

# PFAS: New Regulations and Funding for Small Water Systems

US Environmental Protection Agency, PNW Region

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# Overview

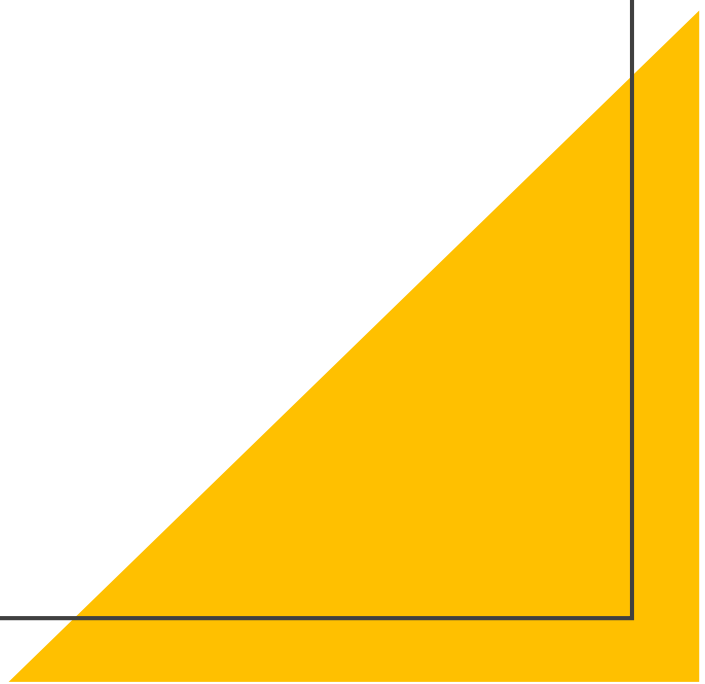
- What are PFAS?
- How do PFAS affect public health?
- PFAS Drinking Water Regulations and Implementation
- Project Funding Options
- Technical Assistance





# Disclaimer

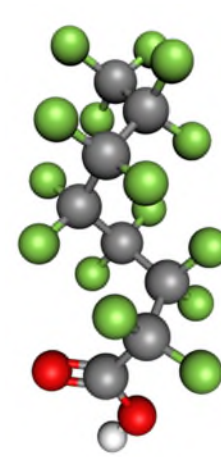
Please note that the information provided is for technical assistance only and does not supersede the NPDWR requirements in 40 CFR 141 and 40 CFR 142.



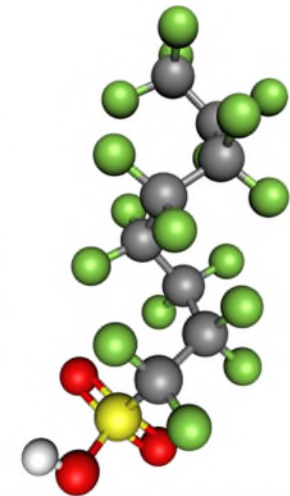
# What are PFAS?

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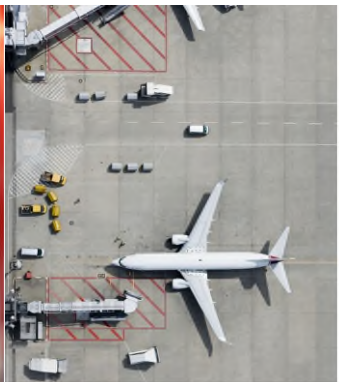
- Per- and Polyfluoroalkyl Substances (PFAS)
- A class of man-made chemicals
- Resistant to heat, oils, grease, stains, & water
- “Forever chemicals”



*Perfluorooctanoic acid (PFOA)*



*Perfluorooctanesulfonic acid (PFOS)*



# How do PFAS affect public health?

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Increased risk of cancer and other diseases

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Exposure during pregnancy and early childhood can impact health

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Disproportionately impacts small, disadvantaged, and rural communities





# Washington State PFAS Regulations



Establishes State Action Levels (SALs) for five PFAS



Requires All Group A systems to test for regulated PFAS



Requires reporting and public notice of exceedance

Type of PFAS	WA SAL
PFOA	10 ppt
PFOS	15 ppt
PFNA	9 ppt
PFHxS	65 ppt
PFBS	345 ppt

# EPA PFAS Regulatory MCLs

PFOA and PFOS:

