PFAS FREE DRINKING WATER

A guide to talking with local officials about PFAS pollution in municipal drinking water

What are PFAS?

PFAS (pronounced "PEA-FASS") are toxic chemicals that have been found in the drinking water of a growing number of Wisconsin communities. They have been used in a wide variety of consumer products, including firefighting foam, nonstick cookware, water-repellant clothing, stain resistant carpets, cleaning products, cosmetics and more.

Are PFAS a threat to human health?

Yes. Even at extremely low levels, exposure to certain PFAS has been linked to an increased risk of cancer. The U.S. Environmental Protection Agency (EPA) recently classified PFOS and PFOA as contaminants likely to be carcinogenic. PFAS exposure has also been linked to other serious health problems, such as reproductive and developmental problems, thyroid hormone disruption, high cholesterol, ulcerative colitis, reproductive and developmental problems, negative impacts to the immune system, and more. Small children and pregnant women are particularly vulnerable to PFAS exposure.

What level of PFAS is considered unsafe?

The best scientific information available suggests that exposure to PFOS and PFOA is harmful, even at very low levels. EPA's recent scientific findings indicate that no level of either of these two substances is safe. EPA has also established health-based safety indicators for PFBS, GenX, PFHxS, and PFNA. See the chart on page 4 of this guide for more information.

YOUR RIGHT TO SAFE DRINKING WATER

What is the State of Wisconsin doing to regulate PFAS in municipal drinking water?

The Wisconsin Department of Natural Resources has established a drinking water enforcement standard for PFOA and PFOS. The new drinking water enforcement standard, which took effect on August 1, 2022, is **70 parts per trillion (ppt) for PFOA and PFOS**.

What is the federal government doing to regulate PFAS in municipal drinking water?

In April 2024, the EPA established the first-ever nationwide, legally enforceable drinking water standards for six PFAS chemicals. (See chart below.) States will have three years to comply with the new limits. In addition, the federal government has made approximately $1 billion available through the Bipartisan Infrastructure Law to help states implement PFAS testing and treatment and to help owners of private wells address PFAS contamination.

Compound	Final MCL (enforceable levels)
PFOA	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	4.0 ppt
PFHxS	10 ppt
PFNA	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index

The Federal Unregulated Contaminant Monitoring Rule

The EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data every five years for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act.

UCMR3

Between 2013 and 2015, the EPA required some utilities in Wisconsin to test for PFAS under the Third Unregulated Contaminant Monitoring Rule (UCMR3). Ask local officials if your municipality's water was tested under UCMR3. If so, tell them you would like to see the results. You can also search for test results **here.**

UCMR5

Under UCMR 5, water utilities serving more than 10,000 people are being required to test for 29 PFAS between January 2023 and December 2025.

DRINKING WATER ADVISORIES

WHEN SHOULD A DRINKING WATER ADVISORY BE ISSSUED?

You deserve full transparency about what's in your drinking water. Water systems and local officials should take immediate steps to inform the public when PFAS are detected at the levels indicated below. The tables on page 4 and the hazard index on page 5 provide additional information to help municipal officials and the public assess drinking water safety.

Substance	Detection Level
PFOS or PFOA	equal to or greater than the EPA health indicator
A non-PFOS/PFOA substance for which an EPA health indicator exists	greater than the EPA health indicator
A non-PFOS/PFOA substance for which an EPA health indicator does not yet exist	greater than state recommended standard
Multiple PFAS substances	Hazard Index calculation that is greater than 1

HOW SHOULD A DRINKING WATER ADVISORY BE ISSUED?

A drinking water advisory should be issued in a form and manner that should reasonably reach all people served by the water utility. The drinking water advisory should be mailed to those who receive a bill. The following steps should be taken to reach people who do not pay water bills, including renters, apartment dwellers, university students, and nursing home patients:

- publish the advisory in a local newspaper
- post in public places served by the water system and on the internet
- provide copies for distribution by customers that provide drinking water to others
- provide copies to engaged community organizations

WHAT INFORMATION SHOULD A DRINKING WATER ADVISORY INCLUDE?

- all testing results to date and related hazard index calculations
- information on the health risks of PFAS exposure, including risks to children and developing fetuses
- information about how individuals can reduce their exposure
- information about steps officials are taking to mitigate the health risks of the exceedance
- information about what officials are doing to correct the problem in the short-term and the long-term

See pages 6 and 7 of this guide for DNR's Drinking Water Advisory template.

