# PFAS ASSESSMENT AND SOURCE REDUCTION ACTIVITIES 2025 ANNUAL REPORT

# A REPORT TO THE HONORABLE GLENN YOUNGKIN, GOVERNOR, AND THE GENERAL ASSEMBLY OF VIRGINIA

Virginia Department of Environmental Quality

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## **Executive Summary**

The PFAS Assessment and Source Reduction Activities 2025 Annual Report is required by § 62.1-44.34:29-33.D of the Code of Virginia to characterize annual activities aimed at reducing per- and polyfluoroalkyl substances (PFAS) in drinking water through data transfer of PFAS monitoring results from public water systems (PWS), identification of significant PFAS sources in affected PWS source water, and guidance from the PFAS Expert Advisory Committee (PEAC). This second annual report covers activities from October 1, 2024 to September 30, 2025 and includes the first full year of the Department of Environmental Quality's (DEQ's) PFAS source assessment efforts.

Highlights during the 2025 reporting period include:

- DEQ received four quarterly data transfers from the Virginia Department of Health (VDH) indicating 59 drinking water systems across the Commonwealth with PFAS Maximum Contaminant Level (MCL) exceedances.
- For those drinking water systems exhibiting PFAS MCL exceedances where DEQ received the associated data prior to September 1, 2024, DEQ sent 185 letters notifying facilities of their obligation to self-report their use and manufacture of PFAS at the facility and/or monitor their effluent for PFAS. DEQ completed the notifications on November 25 and 26, 2024 ahead of the December 1, 2024 statutory deadline.
- DEQ developed the PFAS Source Assessment Prioritization Plan prior to the January 1, 2025, deadline. Systems were prioritized based on the degree of PFAS exceedance, and the number of customers served.
- DEQ has convened four meetings of the PEAC, two in the fall of 2024 and two in 2025, fulfilling the obligation to have two PEAC meetings in each calendar year.

In addition to meeting DEQ's statutory obligations, DEQ made progress on other PFAS-related objectives, including:

- DEQ's 2025 PFAS ambient water column monitoring plan supports the source assessment process by focusing on watersheds where drinking water is impacted and sampling the sites monthly.
- DEQ began implementing the Occoquan Reservoir PFAS Reduction Program (Chapter 650 of the 2025 Acts of Assembly (HB 2050) codified at § 62.1-44.34:34 of the Code of Virginia) by notifying facilities subject to the program and meeting with them to ensure each facility's understanding of their new obligations.
- DEQ staff engaged in public outreach efforts to update elected officials, regulators, stakeholders, environmental professionals and Virginia's citizens as whole on PFAS source reduction efforts throughout the year.

# Introduction and Background on DEQ's PFAS Actions

Per- and polyfluoroalkyl substances (PFAS) are a class of persistent synthetic chemicals used worldwide in many consumer products. Manufactured beginning in the 1940s, PFAS includes a group of almost 15,000 chemicals in the U.S. Environmental Protection Agency's (EPA's) CompTox database. The unifying property of these molecules is that they have multiple carbon-fluorine bonds, which makes the molecule non-reactive. The inertness of the molecules makes them valuable for applications where heat, water, stain, and oil resistance are desired, including personal care products, paints, fast food packaging, firefighting foam, and non-stick cookware, among other uses. However, PFASs' inertness also leads to their persistence in the environment and has earned them the nickname "forever chemicals." While there are thousands of PFAS chemicals, much of the scientific attention has been on only a small number of compounds.

The two most studied PFAS are Perfluorooctanoic acid (PFOA) and Perfluorooctane sulfonic acid (PFOS)<sup>1</sup>, which are linked to health effects such as increased risk of prostate, kidney and testicular cancers, developmental delays in children, and reduced immune response to infections and vaccines.<sup>2</sup> PFAS have been found in the blood of nearly every person tested.<sup>3</sup> Due to PFAS's documented health effect in humans, ubiquity in human blood, and global environmental distribution<sup>4</sup>, these chemicals have been regulated at the state and federal level.<sup>5</sup>

#### Federal PFAS Initiatives

At the federal level, multiple PFAS regulations and actions were finalized in 2024. First in January 2024, two test methods to measure PFAS in the environment were finalized, EPA Method 1633, a method which targets 40 individual PFAS compounds, and EPA Method 1621 which is for non-targeted analysis measuring adsorbable organic fluorine no matter the source. Then on April 10, 2024, the EPA issued the first legally enforceable drinking water standards for five PFAS individually and a mixture of four PFAS. Shortly thereafter on April 19, 2024 two PFAS, PFOS and PFOA, became regulated as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) enabling regulatory

<sup>&</sup>lt;sup>1</sup> Interstate Technology Regulatory Council, Human and Ecological Health Effects of Select PFAS, available at: <a href="https://pfas-1.itrcweb.org/7-human-and-ecological-health-effects-of-select-pfas/">https://pfas-1.itrcweb.org/7-human-and-ecological-health-effects-of-select-pfas/</a>.

<sup>&</sup>lt;sup>2</sup>See U.S. Environmental Protection Agency, Human Health Toxicity Assessment for Perfluorooctane Sulfonic Acid (PFOS), January 2025, available at: <a href="https://www.epa.gov/system/files/documents/2025-01/pfos-human-health-toxicity-assessment-infographic-factsheet.pdf">https://www.epa.gov/system/files/documents/2025-01/pfos-human-health-toxicity-assessment-infographic-factsheet.pdf</a> and U.S. Environmental Protection Agency, Human Health Toxicity Assessment for Perfluorooctane Sulfonic Acid (PFOS), January 2025, available at: <a href="https://www.epa.gov/system/files/documents/2025-01/pfos-human-health-toxicity-assessment-infographic-factsheet.pdf">https://www.epa.gov/system/files/documents/2025-01/pfos-human-health-toxicity-assessment-infographic-factsheet.pdf</a>.

<sup>&</sup>lt;sup>3</sup>See Agency for Toxic Substances and Disease Registry, Fast Facts: PFAS in the U.S. Population, November 2024, available at: <a href="https://www.atsdr.cdc.gov/pfas/data-research/facts-stats/index.html">https://www.atsdr.cdc.gov/pfas/data-research/facts-stats/index.html</a>.

<sup>&</sup>lt;sup>4</sup>See U.S. Environmental Protection Agency, PFAS Explained, September 2025, available at: <a href="https://www.epa.gov/pfas/pfas-explained">https://www.epa.gov/pfas/pfas-explained</a>.

