Virginia PFAS Occurrence & Monitoring Subgroup
Virginia Department of Health Office of Drinking Water
September 2, 2021, 2 pm
Virtual Meeting by WebEx

1. Call to Order
   Bob Edelman with the Office of Drinking Water (ODW) called the meeting to order at 2:00 p.m. The meeting was virtual via WebEx. Refer to the PowerPoint presentation along with these minutes.

2. Attendance
   Attendees entered their name and affiliation into the chat box.

   Members

   Jamie Hedges (Fairfax Water)
   Michael McEvoy (Western Virginia Water Authority)
   Anna Killius (James River Association)
   Jessica Edwards-Brandt (Loudoun Water)
   David Jurgens (City of Chesapeake)
   Henry Bryndza (Backup for Steve Risotto, ACC)

   VDH ODW

   Tony Singh
   Nelson Daniel
   Bob Edelman
   Jack Hinshelwood

   Guests

   William J. Mann, Jr., MD
   Ann Marie Gathright (Environmental Standards, Inc.)
   Jim Pletl (HRSD)
   Ellen Egen (Aqualaw)

3. Meeting Overview – Review Agenda
   Bob Edelman reviewed the agenda. No changes to the agenda were proposed.

4. Approve minutes from the June 3, 2021 subgroup meeting
   Bob Edelman asked if there were any changes or corrections to the last meeting minutes. No changes were proposed and the Subgroup approved the minutes.

5. Sample Study Summary– Bob Edelman provide a briefing – see slides 5 through 10
   - HB 586 identified six specific PFAS species (slide 5) that are the primary focus.
   - ODW developed a hybrid approach, including large waterworks, groundwater systems (potential high and medium risk) and other major water sources (slide 6).
   - Slide 7 shows the planned sampling locations.
   - Not all waterworks agreed to participate, so ODW replaced some systems (slides 8 through 10).

- ODW completed QA/QC checks on sample results. (slides 11 through 14).
- ODW identified four sample results with data irregularities and considered invalid. ODW resampled and reanalyzed these four locations. This resolved data irregularities (slide 14).

6. Sampling Results – Bob Edelman reviewed slides and a data table (slides 15 through 20)
    - "Detection" means above the practical quantification limit (PQL), typically 3.5 ppt
    - PFAS found at above the PQL at 15 of 63 sample locations
    - 5 waterworks had one or more analyte above 10 ppt
    - 51 ppt of hexafluoropropylene oxide-dimer acid (HPFO-DA) (GenX)
    - All other detections ≤ 20 ppt
    - PFOA found at 4 locations: 4.2 to 5.5 ppt
    - PFOS found at 7 locations: 3.9 – 7.1 ppt
    - Perfluorobutyrate (PFBA) found at 10 locations: 3.7 – 12 ppt
    - Perfluoroheptanoic acid (PFHpA) found at 3 locations: 4.1 – 5.5 ppt
    - Perfluorohexane sulfonate (PFHxS) found at one sample location: 4.9 ppt.
    - Perfluorononanoic acid (PFNA) not found in any samples at a concentration above the PQL.
    - Four additional PFAS not listed in HB586 were measured above the PQL:
    - HPFO-DA (GenX) at two locations: 4.0 - 51 ppt
    - PFHxA (perfluorohexanoic acid): at 8 locations: 3.7 – 12 ppt
    - PFPeA (perfluoropentanoic acid): at 8 locations: 4.1 – 14 ppt
    - PFBS (perfluorobutanesulfonic acid: at 3 locations: 4.2 to 5.6 ppt

    Slide 17 contains a data table with listing of specific detections of PFAS. A member asked about a map version of the data. Bob indicated that ODW does not a plan for a map presentation of the data. A member commented that in areas with contaminated groundwater from a Naval facility in Chesapeake, the military observed PFAS levels of 7,000 ppt, so the drinking water levels are reassuringly low. A member asked about the blank cells in the table. Bob explained that blank cells represent PFAS concentrations below the PQL. A member requested to add a note to explain this and seconded the request for a map of the data. A member pointed out that the following analytes are bio persistent: PFOA, PFOS, PFHxS, and PFNA. These would be of interest to the toxicology subgroup. Tony committed to mapping the data for the HB586 report and agreed to explain results less than the PQL. An attendee requested clarification on the samples on Slide 17 that came from wells. A member requested a definition for PQL.

