# Final PFAS National Primary Drinking Water Regulation

> Every American deserves to be able to turn on their water tap or faucet and be able to drink clean water.
>
> **- Joseph Biden**, President of the United States

# Overview

> “PFAS pollution in drinking water has plagued communities across this country for too long. Today, I am proud to finalize this critical piece of that Roadmap, and in doing so, save thousands of lives and help ensure our children grow up healthier.
>
> - EPA Administrator **Michael Regan**

# Key Messages

- PFAS exposure over a long period of time can cause cancer and other illnesses that decrease quality of life or result in death.
- PFAS exposure during critical life stages such as pregnancy or early childhood can also result in adverse health impacts.
- PFAS pollution can have disproportionate impacts on small, disadvantaged, and rural communities already facing environmental contamination.
- As the lead federal agency responsible to protect drinking water, EPA is using the best available science on PFAS to set national standards.

# Key Messages

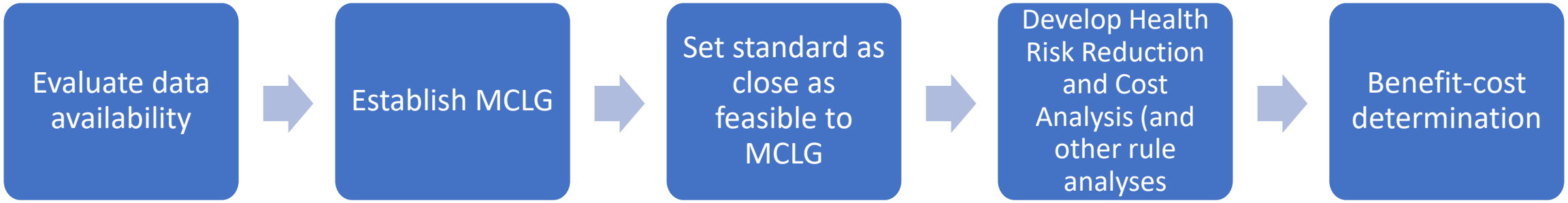
- The Biden-Harris Administration has finalized the first-ever national drinking water standard for per- and polyfluoroalkyl substances (PFAS)
- EPA is issuing this rule after reviewing extensive research and science on how PFAS affects public health, while engaging with the water sector and with state regulators to ensure effective implementation.
- EPA also considered 120,000 comments on the proposed rule from a wide variety of stakeholders.
- The final rule will reduce PFAS exposure for approximately 100 million people, prevent thousands of deaths, and reduce tens of thousands of serious illnesses.

# Regulatory Framework

# Safe Drinking Water Act: Promulgating an NPDWR

- EPA must promulgate a Maximum Contaminant Level Goal (MCLG) and an NPDWR if the Agency determines after considering public comment that a contaminant:
  - May have adverse effects on the health of persons;
  - Is substantially likely to occur and co-occur in public water systems (PWS) with a frequency and at levels of public health concern; and
  - There is a meaningful opportunity for health risk reduction for persons served by PWS.
- An NPDWR establishes enforceable standards, such as Maximum Contaminant Levels (MCLs), which apply to PWS.
- An **MCLG** is the non-enforceable level at which no known or adverse effects on the health of persons are anticipated to occur and which allows for an adequate margin of safety. It does not account for limits of detection and treatment technology effectiveness.
- An enforceable **MCL** is set as close as feasible to the MCLG (taking costs and benefits into consideration).
- A PWS is defined as a system that provides water for human consumption and has at least 15 connections or serves an average of at least 25 people for at least 60 days a year.

# Safe Drinking Water Act: Developing the NPDWR




What are the best available, peer-reviewed science and supporting studies?

What is the level at which no known or anticipated adverse effects on the health of persons occur and which allows for an adequate margin of safety?

What is the MCL or Treatment Technique that may be achieved with the use of best available technologies, taking cost into consideration?

What are the impacts of policy alternatives?

Do the benefits of the rule justify, or not justify, the costs?

