

Funding to Address Per & Polyfluoroalkyl Substances (PFAS) in Virginia Drinking Water


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Presentation Outline

- Virginia PFAS Activities Timeline
- Virginia PFAS Legislation
- Phase 1 Sampling Program
- Phase 2 Sampling Program
- Phase 3 - Next Sampling Program
- Funding to address PFAS

VDH PFAS Activities Timeline



HB586 Signed into Law April 2020	VA PFAS Workgroup convened October 2020	HB1257 Report submitted October 2021	PFAS NOIRA published Feb 2022	HB919 signed into Law April 2022	Phase 2.1 Sampling July – Nov 2022	Phase 2.2 Sampling May - Dec 2023	SB243 Pending 2024
HB1257 Signed into Law April 2020	Phase 1 PFAS Sampling Study April –July 2021	HB586 Report submitted December 2021	NOIRA Public comment period ended March 2022	HB919 effective July 2022	Draft PFAS Rule March 2023	PFAS Dashboard December 2023	

Phase 1 Sampling Plan: Hybrid Approach



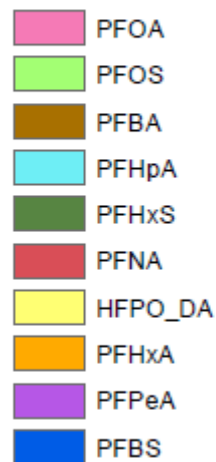
	# Samples	# Systems	Population
17 Large Waterworks	31	17	4,541,619
GW - Potential Risk	19	11	15,453
Major Water Sources	22	22	
Total	72	50	4,557,072

Sampling Program

- 50 waterworks identified
- 38 agreed to participate in the study
- 7 more agreed to participate
- 45 waterworks participated
- 63 sample locations

VA PFAS Sampling Results

PFAS Sample Results



Results of PFAS Sampling conducted May through September 2021

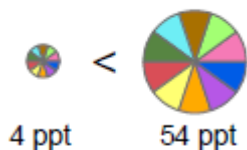
All results in parts per trillion (ppt)