    Slides 18 through 20 contain a data table listing samples and locations with PFAS below the PQL. The group discussed that the samples represent a "snapshot" in time and the results do not tell us if the PFAS levels change over time or with changes in river flow, etc. A member pointed out that since there is only one raw water detection of PFAS and multiple detections in finished water, a possible erroneous conclusion is that treating the water adds PFAS. A member asked if water systems use PTFE tape (which could cause a detection of PFAS). Bob related a story where a waterworks achieved a "hit" for PFAS. ODW reached out to the sampler and asked about PTFE tape and flexible tubing at the sample tap. The sampler acknowledged a flexible tube on the sample tap. A repeat sample, taken without the flexible tube did not detect PFAS.

A member commented that certain sites detected multiple species of PFAS and the report should identify this. Bob pointed out that certain PFAS seem to occur together, for example, PFHxA and PFPeA. Henry pointed out that there are some published biodegradation cascades that suggest, for example, that 8:2 fluorotelomer compounds degrade to a series of shorter-chain perfluorocarboxylic acid products; those for electrochemically-sourced fluorochemicals (e.g. the sulfonamides) biodegrade only to the 'parent acid', for example 8 carbon fluorosulfonamides degrade to PFOS, without fluorocarbon chain reductions. Bob pointed out that some, but not all samples with PFHxA and PFPeA together are from water that shares the same source. Members suggested that there is not enough data to say for sure why we see certain PFAS together.

Slides 21 through 23 put Virginia's sample results into perspective:

- No samples exceeded EPA's health advisory of 70 ppt for PFOA and PFOS
- No samples exceeded any of the maximum contaminant levels established by other states (8 to 14 ppt).
- Michigan has an MCL for GenX of 370 ppt
- North Carolina adopted a provisional health goal for GenX of 140 ppt

A member asked about the monitoring frequency associated with the state MCLs in Slide 23. Tony pointed out that ODW has a summary document that describes the monitoring requirements.

Slides 24 and 25 identify some other observations.

- All samples with PFAS above the PQL were from surface water sources
- Only one intake sample had PFAS above the PQL
- ODW and DEQ have not collected samples to identify potential sources of PFAS contamination
- Results suggest PFAS may be above the PQL for drinking water from the Potomac River and Occoquan Reservoir
- Ten samples from waterworks in Northern Virginia had at least one PFAS above the PQL
- Only one waterworks outside Northern Virginia had results indicating more than one PFAS > PQL
- HPFO-DA (GenX) > PQL at two locations: 4.0 - 51 ppt
- PFHxA occurs with others and may be a biodegradation product of other PFAS
- Notice PFHxA, PFPeA and possibly PFBA occur together, suggesting they are related

7. Group Discussion – The group discussed "What is the criteria/process for deciding when the occurrence of a contaminant in drinking water is sufficient for considering an MCL? See slide 26. The group did not object to the steps and process described, but questioned if ODW has enough occurrence data.

8. Recommendations from Subgroup (slide 27)
   1. Do we have enough occurrence data? The subgroup agreed: No
   2. Where should we do additional sampling? A member expressed a need for a temporal data set, including multiple additional samples from places already sampled, plus as many other systems as possible. Well systems are underrepresented in this study. Bob pointed that ODW has a built-in assumption that the water quality in groundwater wells does not change from season to season. A member suggested one or two samples from groundwater wells might be sufficient, whereas multiple samples for surface water sources may be necessary. The water quality at surface water