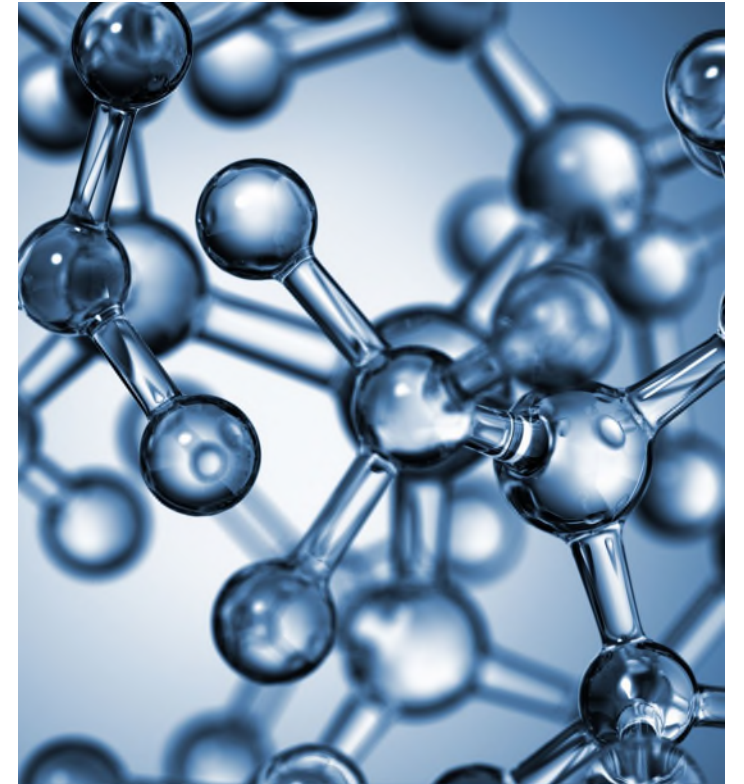
- MCL= 4.0 ppt

PFNA, PFHxS, and  
HFPO-DA (GenX  
Chemicals):

- MCL= 10 ppt

PFHxS, PFNA,  
HFPO-DA, and  
PFBS:

- Calculate Hazard Index



$$HI \text{ MCL} = \left( \frac{[HFPO-DA_{water}]}{[10 \text{ ppt}]} \right) + \left( \frac{[PFBS_{water}]}{[2000 \text{ ppt}]} \right) + \left( \frac{[PFNA_{water}]}{[10 \text{ ppt}]} \right) + \left( \frac{[PFHxS_{water}]}{[10 \text{ ppt}]} \right) = 1$$



# Federal Regulatory Implementation Schedule

## Within 3 years:

- Complete initial monitoring

## After 3 years:

- Start compliance monitoring
- Include monitoring results in CCRs
- Notify public of monitoring violations