<sup>&</sup>lt;sup>5</sup>See e.g., U.S. Environmental Protection Agency, Key EPA Actions to Address PFAS, July 2025, available at: <a href="https://www.epa.gov/pfas/key-epa-actions-address-pfas">https://www.epa.gov/pfas/key-epa-actions-address-pfas</a> (explaining federal actions to regulate PFAS) and §§ 62.1-44.34:35 – 62.1-44.34:39 of the Code of Virginia (state laws regulating PFAS).

actions to address contamination and protect public health. Finally, in September 2024 EPA issued final recommended Aquatic Life Criteria for PFOS and PFOA alongside benchmarks for eight additional PFAS estimating acute toxicity thresholds.

In 2025, EPA renewed its commitment to addressing PFAS with an April 28, 2025, press release outlining the actions EPA intends to take with regards to PFAS: <u>EPA Announces Major Actions</u> to Combat PFAS Contamination.

In response to litigation and concerns from drinking water providers about compliance with the 2024 PFAS drinking water standards, EPA announced on May 14, 2025 that it would revisit the drinking water standards, and it intends to make several changes. Under the April 2024 version of the rule, Maximum Contaminant Levels (MCL) were set for PFOA and PFOS at 4 parts per trillion (ppt, ng/L), PFNA, PFHxS, and HFPO-DA (Gen X) were set at 10 ppt, and a mixture of PFBS, PFNA, PFHxS and HFPO-DA was regulated using a Hazard Index with an MCL of 1 (unitless). Drinking water systems were directed to complete initial monitoring by 2027 and the MCLs must be met by 2029. Under EPA's May 2025 proposed changes, the MCLs for PFOS and PFOA would be maintained at 4 ppt, but the MCLs for PFNA, PFHxS, and HFPO-DA, and the Hazard Index would be rescinded and reconsidered. Furthermore, EPA announced that it would extend the compliance date from 2029 to 2031. EPA expects to have the rule making implementing these changes finalized by Spring 2026.

#### General Assembly PFAS Initiatives

PFAS has been a topic of interest to the General Assembly for several years. In five of the past six General Assembly sessions some action has been taken on PFAS. During the 2022 session the General Assembly first provided funding to DEQ to investigate PFAS in the Commonwealth's surface and groundwater. With this funding DEQ launched a successful PFAS monitoring program and expanded it into fish tissue monitoring.

During the 2024 General Assembly session, Chapters 316 and 343 of the Acts of Assembly (HB 1085/SB 243) were enacted, adding Article 13 to Virginia's State Water Control Law entitled "Per- and Polyfluoroalkyl Substances" (§ 62.1-44.34:29-33). Article 13 requires the Virginia Department of Health (VDH) to transfer to DEQ on a quarterly basis all validated monitoring results that indicate PFAS MCL exceedances for public water systems (PWSs). DEQ is then required to conduct PFAS assessments to identify significant sources of PFAS in the raw water for those public water systems. Other provisions of Article 13 establish requirements for monitoring and self-reporting of PFAS from certain dischargers. The law also directs DEQ to establish the PFAS Expert Advisory Committee (PEAC) to assist DEQ and VDH in developing solutions to reduce and eliminate the discharge of PFAS. The full text of the HB 1085/SB 243 is included in Appendix A.

The 2025 General Assembly enacted Chapter 650 of the Acts of Assembly (HB 2050), which establishes the Occoquan Reservoir PFAS Reduction Program (§ 62.1-44.34:34). This program requires certain facilities in the Occoquan Reservoir to test their effluent for PFAS. Then, if the concentration in their effluent is greater than the EPA MCL for drinking water, the facilities are to reduce the PFAS discharge until they are at or below the MCL by the compliance date of the drinking water regulation. The full text of HB 2050 is included in Appendix B.

## **DEQ Ambient Water Quality Monitoring Efforts**

Starting in late 2021, DEQ began monitoring for PFAS in the Chickahominy River Watershed in response to evidence of PFAS contamination from White Oak Swamp, a tributary to the system flowing through the Richmond International Airport. In 2022, the agency expanded its PFAS monitoring to streams, rivers, and reservoirs across the Commonwealth to understand the prevalence of these substances and to identify potential locations where PFAS concentrations are elevated relative to baseline concentrations. DEQ has supported investigative PFAS studies in the Middle Chickahominy River watershed, in the Roanoke River for the PFAS compound GenX, and in the watershed of the Occoquan Reservoir. These studies have been performed where elevated PFAS levels had been identified in source waters for public water supplies. In addition to supporting these focused investigations, DEQ has now collected PFAS data at over 350 water quality monitoring stations in all major river basins of Virginia. Since 2023, fish tissue and sediment monitoring has been conducted at over 130 routine fish tissue monitoring sites to better understand potential human health exposure through fish consumption. DEQ collects fish tissue samples in the major river basins on a rotating basis with the goal to sample all basins over a three-year rotating cycle. PFAS analysis of fish tissue has been added to a subset of DEQ's annual, routine fish tissue monitoring stations.

The PFAS ambient water column monitoring program continues in 2025, with a slight change in focus. Rather than focusing on spatial coverage of PFAS in the water column statewide, DEQ is focusing on monthly sampling in watersheds where drinking water may be impacted. DEQ also continues to collect fish tissue samples in select river basins. More information on DEQ's PFAS monitoring efforts is available on the agency's website: Per- and Polyfluoroalkyl Substances (PFAS) | Virginia DEQ, and all PFAS data are made available to the public in a statewide dashboard: Statewide PFAS Sampling Dashboard (arcgis.com).

In addition to providing the public with data on PFAS occurrence statewide, DEQ's ambient monitoring effort has supported the VDH Public Health Toxicology Program in its effort to issue fish consumption advisories for PFOS. On May 8, 2025, VDH finalized advisory guidelines for PFOS in fish tissue. VDH determined that if average concentrations of PFOS in fish tissue are between 10 and 20 parts per billion (ppb,  $\mu g/kg$ ) only two meals of contaminated fish should be consumed per month. When concentrations are greater than 20 ppb no contaminated fish should be consumed. On May 9, 2025, fish consumption advisories were issued for the Middle Chickahominy watershed and White Oak Swamp based on data collected by DEQ. (see: Virginia Health Officials Issues Fish Consumption Advisory for Chickahominy Watershed | Virginia Department of Health).