sources change depending on what is going on in the environment. A participant suggested looking at the Environmental Working Group sample results and Department of Defense sample results to help decide where to sample next. A member suggested to share sampling best practices learned from this program and beware of possible sources of cross contamination.
3. Community vs Nontransient Noncommunity vs Transient Noncommunity? Tony pointed out that many have focused on community water systems or community and nontransient noncommunity systems. Not many states have investigated transient noncommunity systems.
4. Finished water vs raw water intakes? A member suggested to not to write off raw water intake sampling. Bob pointed out that raw water samples tended have more frequent elevated dilution factors, which means that the PQL is also elevated. Tony suggested ODW could collaborate with waterworks, with ODW collecting the finished water sample and the waterworks collecting the raw water sample at the same time. A member asked about DEQ activities. Tony reported DEQ has formed a small workgroup to study PFAS sources. The workgroup is surveying publicly owned treatment works (POTWs) to collect information on wastewater customers. DEQ may ask for sampling at wastewater locations in the future based on the survey. The timeline is unknown.
5. Should we consider different/additional analytical methods? UCMR 5 will target 29 PFAS chemicals and will use EPA Methods 533 and 537.1. Based on multiple detections of PFBA, Tony expressed the opinion that VDH should continue with Method 533.
6. Detection levels? Our PQL was 2.7 to 4.4 ppt for specific analytes, but other labs that are more expensive can achieve a PQL of 2 ppt.
7. Sampling by waterworks vs dedicated sampler? A member commented that ODW will get more for their money by having the waterworks collect the sample, but the USGS study in West Virginia used dedicated samplers, so there was consistency. There are pros and cons for both choices. Bob pointed out that some of the data irregularities may have been due to sampler error and there is a real cost to asking the waterworks to collect the sample. Dedicated samplers may make errors, as well.

9. Public Comments – There were no public comments.

10. Action Items
    Bob offered to share the 9-page data summary to the subgroup. The subgroup members expressed interest in reviewing the sample summary. Bob Edelman will email the written data summary to the subgroup members, with the objective of reviewing the report and providing comments and input at the next PFAS Workgroup Meeting on September 10, 2021 at 1:00 pm.

    Tony will send a meeting agenda for the September 10, 2021 PFAS Workgroup meeting, with data summary, and literature review draft to all the PFAS Workgroup members.

Virginia PFAS Workgroup

Monitoring and Occurrence Subgroup

Robert D. Edelman, PE
Virginia Department of Health
September 2, 2021

Subgroup Members

David Jurgens (City of Chesapeake)
Jamie Hedges (Fairfax Water)
Mark Estes (Halifax County Service Authority)
Jessica Edwards (Loudoun Water)
Mike McEvoy (Western Virginia Water Authority)
Henry Bryndza (Consultant, formerly with DuPont)
Jeff Steers (VDEQ)
Dwight Flammia (State Toxicologist)
Anna Killius (James River Assoc)
Tony Singh (VDH ODW)
Jack Hinshelwood (VDH ODW)
Bob Edelman (VDH ODW) - VDH Lead*

PFAS Workgroup Meeting Overview

Meeting Overview

- Call to Order
- Attendance
- Meeting Overview – Review Agenda
- Approve minutes from the previous subgroup meeting
- Sample Study Summary - briefing
- Sampling Results – Subgroup input
- Group Discussion Question
- Public Comments
- Action Item Review
- Adjourn

Meeting Minutes

Need to approve meeting minutes of June 3, 2021

Minutes are published on:

- Virginia Town Hall
- https://townhall.virginia.gov/ search for **PFAS**

Members receive email with minutes

Minutes saved on the PFAS Workgroup SharePoint

- PFAS Monitoring and Occurrence Subgroup > Meetings

Virginia PFAS Workgroup - Objectives

- **Determine the occurrence of PFAS in drinking water throughout the Commonwealth,**
- Identify possible sources of PFAS contamination,
- May develop recommendations for specific maximum contaminant levels (MCLs)

HB 586 identified six specific PFAS:

