

## PFAS Contamination in Wisconsin's Public Drinking Water Supplies: Regulatory Context April 2023

### *Highlights*

- Wisconsin set the PFAS maximum contaminant level in drinking water at 70 ppt
- Recent studies indicate that even very low levels of exposure to PFAS compounds can lead to adverse health effects
- In March 2023, EPA published proposed regulations that set the maximum contaminant level in drinking water for the most common PFAS compounds at 4 ppt
- When the EPA's rule is finalized, all states will need to enforce levels at least as stringent

### *Introduction*

Most people in the United States have measurable levels of perfluoroalkyl and polyfluoroalkyl substances ("PFAS") exposure. The U.S. Environmental Protection Agency ("EPA") and the state of Wisconsin have identified PFAS as a threat to public health, safety, and welfare. Two of the most studied PFAS substances are perfluorooctanoic acid ("PFOA") and perfluorooctanoic sulfonic acid ("PFOS").

Adverse health effects include increased rates of prostate, kidney, and testicular cancers; decreased fertility; developmental delays in children; immune system dysfunction; and liver damage. Recent scientific studies indicate that even minute levels of PFAS compounds can lead to these health effects. Wisconsin regulations currently set the drinking water maximum contaminant level for PFAS at 70 parts per trillion ("ppt"). However, after the EPA's proposed maximum contaminant level of 4 ppt goes into effect, the Wisconsin Department of Natural Resources ("WDNR") will be required to adopt the EPA's lower PFAS limit for drinking water. Water utilities in Wisconsin need to prepare now to meet the lower standard.

### *Legal Context*

The Safe Drinking Water Act authorizes EPA to issue health advisories for contaminants that are not yet subject to a National Primary Drinking Water Regulation. Health advisories assist state and local governments to protect the public from chemicals in drinking water by providing information about health effects and treatment technologies. Health advisories are not legally enforceable and are subject to change as new information becomes available.

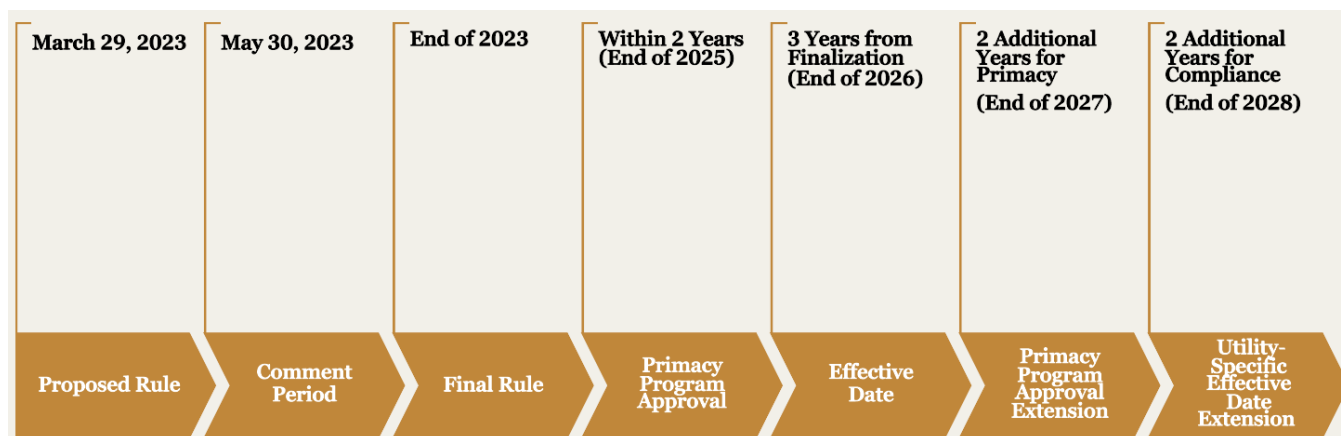
In 2016, EPA published health advisories for PFOA and PFOS. EPA set the health advisory levels at 70 ppt for the two PFAS, individually or combined. Based on more recent studies that suggest even near zero levels of exposure cause adverse health effects, in June 2022, EPA replaced the 2016 level with new interim health advisory levels: 0.004 ppt for PFOA and 0.02 ppt for PFOS.

