

1. Type of Estimate and Analysis ☒ Original ☐ Updated ☐ Corrected		2. Date DRAFT: June 11, 2025	
3. Administrative Rule Chapter, Title and Number (and Clearinghouse Number if applicable) Ch. NR 809, Safe Drinking Water			
4. Subject Revisions to ch. NR 809 related to drinking water standards for PFAS (Board Order DG-01-24)			
5. Fund Sources Affected ☒ GPR ☒ FED ☐ PRO ☐ PRS ☐ SEG ☐ SEG-S		6. Chapter 20, Stats. Appropriations Affected 401 and 441	
7. Fiscal Effect of Implementing the Rule ☐ No Fiscal Effect ☐ Increase Existing Revenues ☐ Increase Costs ☐ Decrease Costs ☐ Indeterminate ☐ Decrease Existing Revenues ☒ Could Absorb Within Agency's Budget			
8. The Rule Will Impact the Following (Check All That Apply) ☐ State's Economy ☒ Specific Businesses/Sectors ☒ Local Government Units ☐ Public Utility Rate Payers ☒ Small Businesses (if checked, complete Attachment A)			
9. Estimate of Implementation and Compliance to Businesses, Local Governmental Units and Individuals, per s. 227.137(3)(b)(1). \$0 The state is not imposing additional costs above what is required in federal rules. If these federal MCLs were not promulgated in state administrative code, public water systems in Wisconsin would still be obligated to comply with these requirements under the federal Safe Drinking Water Act. There are no additional state costs of implementing and complying with the proposed state rule. The department is supplying cost estimates for implementing the federal requirements under the Safe Drinking Water Act in Wisconsin.			
10. Would Implementation and Compliance Costs Businesses, Local Governmental Units and Individuals Be \$10 Million or more OverAny 2-year Period, per s. 227.137(3)(b)(2)? ☐ Yes ☒ No			
11. Policy Problem Addressed by the Rule The objective of the proposed rule is to amend ch. NR 809, Wis. Adm. Code, to establish drinking water standards, referred to as MCLs, based on the new federal standards for certain PFAS including the contaminant compounds perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluorobutane sulfonic acid (PFBS), and hexafluoropropylene oxide dimer acid (HFPO-DA). The impacts of certain PFAS to Wisconsin's surface water and groundwater sources are threats to public health, welfare, and safety in consuming drinking water. Establishing drinking water standards for certain PFAS contaminants in this rule will protect public health by requiring that public water systems that exceed the standards take corrective action to protect public health, welfare and safety of the customers it serves. Many studies have documented adverse health effects associated with exposure to PFOA, PFOS, PFNA, PFBS, PFHxS, and HFPO-DA. Adverse health effects include effects on the liver (e.g., liver cell death), growth and development (e.g.,			

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low birth weight), hormone levels, kidneys, the immune system (e.g., reduced response to vaccines), lipid levels (e.g., high cholesterol), the nervous system, and reproduction, as well as increased risk of certain types of cancer.

Under the federal Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) establishes regulations that all public drinking water systems must meet. The EPA authorizes states to have primary enforcement responsibility for the Safe Drinking Water Act regulations (also called primacy) if states meet certain requirements, including that the state regulations must be no less stringent than the federal regulations. When the EPA issues new drinking water regulations, primacy agencies are required to adopt these new requirements within two years after the EPA regulation is finalized, with the possibility of an extension of up to two years.

The Wisconsin Department of Natural Resources (department) administers Wisconsin's safe drinking water program, codified in part in ch. NR 809, Wis. Adm. Code. The DNR is the primacy agency responsible for enforcing the federal Safe Drinking Water Act for Wisconsin's public water systems. This rulemaking updates the state administrative code to be no less stringent than new federal regulations, which is necessary for Wisconsin to retain its primacy.

In April 2024, EPA finalized federal regulations that create Maximum Contaminant Levels (MCLs) for PFOS, PFOA, PFHxS, PFNA, PFBS, and HFPO-DA. EPA also created a Hazard Index (HI) to protect public health from mixtures of PFHxS, HFPO-DA, PFNA, and PFBS because of their known additive toxic effects and likely co-occurrence in drinking water.

The federal rule requires monitoring at all community and non-community non-transient public water systems, to be completed by April 26, 2027. The federal rule also requires that any of these water systems that have exceedances of the PFAS MCLs or HI take action to reduce levels of PFAS by April 26, 2029.

If the department does not promulgate state rules that are no less stringent than the federal PFAS rule, the federal rules will still apply to all Wisconsin public water systems. However, Wisconsin's public water systems will be required to comply with federal law and will be subject to regulation and enforcement by the EPA, rather than the DNR. There is no cost to the state rule that is beyond what will be required by the federal rule, regardless of this rulemaking.

