

## Virginia PFAS Workgroup Meeting Minutes (Draft)

October 8, 2021 – 1:00 p.m. to 3:30 p.m.

In-person meeting with WebEx, access

Virginia Department of Health (VDH) Office of Drinking Water (ODW)

109 Governor Street 6<sup>th</sup> Floor, Richmond, VA 23219

### Workgroup Members/Alternate Attendees present at the meeting:

Jillian Terhune (Norfolk, waterworks > 50,000 consumers)  
Jamie Bain Hedges (Fairfax Water, waterworks > 50,000 consumers)  
Mike Hotaling (Newport News, waterworks > 50,000 consumers)  
Jessica Edwards-Brandt (Loudoun Water, waterworks > 50,000 consumers)  
Mike McEvoy (Western Virginia Water Authority, waterworks > 50,000 consumers)  
Russ Navratil, Geneva Hudgins (Virginia Chapter, American Water Works Association, advocacy group)  
John Aulbach (Aqua Virginia, waterworks < 50,000 consumers)  
Wendy Eikenberry (Augusta County Service Authority, waterworks < 1,000 consumers)  
Steve Herzog, Paul Nyffeler (Virginia Water Environment Association, advocacy group)  
Steve Risotto (American Chemistry Council, manufacturer with chemical experience)  
Henry Bryndza (DuPont (retired), manufacturer with chemical experience)  
Erin Reilly (for Anna Killius, James River Association, environmental organization)  
Phillip Musegaas (Potomac Riverkeeper, environmental organization)  
Christopher Leyen (Virginia League of Conservation Voters, environmental organization)  
Jeff Steers, Ben Holland (Virginia Department of Environmental Quality (DEQ))  
Dr. William Mann (consumer of public drinking water)  
Dwight Flammia, Ph.D. (VDH, State Toxicologist, Health & Toxicology Subgroup Lead)  
Tony Singh (VDH, Office of Drinking Water, PFAS Workgroup Lead)  
Dr. Noelle Bissell (VDH, Director, New River Health District)

### VDH Staff Supporting the Meeting:

Nelson Daniel (VDH Office of Drinking Water, Policy & Regulation Subgroup Lead)  
Dan Horne (VDH, Office of Drinking Water, Treatment Technology Subgroup Lead)  
Robert Edelman (VDH, Office of Drinking Water, Occurrence & Monitoring Subgroup Lead)  
Jack Hinshelwood (VDH Office of Drinking Water)  
Anthony Creech (VDH Office of Environmental Health Services)

### 1. Call to Order

ODW Deputy Director, Tony Singh, Ph.D., called the VA PFAS Workgroup meeting to order 1:03 p.m. (“PFAS” means per- and polyfluoroalkyl substances). The meeting was held in-person at the Madison Building, 109 Governor Street, Richmond, VA and was available to Workgroup members and the public by electronic communication means (WebEx) due to the continued spread of the coronavirus that causes COVID-19. ODW recorded the meeting and the recording will be available at the VDH-ODW PFAS webpage: <https://www.vdh.virginia.gov/drinking-water/pfas/>.

Dr. Singh went over the meeting agenda. Workgroup members did not ask for or recommend any changes to the agenda. The agenda and Dr. Singh's presentation follow the minutes.

## **2. Meeting minutes from September 10, 2021**

Workgroup members did not have any comments or corrections to the minutes from the September 10, 2021 meeting. ODW posted the September 10, 2021 meeting minutes as final on Town Hall.

## **3. Acknowledgements**

Dr. Singh acknowledged the members of the Workgroup, Subgroups, and others that have contributed to the occurrence study (planning, execution) and report.

He also mentioned resources that are available, including the VA PFAS Sample Study Summary, Workgroup meeting minutes and recordings, Reports (including the reports for HB1257), Communication Toolkit, and Sample Study Design. The meeting minutes, recordings, and Sample Study Summary are available on the VDH-ODW PFAS webpage (<https://www.vdh.virginia.gov/drinking-water/pfas/>). Meeting minutes are also posted on the Virginia Regulatory Town Hall webpage (<https://townhall.virginia.gov/>).

The final report for HB1257 will be on the Legislative Information System website (<https://rga.lis.virginia.gov/>). It was due October 1, 2021 but had not been posted at the time of the Workgroup meeting.