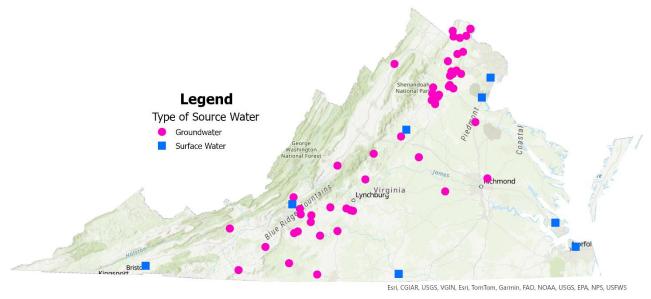
## Implementation of HB 1085/SB 243

Passed by the General Assembly in 2024, HB 1085/SB 243, codified as Article 13 of the State Water Control Law (§ 62.1-44.34:29-33), created a partnership between DEQ and VDH's Office of Drinking Water (ODW) to address PFAS contamination in drinking water. Under this law, ODW is directed to transfer to DEQ any validated monitoring results that show a PFAS MCL exceedance in a PWS on a quarterly basis. DEQ is then to perform source assessments for each of these PWSs, identifying the significant sources of PFAS in each system's source waters and to propose regulatory and non-regulatory options for reducing PFAS in each system's raw source

water. To perform the assessments DEQ was given two new authorities, to require potential sources to: 1) self-report their use or manufacture of PFAS and 2) monitor their effluent for PFAS quarterly for one year. Recognizing the complexity of these source assessments DEQ was directed to develop a plan to prioritize drinking water systems to receive source assessments. In addition, DEQ was directed to form the PEAC to assist DEQ and VDH. This section of the report will address each aspect of HB 1085/SB 243in its own subsections, except for the PEAC, which has its own dedicated section. The full text HB 1085/SB 243 is included in Appendix A.

#### **Data Transfers**

Since HB 1085/SB 243 was effective on July 1, 2024, DEQ has received five data transfers from VDH. A total of 59 PWSs reported measuring PFAS in excess of EPA's drinking water MCLs. The location of each impacted supply along with the type of source water impacted is shown in Figure 1. One important trend in the data is that there are more individual groundwater systems impacted than surface water systems. This is expected as there are approximately 2,450 groundwater systems in Virginia and approximately 125 surface water systems. However, despite the large number of systems with groundwater PFAS exceedances, the majority of people impacted by the PFAS exceedances are customers of PWSs that use surface water.



**Figure 1.** Map of PWSs with PFAS Exceedances for Data Received by DEQ through July 1, 2025.

Summary information about each data transfer is provided in Table 1. In Table 1 the Number of Systems with Exceedances refers to the total number of systems in a data transfer that had an MCL exceedance; Newly Identified refers to the systems that are reporting an exceedance for the first time; Previously Identified refers to the number of systems that were identified as having an exceedance in a previous transfer; Uniquely Identified refers to the running total number of systems that are known to have a PFAS MCL Exceedance. The By Water Source section breaks down the number of systems with exceedances based on whether their source water is surface water, groundwater, or groundwater under the direct influence of surface water (GUDI).

	July 2024	October 2024	January 2025	April 2025	July 2025
Number of Systems with Exceedances	27	11	27	5	4
Newly Identified	27	6	23	2	1
Previously Identified	0	5	4	3	3
Uniquely Identified (Running Total)	27	33	56	58	59
By Water Source					
Surface water	7	2	1	2	3
Groundwater	19	9	26	3	1
GUDI	1	0	0	0	0

**Table 1.** Summary information about each VDH data transfer.

#### **Facility Notification Process**

DEQ sent letters to 185 facilities notifying them of the requirement to self-report their use or manufacture of PFAS and/or monitor their discharge for PFAS on November 25 and 26, 2024. These notifications were sent pursuant to an enactment clause in HB 1085/SB 243. The enactment clause required DEQ to notify facilities located in the source waters of PWSs where PFAS detected above a MCL and where VDH notified DEQ of the exceedance prior to September 1, 2024. These letters set a deadline for facilities to self-report their use or manufacture of PFAS prior to February 24, 2025, and to start monitoring for PFAS in the second quarter (April to June) of 2025.

DEQ selected facilities for these letters if they met all of the following criteria:

- 1. If the facility is in the source waters of an impacted public water system;
- 2. If the facility holds a Virginia Pollutant Discharge Elimination System (VPDES) Individual Permit, Industrial Stormwater General Permit, or General Permit for Discharges from Groundwater Remediation of Contaminated Sites, Dewatering Activities of Contaminated Sites, and Hydrostatic Tests OR is identified as a Significant Industrial User (SIU) as part of a publicly owned treatment works pretreatment program; and
- 3. If the facility is deemed by DEQ to be either a potential source or potentially significant source of PFAS in the PWS's raw drinking water based on details outlined in the statute and other technical factors identified by DEQ.

The source waters for public drinking water supplies were defined as the watersheds upstream of each drinking water system's surface intake or the groundwaters within a 3-mile radius of each impacted groundwater well.

One tool DEQ used to determine if a facility could be a potential or potentially significant source was the EPA list of PFAS Handling Industrial Sectors which can be found online at EPA's <u>PFAS</u>

Analytic Tools. This list identifies industrial sectors that may handle or use PFAS based on Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) codes. DEQ compared these codes and the code for industrial launders, which was included in the statute, against the permit holders in the watershed to focus on the facilities most likely to be impacting source waters.

In total there were 158 facilities that met all three criteria. Some facilities discharged under both an industrial pretreatment program permit and VPDES permit, and therefore received two letters. In such cases, submitting one self-reporting form was sufficient to satisfy the self-reporting requirements, but both permitted discharge streams were required to be monitored.

After the initial round of notifications, requirements to self-report or monitor for PFAS were removed at 12 facilities for the following reasons:

- 1 facility was in the process of closing at the time of notification
- 2 facilities were removed due to having been included due to database errors
- 2 facilities terminated their permits
- 1 facility corrected its NAICS code
- 1 facility was confirmed as a no-discharge SIU
- 4 general aviation airports indicated no current or historical aqueous film foaming foam (AFFF) use (discussed below)
- 1 facility in the source water with a groundwater-based system with data indicating groundwater flow away from the impacted PWS well

DEQ initially required all airports with a VPDES permit to monitor their discharge for PFAS. However, several general aviation airports reached out to DEQ with concerns about the cost of testing and indicated they did not use PFAS. In light of their concerns, DEQ investigated why airports are considered possible PFAS sources. The primary source of PFAS contamination from airports stems from the use of AFFF containing PFAS. AFFF is used to put out fires involving flammable liquids, such as gasoline, oil, and jet fuel, where water alone is inappropriate. A subset of airports, known as Part 139 Airports, are required to have aircraft rescue and firefighting capabilities on site including AFFF, furthermore these airports were historically required to test and train with the AFFF equipment. As a result, these Part 139 airports are considered likely sources of PFAS. However, there are only 520 airports that are regulated as Part 139 airports nationwide, and only 8 in Virginia. Non-Part 139 Airports are not required to have AFFF onsite.