Because of the state PFAS rules, Wisconsin has the benefit of PFAS sample results from all of its public water systems that will be regulated by the federal PFAS rule. Based on current sample results, it is estimated that 96 public water systems will need to take action to address current PFAS by April 26, 2029. These approximately 96 systems will need to take action to comply with federal law, regardless of whether this rule is promulgated. The only change will be whether DNR enforces the Safe Drinking Water Act or whether EPA enforces the Safe Drinking Water Act.

12. Summary of the Businesses, Business Sectors, Associations Representing Business, Local Governmental Units, and Individuals that may be Affected by the Proposed Rule that were Contacted for Comments.

The proposed rule will affect the following entities:

- Municipal community water systems (cities, townships, sanitary districts).
- Other-than-municipal community (OTM) water systems (mobile home parks, apartment buildings, condominium associations).
- Non-transient non-community (NN) water systems (small businesses with 25 or more employees that are not on a municipal source).
- Laboratories certified to perform PFAS analysis in drinking water.

The department will contact these groups for comments on the economic impact.

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13. Identify the Local Governmental Units that Participated in the Development of this EIA.

The development of this EIA was done using the EPA national economic analysis. Stakeholders, including local units of government, will have the opportunity to comment on the draft EIA before the final EIA is completed.

14. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)

The annualized implementation and compliance cost of the federal PFAS rule in Wisconsin is estimated to be approximately \$26.6 million in the first year after rule promulgation. Also included in the implementation costs are the annualized costs to mitigate PFAS contamination for the approximately 96 public water systems with at least one sample result above the federal PFAS Maximum Contaminant Levels (MCLs). This is estimated to be approximately \$12.2 million in the first year after the compliance date for the federal rule. Both costs are expected to decline in future years as systems use available Safe Drinking Water Loan Program (SDWLP) and Bipartisan Infrastructure Law funding to mitigate PFAS contamination.

The department relied on EPA's economic analysis to determine the economic impacts in Wisconsin. Estimates were prepared using national averages to predict expenses incurred by Wisconsin's water systems under the federal rule to:

- (1) Monitor for PFAS (Implementation and Compliance)
- (2) Inform consumers (Implementation and Compliance)
- (3) Install and operate treatment technologies (Mitigation)
- (4) Conduct record-keeping and reporting (Implementation and Compliance)

The national level analysis conducted by EPA provided per-system compliance cost estimates based on system type, population size being served, and source water type. The mean projected costs per system were then applied to water systems data from Wisconsin to estimate overall annualized costs for each water system category (tables 1 – 4).

System types are categorized as:

- Community water systems – Public water systems which serve at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents, including cities, some mobile home parks, apartment complexes, and subdivisions. Community water systems are further categorized as:
 - Municipal – Managed by local units of government, e.g., cities and towns
 - Other-than-municipal – Residential public water systems like apartment complexes that are not owned by a municipality. These are often small businesses.
- Non-transient non-community water systems – Public water systems that are usually smaller than community water systems but regularly serve at least 25 of the same people over 6 months per year, including schools and some small businesses.

The following nine population categories are used throughout this analysis.

- ≤ 100
 - 101–500
 - 501–1,000
 - 1,001–3,300
 - 3,301–10,000
 - 10,001–50,000
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- 50,001–100,000
- 100,001–1,000,000 (1M)
- >1M

The source of drinking water is either groundwater (GW) or surface water (SW).

The means presented in the following tables are the estimated national averages for individual public water systems in each category. The estimates in Wisconsin are provided by multiplying the mean estimates from the EPA analysis by the number of Wisconsin systems in each category. The total estimated costs are then summed for each public water system type (Community, Non-Community) to estimate the total cost of compliance.

Tables 1 and 2 present the mean annualized costs for compliance with the rule for all systems in each category. This estimate includes the costs of monitoring, mitigation, informing the public, and record keeping. The estimated costs specific to mitigation are presented in tables 3 and 4.

Table 1. Annualized costs for community water systems

Source Water	Population Served Size Category	Mean (a)	Number in Category (b)	Total Cost per Category (Mean) (c = a x b)
GW	≤100	\$1,333	273	\$363,909
GW	101 to 500	\$2,389	260	\$621,140
GW	501 to 1,000	\$4,057	120	\$486,840
GW	1,001 to 3,300	\$7,887	173	\$1,364,451
GW	3,301 to 10,000	\$21,291	88	\$1,873,608
GW	10,001 to 50,000	\$176,300	46	\$8,109,800
GW	50,001 to 100,000	\$411,810	3	\$1,235,430
GW	100,001 to 1,000,000	\$1,501,800	1	\$1,501,800
SW	≤100	\$1,667	3	\$5,001
SW	101 to 500	\$2,582	2	\$5,164
SW	501 to 1,000	\$4,196	1	\$4,196
SW	1,001 to 3,300	\$7,815	8	\$62,520
SW	3,301 to 10,000	\$21,231	8	\$169,848
SW	10,001 to 50,000	\$147,870	31	\$4,583,970
SW	50,001 to 100,000	\$320,770	5	\$1,603,850
SW	100,001 to 1,000,000	\$906,230	3	\$2,718,690
TOTAL	-	-	1,025	\$24,710,217

Note: Table C-1 from the federal Economic Analysis Appendices² was revised to include Wisconsin-specific occurrence data in each category.