# Summary of Final Rule

> “EPA is taking a signature step to protect public health by establishing legally enforceable levels for several PFAS known to occur individually and as a mixture in drinking water.

- **Jennifer McLain,** Director
Office of Ground Water and Drinking Water

# Regulatory Levels: Maximum Contaminant Level Goals

- EPA is taking a signature step to protect public health by establishing levels for several PFAS known to occur individually and as a mixture in drinking water.
- For PFOA and PFOS, EPA is setting a non-enforceable health-based goal of **zero**. This is called a Maximum Contaminant Level Goal (MCLG).
  - This reflects the latest science showing that there is no level of exposure to these two PFAS without risk of health impacts.
- For PFNA, PFHxS, and HFPO-DA (GenX Chemicals), EPA is setting MCLGs of **10 parts per trillion**.

# Regulatory Levels: Maximum Contaminant Levels

- EPA is setting enforceable Maximum Contaminant Levels (MCLs) at **4.0 parts per trillion** for PFOA and PFOS, individually.
  - This standard will reduce exposure from these PFAS in our drinking water to the lowest levels that are feasible for effective implementation.
- For PFNA, PFHxS, and HFPO-DA (GenX Chemicals), EPA is setting MCLs of **10 parts per trillion**.

# Regulatory Levels: Hazard Index

- EPA is also regulating, through a Hazard Index (HI), mixtures of four PFAS—**PFHxS, PFNA, HFPO-DA,** and **PFBS**.
- Decades of research show some chemicals, including some PFAS, can combine in mixtures and have additive health effects, even if the individual chemicals are each present at lower levels.
- PFAS can often be found together and in varying combinations as mixtures.

# Regulatory Levels: Hazard Index

- The Hazard Index is a long-established approach that the EPA regularly uses, for example in the Superfund program, to determine the health concerns associated with exposure to chemical mixtures.
- The Hazard Index is calculated by adding the ratio of the water sample concentration to a Health-Based Water Concentrations.

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

- Details provided in EPA Hazard Index Fact Sheet

# Hazard Index MCL Calculation Examples

| | HFPO-DA | PFBS | PFNA | PFHxS | Hazard Index | |
|---|---|---|---|---|---|---|
| • **Example 1** | $\left(\frac{[0\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[200\ \text{ppt}]}{[2000\ \text{ppt}]}\right)$ + | $\left(\frac{[4\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[4\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ = | 0.9 | No exceedance of final Hazard Index MCL |
| • **Example 2** | $\left(\frac{[5\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[200\ \text{ppt}]}{[2000\ \text{ppt}]}\right)$ + | $\left(\frac{[6\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[15\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ = | 3 | Exceedance of final Hazard Index MCL (and exceedance of PFHxS MCL) |
| • **Example 3** | $\left(\frac{[14\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[0\ \text{ppt}]}{[2000\ \text{ppt}]}\right)$ + | $\left(\frac{[0\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[0\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ = | 1 | No exceedance of final Hazard Index MCL |
| • **Example 4** | $\left(\frac{[9\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[100\ \text{ppt}]}{[2000\ \text{ppt}]}\right)$ + | $\left(\frac{[4\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ + | $\left(\frac{[3\ \text{ppt}]}{[10\ \text{ppt}]}\right)$ = | 2 | Exceedance of final Hazard Index MCL (no individual MCL exceedances) |

*MCL compliance is determined by running annual averages at the sampling point

# MCL Considerations Under SDWA

- EPA established the MCLs as close as feasible to the MCLGs.
- Analytical methods are available that support Practical Quantitation Levels (PQLs) of 4.0 ppt for PFOA and PFOS and between 3.0 ppt and 5.0 ppt for HFPO-DA, PFHxS, PFNA, and PFBS.
- EPA has determined that several treatment technologies are available, there is a reasonable cost basis, and the technologies are currently in use (discussed in detail later in presentation).
  - EPA has determined that it is feasible to treat PFOA and PFOS to 4.0 ppt; HFPO-DA, PFHxS, and PFNA below 10 ppt; and mixtures containing two or more of HFPO-DA, PFHxS, PFNA, and PFBS to yield a Hazard Index result at or below 1.

