosystem.

The EPA has made clear that states can restrict PFAS discharges under the Clean Water Act. Moreover, existing pollution control technology can capture roughly 99 percent of PFAS in wastewater. Safeguarding against PFAS chemicals as a class is the best way to protect human health. Trying to regulate one chemical at a time will only leave us in an endless game of whack-a-mole.

We support HB1153, with sponsor amendments, to require the Maryland Department of Environment (MDE) to:

1. Identify and require testing and monitoring of discharge from some large industries that use PFAS;
2. Require MDE, Publicly Owned Treatment Works (POTWs) and Significant Industrial Users (SIUs) to develop action levels and mitigation plans for addressing PFAS contamination; and,
3. Require MDE to develop standard max contaminant levels (MCL) for individual legacy PFAS and total PFAS.

This legislation will help identify and address potential sources of PFAS contamination in the state, putting pressure on industries to prevent PFAS contamination in our waterways and drinking water. This should help prevent Maryland taxpayers and families from paying for the costs of contamination with our health and pocketbooks.

Per-and polyfluoroalkyl substances, commonly known as PFAS, are used in a variety of consumer products including everything from personal care products and non-stick pans to car seats and carpets. They are also used by industries to make things greaseproof and water resistant.

Emily Scarr, Maryland PIRG Emily@MarylandPIRG.org
@emilyscarr @marylandpirg

According to the U.S. Environmental Protection Agency, there is no safe level of some PFAS in drinking water. Accordingly, the EPA has proposed a maximum contamination limit of 4 ppt for several PFAS which is a big step forward from the previous limit of 70 ppt. According to a 2020 report from leading PFAS experts PFAS should be regulated as a class in order to protect health. While we have precise testing for some PFAS, current available testing for total PFAS can only detect in the level of "parts per billion." **This bill smartly directs MDE to use a dual approach of setting MCLs for both individual PFAS and an MCL for total PFAS to address both the risks of legacy PFAS and the risks of newer PFAS.**

According to Maryland's PFAS Action Plan 14% of Maryland industries that responded to a survey reported having PFAS sources on-site. In some cases, manufacturers and users of these chemicals are discharging them directly into our rivers, lakes and streams. Other companies might be "indirectly" discharging PFAS by sending it to treatment plants. This toxic pollution threatens not only our drinking water but also fish and wildlife.

We recommend a favorable report on this bill, as amended by the sponsor.

ADDITIONAL BACKGROUND AND FACTS

The threat of "forever chemicals"
Seemingly every week we are hearing about more communities who have been exposed to dangerous levels of PFAS in their drinking water.

The Maryland Department of the Environment (MDE) found PFAS in 75% of the drinking water it has tested.

We know of contamination in and around more than a dozen military sites in the state and MDE has also issued fish consumption advisories for PFAS in some Maryland waterways,

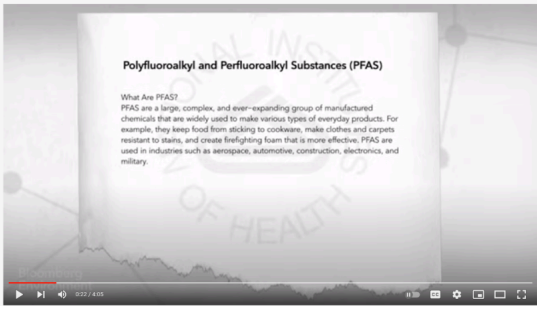
- Prince George's County has filed suit against chemical manufacturers 3M and DuPont.
- Baltimore City has filed suit against the makers of firefighting foams containing PFAS.
- And Attorney General Brown has sued 3M, Dupont, and Other Chemical Manufacturers for PFAS Contamination of Maryland's Waters and Other Natural Resources

Independent testing has also found alarming levels of PFAS in water and seafood.

In 2021, Maryland PIRG Foundation released a report, *The Threat of "Forever Chemicals,"* which outlines known contamination in Maryland, impacts, and potential state actions.

In 2022, the General Assembly passed the George "Walter" Taylor Act, with broad bi-partisan support to restrict the use of PFAS in food packaging, rugs and carpets, and firefighting foam in Maryland.