Based on this information, DEQ developed a pathway for general aviation airports that were notified to conduct PFAS monitoring to have their requirement for monitoring removed. To do this DEQ developed a questionnaire for general aviation airports asking questions about current or historical use of PFAS on site. If the facility indicated that no AFFF has been used DEQ verified the report with a search of National Transportation Safety Board (NTSB) crash records and internet searches for fires at the site before lifting the requirement to monitor for PFAS.

Wastewater treatment plants (WWTP) were included in the facilities that received notification to monitor their effluent for PFAS. Recognizing the cost burden of testing, DEQ limited the notifications to WWTPs that have a design flow greater than 10,000 gallons per day and that were not associated with schools. The WWTPs testing was initiated under the authority of the State Water Control Law and the VPDES regulations rather than the authority in Article 13. Therefore, these facilities were given a different monitoring requirement. Rather than sampling quarterly for a year these facilities were asked to take two samples at least a month apart, one during high flow conditions for the plant and one during low flow conditions. The testing requirements were chosen, recognizing the PFAS in the WWTP's discharge is derived from the sewershed, not the plant itself, while still gathering data to get a range of the PFAS concentrations that can be expected from a given WWTP.

#### Self-Reporting Data

A total of 109 facilities were asked to self-report their PFAS use or manufacture over the 2024 calendar year. All facilities that were asked have fulfilled their obligation to self-report the use or manufacture of PFAS. Of those facilities asked, 82 (75 percent) reported no use or manufacture of PFAS. These facilities will still sample their discharge for PFAS because PFAS labeling, or disclosure was not required for many products due to *de minimis* exemptions and in the case of sampling required for stormwater permits historical usage or spills may not be captured by the self-reporting form. However, looking forward, more information about PFAS may be available to end users due to the *de minimis* exemption being removed for the Toxic Release Inventory 2024 reporting year and beyond.

No facility surveyed reported that it manufactures PFAS. However, some facilities did report using PFAS. Some PFASs that were reported as in use in the Commonwealth of Virginia where a facility did not claim confidentiality are shown in Table 2. The PFAS compounds have been sorted into three groups: polymeric, aqueous file forming foam, and non-polymeric. A special use case of non-polymer PFAS AFFFs were grouped together because they constitute a major use where the exact composition of PFAS is not often disclosed.

#### Polymeric PFAS Non-polymer PFAS PTFE (Teflon) PFOA •Demag Lube Plumbing Tape •WD-40 Paint • ABC Dry Chemical Fire Plumbing Tape Extinguisher •Pinnaccle 9000 • PFOS •BYK-065 Paint •Lanco TF 1778 • ABC Dry Chemical Fire Flourocarbon Modified Extinguished **Polyacrylate** Decafluoropentane •FL 3772 Contact Cleaner 2000 Unknown Fluorosilicone •1,1,2,2-Tetrafluoroethyl •TEGO Airex 931 2,2,2-Trifluoroethyl Ether •3M Fluainert Electronic •Tergo PF-105 Liquid FC-40 •Tergo General Cleaning

# Aqueous Film Forming Foam (AFFF)

- Ansulite ARC 3% AR-AFFF
- •Ansulite ARC 6% AR-AFFF
- •Solberg Arctic 6% AFFF
- Aero-O-Water

**Table 2.** A selection of PFAS reported as in use in the Commonwealth of Virginia and the products containing them.

<u>Pentafluorobutane</u>
•Contact Cleaner 2000

Fluid •1,1,1,3,3-

#### **Effluent Monitoring Data**

A total of 147 facilities were instructed to monitor their effluent for PFAS starting in the second quarter of 2025 (April to June). As of August 1, 93 facilities (63 percent) have submitted effluent monitoring data for at least one quarter. DEQ will follow up with facilities that have not submitted monitoring data by October 1 of 2025 due to the potential lag between sampling, testing, and reporting. DEQ is still in the early stages of managing and analyzing the data that have been submitted. With only one partial quarter of data collected thus far DEQ is focusing on process improvement to ensure appropriate data is collected for accurate PFAS source assessments.

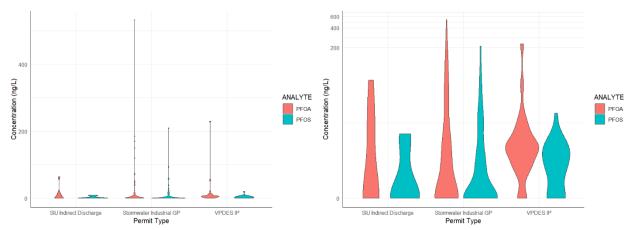
Currently, facilities submit data to DEQ by copying their lab data into a standardized schema and submitting the report from the analytical laboratory in case additional data is needed. This process has led to some data management challenges due to incompletely or incorrectly filled out schemas. Due to inconsistencies in data reporting and sometimes incomplete reporting of the

details needed to evaluate discharge monitoring results, DEQ is making modifications to the reporting schema to clear up points of confusion to get more standardized data. DEQ will also be evaluating online, electronic reporting options to ensure complete, consistent, and standardized reporting of PFAS monitoring results.

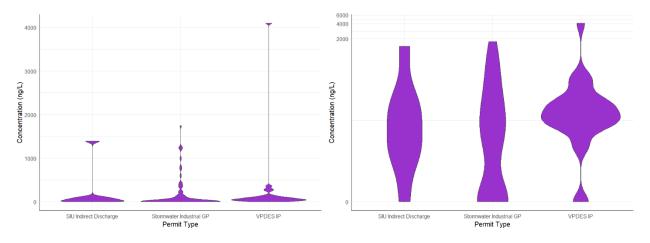
One quality control metric DEQ is paying attention to is the Method Detection Limit (MDL), the lowest concentration the method can measure. The MDL is referenced in statute as a metric DEQ is to consider if a facility requests that the requirement to monitor be reduced or eliminated. However, the MDL is not reliably reported by facilities. This is often due to the facility not receiving this metric from the testing laboratory. DEQ addressed these facts with the PEAC during the August 2025 meeting. Experts from testing laboratories on the committee indicated that this metric is not always reported because it statistically calculated and can change over time. As a result, it is something that a facility needs to ask for and may be charged for.