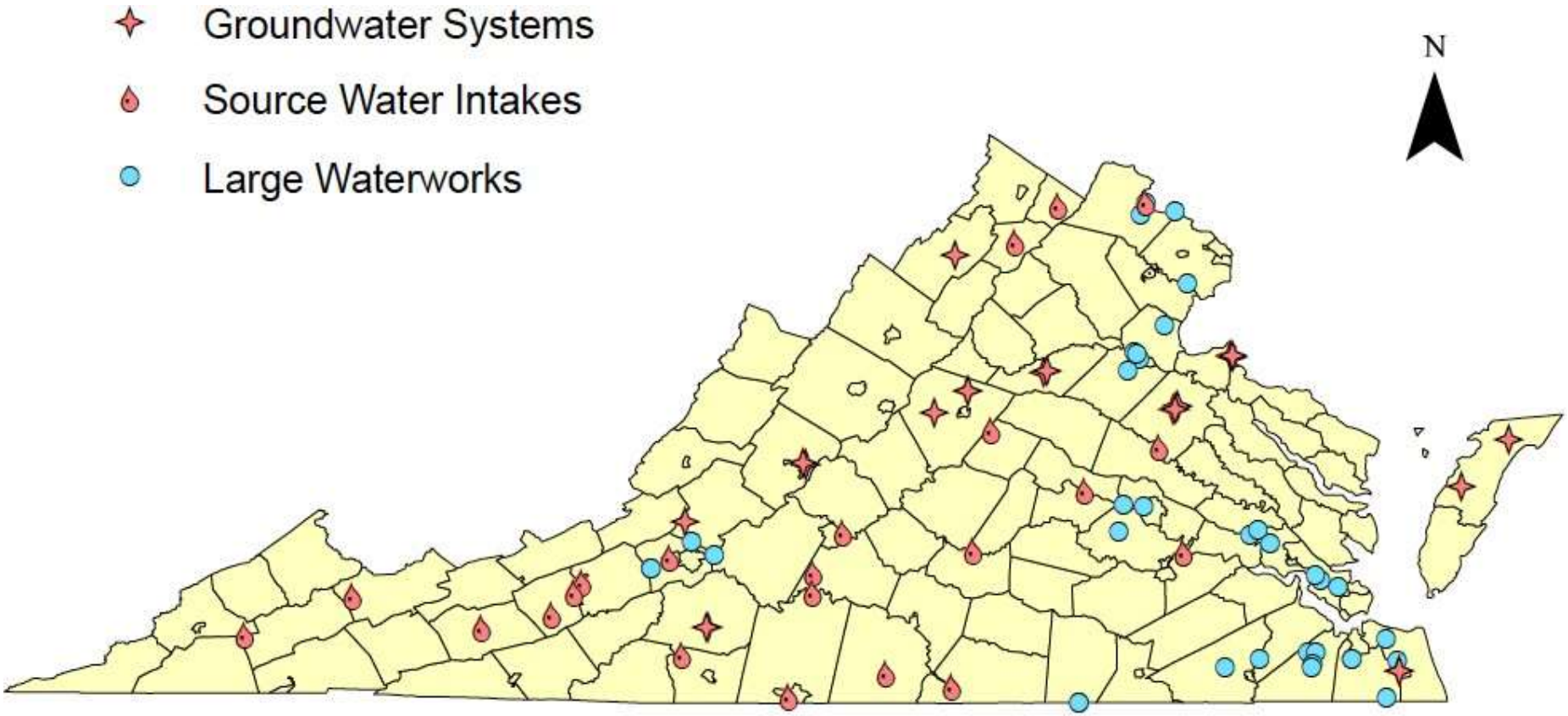
- Perfluorooctanoic acid (PFOA)
- Perfluorooctane sulfonate (PFOS)
- Perfluorobutyrate (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexane sulfonate (PFHxS)
- Perfluorononanoic acid (PFNA)

And other PFAS “as deemed necessary”