The Safe Drinking Water Act authorizes EPA to establish enforceable National Primary Drinking Water Regulations for contaminants in drinking water from public water systems. EPA may create health-based, aspirational Maximum Contaminant Level Goals and enforceable Maximum Contaminant Levels that public water systems must meet. Following recent peer-reviewed scientific research, in March 2023, EPA proposed goals and an enforceable maximum contaminant level for six PFAS substances. For PFOA and PFOS, the maximum contaminant levels are proposed at 4 ppt, but the health-based goal is zero. The proposed rule is expected to be finalized and promulgated at the end of 2023. EPA is [accepting comments](https://www.regulations.gov/document/EPA-HQ-OW-2022-0114-0027) on the proposed rule until May 30, 2023. <https://www.regulations.gov/document/EPA-HQ-OW-2022-0114-0027>

EPA’s action will reverberate throughout the states, none of which have standards as low as EPA’s proposed rule. In 2020 three states set maximum contaminant levels: New Hampshire at 12 ppt for PFOA and 15 ppt for PFOS, Vermont at 20 ppt for five types of PFAS individually or combined, and New Jersey at 14 ppt for PFOA and 13 ppt for PFOS and perfluorononanoic acid. In January 2023, Pennsylvania adopted maximum contaminant levels at 14 ppt for PFOA and 18 ppt for PFOS.

### ***EPA Rulemaking Timeline: Primacy & Enforcement***

EPA delegates primary enforcement responsibility, called “primacy,” for public water systems to states if they meet certain requirements. These requirements include adopting drinking water regulations that are no less stringent than the National Primary Drinking Water Regulations promulgated by EPA and implementing adequate procedures for enforcement. Every state except Wyoming has been granted primacy. The graphic below shows the timeline for states to adopt new primacy programs to remain in compliance with EPA’s proposed PFAS regulation.



### ***Wisconsin’s Legal Context***

In August 2019, Wisconsin Governor Tony Evers issued an executive order that established a PFAS Coordinating Council to develop a state-wide action plan to develop best practices and protocols for identifying and managing PFAS. The action plan was developed in collaboration with state agencies and serves as a roadmap for Wisconsin to address PFAS. The action plan recommends increased state-wide PFAS sampling, public education and engagement on the adverse effects of PFAS, increased research and knowledge of PFAS, and phasing out the use of PFAS.

In 2019, based on scientific research documenting the harmful effects of PFOS and PFOA, the Wisconsin Department of Health Services recommended a maximum contaminant level of 20 ppt for these PFAS. However, in 2022, the Wisconsin Natural Resources Board, the governing body of the WDNR, rejected these recommendations and instead approved a standard of 70 ppt, which was consistent with EPA’s 2016 health advisory levels. The WDNR revised its drinking water regulations accordingly to include standards for PFAS and established maximum contaminant levels of 70 ppt for PFOA and PFOS.

In November 2022, the Department of Health Services again recommended a combined maximum contaminant level for eighteen PFAS at 20 ppt, which for PFOA and PFOS is higher than EPA’s 2023 proposed rule. If EPA’s rule is finalized at 4 ppt, it will establish a minimum uniform federal standard. States may opt to regulate more stringently, but not less. The timeline for compliance could take 2 to 6 years.

### *Policy Recommendations*

- The WDNR and Natural Resources Board must respond to EPA's regulation and should adopt EPA's PFAS maximum contaminant levels within 2 years of a final rule.
- Wisconsin's agencies should continue to follow the PFAS action plan and regularly update it as they learn more about the effectiveness of their policies.
- Utilities that have detected PFAS above 4 ppt should take action to protect the public from exposure and identify available funding sources to minimize the cost of treatment for ratepayers.
- The state should identify funds and allocate them to water utilities to come into compliance with new regulations.

### *Implications*

- The Center for Water Policy recommends the above actions to ensure consistency with the most recent scientific studies and the Safe Drinking Water Act.
- The Legislature should anticipate the need for funds for public water utilities to meet the federally-required standards within the next 2 to 6 years.

