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HB0909 - Sewage Sludge Utilization Permits - Per- and Polyfluoroalkyl Substances - Concentration Limits

Hearing date: Tuesday, February 24, 2025

Position: FAVORABLE

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Dear members of the Health and Government Operations:

Potomac Riverkeeper Network: *Our mission is to protect the public's right to clean water in the Potomac and Shenandoah Rivers and their tributaries. We stop pollution to enhance the safety of our drinking water, protect healthy river habitats, and enhance public use and enjoyment.*

As the representative of the 3000 members of Potomac Riverkeeper Network, we respectfully request a FAVORABLE report on HB0909 which establishes a long-overdue limit on toxic PFAS found in biosolids (sewage sludge) that is used as fertilizer and spread on Maryland's farm fields.

The Problem

Biosolids are the solid waste, or sludge, produced during the treatment of municipal, human, and industrial wastewater. In Maryland, biosolids — including some from out-of-state facilities — are used as fertilizer on farms. However, these biosolids often contain pathogens and toxic substances, including PFAS chemicals, also known as “forever chemicals.” While existing Maryland regulations prohibit immediate grazing, raw crop consumption, and public access to treated fields, these measures fall short when biosolids contain PFOS and PFOA, two highly toxic PFAS compounds that persist in the environment and pose significant risks to human and ecological health. During treatment, these chemicals concentrate in biosolids, which are then spread on agricultural fields.

The Risk to Maryland Water Resources and Human Health

Biosolids containing PFAS run off farm fields and filter into groundwater, contaminating drinking water sources. When biosolids are applied to farm fields, PFAS pollutants are not bound to soils and end up leaching through the soil and into the sub-surface water. The depth to water values for all soils in Maryland are updated annually and the following map highlights the soils in Maryland that have a higher risk of PFAS contamination impacting the groundwater; which in turn can contaminate private wells that are on or surrounding the farms where biosolids are applied. The map below also locates the existing sites where land applied biosolids. The red and dark orange indicate high risk areas that fall mostly on the Eastern Shore, but also on the lower Potomac River region along with areas in Frederick County. These are primarily rural areas with a dominant agricultural land use.

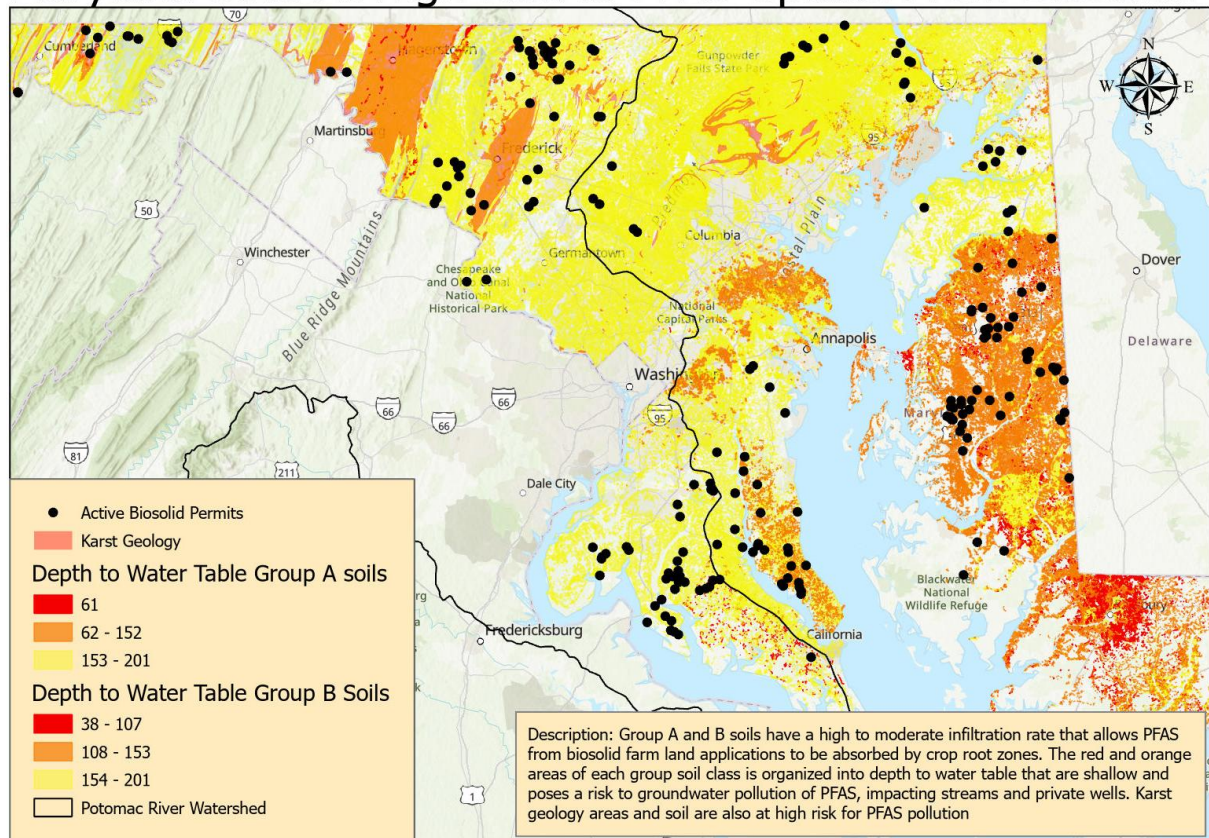
PFAS pollutants build up in soils after repeated biosolid applications, which means PFAS is available for long periods after application to leach into groundwater and run off into local streams. PFAS pollutants can also be taken up by leafy plants such as soybeans and grasses used for pasture which research shows can impact farm products and pasture grazed animals.