## **4. House Bill 586 Report & Recommendations – Reviewing Draft Report**

### **a. Report Timeframe**

ODW staff prepared a draft of the report required by 2020 Acts of Assembly Chapter 611 (HB586). Dr. Singh shared the draft report with Workgroup members prior to the meeting so they could review it and provide feedback for ODW to incorporate in the draft. ODW needs to submit the final draft for agency review by October 15, 2021. Dr. Singh asked Workgroup members to provide their comments/feedback by Sunday, October 10. Workgroup members requested an additional day to complete their review and provide feedback. Dr. Singh agreed and set the deadline for Workgroup members to submit feedback as Monday, October 11.

### **b. PFAS Resources**

Dr. Singh reviewed the requirements in HB586:

- Form workgroup, conduct literature review, conduct occurrence study (subject to limitations in the legislation), and report findings to the General Assembly
- The workgroup may make recommendations on MCLs for specified PFAS

Dr. Singh said that many people that read the report will focus on the conclusions and recommendations. But, he felt it would be good to add a list or table with resources. Workgroup members supported this idea and thought the “resources” should distinguishing

between technical, financial (i.e., possible funding sources), and general information/communication.

### **c. Figures in the Draft Report**

Workgroup members also discussed the visual elements in the report, focusing on the diagram that shows the locations of PFAS detections. The Occurrence and Monitoring Subgroup recommended several revisions to the map/diagram in their meeting on October 7, 2021. ODW staff will revise the diagram to incorporate recommendations from the Subgroup and Workgroup (defining practical quantitation level (“PQL”), adding context to the page, explaining circle size, moving large circles off the map and using arrows or lines to show the sample location).

Dr. Singh said that he also intends to add other elements (text boxes) to highlight points in the report.

### **d. Conclusions in the Draft Report**

Dr. Singh went over the major conclusions in the draft report:

- VDH conducted a sample study.
- Results indicate that PFAS are present in drinking water produced from the Potomac River and Occoquan Reservoir in an undetermined quantity.
- The Board of Health could adopt maximum contaminant limits (MCLs) for two types of PFAS, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), that are comparable to other states’ MCLs for the same compounds because VDH has the necessary toxicological information.
- The impact of adopting MCLs could be significant for small waterworks and the Board needs more information to make a regulatory determination.
- VDH will conduct more studies of PFAS occurrence in public drinking water in the future.

Workgroup members commented on the conclusions:

- The draft conclusion about waterworks outside the Northern Virginia region that had PFAS occurrence ignores the three waterworks in Southwest Virginia that had either GenX (hexafluoropropylene oxide-dimer acid (HPFO-DA)) or PFOS in their sample results. ODW will review the language in the conclusion to ensure it is correct.
- None of the draft conclusions address treatment technologies. Dr. Singh suggested that some recommendations related to treatment technologies would be re-written as conclusions.
- The draft report suggests that more sampling will show that PFAS are a problem in drinking water, that they will be present in some quantity at waterworks across the Commonwealth. Other Workgroup members countered that the sample size, compared to the total number of waterworks in Virginia, was small and not representative of statewide water sources, particularly groundwater. A Workgroup member pointed out that 75% of the samples from the study were below the PQL. Others talked about the bias in the

sample study – it was designed to capture population exposure (sampling at the largest waterworks), waterworks near potential sources of PFAS in groundwater (airports and un-lined landfills), and waterworks downstream of surface water discharges that might contain PFAS. Dr. Singh indicated that ODW would revise the conclusions to clearly state that the sample selection process was not random and address the concern about implying that VDH (or the Workgroup) expects to find PFAS in drinking water with more sampling, i.e., there is a problem with PFAS in drinking water. Workgroup members summed this up by saying we simply don't know what VDH will find with future sampling based on the results from the sample study.

- Workgroup members asked for more clarity about what could or would be done with the \$60,000 that the General Assembly provided for sampling in fiscal year 2022.