In addition to the MDL not always being reported, the MDLs reported were more variable than the agency expected. DEQ discussed this variability with the PEAC at the August 2025 meeting and learned that there can be several reasons underlying this observation. One includes matrix effects, like the presence of solids or organic matter, that may result in higher detection limits. A second is that facilities may not have asked for data quality metrics at the detection level DEQ was expecting as higher detection limits to allow for lower costs in performing the testing. The first explanation, matrix effects, is not a factor that is controllable by DEQ and will need to be considered when assessing and analyzing data provided to DEQ. However, the second explanation, facilities not providing quality metrics, is within DEQ's control. Due to the variability among laboratories in reporting of MDLs, and after discussion with the PEAC at the August 2025 meeting, DEQ is planning on developing a document for facilities and testing laboratories which specifies data quality goals and sampling expectations.

While working through the data management challenges the first quarter of data collection has presented, DEQ is evaluating the data collected for how it can inform planning for future monitoring as a part of PFAS source assessments. To do this DEQ prepared plots of the distribution of PFAS concentrations by permit type for each of the PFAS with drinking water MCLs (**Figures 2** and **3**). The plots show that many of the facilities that were required to monitor for PFAS have low levels of PFAS in their discharges. However, within those categories, there is variation with potentially significant sources in each permit type and none of these broad categories should be excluded from future notifications. In addition to the permit types listed below, DEQ notified two facilities with groundwater remediation wastewater permits to monitor their discharges for PFAS. As there were only two data points a distribution could not be drawn, but the PFOS and PFOA concentrations were measured between 0 and 13 ppt for PFOA and PFOS, and total PFAS was measured around 121 ppt. As data management challenges are addressed DEQ expects to look for trends based on industry to inform the notification process for future source assessments.



**Figure 2.** Plots of the distribution of PFOA and PFOS concentration reported by each outfall by permit type. The left plot shows the concentrations on a linear scale. The right plot shows the same data on a log scale. SIU indirect discharge refers to facilities that are SIUs in a wastewater treatment plant's pretreatment program. Stormwater Industrial GP refers to facilities that hold a VPDES general permit for industrial stormwater discharges. VPDES IP refers to facilities that hold a VPDES individual permit, which could be for stormwater or wastewater depending on the facility, this group also includes wastewater treatment plants themselves.



**Figure 3.** Plots of the distribution of maximum total PFAS concentration reported by each outfall by permit type. The left plot shows the concentrations on a linear scale. The right plot shows the same data on a log scale. SIU Indirect discharge refers to facilities that are SIUs in a wastewater treatment plant's pretreatment program. Stormwater Industrial GP refers to facilities that hold a VPDES general permit for industrial stormwater discharges. VPDES IP refers to facilities that hold a VPDES individual permit, which could be for stormwater or wastewater depending on the facility, this group also includes wastewater treatment plants themselves.

#### Prioritization Plan

The General Assembly, recognizing that the number of systems requiring a source assessment would likely be larger than the available staff time and resources to complete the source assessments, required DEQ to develop a plan to prioritize drinking water systems for receipt of

these source assessments. DEQ, in consultation with the PEAC, developed a plan to sort facilities into high, medium, and low priority based on two factors: 1) population and 2) the degree of PFAS MCL exceedance measured by the Cumulative Risk Index (CRI). The CRI is calculated using the formula:

$$CRI = \frac{\left[PFOA_{ppt}\right]}{4\ ppt} + \frac{\left[PFOS_{ppt}\right]}{4\ ppt} + \frac{\left[HFPO - DA_{ppt}\right]}{10\ ppt} + \frac{\left[PFBS_{ppt}\right]}{2000\ ppt} + \frac{\left[PFNA_{ppt}\right]}{10\ ppt} + \frac{\left[PFHxS_{ppt}\right]}{10\ ppt}$$

This formula is an extension of the Hazard Index calculation used in EPA's PFAS National Primary Drinking Water Regulation with terms added for PFOS and PFOA.

Facilities were considered high priority systems if they served a population greater than 100,000 people or if their calculated CRI was at or above the 90<sup>th</sup> percentile. Facilities were considered medium priority if they served between 10,000 and 100,000 people or if their calculated CRI was at or above the 50<sup>th</sup> percentile. All other facilities were ranked as low priority. Additional information about DEQ's development of the Prioritization Plan is available in the minutes of the November and December 2024 PEAC meetings. The full plan is available on DEQ's Reducing PFAS in Drinking Water webpage.

The Prioritization Plan is required to be updated annually. The 2026 updated plan will be available on DEQ's Reducing PFAS in Drinking Water page by January 1, 2026.

# Implementation of HB 2050

HB 2050, passed by the General Assembly during the 2025 session and effective on July 1, 2025, establishes the Occoquan Reservoir PFAS Reduction Program. This program targets the Occoquan Reservoir because it is the only indirect potable reuse drinking water supply in the Commonwealth and during periods of drought 90 percent of the inflows come from highly treated wastewater. The law requires facilities that discharge wastewater under an industrial pretreatment program to a major publicly owned treatment works (POTW) or that discharge industrial wastewater or industrial stormwater under a VPDES individual permit to monitor for PFAS in their effluent for at least one year. If the concentration of PFAS exceeds a drinking water MCL, the permitting authority is required to modify the facility's permit by July 1, 2027, requiring its discharge to not exceed the drinking water MCL by the compliance date for public water supplies. The full text of HB 2050 is included for reference in Appendix B.

DEQ notified the facilities subject to this program of the new requirements on June 16, 2025. As part of the notification DEQ invited the facilities to a meeting on July 9, 2025 to discuss the requirements and to provide information on how to test for PFAS and report their results. The first sample for this program is required to be taken prior to October 1, 2025. DEQ plans to draft language related to these programs as the permits come up for renewal or will reopen the permits as necessary to meet the July 1, 2027 deadline. More details about the program will be provided

next year in the PFAS Assessment and Source Reduction Activities 2026 Annual Report to the General Assembly.

## PFAS Expert Advisory Committee Activities

An expert advisory committee was established pursuant § 62.1-44.34:33 of the Code of Virginia to assist DEQ and VDH in "identifying:

- (i) PFAS sources through PFAS assessments and associated monitoring and reporting,
- (ii) public and private lab testing capacity issues, and
- (iii) options for reducing PFAS in source waters causing exceedances of PFAS MCLs."