Sampling Plan: Hybrid Approach

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

Planned Sampling Locations



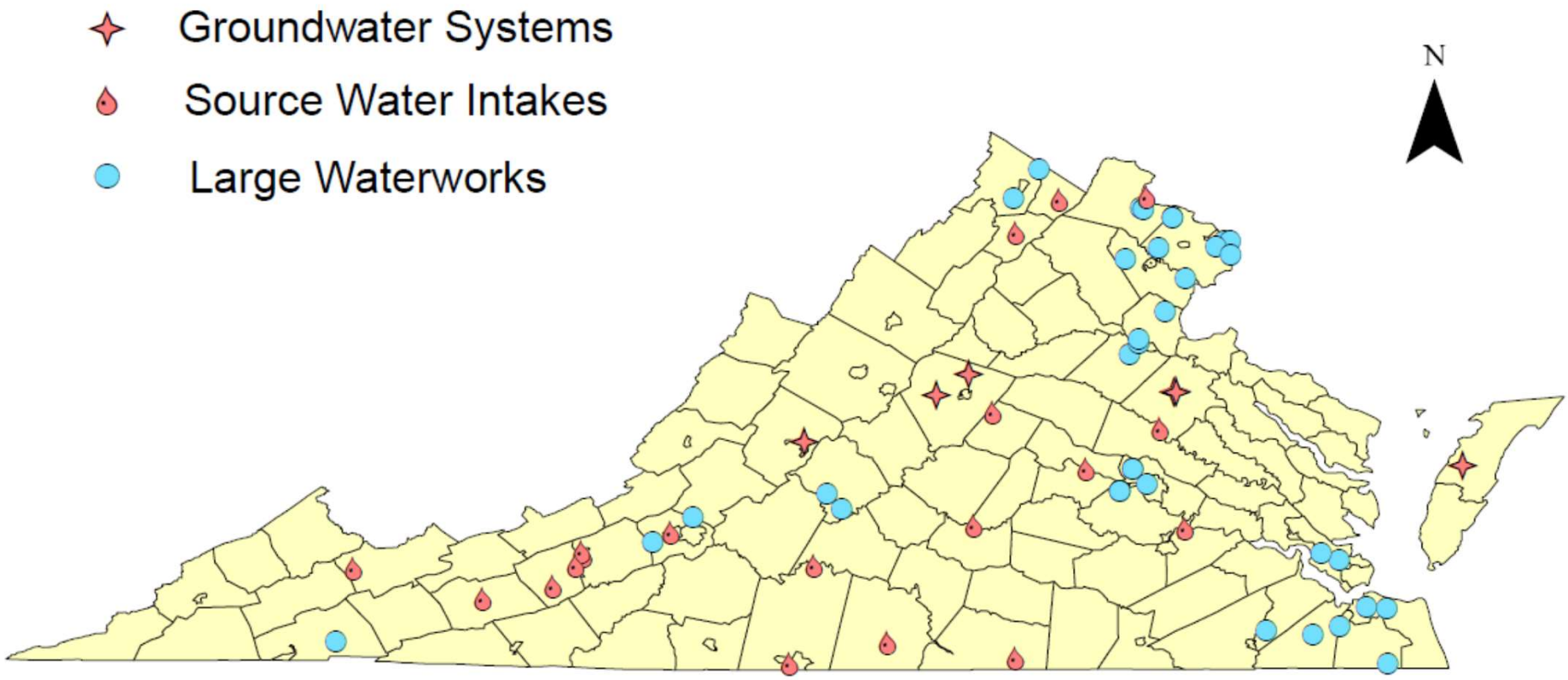
Sampling Program

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

Sampling Program

- Replacement Systems:
  - Large systems – Finished Water
    - Selected systems not already covered by other phases
  - Ground Water near airports and unlined landfills
    - Offered to sample entire list – no new candidates
  - Intakes downstream of potential PFAS sources
    - Selected additional systems

Resulting Sample Locations



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QA/QC Checks

We review the following (COC items)

- whether the samples were received and run within **holding time**?
- if the **temperature** upon arrival was within limit?

QA/QC Checks

We review analytical method performance using:

- The method blanks (MB)
- Laboratory control sample (LCS)
- Laboratory control sample duplicate (LCSD)
- Matrix spike (MS)
- Matrix spike duplicate (MSD).

QA/QC Checks

When reviewing the reports, we look at:

- if there are any **hits** in the Field Reagent Blank (FRB)
- if there are any **qualifiers**
- if the **surrogate recovery** is within the 50-150% range
- if the **spike recovery** is within the 70-130% range
- if the **RPD** is less than 20%.
- if there was a **dilution factor**?