# Regulatory Levels: Summary

| Chemical | Maximum Contaminant Level Goal (MCLG) | Maximum Contaminant Level (MCL) |
|---|---|---|
| PFOA | 0 | 4.0 ppt |
| PFOS | 0 | 4.0 ppt |
| PFHxS | 10 ppt | 10 ppt |
| HFPO-DA (GenX chemicals) | 10 ppt | 10 ppt |
| PFNA | 10 ppt | 10 ppt |
| Mixture of two or more: PFHxS, PFNA, HFPO-DA, and PFBS | Hazard Index of 1 (unitless) | Hazard Index of 1 (unitless) |

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

# Implementation

> “Our responsibility through the Safe Drinking Water Act is to protect people’s drinking water, and we are taking action to reduce the threat of PFAS contamination.

**- Eric Burneson,** Director
Standards and Risk Management Division
Office of Ground Water and Drinking Water

# Implementation

Under the rule requirements, public water systems must:

- Conduct initial and ongoing compliance monitoring for the regulated PFAS
- Implement solutions to reduce regulated PFAS in their drinking water if levels violate the MCLs
- Inform the public of the levels of regulated PFAS measured in their drinking water and if an MCL is exceeded

# Implementation

EPA's final rule protects public health while allowing for maximum flexibility, cost savings, and burden reduction for public water systems. Flexibilities include:

- Reductions in required initial monitoring for most small water systems
- Using previously collected drinking water data to satisfy the rule's initial monitoring requirements (e.g., UCMR)
- Reduced compliance monitoring based on sampling results
- Additional time to comply with the PFAS MCLs, allowing systems time to plan, design, and find the best solutions for their communities

# Monitoring Requirements

# Implementation: Initial Monitoring Requirements

- Final rule requirements for community water systems and non-transient, non-community water systems for initial monitoring of regulated PFAS concentrations include:
  - Two or four samples collected at each entry point to the distribution system over a period of one year, dependent on system size and type; and/or
  - Use of recent, previously acquired PFAS drinking water data from the fifth Unregulated Contaminant Monitoring Rule (UCMR 5) or state-level drinking water occurrence data or other appropriate collection program.
- Initial monitoring results will determine initial compliance monitoring schedule for each individual entry point within the system.
- Initial monitoring (or demonstration of previously acquired data) must be completed in the three years following rule promulgation.

# Implementation: Compliance Monitoring Requirements

- Requirements for compliance monitoring of regulated PFAS are based on the Standardized Monitoring Framework and include:
  - Reduced triennial monitoring for sampling locations with all sample results below the rule trigger levels based on initial monitoring results;
  - Default quarterly monitoring for sampling locations with any initial monitoring sample results that are at or exceed the rule trigger levels;
    - Rule trigger level: 1/2 of MCLs for regulated PFAS (i.e., 2.0 ppt for PFOA and PFOS, 5 ppt for PFHxS, PFNA, and HFPO-DA, and 0.5 (unitless) for Hazard Index)
  - Following one year of quarterly monitoring, annual compliance monitoring for sampling locations with four consecutive quarterly samples determined by the primacy agency to all be reliably and consistently below the MCLs.
  - If sampling location results remains reliably and consistently below the MCLs (even if at or above trigger levels), can continue monitoring annually and possibly reduce further to triennial monitoring if all sample results are consistently below trigger levels.
  - Sampling frequency is the same for all regulated PFAS.