The members of committee appointed by the DEQ Director are required to "include:

- (i) representatives of public drinking water and wastewater system owners,
- (ii) representatives of public health organizations,
- (iii) potential PFAS source categories,
- (iv) conservation organizations with expertise in water treatment, water science, or PFAS chemistry, and
- (v) other experts as determined by the Department."

#### PFAS Expert Advisory Committee Membership

Members of the PEAC were identified in consultation with VDH and invited to join the committee by DEQ Director Mike Rolband. The current list of members and their affiliations are provided in Appendix C.

#### Meetings of the PFAS Expert Advisory Committee

The PEAC is required to meet at least twice annually in each calendar year. To date the committee has met four times, which meets the statutory obligations for 2024 and 2025. The meetings are open to the public to observe and provide comment. As a public body, minutes are taken for each meeting and posted to Virginia's regulatory Town Hall website. A brief summary of the events of each meeting and a link to each meeting's minutes follows.

#### November 2024 Meeting

The first meeting of the PEAC was held on November 8, 2024. This meeting began by providing Committee members with an overview of DEQ's and VDH's activities related to PFAS as well as legislation related to PFAS that has been enacted. The focus then shifted to DEQ's progress implementing HB 1085/SB 243, specifically on how the agency was planning to select facilities for self-reporting and monitoring as well as to share the agency's initial thoughts on the PFAS Prioritization Plan. The full minutes of the meeting along with the slides presented to committee members is available on <a href="Virgina's Regulatory Town Hall">Virgina's Regulatory Town Hall</a>.

#### December 2024 Meeting

The PEAC met on December 16, 2024. Committee members were provided an update on DEQ's efforts to implement HB 1085/SB 243. Afterwards DEQ reviewed the committee's feedback on the Prioritization Plan from the previous meeting and unveiled the plan DEQ intended to publish

on January 1, 2025 for feedback along with how the facilities would be prioritized under the plan. The full minutes of the meeting along with the slides presented to committee members is available on <u>Virgina's Regulatory Town Hall</u>.

#### May 2025 Meeting

The PEAC met on May 30, 2025. The meeting opened with updates from DEQ and VDH on their PFAS related activities since the prior meeting along with an update on the General Assembly's PFAS actions, namely HB 2050. Next, DEQ reviewed the PFAS self-reporting use and manufacturing data with the committee. Lastly, three committee members were invited to present on PFAS testing lab capacity and how the government, private, and academic labs are managing increases in PFAS testing. The full minutes of the meeting along with the slides presented to committee members is available on <a href="Virgina's Regulatory Town Hall">Virgina's Regulatory Town Hall</a>.

#### August 2025 Meeting

The PEAC met on August 18, 2025. The meeting opened with DEQ and VDH presenting updates on their respective PFAS efforts. DEQ lead a discussion on the PFAS effluent monitoring data collection process and sought input from the committee on how to standardize the data collection and achieve higher quality data. Lastly, the committee discussed what should constitute "proper monitoring results" in the context of DEQ's expectation that facilities will ask for monitoring to be discontinued. The full minutes of the meeting along with the slides presented to committee members is available on <a href="Virgina's Regulatory Town Hall">Virgina's Regulatory Town Hall</a>.

### **Public Outreach Efforts**

DEQ accepted invitations to speak about PFAS at technical meetings such as the Occoquan Watershed Monitoring Subcommittee and the Rappahannock River Basin Commission Technical Subcommittee; Environmental Industry Conferences such as Environment Virginia and Water Jam, and before the State Water Commission, the State Water Control Board, and the Rappahannock River Basin Commission. DEQ is committed to keeping stakeholders, other regulators, and Virginia's citizens as a whole informed of its efforts to address PFAS.

# Appendix A: Chapters 316 and 343 of the 2024 Acts of Assembly (HB1085, SB243)

An Act to amend the Code of Virginia by adding in Chapter 3.1 of Title 62.1 an article numbered 13, consisting of sections numbered 62.1-44.34:29 through 62.1-44.34:33, relating to Department of Environmental Quality; PFAS; identification; monitoring; PFAS Expert Advisory Council established; report.

[HB1085] [SB 243]

Approved April 2, 2024

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 3.1 of Title 62.1 an article numbered 13, consisting of sections numbered 62.1-44.34:29 through 62.1-44.34:33, as follows:

Article 13.

Per- and Polyfluoroalkyl Substances.

§ 62.1-44.34:29. Definitions.

As used in this article, unless the context requires a different meaning:

"Committee" means the PFAS Expert Advisory Committee established in § 62.1-44.34:33.

"EPA" means the U.S. Environmental Protection Agency.

"HFPO-DA" means hexafluoropropylene oxide dimer acid.

"PFAS" means per- and polyfluoroalkyl substances, which are any fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom and any precursors of such substances. "PFAS" includes HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS.

"PFAS maximum contaminant level" or "PFAS MCL" means any maximum contaminant level for any PFAS chemical or mixture of PFAS chemicals (i) established by the EPA as a national primary drinking water regulation or (ii) for the interim period of time between the EPA's proposal and final agency action for adopting a national primary drinking water regulation, the EPA's proposed level, provided that the EPA's proposed level may be used only for nonregulatory purposes of self-reporting of manufacturing or use, monitoring, and PFAS assessments as provided in this article.

"PFBS" means perfluorobutane sulfonate.

"PFHxS" means perfluorohexane sulfonate.

"PFNA" means perfluorononanoic acid.

"PFOA" means perfluorooctanoic acid.

"PFOS" means perfluorooctane sulfonate.

"Public water system" means a system that provides piped water for human consumption and (i) serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents or (ii) regularly serves at least 25 of the same persons over six months of the year.

"VDH" means the Virginia Department of Health.

"VPDES" means the Virginia Pollutant Discharge Elimination System.

§ 62.1-44.34:30. PFAS assessments for identification of sources of PFAS in public water supplies.