Emily Scarr, Maryland PIRG Emily@MarylandPIRG.org
@emilyscarr @marylandpirg



Video Clip from Bloomberg News

PFAS are harmful to public health. Even low levels of exposure to PFAS are linked to a range of health damages, including:

- Harm to the kidneys, leading to chronic kidney disease or kidney cancer,[1]
- Reduced antibody responses to vaccinations in both children and adults,[2] and
- Increased risk of gestational diabetes, preeclampsia, low birth weight and childhood obesity

Newer types of PFAS are no safer for human health and the environment than older PFAS, such as PFOA and PFOS.[3]

- New PFAS travel more easily through water, resulting in widespread exposure, and thus may pose more risks to human and environmental health.[4]
- The U.S. Environmental Protection Agency has found that two newer PFAS chemicals create many of the same health impacts as older PFAS.[5]
- EPA determined the toxicity of the PFAS known as GenX is in the same range as PFOA, the legacy PFAS it replaced.[6]
- Hundreds of public health experts around the globe have expressed concern about the health impacts of continuing to produce and use all varieties of PFAS.[7]

Many drinking water sources in Maryland are contaminated with PFAS. In late 2019, the Maryland Department of the Environment (MDE) tested for contamination from legacy PFAS at water treatment plants that provide drinking water to 70% of Maryland's population.[8]

- Approximately 75% of the samples had quantifiable levels of PFOA and PFOS.[9]
- The two highest readings were from Westminster and Hampstead, both in Carroll County.[10]
- Testing by the U.S. Department of Defense has found PFAS in drinking water at or near a dozen military facilities in Maryland[11]

---

[1] Kidney disease: Anoop Shankar, Jie Xiao, and Alan Ducatman, "Perfluoroalkyl chemicals and chronic kidney disease in US adults," American Journal of Epidemiology, 174(8), DOI: 10.1093/aje/kwr171, 26 August 2011; Kidney cancer: DCEG Staff, National Cancer Institute, Environmental Pollutant, PFOA, Associated with Increased Risk of Kidney Cancer, 20 September 2020.

[2] Philippe Grandjean et al., "Estimated exposures to perfluorinated compounds in infancy predict attenuated vaccine antibody concentrations at age 5-years," Journal of Immunotoxicology, 14(1), DOI: 10.1080/1547691X.2017.1360968, 2017; Claire Looker et al., "Influenza vaccine response in adults exposed to perfluorooctanoate and perfluorooctanesulfonate," Toxicological Sciences, 128(1), DOI: 10.1093/toxsci/kft269, March 2014.

[3] Anna Reade, Natural Resources Defense Council, The Scientific Basis for Managing PFAS as a Chemical Class (blog), 30 June 2020.

[4] Fan Li et al., "Short-chain per- and polyfluoroalkyl substances in aquatic systems: occurrence, impacts and treatment," Chemical Engineering Journal, 15 January 2020.

[5] Anna Reade, Natural Resources Defense Council, EPA Finds Replacements for Toxic "Teflon" Chemicals Toxic, 15 November 2018.

[6] Ibid.; U.S. Environmental Protection Agency, Fact Sheet: Human Health Toxicity Assessment for GenX Chemicals, October 2021.

[7] Arlene Blum et al., "The Madrid statement on poly- and perfluoroalkyl substances, (PFASs)," Environmental Health Perspectives, 123(5), 1 May 2015, DOI.

[8] Maryland Department of the Environment, Understanding the Occurrence of Per- and Polyfluoroalkyl Substances (PFAS) in Maryland's Public Drinking Water Sources.

[9] Ibid., p. 4.

[10] Ibid., p. 4.

[11] Environmental Work Group, PFAS Contamination Map, 6 January 2021.

Emily Scarr, Maryland PIRG Emily@MarylandPIRG.org
@emilyscarr @marylandpirg

PFAS also contaminate groundwater and seafood in Maryland. PFAS contamination at military sites in Maryland often is traceable to the use of firefighting foam.[12] PFAS from firefighting foam have leached into shallow groundwater, potentially flowing from there into nearby rivers and streams.