# Implementation: Monitoring Requirements Summary

**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)

Any sample ≥ trigger levels at EPTDS

All samples < trigger levels at EPTDS

**Sampling frequency is identical for all regulated PFAS**

Default quarterly monitoring (1 sample at EPTDS every quarter)

4 consecutive samples < MCLs

Annual monitoring (1 sample at EPTDS every year)

3 consecutive samples < trigger levels

Reduced triennial monitoring (1 sample at EPTDS every 3 years)

Rule violation if running annual average > MCL

In compliance if running annual average ≤ MCL

Sample ≥ MCL

Sample < MCL

Sample ≥ trigger level

Sample < trigger levels

**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**

# Implementation: MCL Compliance Determination

- The compliance determination is done through a running annual average (RAA) calculation for systems conducting quarterly monitoring.
- Systems are out of compliance with an NPDWR if the RAA of quarterly samples at a sampling point exceeds a respective MCL (PFOA, PFOS, PFHxS, PFNA, HFPO-DA, and/or Hazard Index).
- PQLs are factored into the compliance calculation. If a sample result is less than the PQL for the monitored PFAS, zero will be used to calculate the RAA.
  - For example, if a system quarterly sampling results for PFOA that are 2.0, 2.0, 5.0, and 2.5 ppt for their last four quarters at a sample location, the values used to calculate the RAA for that sample location would be 0, 0, 5.0, and 0 ppt with a resulting PFOA RAA of 1.3 ppt (i.e., (0+0+5.0+0) / 4 = 1.25 ppt).
- A system will not be considered in violation of an MCL until it has completed one year of quarterly sampling, unless a sampling result will cause the RAA to exceed an MCL regardless of any future monitoring (e.g., the analytical result is greater than four times the MCL).

# Implementation: Timeframes

Within **three years** of rule promulgation (2024 – 2027):

- Initial monitoring must be complete

Starting **three years** following rule promulgation (starting 2027- 2029):

- Results of initial monitoring must be included in Consumer Confidence Reports
- Regular monitoring for compliance must begin, and results of compliance monitoring must be included in Consumer Confidence Reports
- Public notification for monitoring and testing violations

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

- Comply with all MCLs
- Public notification for MCL violations

# Implementation: Two-Year Capital Improvements Extension

- After carefully considering public comment, under SDWA 1412(b)(10) EPA is authorizing a nationwide two-year capital improvement extension for all systems nationwide to comply with the MCLs.
- This extension is related to: Labor and workforce limitations, supply chain management issues, time to acquire land necessary for constructing technologies, procuring, designing, permitting and pilot testing advanced treatment technologies, and obtaining funding for necessary actions.
- Such an extension will save significant state resources and ensure that EPA and states can focus on the important necessary initial rule compliance steps (e.g., supporting monitoring, developing technical guidance and providing technical assistance, supporting small and disadvantaged communities, supporting funding acquisition).
- All systems must comply with the MCLs by five years after date of rule promulgation (2029).

# Implementation: Reducing PFAS in Drinking Water

- EPA's final rule does not dictate how water systems remove these contaminants. The rule is flexible, allowing systems to determine the best solutions for their community.
- Drinking water utilities can choose from multiple proven treatment options.
- Water treatment technologies exist to remove PFAS chemicals from drinking water including granular activated carbon, reverse osmosis, and ion exchange systems.
- In some cases, systems can close contaminated wells or obtain new uncontaminated source of drinking water.

# Implementation: PFAS Drinking Water Treatment

- The drinking water treatment technologies for PFAS also remove other contaminants (e.g., GAC removes disinfection byproduct (DBPs) precursors, synthetic organic contaminants, and some heavy metals, among others).
- Once third-party standards are updated to reflect the final rule, EPA anticipates some point of use devices can be used to meet the MCLs for some PWSs.