QA/QC Checks

4 Samples with data irregularities:

- FRB detects PFAS, water sample does not detect PFAS
- Both FRB and water sample detect PFAS
- Dilution necessary on FRB

- Resampled and reanalyzed four locations with data irregularities
- This addressed data irregularities

Results Summary

- "Detection" means above the practical quantification limit (PQL) of 3.5 ppt
- PFAS found at above the PQL at 15 of 63 sample locations
- 5 waterworks had one or more analyte above 10 ppt
- 51 ppt of hexafluoropropylene oxide-dimer acid (HPFO-DA) (GenX)
- All other detections ≤ 20 ppt
- PFOA found at 4 locations: 4.2 to 5.5 ppt
- PFOS found at 7 locations: 3.9 – 7.1 ppt
- Perfluorobutyrate (PFBA) found at 10 locations: 3.7 – 12 ppt
- Perfluoroheptanoic acid (PFHpA) found at 3 locations: 4.1 – 5.5 ppt

Results Summary

- Perfluorohexane sulfonate (PFHxS) was detected at one sample location: 4.9 ppt.
- Perfluorononanoic acid (PFNA) was not detected in any samples at a concentration above the PQL.
- Four additional PFAS not listed in HB586 were measured above the PQL:
- HPFO-DA at two locations: 4.0 - 51 ppt
- PFHxA (perfluorohexanoic acid): at 8 locations: 3.7 – 12 ppt
- PFPeA (perfluoropentanoic acid): at 8 locations: 4.1 – 14 ppt
- PFBS (perfluorobutanesulfonic acid: at 3 locations: 4.2 to 5.6 ppt

Samples with analytes above the PQL

Waterworks Name	Virginia American Water Co. - Alexandria District		Arlington County	Fairfax County Water Authority		Loudoun Water - Central System		Stafford County Utilities		Prince William County Service Authority - East	City of Newport News		Town of Altavista	Western Virginia Water Authority	Washington County Service Authority
City/County	City of Alexandria		Arlington County	Fairfax County		Loudoun County		Stafford County		Prince William County	City of Newport News		Campbell County	Roanoke County	Washington County
Sample Location	From Fairfax Water		From Washington Aqueduct	Griffith WTP	From Washington Aqueduct	Trap Rock WTP	From Fairfax County Water Authority	Smith Lake WTP	Lake Mooney WTP	From Fairfax County Water Authority	Harwoods Mill WTP	Lee Hall WTP	Staunton River + Reed Creek	Spring Hollow WTP	Middle Fork Water Treatment Plant
Water Type	Finished	Finished	Finished	Finished	Finished	Finished	Finished	Finished	Finished	Finished	Finished	Finished	Raw Intake	Finished	Finished
PFOA (ppt)		4.2		5.5			4.5			5.5					
PFOS (ppt)		3.9		5.1				6.4		4.1	7.1	4.4			5.2
PFBA (ppt)	7.7	9.2		7.7	4.3	4.0	4.6		5.9	12	4.3	4.3			
PFHpA (ppt)				4.4			5.5			4.1					
PFHxS (ppt)											4.9				
PFNA (ppt)															
HPFO-DA (Gen-x) (ppt)													4.0	51	
PFHxA (ppt)	6.8	9.3	3.7	12	4.4				4.2	11		6.1			
PFPeA (ppt)	7.4	10	4.1	14	4.2				5.5	12		4.5			
PFBS (ppt)		4.2		5.6						4.8					

"Finished" means treated drinking water entering the distribution system.
"Raw Intake" means untreated water, before treatment.
"WTP" means water treatment plant.

