

Chesapeake Bay Commission Briefing PFAS

August 8, 2024

Dwayne Roadcap, Director, Office of Drinking Water



EPA Announces Final PFAS Rule - April 10, 2024

Chemical	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)
PFOA (Perfluorooctanoic acid)	0	4.0 ppt
PFOS (Perfluorooctane Sulfonate)	0	4.0 ppt
PFHxS (Perfluorohexanesulfonic acid)	10 ppt	10 ppt
HFPO-DA (Hexafluoropropylene Oxide, GenX)	10 ppt	10 ppt
PFNA (Perfluorononanoic acid)	10 ppt	10 ppt
Mixture of two or more: PFHxS, PFNA, HFPO-DA, and PFBS	Hazard Index of 1	Hazard Index of 1

*Compliance is determined by running annual averages at the sampling point

MCL Goal: Non-enforceable public health goal with no known or expected health risk.

MCL: Legally enforceable regulation.

Hazard Index is the sum of fractions. Each fraction compares PFAS found to the level with no health effect.

Implementation: Timeframes for Water Systems

To be completed by April 27, 2027:

- Initial monitoring

Starting **three years** following rule promulgation (2027):

- Results of initial monitoring shared in Consumer Confidence Reports (CCRs)
- Regular monitoring for compliance begins and shared (CCRs).
- Public notification for monitoring and testing violations

Starting **five years** following rule promulgation (2029)

- Comply with all maximum contaminant levels (MCLs)
- Public notification for MCL violations

Initial Monitoring - Due by April 27, 2027

Surface Water Systems

serving all population sizes

- Quarterly within 12-month period
- Samples collected 2 to 4 months apart.

Groundwater Systems

serving > 10,000 customers

- Quarterly within 12-month period
- Samples collected 2 to 4 months apart.

Groundwater Systems

serving ≤ 10,000 customers

- Twice within 12-month period
- Samples collected 5 to 7 months apart.

States can allow systems to use previously collected monitoring data, such as:

- EPA Methods 533 or 537.1
- As part of UCMR 5
- State monitoring
- Voluntary monitoring

States are awaiting EPA guidance on criteria for accepting existing data.

States are awaiting upgrades to federal database to accept PFAS data.

Laboratory Capacity

Initial Compliance

- ODW estimates around 3000 samples in VA for initial compliance by April 2027

Accreditation

- Thus far, 15 laboratories from other states that had a certification program have been granted reciprocal accreditation with more to come
- Virginia Laboratories will require applications and inspections to achieve certifications
- Virginia's state lab (DCLS) is being accredited by Florida

Cost and Turn Around Time

- Analysis is expensive (\$250 and more per sampling event)
- Laboratories are taking up to 4 weeks to complete, will batch to reduce costs

Virginia PFAS Sampling Program – To Date

	EPA Proposed Limit (ppt)	Phase 1 2021	Phase 2.1 2022	Phase 2.2 2023	Total
PFOA	4.0	4 systems	None	5 systems	9 systems
PFOS	4.0	5 systems	3 systems	9 systems	15 systems
GenX	10	1 system	1 system	None	1 system
PFBS	2000	None	None	None	None
PFNA	10	None	None	None	None
PFHxS	9	None	None	1 system	1 system
Waterworks		45	48	221	274
Population Served		5,226,000	557,000	3,934,000	5,849,000

UCMR5 PFAS Summary – To Date

Analyte	Criteria parts per trillion (ppt)	Groundwater Sources	GUDI Sources	Surface Water	Total
PFOA	(above 4.0)	5	None	4	9
PFOS	(above 4.0)	6	None	7	13
GenX	(above 10)*	None	None	None	None
PFBS	(above 2000)*	None	None	None	None
PFNA	(above 10)*	None	None	None	None
PFHxS	(above 10)*	None	None	None	None
Hazard Index (see above*)		None	None	None	None
Waterworks to Address PFAS		4	0	7	11
Waterworks Sampled		15	5	74	88
Number of Samples					373
Population Served					4,401,799

UCMR5 = 5th Unregulated Contaminant Monitoring Rule by US EPA

PFAS Data (www.vdh.virginia.gov/drinking-water/pfas)