# Implementation: Treatment Residuals and Disposal

- Treatment technologies that remove PFAS from drinking water produce PFAS containing materials that eventually must be disposed of when they are exhausted or are not reactivated or regenerated.
- The current practice for many PFAS drinking water treatment systems is to dispose of treatment residuals as non-hazardous waste. Typically, GAC is reactivated, anion exchange media is landfilled or incinerated, and reverse osmosis/nanofiltration brine is  treated prior discharge to surface water or sanitary sewers in accordance with pretreatment or permit requirements.
- Concurrent with this drinking water rule, EPA released an updated version of the *PFAS Destruction and Disposal Guidance* to include new information about disposal of residuals.
- EPA recently announced a final rule to designated PFOA and PFOS as hazardous substances under CERCLA. This designation of PFOA and PFOS as CERCLA hazardous substances does not require waste to be treated in any particular fashion, nor disposed of at any specific type of landfill. The designation also does not restrict, change, or recommend any specific activity or type of waste at landfills.
- EPA has prioritized research on PFAS disposal options in different environmental media and best management practices.

# 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 level of PFAS that is measured in the drinking water.
  - The potential health effects of any PFAS detected in violation of an EPA MCL.

# Comparison Between Proposed and Final Rule Requirements

| Topic | Proposed Rule | Final Rule |
|---|---|---|
| MCLG | • PFOA and PFOS MCLGs at zero<br>• Mixture MCLG for 4 PFAS as a Hazard Index equal to 1.0 (PFHxS, PFNA, HFPO-DA, PFBS) | • PFOA and PFOS MCLGs at zero<br>• Mixture MCLG for 4 PFAS as a Hazard Index equal to 1 (unitless) (PFHxS, PFNA, HFPO-DA, PFBS) |
| | | • *Individual MCLGs for 3 PFAS (PFHxS, PFNA, HFPO-DA) at 10 ppt* |
| MCL | • PFOA and PFOS MCLs at 4.0 ppt<br>• Mixture MCL for 4 PFAS as a Hazard Index equal to 1.0 (PFHxS, PFNA, HFPO-DA, PFBS) | • PFOA and PFOS MCLs at 4.0 ppt<br>• Mixture MCL for 4 PFAS as a Hazard Index equal to 1 (unitless) *(one significant figure)* (PFHxS, PFNA, HFPO-DA, PFBS) |
| | | • *Individual MCLs for 3 PFAS (PFHxS, PFNA, HFPO-DA) at 10 ppt (one significant figure)* |
| Treatment | • Feasible technologies that can be used to comply with the MCLs (GAC, AIX, NF/RO) | • Feasible technologies that can be used to comply with the MCLs (GAC, AIX, NF/RO) |
| Public Notification | • Tier 2 Public Notification requirements for MCL violations | • Tier 2 Public Notification requirements for MCL violations |
| Monitoring | • Only quarterly or triennial compliance monitoring frequencies at sampling locations<br>• Trigger levels for reduced triennial compliance monitoring set at 1/3 proposed MCLs | • *Along with quarterly and triennial compliance monitoring frequencies, addition of annual compliance monitoring frequency at eligible sampling locations*<br>• *Trigger levels for reduced triennial compliance monitoring set at 1/2 final MCLs* |
| Compliance Deadline | • Systems must comply with the NPDWR three years after rule promulgation | • *Under SDWA 1412(b)(10), nationwide two-year capital improvement extension for MCL compliance and public notification for MCL violations; systems must comply with all other requirements of the NPDWR three years after rule promulgation* |

**Italicized text indicates changes in final rule*

# EPA's PFAS NPDWR Environmental Justice Analysis

- As a part of the PFAS NPDWR development process, EPA conducted an Environmental Justice (EJ) analysis to support the final rule.
- EPA's EJ analysis leveraged information on PFAS drinking water occurrence, water system service area boundaries, and sociodemographic characteristics.
- To characterize baseline EJ impacts of PFAS in drinking water, EPA evaluated the distribution of anticipated PFAS exposure above several baseline thresholds across demographic groups based on race, ethnicity, and income.
  - EPA also compared population-weighted mean concentrations of PFAS drinking water levels across demographic groups.
- To evaluate the potential EJ impacts of the final PFAS NPDWR, EPA assessed the distribution of quantified health benefits and incremental household costs anticipated to accrue across different demographic groups.