## After 5 years:

- Comply with all MCLs
- Notify public for all MCL violations

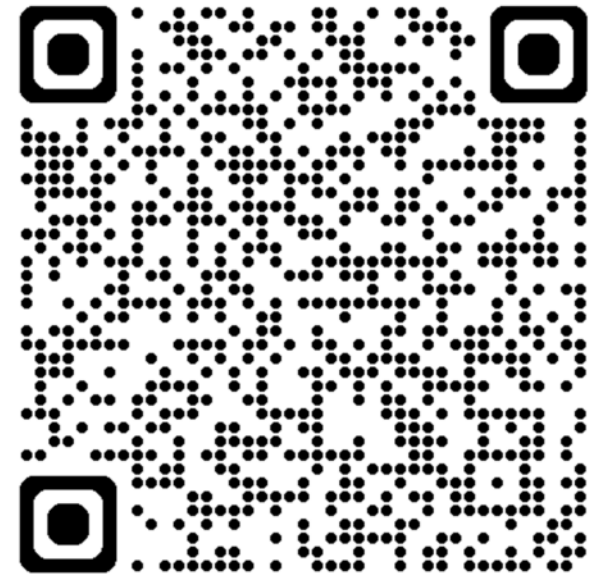


# Monitoring and Well Testing Resources

Washington Dept. of Health Voluntary  
Free PFAS Testing Program

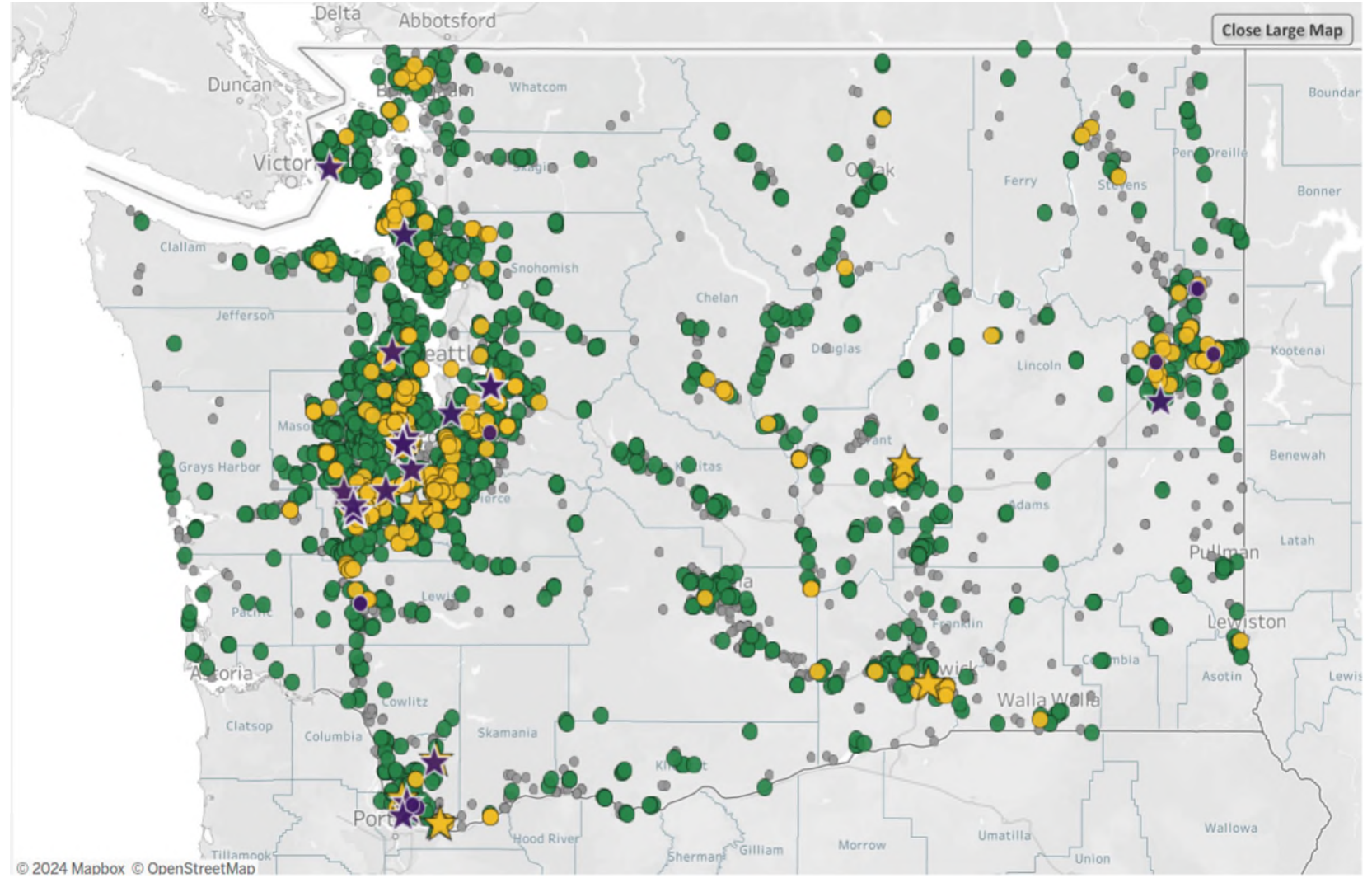
EPA's Emerging Contaminants in Small  
and Disadvantaged Communities program

EPA Training and Technical Assistance for  
Small Systems (T&TA) Program





# Washington State PFAS Testing Results Dashboard







# Tribal Water System Testing

- **EPA R10's Free Voluntary PFAS Testing Program**
  - 30-40 PWSs tested so far
  - All voluntary sampling efforts have been non-detects
  - Contact [R10TribalDW@epa.gov](mailto:R10TribalDW@epa.gov)