Potomac Riverkeeper Network is the trade name of Potomac Riverkeeper, Inc.
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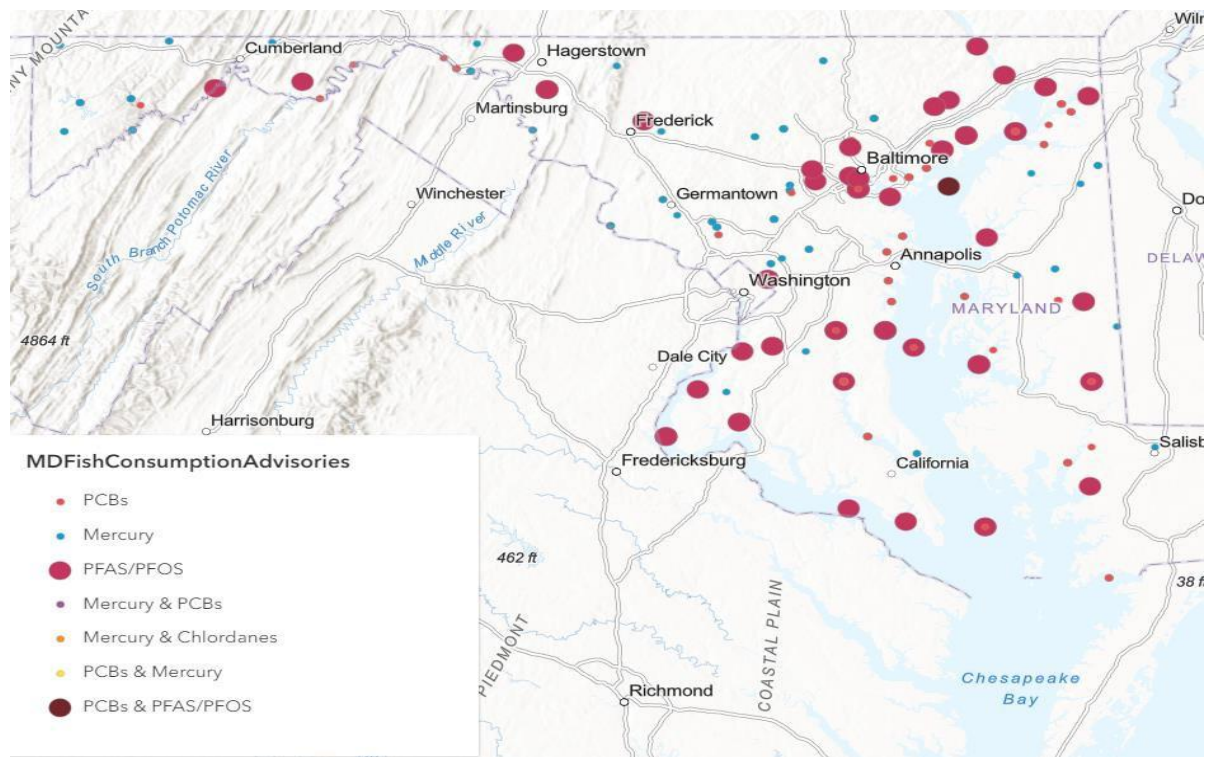


Maryland Soils At High Risk to PFAS Uptake From Biosolids



PFAS Puts Maryland's Fisheries at Risk

PFAS is known to bioaccumulate in fish and wildlife, increasing the risk to hunters and fisherman and their families by eating contaminated meat. In 2023, Maryland Department of the Environment issued fish consumption advisories for several species at 38 locations across the State of Maryland, with 80% of these sites located in agricultural regions. The advisories are also in areas where communities' subsistence fish to feed their families.



In 2024, Dr. Vicki Blazer with USGS published a paper on the testing of small mouth bass at several river systems in the Chesapeake Bay, including Maryland. The results of the study identified two dominant sources of PFAS in agricultural areas, pesticides and biosolids. The chart below compares the land use at 4 of the locations. The second slide shows the levels of 4 PFAS compounds found in small mouth bass at each location with PFOS having higher concentrations.