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Table 2. Annualized costs for non-transient non-community water systems

Source Water	Population Served Size Category	Mean	Number in Category	Total Cost per Category (Mean)
GW	≤100	\$1,463	461	\$674,443
GW	101 to 500	\$2,277	340	\$774,180
GW	501 to 1,000	\$3,504	69	\$241,776
GW	1,001 to 3,300	\$6,348	20	\$126,960
GW	3,301 to 10,000	\$18,575	3	\$55,725
GW	10,001 to 50,000	\$178,600	0	\$0
TOTAL	-	-	893	\$1,873,084

Note: Table C-5 from the federal Economic Analysis Appendices² was revised to include Wisconsin-specific occurrence data in each category.

The costs of mitigation included in tables 3 and 4 were developed using national data from the Safe Drinking Water Information System (SDWIS) and the Safe Water Multi-Contaminant Benefit Cost (MCBC) model developed by EPA. Inputs for this model included influent concentrations of PFAS, Entry Point design flow, and total organic carbon.

Table 3. Annualized costs for community water systems that treat or change source of water

Source Water	Population Served Size Category	Mean	Number in Category	Total Cost per Category (Mean)
GW	≤100	\$19,489	11	\$214,379
GW	101 to 500	\$34,127	12	\$409,524
GW	501 to 1,000	\$55,639	1	\$55,639
GW	1,001 to 3,300	\$101,270	15	\$1,519,050
GW	3,301 to 10,000	\$227,420	15	\$3,411,300
GW	10,001 to 50,000	\$577,270	6	\$3,463,620
GW	50,001 to 100,000	\$1,245,500	2	\$2,491,000
TOTAL	-	-	62	\$11,564,512

Note: Table C-9 from the federal Economic Analysis Appendices² was revised to include Wisconsin-specific occurrence data in each category.

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Table 4. Annualized costs for non-transient non-community water systems that treat or change source of water

Source Water	Population Served Size Category	Mean	Number in Category	Total Cost per Category (Mean)
GW	≤100	\$20,244	17	\$344,148
GW	101 to 500	\$33,627	12	\$403,524
GW	501 to 1,000	\$54,139	4	\$216,556
GW	1,001 to 3,300	\$93,702	1	\$93,702
TOTAL	-	-	34	\$1,057,930

Note: Table C-13 from the federal Economic Analysis Appendices² was revised to include Wisconsin-specific occurrence data in each category.

References

¹Economic Analysis for the Final Per- and Polyfluoroalkyl Substances National Primary Drinking Water Regulation: EPA Document No. EPA-815-R-24-001 https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_final-rule_ea.pdf

²Economic Analysis for the Final Per- and Polyfluoroalkyl Substances National Primary Drinking Water Regulation Appendices: EPA Document No. EPA-R-24-002 https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_final-rule_ea_appendices.pdf

15. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule

The EPA performed a cost benefit analysis and examined three additional regulatory alternatives^{1,2}. The cost benefit analysis focused on quantifiable and non-quantifiable costs and health-based outcomes associated with the rule. The potential benefits examined include reducing deleterious cardiovascular, birth weight, and renal effects. The national annual incremental benefit of the final rule is \$1,548.40 million and annual incremental cost is \$1,548.64 million with a small positive net incremental benefit of \$0.76 million on average.

The EPA limited the cost benefit ratio of implementing this rule to small community water systems. This estimate was not produced for non-community systems.

The regulatory alternatives examined in this analysis included the following:

- Option 1 - The Final Rule (PFOA and PFOS MCLs of 4.0 ppt each, PFHxS, PFNA, HFPO-DA MCLs of 10 ppt each and HI of 1)
- Option 1a - (PFOA and PFOS MCLs of 4.0 ppt, no additional PFAS MCLs)
- Option 1b - (PFOA and PFOS MCLs of 5.0 ppt, no additional PFAS MCLs)
- Option 1c - (PFOA and PFOS MCLs of 10.0 ppt, no additional PFAS MCLs)

The analysis presented here is limited to Option 1 - The Final Rule. This is the option that Wisconsin must comply with to maintain primacy for the federal Safe Drinking Water Act.