HEALTH GUIDELINES FOR PFAS IN DRINKING WATER

TABLE 1 PFAS substances for which an EPA health indicator exists

Contaminant	EPA Health Indicator
Perfluorooctane sulfonate (PFOS)	4 ppt*
Perfluorooctanoic acid (PFOA)	4 ppt*
Perfluorohexanesulfonic acid (PFHxS)	9 ppt
Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	10 ppt
Perfluorononanoic acid (PFNA)	10 ppt
Perfluorobutanesulfonic acid (PFBS)	2,000 ppt

*Because PFOS and PFOA are likely to be carcinogenic, the EPA has determined that the maximum level of these substances in drinking water at which no known or anticipated adverse effect on the health of persons would occur—allowing an adequate margin of safety—is 0. However, the lowest concentration at which PFOS and PFOA can be reliably measured in drinking water is 4 ppt.

TABLE 2 PFAS substances for which an EPA health indicator does not yet exist

Contaminant	WI Department of Health Services Safety Standard	
	individual	combined
Perfluorooctane sulfonamide (FOSA)	20 ppt 0.02 ppb	20 ppt 0.02 ppb
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE)	20 ppt 0.02 ppb	
N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	20 ppt 0.02 ppb	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	20 ppt 0.02 ppb	
Perfluorobutanoic acid (PFBA)	10,000 ppt 10 ppb	
Perfluorotetradecanoic acid (PFTeA)	10,000 ppt 10 ppb	
Perfluorohexanoic acid (PFHxA)	150,000 ppt 150 ppb	
Perfluorodecanoic acid (PFDA)	300 ppt 0.3 ppb	
Perfluoroundecanoic acid (PFUnA)	3,000 ppt 3 ppb	
Perfluorododecanoic acid (PFDoA)	500 ppt 0.5 ppb	
Perfluorooctadecanoic acid (PFODA)	400,000 ppt 400 ppb	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	3,000 ppt 3 ppb	

1 ppt = 1 nanogram/liter (ng/l)
1 ppb = 1 microgram/liter (µg/l)

THE HAZARD INDEX

The hazard index is a tool designed to evaluate the health risk from exposure to multiple chemicals of concern that have similar adverse health effects.

The hazard index approach is used or recommended across the country by expert agencies and organizations, including the Agency for Toxic Substances and Disease Registry, the U.S. Environmental Protection Agency, and the Wisconsin Department of Health Services. The hazard index is particularly important when test results show levels of concentration for multiple PFAS that are below the individual or combined safety guidelines.

The hazard index is calculated by dividing the detected levels of each PFAS compound by an available health indicator.

If the Hazard Index is greater than 1, your water utility should take action.

EXAMPLE #1

PFAS substances with EPA health indicators

detected level → 7 ppt (PFHxS) / EPA health indicator → 9 ppt + 4.5 ppt (PFNA) / 10 ppt = 1.15

EXAMPLE #2

PFAS substances without EPA health indicators

detected level → 18.6 ppt (FOSA + NEtFOSE) / DHS safety standard → 20 ppt + 48 ppt (PFDA) / 300 ppt = 1.09

EXAMPLE #3

A combination of PFAS substances with EPA health indicators and without EPA health indicators

detected level → 7.2 ppt (GenX) / 10 ppt + 20 ppt (PFBS) / 2,000 ppt + 7 ppt (FOSA + NEtFOSAA) / 20 ppt = 1.08

EPA health indicators

DHS safety standard

Drinking Water Advisory Template

On [sample date], [system name] voluntarily collected water samples of the [system name] drinking water and tested them for perfluoroalkyl and polyfluoroalkyl substances (PFAS). PFAS are a group of man-made chemicals that have been used in many products since the 1950s. PFAS compounds in [source] were present at levels above health advisory levels set by [indicate either the U.S. Environmental Protection Agency (EPA) or the WI Department of Health Services (DHS)]. Sample results are available [list results or link to website]

Potential Health Risks of PFAS and Consumption Advisory

Long-term exposure to even low levels of PFAS may increase cholesterol levels, reduce antibody levels, and reduce a woman's fertility. The U.S. Environmental Protection Agency has found that certain types of PFAS are likely carcinogenic and/or have carcinogenic potential. The Wisconsin Department of Health Services (DHS) recommends people limit their intake of PFAS compounds. People can reduce exposure to PFAS by limiting their consumption of [system name] drinking water.

People can consider alternative water sources such as:

- Purified or filtered bottled water
- Other sources of water that have been tested for PFAS and do not have levels above recommended standards.
- Filtered water from a pitcher, sink, or whole-house filter system with a certified filter technology. A granular activated carbon (GAC) filter that meets ANSI/NSF Standard 53 or a reverse osmosis (RO) filter with an included GAC component can filter out PFAS. These numbers will be printed on the filter and/or packaging. More information about filtering out PFAS from drinking water is available here: Reducing PFAS in Your Drinking Water. **Boiling water does not remove PFAS.**

What is being done to correct the problem?