# EPA's PFAS NPDWR Environmental Justice Analysis

- EPA's EJ analysis suggests that communities with EJ concerns are disproportionately exposed to PFAS in drinking water under current baseline conditions, prior to promulgation of the final rule.
- EPA anticipates that the final rule will provide increased protection to communities with EJ concerns. The final rule is likely to reduce existing disproportionate and adverse affects on communities with EJ concerns, including people of color, low-income populations, and/or Indigenous peoples.

# Costs and Benefits

> “On a personal level, every life saved and every life that’s improved as a result of this Rule is priceless.

- **Bruno Pigott**, EPA Acting Assistant Administrator for Water

# Costs and Benefits

- By reducing exposure to PFAS, this final rule will:
  - Save **thousands of lives.**
  - Prevent **tens of thousands of serious illnesses**, including cancers, liver disease, heart attacks, and strokes.
  - Reduce immune system impacts and developmental impacts to pregnant people and babies.
- The benefits are quantified by considering the costs of illness such as lost wages, medical bills, and the value of every life lost.
- The quantifiable health benefits of this rule are estimated to be **$1.5 billion** annually.
- There are also many other health impacts that will be avoided which EPA does not have data to quantify.

# Costs and Benefits

- EPA estimates that between about 6% and 10% of the 66,000 public drinking water systems subject to this rule may have to take action to reduce PFAS to meet these new standards.
- Compliance with this rule is estimated to cost approximately $1.5 billion annually.
- These costs include water system monitoring, communicating with customers, and if necessary, obtaining new or additional sources of water or installing and maintaining treatment technologies to reduce levels of the six PFAS in drinking water.
- EPA considered all available information and analyses for costs and benefits, quantifiable and non-quantifiable, of this rule and determined that the **benefits justify the costs**.

# Quantified Rule Costs Breakdown

- EPA estimates that costs for public water system and primacy agencies to implement regulation are approximately $1.548 billion per year.
- 66,000 water systems will be required to monitor.
- EPA estimates 4,100 – 6,700 water system may have to take action to address PFAS.

| ***The Final PFAS NPDWR Will Cost*** | ***Annual Quantified Costs Once Fully Implemented*** |
|---|---|
| Water System Monitoring | $ 36 million |
| Water System Treatment and Disposal | $ 1,506 million |
| Water System Administrative | $ 1 million |
| Primacy Agency Implementation and Administration | $ 5 million |
| This table shows the quantified costs of the final rule. The EPA expects there are additional non-quantified costs that are not included that may result in other increased and decreased costs once the rule is fully implemented. | |

# Quantified Rule Benefits Breakdown

- EPA estimates benefits associated with decreases in adverse health effects resulting from this regulation to be approximately $1.549 billion per year.
- 83 – 105 million people are estimated to have improved drinking water as result of lower levels of PFAS.

| *The Final PFAS NPDWR Will Prevent* | *Annual Quantified Benefits Once Fully Implemented* | *Number of Avoided Illnesses and Deaths Once Fully Implemented* |
|---|---|---|
| Developmental Effects | $209 million | 1,300 deaths |
| Cardiovascular Effects | $607 million | 3,700 deaths and 15,600 illnesses |
| Kidney Cancer | $354 million | 2,000 deaths and 7,000 illnesses |
| Bladder Cancer (resulting from co-removal of disinfection byproducts with PFAS) | $380 million | 2,600 deaths and 7,300 illnesses |
| This table shows the quantified health benefits of the final rule. The EPA expects there are significant additional non-quantified health benefits that are not included but would result in a much greater number of avoided illnesses or deaths once the rule is fully implemented. | | |

# Unquantified Rule Costs and Benefits

- There are some costs and benefits that EPA is not able to quantify but are considered as part of the overall benefit-cost determination required under the Safe Drinking Water Act.
- EPA expects there are substantial additional non-quantified benefits that may reasonably exceed the benefits the agency was able to quantify. These human health benefits include reduced impacts to immune systems and ability to fight disease, decreases in thyroid and liver disease, and reductions in negative reproductive effects such as decreased fertility. EPA also expects more benefits associated with reductions in co-occurring contaminants.
- EPA expects the final rule will result in additional non-quantified costs such as those associated with treatment required at systems with Hazard Index, HFPO-DA, and /or PFNA MCL exceedances that do not also have PFOA, PFOS, and/or PFHxS MCL exceedances.