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16. Long Range Implications of Implementing the Rule

The long-range implications of this rule will be the protection of drinking water and human health. Long-term reduction of PFAS in drinking water will lower health risks, provide long-term healthcare cost savings, and increase trust in public water systems.

17. Compare With Approaches Being Used by Federal Government

Wisconsin relied on the economic analysis produced by the EPA^{1,2} to determine the economic impacts in Wisconsin. The approaches used by the federal government included an extensive review of national PFAS occurrence data from states and the national unregulated contaminant monitoring rule.

The estimated costs include the quantifiable and non-quantifiable costs of compliance with the rule for which there is a factual basis. These approaches are referenced here.

18. Compare With Approaches Being Used by Neighboring States (Illinois, Iowa, Michigan and Minnesota)

All of the other states in EPA Region Five (Illinois, Indiana, Michigan, Minnesota, Ohio), as well as Iowa are in the process of adopting the federal PFAS rules. Those states all have primacy over the SDWA and must promulgate PFAS rules to retain primacy.

19. Contact Name Adam DeWeese	20. Contact Phone Number 608-630-2204
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This document can be made available in alternate formats to individuals with disabilities upon request.

ATTACHMENT A

1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)

Small businesses likely represent approximately 70% of the non-municipal (NN and OTM) public water systems that could be subject to the federal maximum contaminant levels. The costs for small businesses can be estimated by calculating 70% of the costs associated with these types of non-municipal systems. The total implementation and compliance cost estimated for the small businesses sector are shown in Tables 5 and 6. These are estimated costs of the federal rule, and the state rule will have no additional costs to small businesses.

Table 5: Annualized costs for Other Than Municipal (OTM) community water system small businesses.

Source Water	Population Served Size Category	Mean	Number in Category	Total Cost per Category (Mean)	70% Small Business Portion
GW	Less than 100	\$1,333	262	\$349,246	\$244,472
GW	100 to 500	\$2,389	133	\$317,737	\$222,415
GW	500 to 1,000	\$4,057	14	\$56,798	\$39,758
GW	1,000 to 3,300	\$7,887	5	\$39,435	\$27,604
GW	3,300 to 10,000	\$21,291	1	\$21,291	\$14,903
GW	10,000 to 50,000	\$176,300	0	\$0	\$0
GW	50,000 to 100,000	\$411,810	0	\$0	\$
GW	100,000 to 1,000,000	\$1,501,800	0	\$0	\$
TOTAL	-	-	415	\$784,507.00	\$549,154

Table 6. Annualized costs for non-transient non-community (NN) water system small businesses.

Source Water	Population Served Size Category	Mean	Number in Category	Cost per Category (Mean)	70% Small Business Portion
GW	Less than 100	\$1,463	461	\$674,443	\$472,110
GW	100 to 500	\$2,277	340	\$774,180	\$541,926
GW	500 to 1,000	\$3,504	69	\$241,776	\$169,243
GW	1,000 to 3,300	\$6,348	20	\$126,960	\$88,872
GW	3,300 to 10,000	\$18,575	3	\$55,725	\$39,007
GW	10,000 to 50,000	\$178,600	0	\$0	\$0
TOTAL	-	-	893	\$1,873,084	\$1,311,158

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2. Summary of the data sources used to measure the Rule's impact on Small Businesses

This analysis relies on the economic analysis produced by the EPA, and Wisconsin-specific data to determine the number of public water systems the federal rule will impact. The federal economic analysis compared national and state data from the federal Safe Drinking Water Information System (SDWIS), the unregulated contaminant monitoring rule, and independent monitoring data from twenty states (including Wisconsin).

Costs associated with mitigation were estimated using EPA's Safe Water MCBC model. Inputs for this model included influent concentrations of PFAS, Entry Point design flow, and total organic carbon.

3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

- ☒ Less Stringent Compliance or Reporting Requirements
- ☐ Less Stringent Schedules or Deadlines for Compliance or Reporting
- ☐ Consolidation or Simplification of Reporting Requirements
- ☐ Establishment of performance standards in lieu of Design or Operational Standards
- ☐ Exemption of Small Businesses from some or all requirements
- ☐ Other, describe:

4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

This federal rule allows for monitoring waivers to reduce the frequency of required monitoring at public water systems below half the MCL trigger levels of PFAS. These waivers are incorporated into the state's proposed rule.

5. Describe the Rule's Enforcement Provisions

The enforcement process for this rule will be the same as process that is currently used for these public water systems and other exceedances of contaminants currently regulated in ch. NR 809, Wis. Adm. Code. The department will use stepped enforcement for violations of the state rule. If this state rule is not promulgated, EPA will have enforcement authority over violations at Wisconsin's public water systems.

6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)

☐ Yes ☒ No

The cost benefit analysis was performed by EPA. The full version can be found in the federal reference documents^{1,2}.