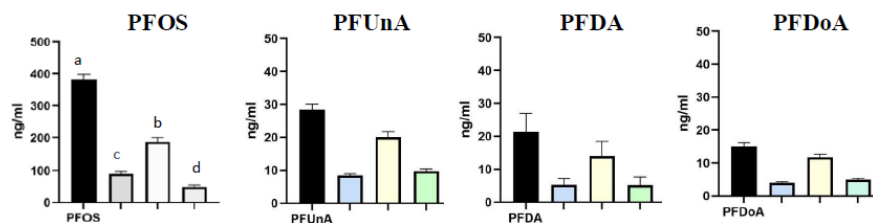
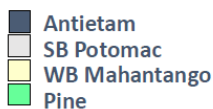
Land-use Comparison – Upstream Catchment

Site	Drainage area (km ²)	Percent Agriculture	Percent Pasture	Percent Crop	Percent Forest	Percent Developed
Antietam Creek	730	49	21	28	32	17
South Branch Potomac River	3,150	14	13	1	81	3
West Branch Mahantango Creek	218	32	12	20	60	7
Pine Creek	2,437	9	8	1	84	4



Initial PFAS Analyses - 2018

- Used archived plasma from smallmouth bass collected at four sites for analyses of 13 PFAS
- Four PFAS were found in every sample with PFOS having the highest concentrations



[video presentation](#) | [powerpoint presentation](#)

EPA Actions on PFAS in Biosolids

Since 2003, EPA has known that biosolids can contain alarming levels of PFAS. In a 2018 report, the [Environmental Protection Agency](#)'s (EPA) Inspector General accused the agency of failing to properly regulate biosolids. However, it wasn't until January 2025 that the EPA's draft Sewage Sludge Risk Assessment was released. It highlights the severe risks posed by PFOS and PFOA levels as low as 1–5 parts per billion (ppb), linking exposure to contaminated water, wildlife, and crops to serious health issues, including immune dysfunction, thyroid disease, and cancer.

In April of 2024, the EPA issued national drinking water limits for PFOA and PFOS at 4 parts per trillion (ppt) each. There are no other pollutants that are regulated by EPA or any state with limits lower or even close to 4 ppt. This means that the potential for PFOA and PFOS to cause harm is severe and must have lower limits. Biosolids are measured in parts per billion, which is 1000 times greater than parts per trillion. The reason for this difference is that biosolids are in a semi-solid form tied to a mix of solid and aqueous. When biosolids are applied to a farm field and is incorporated into the soil, weather events promote leaching into the groundwater and into streams from stormwater run off. Depending on the concentration of PFOS and PFOA in the biosolids, the leaching concentration is well above the 4 ppt drinking water limit. However, we do not usually drink straight from the river and the river volume tends to dilute the levels. But the repeated application of biosolids and the cumulative impact of several farm sites leaching PFAS increases the PFAS levels contaminating our fish, our drinking water source and the foods we grow. That is why the EPA draft Sewage Sludge Risk assessment sets the human health hazard limit to 1 ppb. The EPA limit is backed but robust scientific research, rather than statistical assessments of the present concentration of PFAS in biosolids that states like Michigan use as a basis for their PFAS limits in biosolids. In August of 2024, MDE issued recommendations for limits in biosolids for PFOA and PFOS at 100 ppb. This concentration limit was taken from Michigan's regulations, which has no scientific basis for human health exposure.

What the Bills Does as Written

- Requires biosolids originating from multiple plants and are commingled at a storage facility, will be tested 14 days prior to being applied to farmland. This does not include biosolids directly from a wastewater plant to a farm for application.
- Establishes a limit for PFOS and PFOA in biosolids at 1ppb.

Proposed Amendments

There has been considerable communication between bill sponsors, advocates, MDE and opposition to develop a workable solution to this issue. It is apparent that all parties recognize that we need to protect our resources from further unchecked contamination. All parties are also interested in developing a transition plan that reduces the burden on wastewater systems and the costs to rate payers. However, we must consider the costs and liabilities to farmers taking PFAS contaminated biosolids that may threaten their product and the groundwater their communities use for drinking through private wells. There are no protections or funds available to communities with private wells that may be contaminated, like there are for public water sources. We need a solution that works. The following amendments are being considered:

MDE's proposed amendments:

1. Revise contaminant limit from 1part per billion to 100ppb (begins 10/1/25) –**All Agreed**
2. MDE will adopt regulations to establish concentration limits as close to 1ppb as technologically and economically feasible to 1ppb (On or before 10/1/2028). **Agreed, but see below**
3. If the Department fails to adopt the regs above by 10/1/28, the limit goes to 1ppb (begins 10/1/28) **Agreed, but see below**

Advocates' Proposed Amendments to MDE Amendments:

1. Revise contaminant limit from 1ppb to 100ppb for the total of PFOS and PFOA (PFOS + PFOA - This distinction was offered by MDE)
2. Concentration limits can not be more than 25 ppb PFOS and 10 ppb PFOA when adopting limits on or before 10/1/2028.

Farmers and watermen are sounding the alarm and filing lawsuits. Their fear is the liability of PFAS pollution contaminating their well and their neighbors drinking water. Farmers are concerned that the products they produce are contaminated with PFAS and may cause harm to the communities they provide food for. We should act now. Maryland can't wait for the EPA and must take stronger action to safeguard its drinking water sources, environment and the health of our farmers and communities.

We urge this committee to issue a favorable report on HB0909.

Sincerely,

Brent Walls
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