

# STOPPING PFAS POLLUTION AT ITS SOURCE

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## WHY IT MATTERS

**PFAS** are a group of over 15,000 chemicals that are dangerous to human health and the environment.<sup>1</sup> They are commonly known as “forever chemicals” because, unlike most other chemicals, they do not break down but instead build up and persist in our bodies, soil, water, and wildlife.<sup>2</sup> PFAS, even at very low levels, can cause significant human health harms, including cancers, impacts to the heart and the liver, developmental harm to infants and children, and reduced immune function.<sup>3,4</sup>

PFAS are used in many industrial processes and consumer products. This means people come into contact with PFAS when using everyday items like waterproof and stain-resistant fabrics and materials, food packaging, and non-stick cookware.<sup>5</sup> Concentrated streams of PFAS pollution enter the environment from sources like industrial wastewater discharges, landfill leachate, land-applied sewage sludge **biosolids**, and firefighting foams, and can contaminate drinking water, ground and surface waters, soil, livestock, crops, food, and wildlife.<sup>6</sup> Studies show that members of low-income communities and communities of color are more likely to live within five miles of a PFAS-contaminated site and that these communities may be disproportionately exposed to PFAS in drinking water.<sup>7,8</sup>

Importantly, the water treatment systems most commonly used do not remove PFAS from our drinking water or wastewater.<sup>9</sup>

## CURRENT LANDSCAPE

Much of Virginia's efforts have focused on assessing PFAS contamination in drinking water. In 2020, the General Assembly passed two bills: one convening a workgroup to study and report on the occurrence of PFAS in the Commonwealth's public drinking water;<sup>10</sup> and another requiring Virginia to establish drinking water standards for some PFAS and other chemicals.<sup>11</sup>

This legislation and associated funding resulted in Virginia's Department of Health (VDH) undertaking a limited study of PFAS in Virginia's drinking water in 2021. With additional funding, VDH expanded PFAS testing in 2022 and 2023. To date, VDH has collected 350+ samples from 274 out of 2,826 public waterworks in Virginia.<sup>12</sup> VDH's findings focused only on six PFAS chemicals detected above VDH-set screening levels. The study showed that PFAS were present in 26 drinking water utilities across the Commonwealth, impacting the drinking water of 2.5 million Virginians.<sup>13</sup> VDH's study did not include testing of private wells.

VDH did not develop state drinking water standards for PFAS because the **US Environmental Protection Agency (EPA)** began to develop national standards. EPA finalized drinking water standards for six PFAS in April 2024, and all public water systems in Virginia must comply with the new standards by 2029.<sup>14</sup> These legally enforceable maximum contaminant levels are based on cost and technological considerations. However, the EPA has also set non-enforceable maximum contaminant level goals of zero for two

types of PFAS (PFOA and PFOS) since there is no safe level of exposure for human health. Private wells are not monitored or regulated under EPA's new drinking water standards, excluding more than one million Virginians from these protections.<sup>15</sup>

Last year, the General Assembly passed legislation requiring the **Virginia Department of Environmental Quality (DEQ)** to develop an assessment process to identify PFAS sources impacting public drinking water supplies.<sup>16</sup> These assessments are only required when PFAS above the federal drinking water standards are detected in public water supplies, and in those cases DEQ may require PFAS self-reporting and monitoring by potential “significant” sources. DEQ maintains a public dashboard for the limited data available about PFAS in Virginia's surface water; over half of the samples contain PFAS.<sup>17</sup> Identified areas of significant PFAS pollution have included Spring Hollow Reservoir outside of Roanoke, White Oak Swamp downstream of the Richmond Airport, the area around the DuPont Spruance plant, and areas near numerous military bases.<sup>18</sup>

Virginia also previously passed legislation that generally prohibits the use of PFAS-containing firefighting foam for testing or training purposes.<sup>19</sup>

Unlike other states, Virginia does not require disclosure and monitoring of PFAS or setting PFAS limits in pollution discharge permits, despite having the authority to do so.

## OPPORTUNITIES

The most cost-effective and efficient way to tackle PFAS is at the source – where PFAS is manufactured or used in industrial processes – before it reaches our drinking water sources. Recent estimates show that Virginia's public water systems will need to spend \$390K to \$2.4M per year for the next 35 years just to comply with EPA's new drinking water standards.<sup>20</sup> Private well owners could also face costs of between \$14K and \$17K annually for the next 35 years to remove PFAS from their drinking water.<sup>21</sup> Until we stop PFAS pollution at its source, downstream waterworks, communities, and private well owners will continue to pay the costs for PFAS treatment to make sure their drinking water is safe.

A substantial source of PFAS in our waters is concentrated pollution released in industrial wastewater and biosolids. DEQ has existing authority under the Clean Water Act to control PFAS pollution discharges through the **VPDES permit program**. DEQ does not currently have the funding needed to implement monitoring, assess pollution limits, and improve pretreatment requirements for PFAS in these permits. This would place the responsibility for cleaning up the PFAS pollution in our waters and in biosolids on the industries that use and discharge PFAS.

More information is also needed about the occurrence of PFAS in our wildlife, including in fish, shellfish, deer, and other game species. DEQ does not currently have sufficient funding for the fish tissue monitoring program to help DEQ assess the prevalence of PFAS contamination

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in fish.<sup>22</sup> This information can also help VDH determine whether PFAS consumption advisories are required to protect human health because subsistence anglers and hunters are at increased risk of possible PFAS exposure from contaminated fish and game species.<sup>23</sup>

## TOP TAKEAWAYS

PFAS, even at very low levels, can cause significant human health harms, including cancers, impacts to the heart and the liver, developmental harm to infants and children, and reduced immune function.

DEQ should use existing authority under the Clean Water Act to place the responsibility and cost of cleaning up PFAS on the industries that use and manufacture PFAS by requiring PFAS disclosure, monitoring, and limits in pollution discharge permits.

VDH and DEQ should develop public health information about the occurrence of PFAS in Virginia's wildlife, and VDH should make available PFAS testing for private wells that are not regulated under existing drinking water laws such as Delegate Campbell's plan presented to the Water Commission.

## ENDNOTES

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