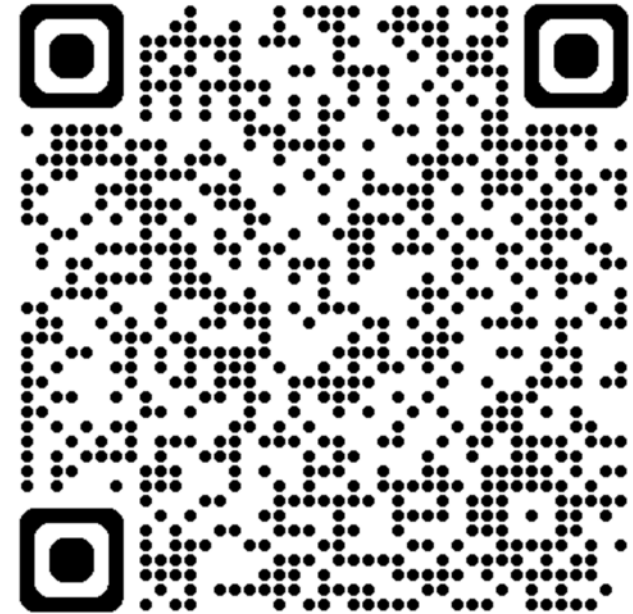
# Infrastructure Solutions to PFAS Contamination

## Access Uncontaminated Source

- Consolidate with neighboring system
- Construct/identify a new source

## Install PFAS Removal Technology

- Granular activated carbon
- Reverse osmosis
- Ion exchange systems
- Nanofiltration





# PFAS Infrastructure Project Funding Opportunities

## Drinking Water State Revolving Fund (DWSRF)

- 2024 Allocation for EC (WA): \$17,495,000

## Emerging Contaminants in Small & Disadvantaged Communities (EC-SDC)

- 2024 Allocation (WA): \$17,321,000

## Water Infrastructure Improvements for the Nation (WIIN): Small, Underserved, and Disadvantaged Communities (SUDC)

- 2024 Allocation (WA): \$566,000



# Technical Assistance

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EPA Training and  
Technical Assistance  
for Small Systems  
(T&TA) Program

EPA Environmental  
Finance Centers (EFCs)

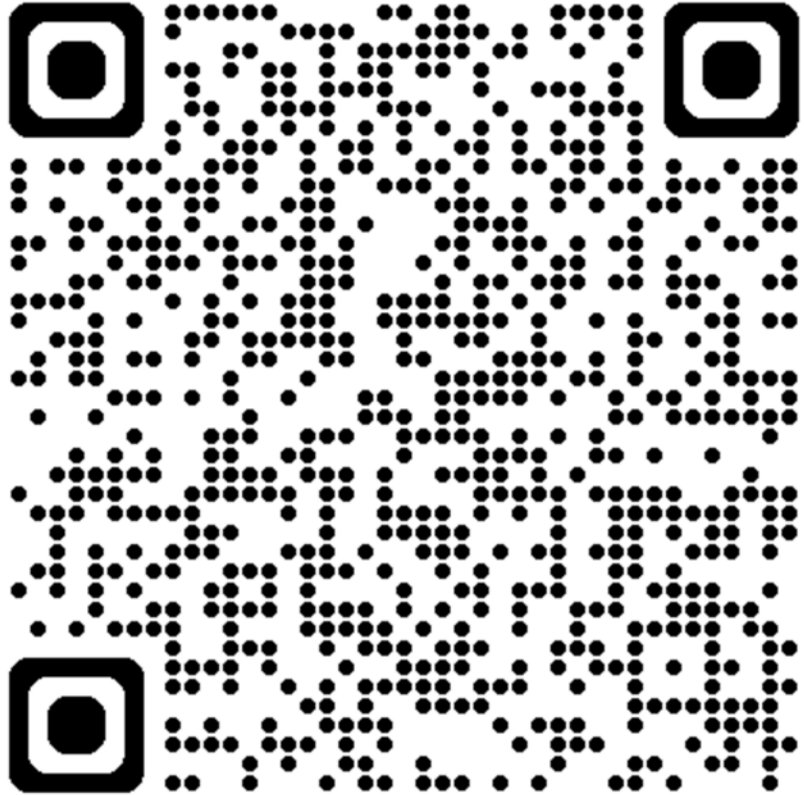
EPA Water Technical  
Assistance (WaterTA)  
Engineering Support