# Cost and Benefits: Annualization of Values

- EPA's cost and benefit quantified values are calculated on an annual basis.
- This is useful because it allows EPA to consider costs and benefits that are realized over different timeframes.
  - A higher relative percentage of costs may be incurred in the first years of rule implementation as water systems invest capital to install PFAS removal treatment.
  - Benefits of avoided deaths and illnesses are anticipated to accrue after PFAS exposures to the population are reduced. For long-term health effects, such as reductions in cancer, benefits increase over time.

# Funding & Technical Assistance

> We know that PFAS pollution can have a disproportionate impact on small, disadvantaged, and rural communities, and there is federal funding available specifically for these water systems.

**- Yu-Ting Guilaran,** Deputy Office Director,
Office of Ground Water and Drinking Water

# PFAS Funding and Technical Assistance

- PFAS contamination can have a disproportionate impact on small, disadvantaged, and rural communities, and there is federal funding available specifically for these water systems.
- The Bipartisan Infrastructure Law (BIL) dedicates $9 billion specifically to invest in communities with drinking water impacted by PFAS and other emerging contaminants. $1B of these funds can be used to help private well owners.
- An additional $12 billion in BIL funding is available for general drinking water improvements.

For more: https://www.epa.gov/water-infrastructure

# PFAS Funding and Technical Assistance

- EPA collaborates with state, Tribes, territories, community partners, and other key stakeholders to implement Water Technical Assistance (WaterTA) efforts and the end result is more communities with applications for federal funding, quality water infrastructure, and reliable water services.
- EPA's water technical assistance program is ensuring that disadvantaged communities can access federal funding.
- EPA's free WaterTA supports communities to identify water challenges, develop plans, build technical, managerial and financial capacity, and develop application materials to access water infrastructure funding.

For more: https://www.epa.gov/water-infrastructure/water-technical-assistance-programs

# PFAS Strategic Roadmap

> The Biden-Harris Administration is committed to utilizing science and holding polluters accountable to address and prevent PFAS contamination.

- **White House Fact Sheet:** Biden-Harris Administration Takes New Action to Protect Communities from PFAS Pollution.

# EPA's Commitment to Address PFAS Contamination

- The Agency released its PFAS Strategic Roadmap in October 2021 and established the agency's three overarching goals:
  - Restricting PFAS from entering the environment in the first place.
  - Remediating—or cleaning up—PFAS contamination where it is found.
  - Researching PFAS to strategically address public health and environmental risks.
- Since 2021, the agency has taken many actions to strengthen public health protections and address PFAS in the environment.
- The agency's final PFAS drinking water regulation is a cornerstone of this holistic approach.

# Resources

> “EPA is working to help protect communities from PFAS contamination.