[Insert Immediate, interim and long-term actions.]

What are per- and polyfluoroalkyl substances (PFAS)?

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals that are resistant to heat, water, and oil. These chemicals have been used for decades in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, personal care products, fire-fighting foams, and metal plating. PFAS have been found at low levels both in the environment and in blood samples of the general U.S. population.

How are people exposed to PFAS and why are they harmful?

The main way that people are exposed PFAS is by drinking water or eating food containing them. PFAS chemicals do not easily absorb into the skin, so contact with water that contains PFAS poses a very low health risk.

A large number of studies in people have examined possible relationships between levels of PFAS in blood and harmful health effects in people. However, most of these studies analyzed only a small number of chemicals, and not all PFAS have the same health effects. This research suggests that high

levels of certain PFAS may increase cholesterol levels, decrease how well the body responds to vaccines, and reduce fertility in women. Some other studies have indicated that high levels of certainPFAS may increase the risk of thyroid disease, increase the risk of serious conditions like high blood pressure or pre-eclampsia in pregnant women, and lower infant birth weights.

How does PFAS get into drinking water?

PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers as well as from manufacturing and disposal. PFAS move easily through the ground, getting into groundwater that is used for some water supplies or for private drinking water wells. When spilled into lakes or rivers used as sources of drinking water, they can get into drinking water supplies. PFAS in the air can also end up in rivers and lakes used for drinking water.

If you have questions regarding **[system name]** drinking water or testing, please contact: **[system contact]**

GENERAL PFAS QUESTIONS

Visit the Department of Natural Resources website: https://dnr.wi.gov/topic/Contaminants/PFAS.html

HEALTH RELATED QUESTIONS

Contact the Department of Health Services Bureau of Environmental and Occupational Health at dhsenvhealth@wi.gov or 608-266-1120. More information about PFAS and health risk can be found on the Wisconsin DHS website at https://www.dhs.wisconsin.gov/chemical/pfas.htm.

OPERATION OF THE CITY WATER UTILITY [Provide Contact Information]

Name of Responsible Person
Telephone Number
Street Address
City
State
Zip

I certify that the information and statements contained in this public notice are true and correct and have been provided to consumers in accordance with the delivery, content, format, and deadline requirements in Subchapter VII of ch. NR 809, Wis. Adm. Code.

Signature
Date

*** Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail*

**** If 5% or more of the population served by your water system consists of non-English speaking consumers, the public notice must contain information in the appropriate language(s).*

YOUR VOICE MATTERS

Public engagement is critical for ensuring that your community's drinking water is free from toxic PFAS chemicals.

TIPS FOR MAKING YOUR VOICE HEARD

Identify the right decision makers.

Start by contacting your elected officials. You may find that they redirect you to staff at the water utility. This is not uncommon, especially when elected officials feel like they don't know enough about the issue. Talking with water utility staff can be helpful, but don't give up on talking with your elected officials. They have the power to order your water utility to test.

Educate, educate, educate!

Provide decision makers with resources to help them better understand the issue.

Don't be intimidated.

Public officials want to hear from you. They work on many different issues and may not know as much about a specific issue as you do.

Stay on topic.

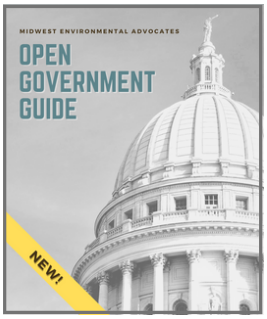
Your message will be clearer if you avoid political statements and stay focused on the issue at hand.

State your position clearly and concisely.

Make sure decision makers understand what you want them to do.

Be kind and courteous.

Be calm and respectful even if you disagree with someone else's point of view.



If you believe local officials are withholding information, you may need to submit a public records request to obtain the information you're asking for. MEA's **Open Government Guide** can help. Learn more here.

ADDITIONAL RESOURCES

STATE OF WISCONSIN

Wisconsin PFAS Action Plan
WI Department of Natural Resources PFAS Page
WI Department of Health Services PFAS Page

US ENVIRONMENTAL PROTECTION AGENCY

EPA PFAS Action Plan
EPA - PFAS Page
EPA PFOA & PFOS Health Advisory

COMMUNITY ORGANIZATIONS

#PFASFree Wisconsin
Citizens for Safe Water Around Badger
Midwest Environmental Advocates
S.O.H2O

Midwest Environmental Advocates partnered with other environmental and public health groups to launch **#PFASfree Wisconsin** in 2021. The goal of the campaign is to raise awareness of the danger that PFAS chemicals pose to public health and to build a broad base of support for testing all public drinking water systems in Wisconsin for the presence of PFAS. Learn more about the campaign at **pfasfree.org**