- A. For every public water system, VDH shall assist the Department by on a quarterly basis transferring to the Department all validated monitoring results available to VDH under federal regulations or otherwise in VDH's possession that indicate PFAS MCL exceedances, including data generated by VDH's independent PFAS monitoring activities or submitted by public water systems to VDH.
- B. For every public water system for which VDH has notified the Department pursuant to subsection A or the public water system has directly demonstrated to the Department that PFAS in finished water has been detected above any PFAS MCL using Method 533, Method 537.1, or other EPA-approved method for drinking water, the Department shall develop and implement a plan to prioritize and conduct PFAS assessments for identifying significant sources of PFAS in such public water system's raw water source or sources. Such prioritization plan shall be developed within six months of the initial notification by VDH pursuant to subsection A and updated annually thereafter.
- C. In developing its prioritization for conducting PFAS assessments, the Department shall consider (i) data and other information available from VDH regarding public water supplies, including but not limited to applicable PFAS data; (ii) any data or other information submitted directly to the Department by public water systems on a voluntary basis; (iii) information from consultation with VDH and public water systems with finished water monitoring results above any PFAS MCL; and (iv) other data or information the Department considers useful for setting priorities, including studies published in the scientific literature.
- D. In conducting PFAS assessments, the Department shall consider the results of the self-reporting process required pursuant to § 62.1-44.34:31, the results of any effluent or instream monitoring required pursuant to § 62.1-44.34:32 or otherwise conducted by or available to the Department, and other PFAS-related data or information the Department deems useful for identifying significant sources.
- E. In its reports of PFAS assessments, the Department shall identify potential regulatory and nonregulatory options for addressing each significant source of PFAS. The goal of such assessments shall be to protect public health by reducing significant sources of PFAS in raw water sources of public water systems and to ensure, to the maximum extent practicable, that the costs of public water systems are minimized.
- § 62.1-44.34:31. Self-reporting of PFAS manufacture and use for PFAS assessment.
- A. For purposes of a PFAS assessment following notification to the Department pursuant to subsection B of § 62.1-44.34:30, the Department shall require any facility, if deemed by the Department to be a potential source of PFAS in the public water system's raw water source, that discharges to a surface water under a VPDES permit or that discharges to a publicly owned treatment works under an industrial pretreatment program permit to report to the Department, within 90 days after being directed by the Department, its manufacture or use of PFAS as provided in this section on a form provided by the Department. Such report shall include the chemical name and the Chemical Abstracts Service (CAS) number, if known or reasonably ascertainable, the amount manufactured or used in the preceding 12 months, and any additional information reasonably required by the Department to ascertain sources and quantities of PFAS manufactured or used.
- B. For every facility that reports the use or manufacture of one or more PFAS in accordance with subsection A and that discharges to a publicly owned treatment works, the Department shall forward the information provided by the facility to such publicly owned treatment works within 30 days of receipt. Such reporting requirement shall not change the duty or discharge permits of a publicly owned treatment works.
- C. Any portion of a report submitted to the Department pursuant to this section may be claimed as confidential by the submitter pursuant to § 62.1-44.21, except claims of confidentiality for the name, address, and location of the facility. Any such claim must be asserted at the time of submission in the manner prescribed on the reporting form or instructions. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in § 62.1-44.21.
- D. For purposes of this section, use of PFAS (i) means intentional use of PFAS or PFAS-containing substances as a product ingredient or as a production process aid or additive, such as wetting agents, fume suppressants, photoresists, etchants, cleaners, coatings, surfactants, or flame retardants, and (ii) does not mean use of manufacturing equipment that contains PFAS.
- § 62.1-44.34:32. Monitoring of PFAS sources for PFAS assessments.

- A. For the purpose of PFAS assessments required pursuant to § 62.1-44.34:30, the Department shall require, after three months' advance notice, the owner or operator of any of the following facilities, if deemed by the Department to be a potentially significant source of PFAS in the public water system's raw water source, to perform and promptly report the results as received of representative quarterly discharge monitoring for an initial characterization period of one year, provided, however, that the Department may discontinue remaining quarterly monitoring by a facility with proper monitoring results that are below the method detection level for the first two quarters:
- 1. Any facility subject to self-reporting pursuant to § 62.1-44.34:31;
- 2. Any facility manufacturing PFAS, any electroplating or metal finishing facility using PFAS, any semiconductor or circuit board facility using PFAS, any paper or packaging manufacturing facility using PFAS, and any textile mills, tanneries, or leather, fabric, or carpet treaters using PFAS;
- 3. Any other facility that the Department has a reasonable basis to believe may use or manufacture PFAS based on the facility or activity type;
- 4. Any centralized waste treatment industrial facility;
- 5. Any industrial launderers defined by NAICS 812332;
- 6. Any facility discharging groundwater remediation wastewaters pursuant to the VPDES General Permit Regulation for Discharges from Groundwater Remediation of Contaminated Sites, Dewatering Activities of Contaminated Sites, and Hydrostatic Tests; and
- 7. Any airport, air base, air station, fire training facility, landfill, or other facility or site that the Department has a reasonable basis to believe has significant soil or groundwater PFAS contamination significantly impacting finished water levels.
- B. For purposes of this section, using or use of PFAS (i) means intentionally using or use of PFAS or PFAS-containing substances as a product ingredient or as a production process aid or additive, such as wetting agents, fume suppressants, photoresists, etchants, cleaners, coatings, surfactants, or flame retardants, and (ii) does not mean using or use of manufacturing equipment that contains PFAS.
- C. For purposes of monitoring under subsection A, the applicable laboratory test method is Method 1633 or such other method approved by the EPA that may be allowed by the Department. Monitoring reports shall include all PFAS analytes measured by the test method. For purposes of this section, the Department shall not require, and the facility and its laboratory shall be exempt from, environmental laboratory certification or accreditation requirements specifically for use of Method 1633.
- § 62.1-44.34:33. PFAS Expert Advisory Committee; report.
- A. The Department, in consultation with VDH, shall establish the PFAS Expert Advisory Committee to assist the Department and VDH in identifying (i) PFAS sources through PFAS assessments and associated monitoring and reporting, (ii) public and private lab testing capacity issues, and (iii) options for reducing PFAS in source waters causing exceedances of PFAS MCLs.
- B. Members of the Committee shall be appointed by the Director and shall include representatives of public drinking water and wastewater system owners, representatives of public health organizations, potential PFAS source categories, and conservation organizations with expertise in water treatment, water science, or PFAS chemistry, and other experts as determined by the Department. Members of the Committee shall receive no compensation for their service and shall not be entitled to reimbursement for expenses incurred in the performance of their duties.
- C. The Department shall convene the Committee at least two times per calendar year through June 30, 2027, and thereafter as the Department deems appropriate.
- D. The Department shall report annually by October 1 on its activities related to PFAS assessments, including the self-reporting process pursuant to § 62.1-44.34:31 and the discharge monitoring process pursuant to § 62.1-44.34:32, and on the activities of the Committee to the Governor and the General Assembly.
- 2. That this act shall not be construed as limiting the authority of the Department of Environmental Quality, the Virginia Department of Health, or the owner or operator of any publicly owned treatment works to which any user discharges wastewater

to require monitoring or reporting or otherwise regulate the discharge of any PFAS chemicals or other pollutants under other applicable legal authority.