Samples with PFAS analytes below the PQL

Water System Name	City/County	Water Type	Sampling Point
Earlysville Forest	Albemarle County	Finished	Combined Wells
Peacock Hill Subdivision	Albemarle County	Finished	Combined Wells
Pungoteague Elementary School	Accomack County	Finished	Well
Town of Bowling Green	Caroline County	Finished	Combined Wells
Mountain View Elementary School	Rockbridge County	Finished	Well
Frederick Water	Frederick County	Finished	James Diehl WTP
Frederick Water	Frederick County	Finished	James T. Anderson WTP
Western Virginia Water Authority	Roanoke County	Finished	Carvins Cove WTP
City of Chesapeake - Northwest River System	City of Chesapeake	Finished	Northwest River WTP
City of Chesapeake - Northwest River System	City of Chesapeake	Finished	Lake Gaston WTP
City of Norfolk	City of Norfolk	Finished	Moores Bridges WTP
City of Norfolk	City of Norfolk	Finished	Kristen M Lentz WTP
City of Portsmouth	City of Portsmouth	Finished	Lake Kilby WTP
City of Virginia Beach	City of Virginia Beach	Finished	From City of Norfolk
Chesterfield County Central Water System	Chesterfield County	Finished	Addison Evans WTP
Chesterfield County Central Water System	Chesterfield County	Finished	From City of Richmond
Chesterfield County Central Water System	Chesterfield County	Finished	From Appomattox River Water Authority

Samples with PFAS analytes below the PQL

Water System Name	City/County	Water Type	Sampling Point
Henrico County Water System	Henrico County	Finished	Henrico WTP
Henrico County Water System	Henrico County	Finished	From City of Richmond
City of Richmond	City of Richmond	Finished	Richmond WTP
City of Lynchburg	City of Lynchburg	Finished	Abert Water Treatment Plan
City of Lynchburg	City of Lynchburg	Finished	College Hill WTP
Fairfax County Water Authority	Fairfax County	Finished	Corbalis WTP
Prince William County Service Authority - West	Prince William County	Finished	City of Manassas WTP
Prince William County Service Authority - West	Prince William County	Finished	Fairfax County Water Authority
Spotsylvania County Utilities	Spotsylvania County	Finished	Ni River WTP
Spotsylvania County Utilities	Spotsylvania County	Finished	Motts Run WTP
NRV Regional Water Authority	Montgomery County	Raw Intake	New River
Radford Army Ammunition Plant	Montgomery County	Raw Intake	New River
Pulaski County Public Service Authority	Pulaski County	Raw Intake	Claytor Lake
Town of Richlands	Tazwell County	Raw Intake	Clinch River
Town of Wytheville	Wythe County	Raw Intake	Reed Creek
City of Radford	City of Radford	Raw Intake	New River
Town of Berryville	Clarke County	Raw Intake	Shenandoah River
Lake Monticello	Fluvanna County	Raw Intake	Rivanna River

Samples with PFAS analytes below the PQL

Water System Name	City/County	Water Type	Sampling Point
Town of Front Royal	Warren County	Raw Intake	South Fork Shenandoah River
City of Salem	City of Salem	Raw Intake	Roanoke River
VA American Water Co., Hopewell District	City of Hopewell	Raw Intake	Appomattox River
James River Correctional Center	Goochland County	Raw Intake	James River
Hanover Suburban Water System	Hanover County	Raw Intake	North Anna River
Roanoke River Service Authority	Mecklenburg County	Raw Intake	Lake Gaston
Town of Farmville	Prince Edward County	Raw Intake	Appomattox River
City of Danville	City of Danville	Raw Intake	Dan River
Halifax County Service Authority - Leigh St Plant	Halifax County	Raw Intake	Dan River
Town of Leesburg	Loudoun County	Raw Intake	Potomac River

- "Finished" means treated drinking water entering the distribution system.
- "Raw Intake" means untreated source water, sampled at a water treatment plant.
- "WTP" means water treatment plant.
- "Well" means water from one well, after treatment, if provided.
- "Combined Wells" means water from two or more wells, after treatment, if provided.
- "From" indicates finished water purchased from a waterworks.