EPA Tackling Emerging  
Contaminants  
Technical Assistance  
(TEC TA) Program

EPA Contract for Tribal  
Technical Assistance

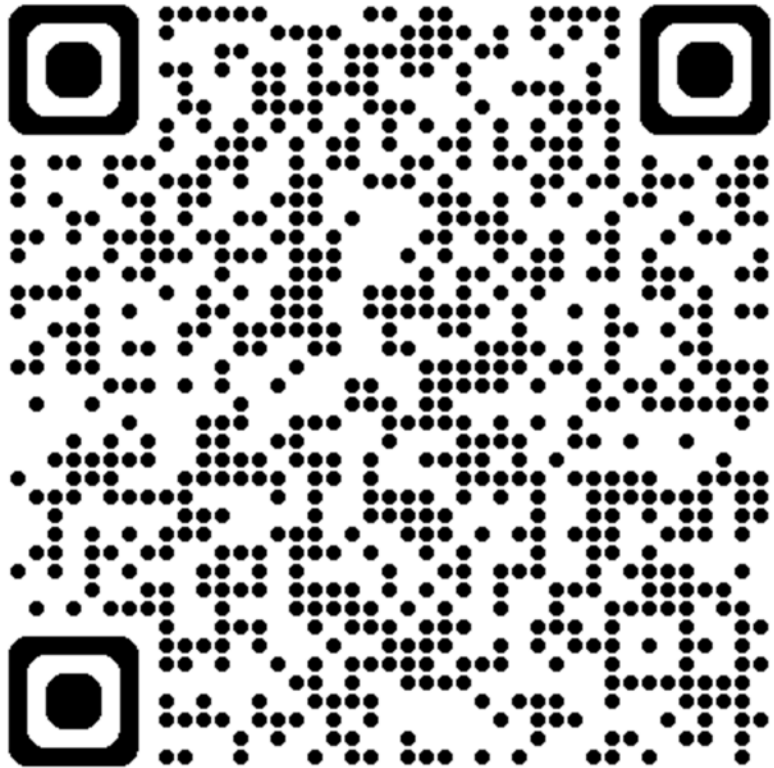
WA DOH Technical  
Assistance





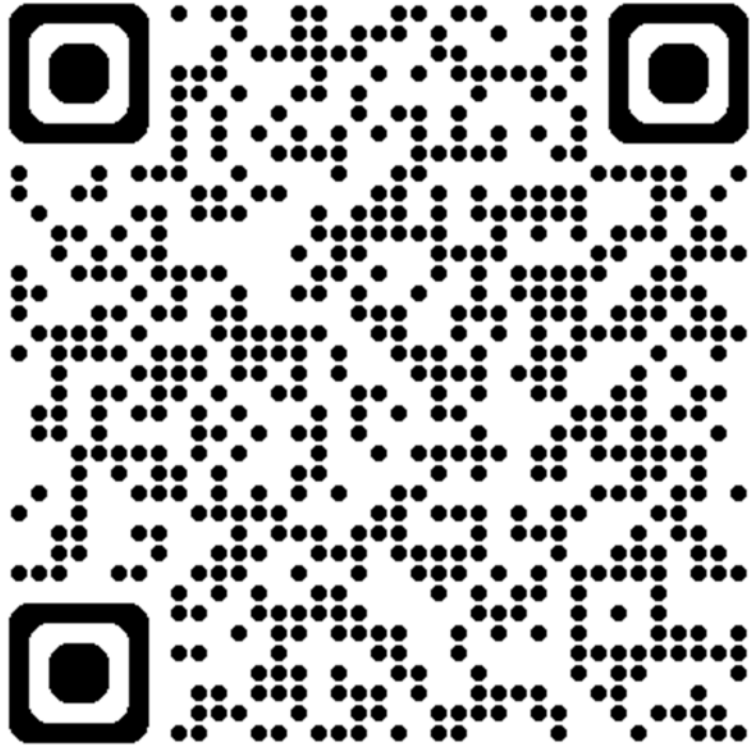
# EPA Training and Technical Assistance for Small Systems (T&TA) Program

- Free technical assistance is provided to support small public water systems in operating and maintaining their systems to achieve and maintain compliance with Safe Drinking Water Act.