- PFAS contamination has been found in groundwater at eight military facilities in six counties in Maryland.[13]
- Testing found nine different types of PFAS in striped bass, crabs and oysters from the Potomac River and St. Inigoes Creek in southern Maryland.[14]
- MDE has detected PFAS in three species of fish from Piscataway Creek, a tributary of the Potomac River in Prince George's County, and has warned people to limit their intake of particular species caught in the creek.[15]

How PFAS enter our bodies

- **CONTAMINATED WATER:** Drinking water contaminated with PFAS is one of the most common exposure routes.[16]
- **WORKPLACE EXPOSURE:** Workers who make products with PFAS and military personnel or firefighters who work with firefighting foam may be particularly at risk for exposure.[17] For example, these individuals may inhale or swallow PFAS-contaminated dust.[18] They may also absorb PFAS through their skin.[19]
- **CONSUMER PRODUCTS:** People can be exposed to PFAS through a variety of consumer products. PFAS migrate from consumer products, resulting in toxic exposure. As stain-resistant furniture and carpets and waterproof clothing break down, they produce dust that can be inhaled or swallowed.[20]
- **CONTAMINATED FOOD:** Food may be contaminated with PFAS if it is raised in contaminated soil, fertilized with contaminated sewage sludge, or irrigated with contaminated water.[21] PFAS have been found in fish, shellfish, meat, eggs, milk, fruits and vegetables.[22] Processing equipment and packaging that contain PFAS may also add PFAS to food.[23] One analysis of fast food packaging in the U.S. found that 46% of paper used to package food (for example, to wrap hamburgers) and 20% of paperboard (such as for french fry boxes) contained PFAS.[24]
- **EXPOSURE IN UTERO OR THROUGH BREASTMILK:** Babies can be exposed to PFAS before they are born, if the mother has been exposed to PFAS. Infants may be exposed to PFAS through their mother's breast milk.[25] For example, a 2021 study found PFAS in all breastmilk samples collected from 50 nursing mothers in the U.S.[26]

---

[12] Naval Air Station Patuxent River Restoration Advisory Board, PFAS Update: Naval Air Station Patuxent River and Webster Outlying Field, 28 April 2021, p. 9.

[13] Maryland Department of the Environment, Public Health: Maryland and PFAS..

[14] Public Employees for Environmental Responsibility, More PFAS Found in Maryland Water and Seafood, 16 November 2020.

[15] Maryland Department of the Environment, Department of the Environment Issues First Fish Consumption Advisory for PFAS (press release), 15 October 2021; Christine Condon, "Maryland issues first fish consumption advisory because of PFAS," Baltimore Sun, 17 October 2021.

[16] EarthJustice, Breaking Down Toxic PFAS, 9 October 2020.

[17] Agency for Toxic Substances and Disease Registry, Per- and Polyfluoroalkyl Substances (PFAS) and Your Health, 24 June 2020.

[18] Ibid.

[19] Somrutai Poothong et al., "Multiple pathways of human exposure to poly- and perfluoroalkyl substances (PFASs): From external exposure to human blood," Environment International, January 2020, DOI.

[20] Sam Hall, Duke, Nicholas School of the Environment, PFAS Found in NC House Dust, 3 December 2020.

[21] Soil, water: See note 21; sludge: Kevin Miller, "State investigating 'very startling' levels of PFAS chemicals on central Maine dairy farm," Press Herald, 29 July 2020.

[22] Carol F. Kwiatkowski et al., "Scientific basis for managing PFAS as a chemical class," Environmental Science and Technology Letters, 7(8), DOI, 30 June 2020.

[23] Food and Drug Administration, Question and Answers on PFAS in Food, 26 August 2021; EPA, Basic Information on PFAS, 8 April 2021.

[24] Laura Schaider et al., "Fluorinated compounds in U.S. fast food packaging," Environmental Science & Technology Letters 4(3):105- 111.

[25] Ulla B. Mogensen et al., "Breastfeeding as an exposure pathway for perfluorinated alkylates," Environmental Science and Technology, 49(17).

[26] Guomao Zheng et al., "Per- and polyfluoroalkyl substances (PFAS) in breast milk: concerning trends for current-use PFAS," Environmental Science & Technology 55(11):7510-7520, 13 May 2021.

Emily Scarr, Maryland PIRG Emily@MarylandPIRG.org
@emilyscarr @marylandpirg