Size of circle represents the total PFAS concentration detected

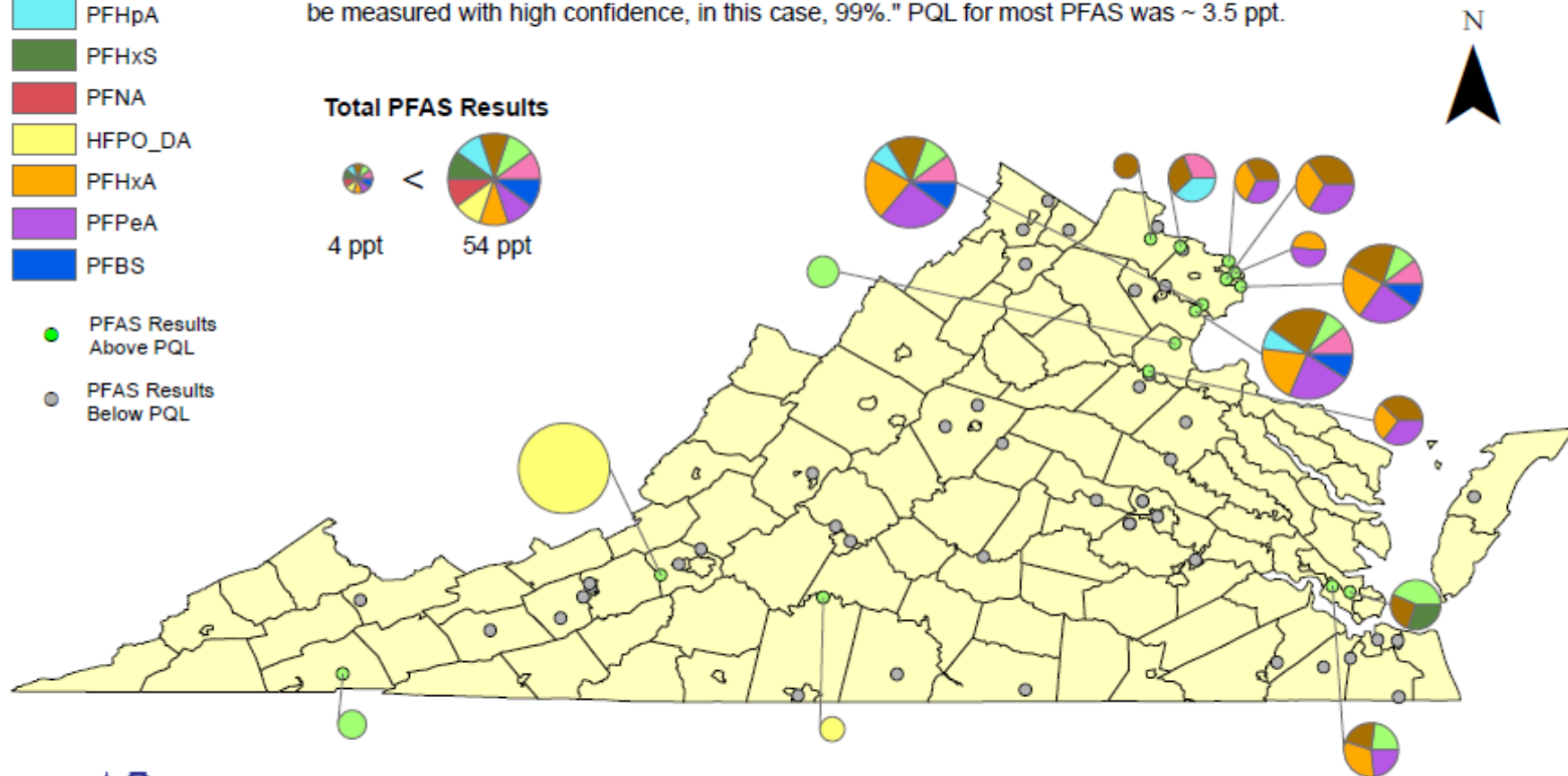
Each circle represents one sample

Practical Quantification Limit (PQL) is the "minimum concentration of an analyte that can be measured with high confidence, in this case, 99%." PQL for most PFAS was ~ 3.5 ppt.

Total PFAS Results



- PFAS Results Above PQL
- PFAS Results Below PQL



Data Source: Table 1 and 2 HB586 report -
Virginia Per and Polyfluoroalkyl Substances (PFAS)
in Drinking Water Sample Study Summary,
[https:// www.vdh.virginia.gov/drinking-water/pfas/](https://www.vdh.virginia.gov/drinking-water/pfas/)



PFAS NOIRA

- Public comment period ended: 03/16/2022
- Comments from:
 - Virginia Municipal Drinking Water Association (VMDWA)
 - American Chemistry Council (ACC)
 - 3M
- Next step: Form a Regulatory Advisory Panel or Workgroup

HOWEVER:

- HB919 changed the path forward:
 - Adopt EPA PFAS standard OR
 - Virginia must follow same technical rulemaking process as EPA

Phase 2 PFAS Sampling Study Plan

Hybrid sampling plan (400 entry points = finished water) :

- Community Waterworks with:
 - Surface water sources
 - Groundwater under the direct influence of surface water (GUDI) sources
- Waterworks with groundwater sources at potential risk from PFAS contamination
- Small community waterworks with groundwater sources small (serving less than 500 persons)

Additional Selection Criteria

- Spread across different geographic areas of Virginia
- Prioritize < 500 persons systems, some larger if none smaller
- Select approximately the same number per county.
 - This works out to approximately 4 to 6 water samples per county

During 2022, VDH hired a contractor to conduct sampling - 48 waterworks sampled = Phase 2.1

During 2023, VDH staff collected samples = Phase 2.2

Virginia PFAS Sampling Program

PFAS Sample Summary

Analyte	Criteria parts per trillion (ppt)	Phase 1 2021	Phase 2.1 2022	Phase 2.2 2023	Total
PFOA	(above 4.0)	4 systems	None	5 systems	9 systems
PFOS	(above 4.0)	5 systems	3 systems	9 systems	15 systems
GenX	(above 10)*	1 system	1 system	None	1 system
PFBS	(above 2000)*	None	None	None	None
PFNA	(above 10)*	None	None	None	None
PFHxS	(above 9)*	None	None	1 system	1 system
Hazard Index (see above*)		1 system	1 system	1 system	2 systems
Waterworks		45	48	221	274
Population Served		5,226,000	557,000	3,934,000	5,849,000