## EPA Environmental Finance Centers (EFCs)

- Free technical assistance that supports communities in a wide range of activities that bolster their ability to obtain BIL funding (e.g., SRF), including funding application development, researching revenue approaches, income surveys, and more.



# EPA WaterTA Engineering Support

- Free technical assistance helps communities identify needs, conduct preliminary project planning, and produce the engineering documents needed for federal water infrastructure funding applications
- **Who can access engineering support?**
  - **Communities, including Tribes** seeking engineering support services to complete federal funding applications
  - **WaterTA providers** requiring engineering support to fill WaterTA gaps and complete engineering analyses to support federal funding applications
    - TA providers under EPA grants
    - State TA providers



**COMING SOON!**

# EPA Tackling Emerging Contaminants Technical Assistance (TEC TA) Program

- EPA is preparing to offer additional WaterTA to support small or disadvantaged communities nationwide around emerging contaminants, including PFAS
- Will support communities to do the following:
  - Be prepared to access and utilize Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant funding
  - Initial diagnostic monitoring
  - Infrastructure planning and project development
  - Complete preliminary engineering steps
  - Community engagement and outreach

# Tribal Technical Assistance

- Supports development of projects to address PFAS contamination
- Full range of development activities

**COMING SOON!**



# How to access EPA WaterTA

*There are multiple pathways for communities to access WaterTA:*

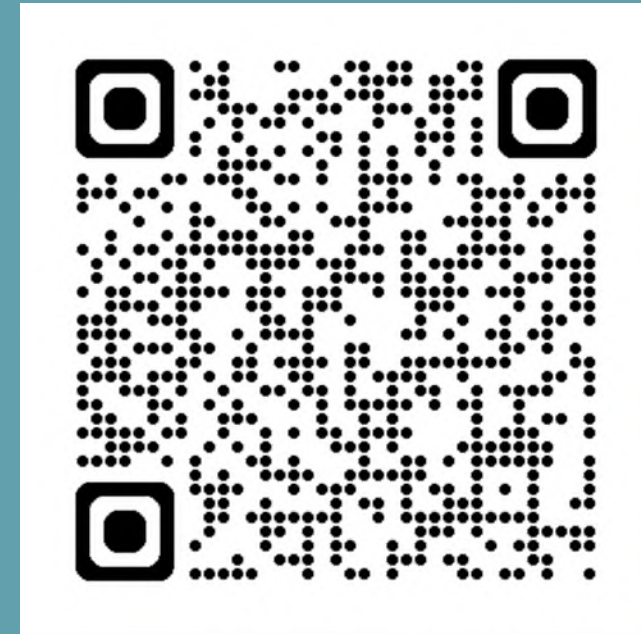
- Recommended by a State or EPA Region
- Directly contacted/referred by a WaterTA provider
- Referred by stakeholder/partner organization/utility
- Community submits a WaterTA Request Form





# Resources

- **PFAS Communication Toolkit**
  - Materials for public water systems, local officials, and any other entities
  - Communicate about PFAS, and about EPA's new drinking water limits on certain PFAS
  - These materials may be used and replicated by anyone



To learn more or request assistance:

visit [www.epa.gov/WaterTA](http://www.epa.gov/WaterTA)

or email [R10WaterTA@epa.gov](mailto:R10WaterTA@epa.gov)



# WA DWSRF funding for PFAS and other ECs

	Planning and Engineering Loans	Construction Loans	Consolidation Feasibility Study Grants	Bipartisan Infrastructure Law Emerging Contaminants Funding (BIL-EC)	Emerging Contaminants for Small and Disadvantaged Communities (EC-SDC)
Interest Rate	0%	2.25%* <i>*Reduced interest rate and possible principal forgiveness for disadvantaged communities (DAC)**</i> <i>**DAC definition going through rulemaking</i>	N/A	N/A	N/A
Maximum Amount	\$500,000	\$15,000,000	\$50,000	?	?
Fees	2% non-refundable loan service fee	1% non-refundable loan service fee	N/A	N/A	N/A
Loan Term	10 years	20 years	N/A	N/A	N/A
Time of Performance	2 years	4 years	2 years	?	?
Application Notes	First come, first served, year round	Competitive, Applications accepted 10/2/23-11/30/23	Competitive, Applications accepted 8/1/23-31/23	Competitive, Priority to PFAS projects	Competitive, Priority to PFAS projects
Eligible Activities	For all planning, engineering design, cultural/historical review, SEPA, etc.	For construction, planning, and design		For design and construction	For design and construction