## Sources

---

- EPA, Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS), May 2016, [https://www.epa.gov/sites/default/files/2016-05/documents/pfos\\_health\\_advisory\\_final-plain.pdf](https://www.epa.gov/sites/default/files/2016-05/documents/pfos_health_advisory_final-plain.pdf).
- EPA, Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA), May 2016, [https://www.epa.gov/sites/default/files/2016-05/documents/pfoa\\_health\\_advisory\\_final-plain.pdf](https://www.epa.gov/sites/default/files/2016-05/documents/pfoa_health_advisory_final-plain.pdf).
- EPA, PFAS National Primary Drinking Water Regulation Rulemaking, Federal Register, Vol. 88, No. 60, March. 29, 2023, <https://www.govinfo.gov/content/pkg/FR-2023-03-29/pdf/2023-05471.pdf>.
- New Hampshire Code of Administrative Rules, Env-Dw 705.06, 2019, <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/env-dw-702-706-adptpstd.pdf>.
- Ground Water Quality Standards, N.J.A.C. 7:9C Appendix Table 1, 2020, [https://www.nj.gov/dep/rules/rules/njac7\\_9c.pdf](https://www.nj.gov/dep/rules/rules/njac7_9c.pdf).
- Danielle Kaeding, *Wisconsin Natural Resource Board votes to weaken standard for PFAS in drinking water*, NPR, Feb. 23, 2022, <https://www.wpr.org/wisconsin-natural-resource-board-votes-weaken-standard-pfas-drinking-water>.
- Office of the Governor, State of Wisconsin, Executive Order #40, 2019, <https://evers.wi.gov/Documents/EO/EO%2040%20-%20PFAS.pdf>.
- 25 Pa. Code § 109.202(a)(4)(ii), 2023, <https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/025/chapter109/s109.202.html>.
- Jorge Roman-Romero and Peter Burress, Presentation on *National PFAS Drinking Water Regulation: What does EPA's Proposed Rule Mean for Wisconsin?*, Midwest Environmental Advocates and Wisconsin Conservation Voters, 2023.
- Safe Drinking Water Act, 42 U.S.C. § 300g-1(b)(1)(F), 1996, <https://www.govinfo.gov/content/pkg/USCODE-2021-title42/pdf/USCODE-2021-title42-chap6A-subchapXII-partB-sec300g-1.pdf>.
- Safe Drinking Water Act, 42 U.S.C. § 300g-2(a)(1) and (2), 2018, <https://www.govinfo.gov/content/pkg/USCODE-2021-title42/pdf/USCODE-2021-title42-chap6A-subchapXII-partB-sec300g-2.pdf>.
- Water Supply Rule, CVR 12-030-003, Subchapter 21-6, Table 6-1, 2020, <https://advance.lexis.com/documentpage/?pdmfid=1000516&crd=510a6c28-f7f5-4f86-af88-42e013e8aaf5&nodeid=AAHAAEAACAAB&nodepath=%2FROOT%2FAAH%2FAAHAAE%2FAAHAAEAAC%2FAHAAEAACAAB&level=4&haschildren=&populated=false&title=12+030+003.+CHAPTER+21+-+WATER+SUPPLY+RULE>.
- Wis. Admin. Code, NR 809.20(1) (2022), [https://docs.legis.wisconsin.gov/code/admin\\_code/nr/800/809.pdf#page=22](https://docs.legis.wisconsin.gov/code/admin_code/nr/800/809.pdf#page=22).
- Wisconsin Department of Health Services, Groundwater Standard Recommendations (Cycle 10), 2022, <https://www.dhs.wisconsin.gov/water/gws-cycle10.htm>.
- Wisconsin PFAS Action Council, Wisconsin PFAS Action Plan, December 2020, [https://widnr.widen.net/content/d4vyg9qqwj/pdf/EM\\_PFASActionPlan.pdf](https://widnr.widen.net/content/d4vyg9qqwj/pdf/EM_PFASActionPlan.pdf).

# Center for Water Policy

UNIVERSITY OF WISCONSIN  
**UWMILWAUKEE** | SCHOOL OF  
**FRESHWATER SCIENCES**

The Center's mission is to provide world class interdisciplinary solutions to resolve regional, national, and international problems related to the protection, restoration, and conservation of freshwater resources to ensure long term environmental health and quality of life.

Established in 2011 through a \$2.6 million Endowment from Lynde B. Uihlein, the Center builds on the research of the School of Freshwater Sciences, the UW System, and networks and partnerships with top scholars, scientists, and policy institutions across the country and around the world.

600 E Greenfield Ave.  
Milwaukee, WI 53204

Email: [waterpolicy@uwm.edu](mailto:waterpolicy@uwm.edu)

Follow us on Twitter and Instagram  
[@uwmwaterpolicy](https://twitter.com/uwmwaterpolicy)

---

### PREPARED BY

**Andrian Lee**, Water Policy Specialist, Sea Grant  
UW Water Science-Policy Fellow

**Melissa Scanlan**, Lynde B. Uihlein Endowed  
Chair and Professor in Water Policy at UW-  
Milwaukee's School of Freshwater Sciences,  
Director of the Center for Water Policy

April 2023