**e. Recommendations in the Draft Report.**

Dr. Singh presented each of the primary recommendations in the draft report and asked Workgroup members to provide their feedback/comments on them:

- i. There is a significant need for additional PFAS occurrence data in VA drinking water.
  - Workgroup members agreed there is a need for additional sampling to develop more occurrence data for PFAS in drinking water. They debated how much additional sampling would be beneficial and whether future sampling should focus on raw water (from the source, before treatment), finished water (after it has gone through treatment and is ready for distribution to consumers), or both.
  - The general consensus was to focus on finished water because DEQ is going to focus on PFAS in water sources and locate sources of contamination/discharge.
- ii. VDH should initiate the rulemaking process to develop health-based limits on PFAS in drinking water.
- iii. Virginia does not have the resources or a history/process for establishing a drinking water MCL. [Considered in conjunction with ii.]
  - A Workgroup member recommended that the report be clear in its focus, specifically the six PFAS named in HB586. The Toxicology Subgroup did not consider data or research on other PFAS.
  - The second recommendation (iii.) is more like a conclusion than being a recommendation.
  - The two recommendations are not the only options – but the conclusion is that the Workgroup could not come to a consensus.
  - Consider rephrasing the recommendations to focus on what the Workgroup agrees on: the Workgroup (in general) believes that there is evidence to develop MCLs for PFOA and PFOS. What the Workgroup can't decide on is how to make that recommendation and whether the Board of Health should wait for EPA to establish MCLs for PFOA/PFOS, or proceed on its own.

- A conclusion is that the workgroup is not going to recommend any MCLs.
- iv. Alternatively, VDH could move forward to develop MCLs for only two PFAS, i.e., PFOA and PFOS, possibly before EPA, given what other states have done.
  - Workgroup members discussed this recommendation with ii. and iii. above. In addition, one member commented that developing an MCL will be an expensive process and asked if it would be wise to make this recommendation?
- v. If VDH includes an analysis of environmental justice impacts that may flow from the promulgation of an MCL for any PFAS, the Commonwealth/Agency should also carefully assess whether and to what extent an MCL would improve protection of public health in communities already burdened by water, air and industrial pollution.
  - A Workgroup member thought this recommendation should be reworded. A suggestion included revising the beginning of the recommendation to say, “VDH should include ...” instead of, “If VDH includes...”
- vi. There remain a number of questions about PFAS contaminated residuals that will factor into the analysis, particularly when a source for the PFAS contamination is suspected or known and removal at the source can be accomplished and funded by the appropriate party (the polluter).
  - Workgroup members thought this recommendation fell outside the scope of HB586 and suggested removing it. The DEQ representative said this is more related to their objectives and that agency wants to have involvement from various state agencies. A Workgroup member said this element is related to the environmental justice (EJ) issue in the sense that PFAS sources tend to be in EJ areas and that VDH, DEQ, and other agencies will have to grapple with it.
- vii. The regulatory landscape for PFAS in solid waste and other media continues to evolve. It is recommended that this be factored in when the treatment technologies available do not destroy the contaminant but rather move it from one media to another.
  - A Workgroup member felt this may be outside the scope of the report, but it may still be important to note that even if waterworks treat for PFAS, they still have to deal with residuals.

#### **f. General comments**

- A Workgroup member felt that, if the state moves ahead with MCLs, there is a need for state to create way to help utilities install treatment and provide financial assistance.
- Dr. Singh said that ODW intends to add information to the report – a “resources” document.
- Dr. Singh asked Workgroup members who want to provide additional written comments on the draft report to submit them to him by Monday, October 11.

## 5. Subgroups Reports

- a. **Toxicology** – Subgroup leader Dwight Flammia reported that the Subgroup members did not come to consensus on all of their recommendations for the Workgroup. They have been working on a summary of their findings, but don't have a final document. Dr. Singh said that their recommendations had been included in the draft report and reflected the differing opinions in some cases.
- b. **Occurrence and Monitoring** – the Subgroup met on October 7, 2021 and recommended updates to the results map (discussed earlier in this meeting). They also developed recommendations for future sampling studies. The recommendations are included in the presentation that follows the minutes.
- c. **Treatment Technologies** – Subgroup members have been developing summaries of the three primary treatment technologies for PFAS: granulated activated carbon, ion-exchange, and reverse osmosis. They will complete the summaries next week.
- d. **Policy and Regulation** – the Subgroup met on September 20 to go over the recommended outline for the report – which is reflected in part in the draft report Workgroup members received prior to the meeting.