Putting things into perspective

- No samples exceeded EPA's health advisory of 70 ppt for PFOA and PFOS
- No samples exceeded any of the maximum contaminant levels established by other states (8 to 14 ppt).
- Michigan adopted an MCL for GenX of 370 ppt
- North Carolina adopted a provisional health goal for GenX of 140 ppt

States With Numerical PFAS Limits

Connecticut
Σ (PFOA , PFOS, PFNA, PFHxS, PFHpA) < 70ppt

Washington
- Banned in firefighting foam and food packaging
- Proposed drinking water standard

Vermont
- 20 PPT (PFAS)
- Drinking water health advisory for 5 PFAS

New Hampshire
12 ppt PFOA
15 ppt PFOS
11 ppt PFNA
18 ppt PFHxS

Massachusetts
- ~~70 PPT~~ (PFAS)
- State guidance fo concentrations of ~~5~~ PFAS in drinking water

20 ppt Σ (PFOA , PFOS, PFNA, PFHxS, PFHpA, PFDA)

New Jersey
- Set PFNA standard at 13 ppt
- ~~Weighing proposed standards for:~~
  PFOA at 14 ppt
  PFOS at 13 ppt

California
- 14 PPT (PFOA)
- ~~13 PPT (PFOS)~~
- Drinking water notification guidance

40 ppt PFOS

Colorado
- PFOA/PFAS listed as hazardous waste
- 70 PPT (Combined PFOA/PFOS)
- Groundwater quality standard for El Paso County only

Minnesota
- 35 PPT (PFOA)
- ~~27 PPT (PFOS)~~
- Health-based guidance values

15 ppt PFOS
47 ppt PFHxS

Michigan
- ~~70 PPT (Combined P~~
- State standard for c in drinking water

8 ppt PFOA
16 ppt PFOS
6 ppt PFNA
51 ppt PFHxS
420 ppr PFBS
400,000 PFHxA
370 ppt Gen X

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	California	Connecticut	Mass.	Michigan	Minnesota	New Hampshire	New Jersey	New York	Vermont	EPA*	avg
	Notice Level	Action Level	MCL	MCL	Health Advisory	MCL	MCL	MCL	MCL	Health Advisory	
PFOA	5.1	✓	✓	8	35	12	14	10	✓	✓	14.8
PFOS	6.5	✓	✓	16	15	15	13	10	✓	✓	18.2
PFNA		✓	✓	6		11	13		✓		10.0
PFHxS		✓	✓	51	47	18			✓		38.7
PFHpA		✓	✓						✓		
PFDA			✓								
PFBS				420	2 µg/L						
PFHxA				400,000							
Gen X				370							
PFBA					7 µg/L						
SUM		70	20						20	70	

Other observations

- All samples with PFAS above the PQL were from surface water sources
- Only one intake sample had PFAS above the PQL
- ODW and DEQ have not collected samples to identify potential sources of PFAS contamination
- Results suggest PFAS may be above the PQL for drinking water from the Potomac River and Occoquan Reservoir
- Ten samples from waterworks in Northern Virginia had at least one PFAS above the PQL

Other observations

- Only one waterworks outside Northern Virginia had results indicating more than one PFAS > PQL
- HPFO-DA (GenX) > PQL at two locations: 4.0 - 51 ppt
- PFHxA occurs with others and may be a biodegradation product of other PFAS
- Notice PFHxA, PFPeA and possibly PFBA occur together, suggesting they are related.

Group Discussion

What is the criteria/process for deciding when the occurrence of a contaminant in drinking water is sufficient for considering an MCL?

1. Toxicology subgroup will advance Maximum Contaminant Level Goals (MCLGs)
2. Monitoring & Occurrence subgroup will identify detected contaminants, associated concentrations, locations, impacted populations, and system types, and types of water sources
3. Treatment subgroup will advance treatment options and costs and evaluate the costs for meeting the MCLG
4. Policy subgroup will take all the above and run it through the state regulatory framework

Recommendations from Subgroup

1. Do we have enough occurrence data?
2. Where should we do additional sampling?
3. Community vs Nontransient Noncommunity vs Transient Noncommunity?
4. Finished water vs raw water intakes?
5. Should we consider different/additional analytical methods?
6. Detection levels?
7. Sampling by waterworks vs dedicated sampler?

Public Comments

Action Items Review

Are we clear about action items and due dates?

Next PFAS Workgroup Meeting: September 10, 2021, 1:00 pm

Have any Question, Comment or Suggestion, contact Us

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