# Notes from 9/13 meeting

- General PFAS landing page- overview of rule
- If you receive any questions, EPA continues to work towards full implementation of the PFAS NPDWR.
- What approved methods are acceptable for monitoring (2 specific methods called out in regulation)
  - EPA Method 533, EPA Method 537.1 rev 2
- Lawsuits on PFAS regulations (AWWA, likely to attend IACC)
  - AWWA's summary of concerns on the final rule:  
<https://www.awwa.org/Portals/0/AWWA/Government/071124Insiders/2024-07-08-STATEMENT-OF-ISSUES-filed-by-AWWA-and-AMWA.pdf>
- Basic info about regulatory side, main focus will be on infrastructure response and what resources are available
- WA has own state action levels – already requiring monitoring under those levels
- BIL-EC (SRF) and EC-SDC (WIIN) funds can be used for testing, POU/POE filtration

# Notes from 9/13 meeting

- <https://doh.wa.gov/community-and-environment/drinking-water/contaminants/pfas-drinking-water>
- DOH has a free-PFAS sample program for Community and NTNC systems that will continue through early in 2022. Results count toward the state-required monitoring that would otherwise be scheduled in 2023-2025.  
For water systems not currently signed up to participate in this sampling program, you can still sign up by submitting you information via our online form at [Department of Health, Office of Drinking Water PFAS Free Sampling Enrollment Form](#).  
Systems with detections must collect follow-up samples and comply with the rule requirements.  
Funding is limited and we may prioritize systems based on risk if volunteers exceed available funding.
- Can contact Angela directly with questions about Tribal resources – can provide info about funding

## Implementation: Communication with the Public



- PWSs will be required to issue public notification to customers if PFAS levels in drinking water violate an MCL.
- For all PFAS MCL violations, the final rule will require public notification to be provided within 30 days of an MCL violation.
- The final rule requires annual public notification for violations of monitoring and testing procedures.
- Community water systems are also required to include PFAS information in the Consumer Confidence Report distributed to their customers, including the following:
  - The level of PFAS that is measured in the drinking water.
  - The potential health effects of any PFAS detected in violation of an EPA MCL.