## 6. Public Comment

Dr. Singh invited members of the public to speak if they wished. No one offered comments.

## 7. Meeting Concluded

Dr. Singh thanked members of the Workgroup for their participation and feedback throughout the meeting. He said that ODW would update the report based on the feedback received at the meeting and comments that Workgroup member submit. ODW's deadline to complete the draft report is October 15. VDH leadership and the Secretary of Health and Human Resources will review the report before submitting it to the Governor and General Assembly by December 1, 2021. ODW staff will also start planning the next phase of PFAS sampling in drinking water. Dr. Singh concluded the meeting at 3:10 p.m.

## Virginia PFAS Workgroup Meeting

Hosted by  
the Virginia Department of Health (VDH) - Office of Drinking Water  
109 Governor Street, Richmond, VA 23219

In-Person & WebEx (Virtual) Friday, October 08, 2021  
1:00 p.m. – 3:30 p.m.

### **DRAFT AGENDA**

<b>Subject</b>	<b>Time</b>
Connect to WebEx and Meeting Instructions	12:50 – 1:00 PM
Call To Order Meeting minutes from September 10, 2021 Meeting Overview of Agenda	1:00 – 1:10 PM
Acknowledgments, Message!	1:00 – 1:15 PM
HB586 Report – Discussion - Contents - Conclusions & Limitations - Recommendations - Discussion	1:15 – 2:15 PM
Break	2:15 – 2:30 PM
Subgroup Reports/Status Updates - PFAS Health & Toxicology (5 minutes) - PFAS Occurrence & Monitoring (5 minutes) - PFAS Policy & Regulation (5 minutes) - PFAS Treatment Technologies (5 minutes)	2:30 – 3:00 PM
Other Topics - Next Steps – HB586 Report - Next Steps – VA PFAS Workgroup - Phase 2 PFAS sampling study design	3:00 – 3:25 PM
Public Comment Period	3:25 – 3:30 PM
Conclude Meeting	3:30 PM

**Virginia Department of Health – VA PFAS Workgroup Meeting**  
**October 08, 2021; 1:00 p.m. to 3:30 pm**  
**Information and Protocol for WebEx Meeting**

**JOIN WEBEX MEETING**

<https://vdhoep.webex.com/vdhoep/j.php?MTID=m7bdff0812c1b6611fa9e647be5b2126d>

Meeting number (access code): 2633 504 9141

Meeting password: pSKgBj356

***TAP TO JOIN FROM A MOBILE DEVICE (ATTENDEES ONLY)***

1-844-992-4726,,26335049141## tel:1-844-992-4726,,\*01\*26335049141%23%23\*01\* United States Toll Free

+1-408-418-9388,,26335049141## tel:%2B1-408-418-9388,,\*01\*26335049141%23%23\*01\* United States Toll

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Global call-in numbers

<https://vdhoep.webex.com/vdhoep/globalcallin.php?MTID=mafd09135e250b33abe51ca2d149e3697>

Toll-free calling restrictions

[https://www.webex.com/pdf/tollfree\\_restrictions.pdf](https://www.webex.com/pdf/tollfree_restrictions.pdf)

**JOIN FROM A VIDEO SYSTEM OR APPLICATION**

Dial sip:26335049141@vdhoep.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

Can't join the meeting?

<https://collaborationhelp.cisco.com/article/WBX000029055>

**IMPORTANT NOTICE:** Please note that this Webex service allows audio and other information sent during the session to be recorded, which may be discoverable in a legal matter. By joining this session, you automatically consent to such recordings. If you do not consent to being recorded, discuss your concerns with the host or do not join the session.

A copy of the draft agenda is located on Town Hall and is provided separately.

Please log into the meeting at least 10-15 minutes before the meeting begins. (If you are having problems,

Please sign into the meeting and identify yourself so we can verify that you are attending the meeting. After you have identified yourself, please mute your phone to reduce any unwanted noise.

**please email Chris Latino @ [christina.Latino@vdh.virginia.gov](mailto:christina.Latino@vdh.virginia.gov)**



## Driving Directions and Parking Information

**Meeting Venue:** James Madison Building, 109 Governor Street, Richmond 23219 VA

### **Driving Directions:**

**From the North:** Follow I-95 South to Exit 74B (Franklin Street). Turn right at the light, keep straight through the intersection and the Madison Building is on the right (top of the hill) Follow directions below to selected parking option.