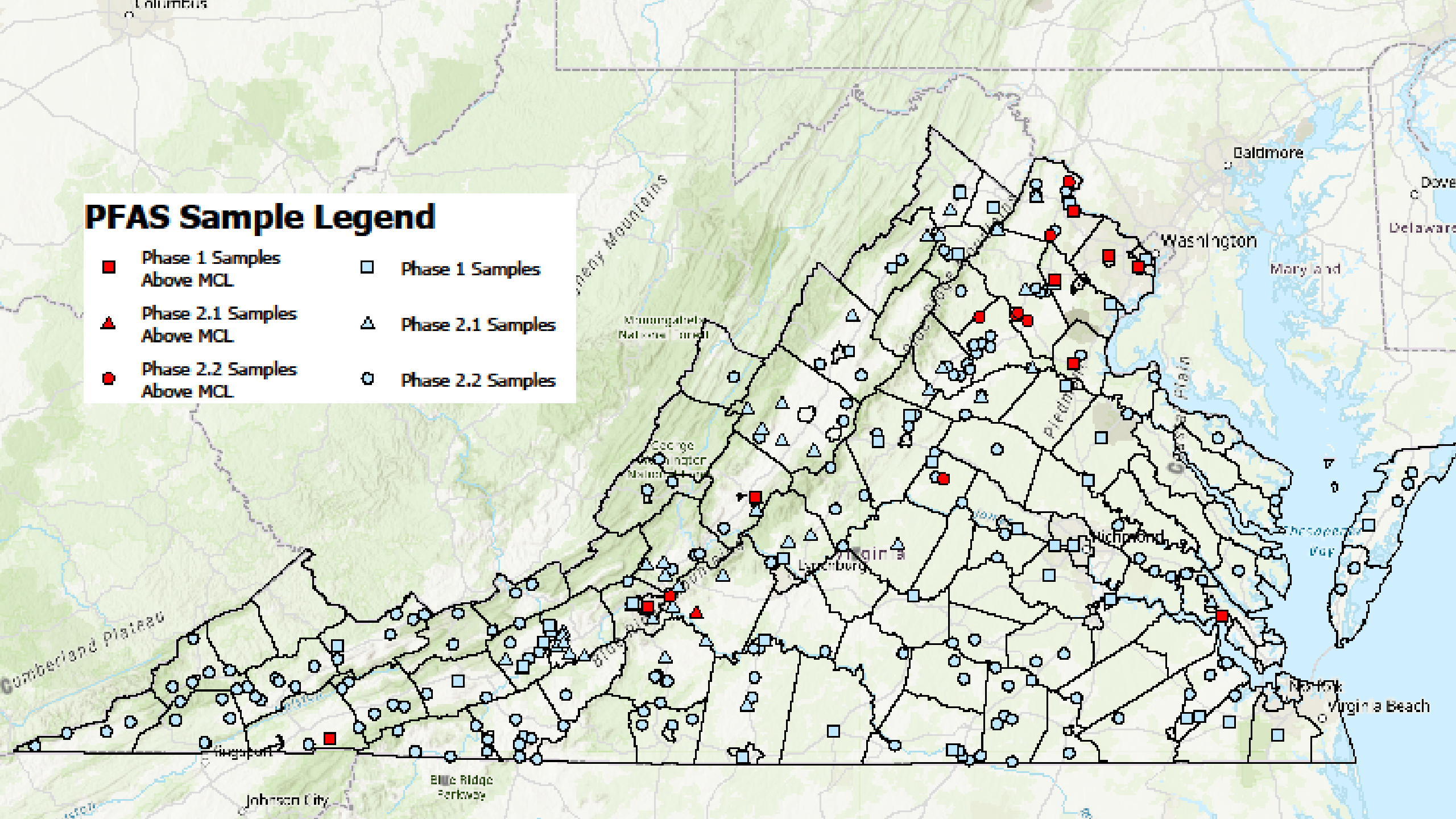
UCMR5 PFAS Summary

Data Release 3 Summary

Analyte	Criteria parts per trillion (ppt)	Groundwater Sources	GUDI Sources	Surface Water	Total
PFOA	(above 4.0)	3	None	3	6
PFOS	(above 4.0)	3	None	7	10
GenX	(above 10)*	None	None	None	None
PFBS	(above 2000)*	None	None	None	None
PFNA	(above 10)*	None	None	None	None
PFHxS	(above 9)*	None	None	None	None
Hazard Index (see above*)		None	None	None	None
Waterworks		13	4	59	69

PFAS Sample Legend

- | | |
|-------------------------------|---------------------|
| ■ Phase 1 Samples Above MCL | □ Phase 1 Samples |
| ▲ Phase 2.1 Samples Above MCL | △ Phase 2.1 Samples |
| ● Phase 2.2 Samples Above MCL | ○ Phase 2.2 Samples |



Phase 3 – What's Next?

Phase 3 efforts

- Sampling Plan to focus on:
 - Small or disadvantaged communities (2024)
 - Not in UCMR5
 - Past “hits”
 - Unknowns
- New Laboratory Contract
- Quality Assurance Project Plan (QAPP)
- Sampling team

Estimated DWSRF & BIL Funding

Virginia	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
DWSRF Supplemental	\$29,357,000	\$29,732,000	\$31,767,300	\$34,566,150	\$34,566,150
Lead Service Lines	\$46,256,000	\$48,717,000	\$48,717,000	\$48,717,000	\$48,717,000
Emerging Contaminants	\$12,327,000	\$10,789,000	\$10,789,000	\$10,789,000	\$10,789,000
Total	\$87,940,000	\$89,238,000	\$91,732,300	\$94,072,150	\$94,072,150

Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) Grant Program

Small Community

- Population of less than 10,000 individuals
- Possibly a community within a larger waterworks

Disadvantaged

- Weighted monthly user rate exceeds target rate(s) of 1 percent of the Median Household Income (MHI); or
- Serving an Environmental Justice Community as identified by the [Climate and Economic Justice Screening Tool \(CEJST\)](#)
- Approximately \$27.2 M for FY22-FY26.
- See the [VDH ODW web page for the EC-SDC Grant Program](#)

Questions?

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