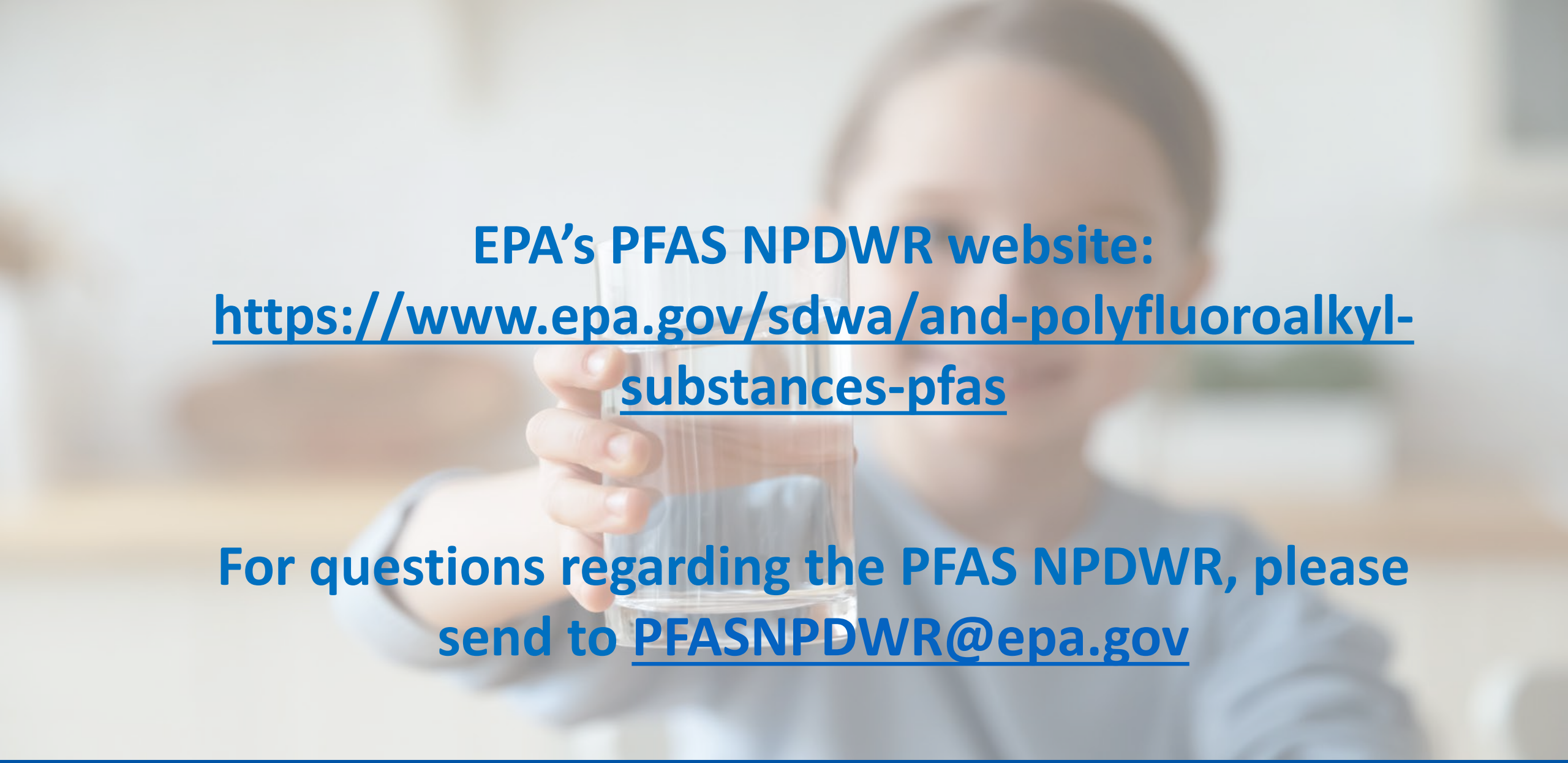
- **Ryan Albert, Branch Chief**
Risk Reduction Branch, Office of Ground Water and Drinking Water

# Resources

## Materials

- Webinar Presentation and Recording
- General Q&As
- PFAS NDPWR Fact Sheet
- Fact Sheet: Water Filters
- Fact Sheet: What are the Benefits and Costs of the Rule?
- Fact Sheet: Understanding the Hazard Index
- Fact Sheet: Small Drinking Water Systems
- Fact Sheet: PFAS Drinking Water Treatment Technologies
- Fact Sheet PFAS NPDWR Monitoring Requirements
- Detailed Q&As for Primacy Agencies and Water Systems

**Materials available** on https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas



**EPA's PFAS NPDWR website: https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas**

**For questions regarding the PFAS NPDWR, please send to PFASNPDWR@epa.gov**