**From the South:** Take I-95 North to Exit 74C. Follow Exit 74C, and then take the Broad Street East ramp to the right. Turn right onto Broad Street. Go to the first traffic light that is N 14<sup>th</sup> Street and turn left. Go to traffic light and make a right turn, the Madison Building is on the right (top of the hill). Follow the directions below to selected parking options.

**From the West:** Take I-64 East. As you get into the central Richmond area, I-64 merges with I-95. Follow signs for I-95 South to Exit 74B (Franklin Street) (do not get back onto I-64). Turn right at the light, keep straight through the intersection and the Madison Building is on the right (top of the hill). Follow directions below to selected parking options.

**From the East:** Take I-64 West to I-95 South. Follow I-95 South to Exit 74B (Franklin Street). Turn right at the light; keep straight through the intersection and the Madison Building is on the right (top of the hill). Follow directions below to elected parking options parking option.

### **Public Parking**

Parking is not permitted in State parking areas. Cars illegally parked in these areas are subject to ticketing and towing, Public Parking areas are available on nearby streets. Each of these streets are South of the Madison Building, although other parking facilities exist, the following are a few of the closest (costs may have changed since this document was created):

1. Main and N. 14<sup>th</sup> Street (AOPCOA Parking Lot)  
Turn right onto Franklin Street off exit ramp. Go to N 14<sup>th</sup> Street – turn left. Go one block to Main Street. See parking lot on left (Small gravel lot.) \$5.00 all day.
2. Cary off N 14<sup>th</sup> Street (Public Parking Deck- AOPCOA)  
Turn right onto Franklin Street off exit ramp. Go to N. 14<sup>th</sup> Street – turn left. Go two blocks to Cary Street. Turn left onto Cary. Parking deck will be on he left. Early bird rate – If in before 9:00 a.m. (unknown at this time) after 9:00 a.m. \$16.00 all day
3. Cary and 15<sup>th</sup> Streets (VA Park – Value Parking Lot)  
Turn left onto Franklin Street off exit ramp. At first corner, turn right onto 15<sup>th</sup> Street. Go two locks to Cary Street – turn left onto Cary, see parking lot on right corner \$5.00 all day.
4. Cary between 16 & 17<sup>th</sup> Streets (V Park – Value Parking Lot)  
Turn left onto Franklin Street off exit ramp. At first corner, turn right onto 15<sup>th</sup> Street. Go two blocks to Cary Street – turn left onto Cary. See parking lot on right one block down. \$5.00 all day.

To get to parking lot from Broad Street; Turn left onto N. 14<sup>th</sup> Street. Go two traffic lights to Main Street and see parking lot #1 on the left or go three traffic lights to Cary Street and turn left. Parking lots #2, #3 and #4 will be seen as indicated above

# **Establishing Regulatory Limits for PFAS in Virginia Drinking Water**

**Tony Singh, Ph.D., MPH, PE, BCEE**

# Housekeeping

- Please use chat feature generously for any discussions and questions
- Please contact Chris Latino via email  
([christine.latino@vdh.virginia.gov](mailto:christine.latino@vdh.virginia.gov)) for technical issues with WebEx platform
- Please keep your phone line on Mute if you are not speaking
- There will be a public comment period at the end of the meeting

# Meeting Agenda – October 8, 2021

- **Call to Order**
- **Introduction**
  - VA Workgroup Members & VDH team
- **October 08, 2021 Agenda adoption - Overview**
  - HB586 Report & Recommendations
  - Subgroup Reports
  - Public Comments
- **Review/Approval** of VA PFAS Workgroup Meeting Minutes -  
September 10, 2021