# Implementation: Monitoring Requirements Summary

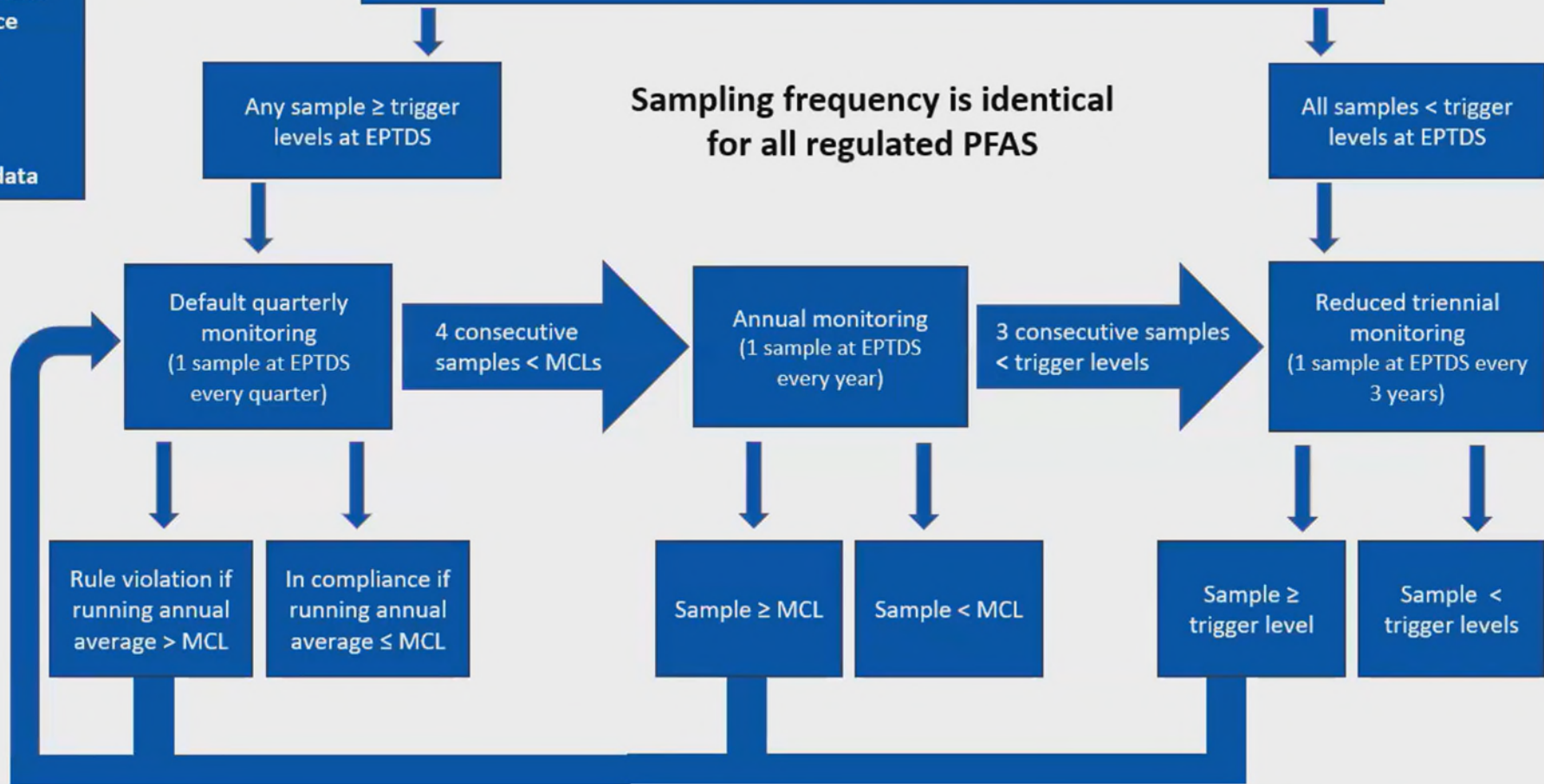


Ryan Albert, US EPA

## Initial Monitoring

- Four quarterly samples within a 12-month period for ground water systems serving greater than 10,000 and all surface water systems
- Two semi-annual samples within a 12-month period for ground water systems serving 10,000 or fewer
- OR
- Use of recent, existing PFAS drinking water occurrence data

## Ongoing Compliance Monitoring (Based initially on results of initial monitoring)



## Rule Trigger Levels (1/2 MCLs)

- PFOA and PFOS = 2.0 ppt
- PFHxS, HFPO-DA, and PFNA = 5 ppt
- Hazard Index = 0.5 (unitless)

EPTDS = Entry point to the distribution system

# What are PFAS and how do they affect public health?

## Sources to water



Primary and Secondary Manufacturing



Consumer products use/disposal



Wastewater plant effluent and biosolids



Industrial processes



Landfills and recycling



Direct use in the environment

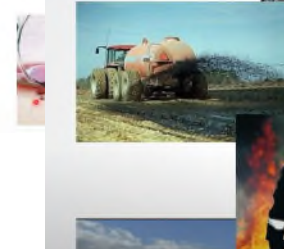


## Uses & Sources of PFAS

Food contact surfaces such as cookware<sup>1</sup>, pizza boxes, fast food wrappers, popcorn bags, etc.



Polishes, waxes, and paints  
Stain repellants for carpets, clothing, upholstered furniture, etc.  
Cleaning products



Landfills and leachates from disposal of consumer and industrial products containing PFASs

Land where biosolids and other wastes were applied

Direct release of PFAS products into the environment – such as use of AFFF in training and emergency response

EPA



Mist/Dust suppression for chrome plating

Electronics manufacturing



Oil and mining for enhanced recovery

Performance chemicals such as hydraulic fluid, fuel additives, etc.

EPA

# How to PFAS affect Water Systems

- EPA estimates that these systems will need to invest over \$15 billion to plan, design, and build new advanced treatment facilities in the next five years.



# Project Funding Options

## The Bipartisan Infrastructure Law includes:

- \$9B for communities with drinking water impacted by PFAS,
- \$1B for private well owners
- \$12B for general drinking water improvements

## EPA Grants can be used for testing and treatment:

- Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) Grant Program
- Water Infrastructure Improvements for the Nation (WIIN): Small, Underserved, and Disadvantaged Communities (SUDC) Grant