3. That for public water systems for which the Department of Environmental Quality has received notice on or before September 1, 2024, of PFAS detected above the threshold established in subsection B of § **62.1-44.34:30** of the Code of Virginia, as created by this act, the Department shall issue notice to applicable facilities by December 1, 2024, of required self-reporting under § **62.1-44.34:31** of the Code of Virginia, as created by this act, and required monitoring under § **62.1-44.34:32** of the Code of Virginia, as created by this act.

# Appendix B: Chapter 650 of the 2025 Acts of Assembly (HB 2050)

An Act to amend the Code of Virginia by adding in Article 13 of Chapter 3.1 of Title 62.1 a section numbered 62.1-44.34:34, relating to drinking water; Occoquan Reservoir PFAS Reduction Program established.

[H 2050]

Approved

April 2, 2025

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Article 13 of Chapter 3.1 of Title 62.1 a section numbered 62.1-44.34:34 as follows:

§ 62.1-44.34:34. Occoquan Reservoir PFAS Reduction Program.

- A. For purposes of this section, "PFAS" has the same meaning as in § 62.1-44.34:29.
- B. The owner or operator of any facility, including facilities described in § 62.1-44.34:32, that (i) discharges industrial wastewater pursuant to an industrial pretreatment program permit into the sewer collection system of a major publicly owned treatment works that discharges into the Occoquan Reservoir, the Occoquan River, Bull Run, or any of their tributaries above the Occoquan Reservoir or (ii) discharges industrial wastewater or industrial stormwater directly into the Occoquan Reservoir, the Occoquan River, Bull Run, or any of their tributaries above the Occoquan Reservoir pursuant to an individual VPDES permit issued by the Department shall monitor for PFAS using EPA Method 1633 or an alternative method approved by the EPA beginning on or before October 1, 2025.

The owner or operator of any such facility shall perform representative monitoring of its wastewater or stormwater discharges, as applicable, for PFAS at least once every three months unless the Department authorizes the owner or operator of a facility with proper monitoring results that are below the method detection level for four consecutive quarters to reduce or discontinue monitoring. The owner or operator of a facility shall make a good faith effort to obtain the results of such monitoring from the laboratory within 45 days of the sampling date or within the shortest practicable time thereafter. The owner or operator of a facility shall report all results to the Department no later than the tenth day of the next month after the month in which the result is reported by the laboratory. This report shall include all such PFAS analytes measured by the test method.

C. By July 1, 2027, for any facility that measures PFAS in its discharge that exceeds the maximum contaminant level (MCL) for such PFAS in drinking water promulgated on or before January 1, 2025, identified through the monitoring required in subsection B, the Department, for an individual VPDES permit if the facility discharges directly to surface waters, or a major publicly owned treatment works, for an indirect discharger, shall modify the applicable discharge permit to require that the facility's discharge not exceed that MCL. The permit shall provide a compliance schedule that requires compliance with such level as soon as possible but no later than July 1, 2029; however, the compliance schedule shall be extended beyond July 1, 2029, if the deadline to comply with the MCL for PFAS in finished water for any public water system that withdraws surface water from the Occoquan Reservoir is extended beyond July 1, 2029. If the MCL for such PFAS for drinking water is revised to a different, higher allowed level, the revised higher level shall control for purposes of this section.

D. Where the owner or operator of a facility subject to industrial wastewater discharge PFAS limitations pursuant to subsection C demonstrates to the Department's satisfaction that the presence of PFAS in its water supply may contribute to an exceedance, the Department shall establish an alternative manner of calculating compliance with the limitation required by subsection C to account for the presence of PFAS in its water supply not caused by the same facility. The consideration or establishment of an alternative manner of calculating compliance shall not delay the deadline for compliance specified in subsection C.

E. The provisions of this section shall not apply to (i) any industrial discharger except as specifically listed in subsection B, (ii) any publicly owned treatment works or drinking water treatment plant, or (iii) a municipal solid waste facility. Any public water

system that withdraws surface water from the Occoquan Reservoir to produce and distribute potable water to the general public may rely on the level of control required by this section for the purpose of its planning for compliance with the MCL for PFAS in finished water.

- F. Nothing in this section shall be construed to limit the authority of the Department or the owner or operator of any publicly owned treatment works to which any user discharges wastewater to require monitoring or reporting or otherwise regulate the discharge of any PFAS chemicals or other pollutants under other applicable legal authority.
- 2. That the General Assembly finds and determines that the Occoquan Reservoir is the Commonwealth's first and only indirect potable reuse drinking water supply, which receives highly treated wastewater from the Upper Occoquan Sewage Authority (UOSA). During drought conditions the return flows from UOSA comprise up to 90 percent of the inflows to the Occoquan Reservoir. The watershed draining to the Occoquan Reservoir is less than 600 square miles and highly urbanized. To address this unique situation, industrial sources shall be monitored and if the industrial sources are determined to be contributing PFAS, as that term is defined in § 62.1-44.34:29 of the Code of Virginia, such industrial sources shall be minimized in accordance with this act to reduce excessive levels of PFAS in public drinking water derived from the Occoquan Reservoir.

# Appendix C: Members of the Expert Advisory Committee

Name	Organization		
Michael McEvoy	Western Virginia Water Authority		
Jen Cobb	Newport News Waterworks		
Jamie Bain Hedges	Fairfax Water		
Jamie Mitchell	Hampton Roads Sanitation District		
Brian Stieglitz	Upper Occoquan Service Authority		
Ben Shoemaker	Fauquier County Water & Sanitation Authority		
John J. Aulbach	Aqua Virginia		
Erik Rosenfeldt	Hazen and Sawyer		
Stacy Bonneville	Micron Technology Inc.		
Jason Williams	WM Atlantic Landfill		
Ashley Pierce	Virginia Division of Consolidated Laboratory Services		
Allison Deines	AlexRenew		
JP Verheul	Enthalpy Analytical		
Dr. Samuel Miller	US Geologic Survey		
Dr. Kirin Emlet Furst	Virginia Polytechnic Institute & State University		
Leigh-Anne Krometis	Virginia Polytechnic Institute & State University		
Bailey Davis	Virginia Department of Health		
Chris Peot	D.C. Water		
Alex Mitchum	C&M Industries, Inc.		
Mark Romers	Industries Turn-Around Corporation		
Rock Vitale	Environmental Standards		
Lynn Gayle	Accomack County Farm Bureau		
Joe DiNardo	Rockbridge Conservation		