# Acknowledgements

**Newport News**  
Where Great Things Are Happening

**VDH** VIRGINIA  
DEPARTMENT  
OF HEALTH  
*Protecting You and Your Environment*



"Water is the only  
drink for a wise man."  
-Henry David Thoreau

**AQUA**  
An Essential Utilities Company

THE CITY OF  
**NORFOLK**



**WESTERN VIRGINIA  
WATER AUTHORITY**  
540.853.5700 | info@westernvawater.org

**Chesapeake**  
VIRGINIA

**VWEA** EST. 1947  
Virginia Water Environment Association



**American  
Chemistry  
Council**

**Fairfax Water**

**POTOMAC  
RIVERKEEPER  
NETWORK**



**HALIFAX COUNTY**  
*Virginia*

American Water Works Association  
**Virginia** Section

 **VIRGINIA LEAGUE OF  
CONSERVATION VOTERS**

**VIRGINIA  
AMERICAN WATER**



*New River*  
HEALTH DISTRICT

**LOUDOUN WATER**

**DEQ**  
VIRGINIA DEPARTMENT OF  
ENVIRONMENTAL QUALITY



**VDH** VIRGINIA  
DEPARTMENT  
OF HEALTH  
*Protecting You and Your Environment*

# Acknowledgements

- William Mann (Physician/General Public)
- Mitchell Mcadoo (USGS)
- Paul Nyffeler (Chem Law)
- Rebecca Warns (MD - Maryland Department of Environment)
- Ian Smith (MI - EGLE Drinking Water & Environmental Health Division)
- Christina Latino (VDH)
- Richard Watson (VDH)
- Kyle Fuller (VDH)

# VDH Updates/Resources

- [VA PFAS Sample Study Summary](#) is available at VDH-ODW PFAS webpage
- All VA PFAS Workgroup meeting agenda, minutes and recordings are available at [VDH-ODW PFAS webpage](#)
- All VA PFAS Workgroup meeting minutes are available at [VA Townhall website](#)
- PFAS reports will be available at the VA [LIS webpage](#)
- PFAS Literature review
- VA PFAS Communication Toolkit
- VA PFAS Sampling Study Design



# HB586 Report & Recommendations

# HB586 (2020 Acts of Assembly Chapter 611)

Be it enacted by the General Assembly of Virginia:

1. § 1. That the Commissioner of Health shall convene a work group to study the occurrence of perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), perfluorobutyrate (PFBA), perfluoroheptanoic acid (PFHpA), perfluorohexane sulfonate (PFHxS), perfluorononanoic acid (PFNA), and other perfluoroalkyl and polyfluoroalkyl substances (PFAS), as deemed necessary, in the Commonwealth's public drinking water and may develop recommendations for specific maximum contaminant levels for PFOA, PFOS, PFBA, PFHpA, PFHxS, PFNA, and other PFAS, as deemed necessary, for inclusion in regulations of the Board of Health applicable to waterworks. Such work group shall include representatives of waterworks owners and operators, including owners and operators of community waterworks, private companies that operate waterworks, advocacy groups representing owners and operators of waterworks, consumers of public drinking water, a manufacturer with chemistry experience, and such other stakeholders as the Commissioner of Health shall deem appropriate. The Office of Drinking Water of the Department of Health shall provide administrative and technical support for the work group. In completing its work, the work group (i) shall (a) determine current levels of PFOA, PFOS, PFBA, PFHpA, PFHxS, PFNA, and other PFAS, as deemed necessary, contamination in the Commonwealth's public drinking water, provided that in making such determination of current levels, the Department of Health shall sample no more than 50 representative waterworks and major sources of water; (b) identify possible sources of such contamination, where identified; and (c) evaluate existing approaches to regulating PFOA, PFOS, PFBA, PFHpA, PFHxS, PFNA, and other PFAS, as deemed necessary, in drinking water, including regulatory approaches adopted by other states and the federal government, and (ii) may develop recommendations for specific maximum contaminant levels for PFOA, PFOS, PFBA, PFHpA, PFHxS, PFNA, and other PFAS, as deemed necessary, to be included in regulations of the Board of Health applicable to waterworks. The work group shall report its findings and recommendations to the Governor and the Chairmen of the House Committees on Agriculture, Chesapeake and Natural Resources and Health, Welfare and Institutions and the Senate Committees on Agriculture, Conservation and Natural Resources and Education and Health by December 1, 2021.