ODW PFAS Sampling Dashboard

Phase 2.2 Samples Above Proposed MCL



Phase 2.1 Samples Above Proposed MCL



Phase 1 Samples Above Proposed MCL



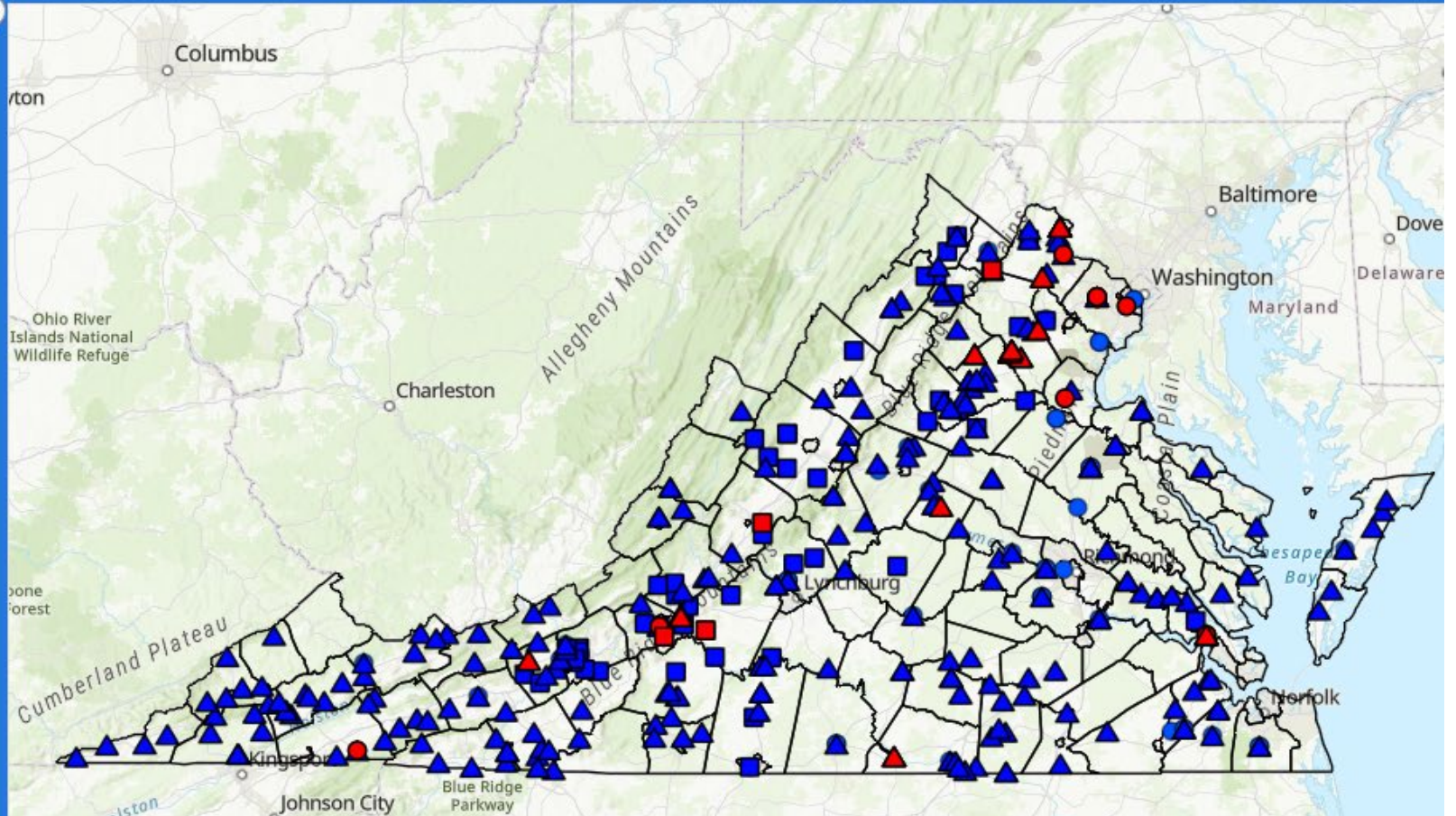
Phase 2.2 Samples



Phase 2.1 Samples



Phase 1 Samples



Esri, USGS | VGIN, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

Office of Drinking Water Website Updates

www.vdh.virginia.gov/drinking-water/pfas

- Additional and clarified FAQ's
- Virginia PFAS sampling initiatives & results
- Interactive sampling map
- Modified "PFAS and Health" information
- New Financial Resources information



PFAS Rule: Mean Annual Costs

Waterworks Costs (2021 USD)				
Ownership	Source Water	Population Size	All Systems	Treat/Change Source
Private	Groundwater	Less than 100	\$904 - \$1,680	\$13,800 - \$17,165
Public	Surface Water	10,000 - 50,000	\$78,401 - \$85,772	\$390,180 - \$440,960
Public	Surface Water	100,000 - 1,000,000	\$533,340 - \$707,580	\$1,955,300 - \$2,409,300

Household Costs (2021 USD)				
Ownership	Source Water	Population Size	All Systems	Treat/Change Source
Private	Groundwater	Less than 100	\$41 - \$82	\$677
Public	Surface Water	10,000 - 50,000	\$7 - \$9	\$39
Public	Surface Water	100,000 - 1,000,000	\$8 - \$9	\$30

Source: Economic Analysis for the Proposed Per- and Polyfluoroalkyls Substances National Primary Drinking Water Regulation Appendices, EPA-822-P-23-002, March 2023

PFAS Implementation VA Cost Analysis

Budget amendment #280 1c approved in FY25 budget effective 7/1/2024

- Appropriates \$500,000 to conduct a cost analysis of implementation of the Federal PFAS and LCRR/LCRI rules on waterworks
- Report due by 12/1/24
- ODW finalizing contract to help perform outreach and produce the report



Questions?

<https://www.vdh.virginia.gov/drinking-water/pfas/>

Dwayne Roadcap	Dwayne.Roadcap@vdh.virginia.gov	804-338-0371
Bailey Davis	Bailey.Davis@vdh.virginia.gov	804-928-4811
Robert Edelman	Robert.Edelman@vdh.virginia.gov	434-466-4012