# HB586 (2020 Acts of Assembly Chapter 611)

1. Form a VA PFAS Workgroup
2. Conduct a PFAS literature review
3. Conduct a VA PFAS sampling study
4. May make recommendations on setting up MCLs & submit report by December 01, 2021

# HB586 Report Discussion

1. Structure & Contents of the report
2. Conclusions of the report
3. Recommendations of the report
4. Appendices in the report
5. Resources in the report

# HB586 Report Discussion - Structure

1. Structure & Contents of the report
  1. Box with highlight or major points
  2. More links to the available resources
  3. VA PFAS Map

# HB586 Report Discussion - Conclusions

1. Conclusions
  - a. VA PFAS Sample study
  - b. Potential sources for the PFAS occurrence
  - c. MCLs based on other state for PFOA and PFOS
  - d. Impacts of PFAS MCLs on small systems
  - e. Future PFAs studies

# HB586 Report Discussion - Recommendations

## 1. Recommendation:

1. There is a significant need for additional PFAS occurrence data in VA drinking water:

# HB586 Report Discussion - Recommendations

## 2. Recommendation:

PFAS Workgroup members couldn't come to consensus on any of the following two options/recommendations:

1. VDH should initiate the rulemaking process to develop health-based limits on PFAS compounds in drinking water because EPA's progress regarding PFAS has been repeatedly delayed until now, and may be delayed again. Further delay would leave Virginians unprotected.
2. Virginia does not have the resources or a history/process for establishing a drinking water MCL. Diverging from EPA presents a number of risks and challenges. Specifically, EPA could issue a lower MCL, which Virginia would then have to adopt. Further, the ability to weigh the costs and benefits of a PFAS MCL is particularly challenging given the numerous exposure routes and issues with residual disposal.



# HB586 Report Discussion - Recommendations

## 3. Recommendation:

Alternatively, VDH could move forward to develop MCLs for only two PFAS i.e. PFOA and PFOS, possibly before EPA, given what other states have done.

# HB586 Report Discussion - Recommendations

## 4. Recommendation:

If VDH includes an analysis of environmental justice impacts that may flow from the promulgation of an MCL for any PFAS, the Commonwealth/Agency should also carefully assess whether and to what extent an MCL would improve protection of public health in communities already burdened by water, air and industrial pollution.

# HB586 Report Discussion - Recommendations

## 5. Recommendation

There remain a number of questions about PFAS contaminated residuals that will factor into the analysis, particularly when a source for the PFAS contamination is suspected or known and removal at the source can be accomplished and funded by the appropriate party (the polluter).

# HB586 Report Discussion - Recommendations

## 6. Recommendation:

The regulatory landscape for PFAS in solid waste and other media continues to evolve. It is recommended that this be factored in when the treatment technologies available do not destroy the contaminant but rather move it from one media to another.

# HB586 Report General Discussion

1. Key points/takeaway

# Next Steps – HB586 Report

- Workgroup Review (5 day TAT); Workgroup Feedback by October 10, 2021
- HB586 report will be submitted on October 15, 2021
- HB586 report is due to the GA committees by December 01, 2021

# Other Topics

# What. is Next?

- Phase 2 PFAS sampling study design (Ideas/suggestions/Thoughts)
  - More groundwater systems data
  - Analytical method: EPA533 vs EPA537.1
  - FRBs: at reduced frequency
  - Source and finished water at each location
- Next Steps – VA PFAS Workgroup
  - State Health Commissioner will make the final decision



# Subgroup Updates

# PFAS Health and Toxicology

# Virginia PFAS Workgroup

## Monitoring and Occurrence Subgroup Report

Robert D. Edelman, PE  
Virginia Department of Health  
October 8, 2021

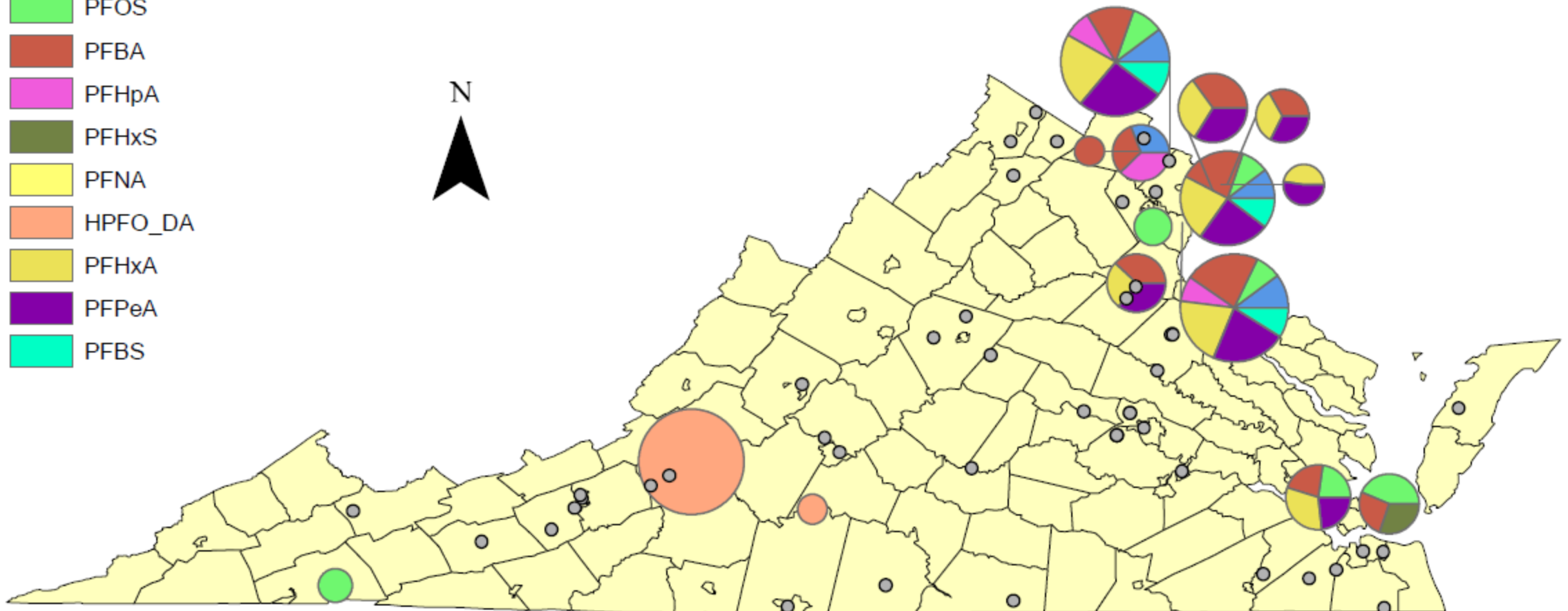
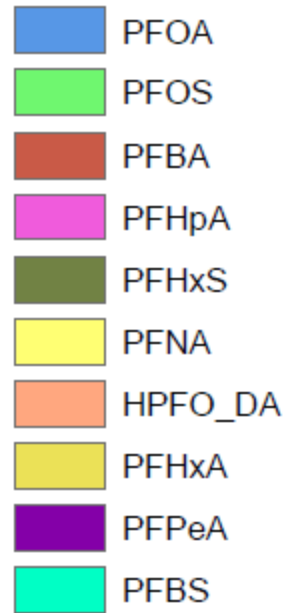
# PFAS Sampling Results

## PFAS Contaminants

### Results



● Below PQL



# Recommendations from Subgroup

## Reached consensus on:

1. Need more occurrence data
2. Temporal data set
3. Resample current locations
4. Sample additional locations
5. Sample well systems
6. Focus on Community and Nontransient Noncommunity systems
7. Continue EPA Method 533, same detection limits
8. Continue sampling by waterworks staff

# Budget Information (FY 2022)

\$150,000 - Total available for PFAS analysis

## Field Reagent Blank Required

- 256 - 428 entry point samples @ \$585 - \$350
- 115 - 428 pairs of raw water + treated water samples at surface water plants

## No Field Reagent Blank

512 - 857 entry point samples @ \$292.5 - **\$175 most optimistic**

**Budget falls short of providing at least one sample per community waterworks**

# Phase 2 PFAS Sampling

Goal: Sample Study Design by Thanksgiving

Need: Input on priorities - not enough \$\$\$ to cover all systems

What should ODW prioritize?

1. Community Waterworks
2. Risk of PFAS Contamination
3. Surface Water - might be higher risk
4. Hybrid approach
5. Entry Points at sources - no sampling at consecutive systems
6. Schools and daycares

# PFAS Treatment Technologies



# PFAS Policy & Regulations

# Public Comment

# Have any Question, Comment or Suggestion, contact Us

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