Wisconsin Public Water Systems
2024 Annual Drinking Water Report

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Wisconsin Department of Natural Resources
Drinking Water and Groundwater Program
dnr.wi.gov

PUB-DG-045 2024
June 2025

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2024 Annual Drinking Water Report

Obtaining copies of Wisconsin's report

The *2024 Annual Drinking Water Report* is available to the public. To obtain copies, contact the Drinking Water and Groundwater Program DG/5, Wisconsin Department of Natural Resources, PO Box 7921, Madison WI 53707, 608-266-1054. The report is also available on DNR's web site, dnr.wi.gov,

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Abbreviations	
ALE	action level exceedance (lead and copper)
CCR	Consumer Confidence Report
DNR	Wisconsin Department of Natural Resources
EPA	US Environmental Protection Agency
IOC	inorganic contaminant
LSL	lead service line
MC	municipal community water system
MCL	maximum contaminant level
mg/L	milligrams per liter
MR	monitoring & reporting
ng/L	nanograms per liter
NN	non-transient non-community water system
NON	Notice of Noncompliance
NOV	Notice of Violation
OC	other-than-municipal community water system
PFAS	perfluoroalkyl and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PN	public notice
SDWA	Safe Drinking Water Act
SOC	synthetic organic contaminant
TN	transient non-community water system
TT	treatment technique
VOC	volatile organic contaminant

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YEAR IN REVIEW 2024

The Wisconsin Department of Natural Resources (DNR) works to ensure that everyone in the state has access to safe and sustainable water supplies and the state's water resources are protected.

Strong state and federal regulations combined with the collaborative efforts and hard work of many people—including the DNR, the US Environmental Protection Agency (EPA), individual owners and operators of public water systems, county health officials, professional associations, water quality organizations and water consumers—have allowed Wisconsin to manage its drinking water resources successfully.

The DNR's *2024 Annual Drinking Water Report* summarizes compliance with the drinking water requirements for the year (January 1-December 31). Highlights of 2024 include:

- Wisconsin has more than 11,000 public water systems, the largest number of any state. Most of the state's public water systems are supplied by groundwater pumped from wells. However, the state's most populous communities use surface water from lakes.
- During 2024, more than 99% of Wisconsin's public water systems provided water that met all water quality standards for contaminants.
- New requirements for controlling lead in drinking water went into effect during 2024. The requirements include identifying materials in the water system's service lines that contain (or potentially could contain) lead and enhanced communication with consumers.

WISCONSIN'S DRINKING WATER PROGRAM: THE BASICS

Requirements for public water systems come from the Safe Drinking Water Act (SDWA), which was first passed in 1974. It established national limits for contaminants in drinking water to protect public health. These limits, known as Maximum Contaminant Levels (MCLs), are health-based standards specific to each contaminant.

The SDWA also specifies how often public water systems must test their water for contaminants and report the results to the state, the EPA and the public. Testing or "monitoring" requirements depend on a water system's size, the population served and vulnerability of the water source to contamination. In general, water systems serving residential consumers and larger populations have more extensive monitoring and reporting requirements. Finally, the SDWA requires public water systems to notify their consumers—using clear and understandable language—when contaminants are detected or violations occur.

In Wisconsin, the DNR is responsible for implementing the safe drinking water program.

WISCONSIN'S PUBLIC WATER SYSTEMS

Wisconsin had 11,209 public water systems in 2024, the largest number of any state (Figure 1).

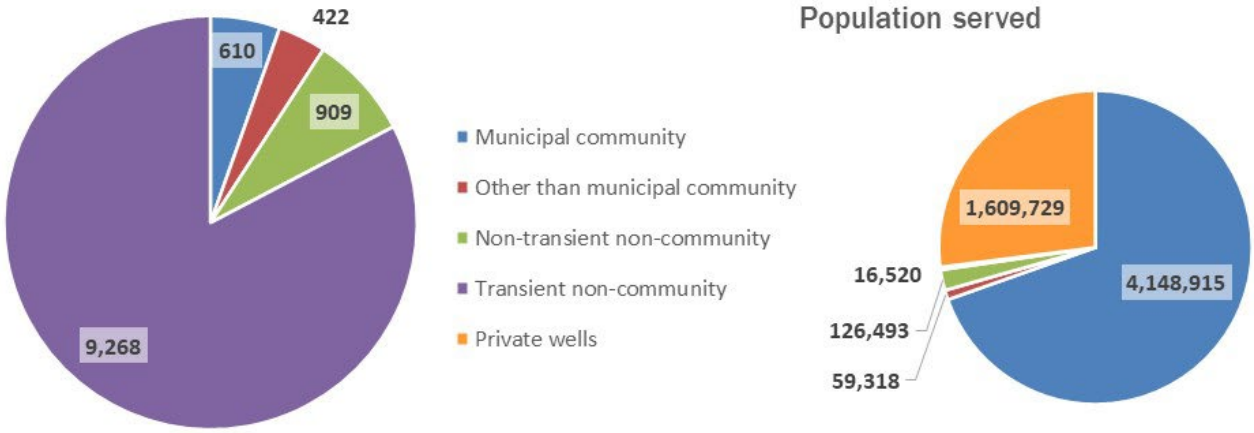
Community water systems serve water to people where they live. Wisconsin has 1,032 community water systems that serve 70.6% of the state's residential population. The remaining Wisconsin residents receive their water from private domestic wells (see Figure 1).

Municipal Commmunity (MC)	Other-than-Municipal Community (OC)
Owned by cities, villages, towns or sanitary districts. This group also includes care and correctional facilities owned by counties or municipalities.	Serve residents from privately-owned wells. OC water systems include mobile home parks, apartment buildings, condominium complexes and long-term care facilities.

Non-community water systems serve water to people where they work, attend school or gather for food or activities. The wells supplying these systems are privately owned. Wisconsin has 10,177 non-community water systems.

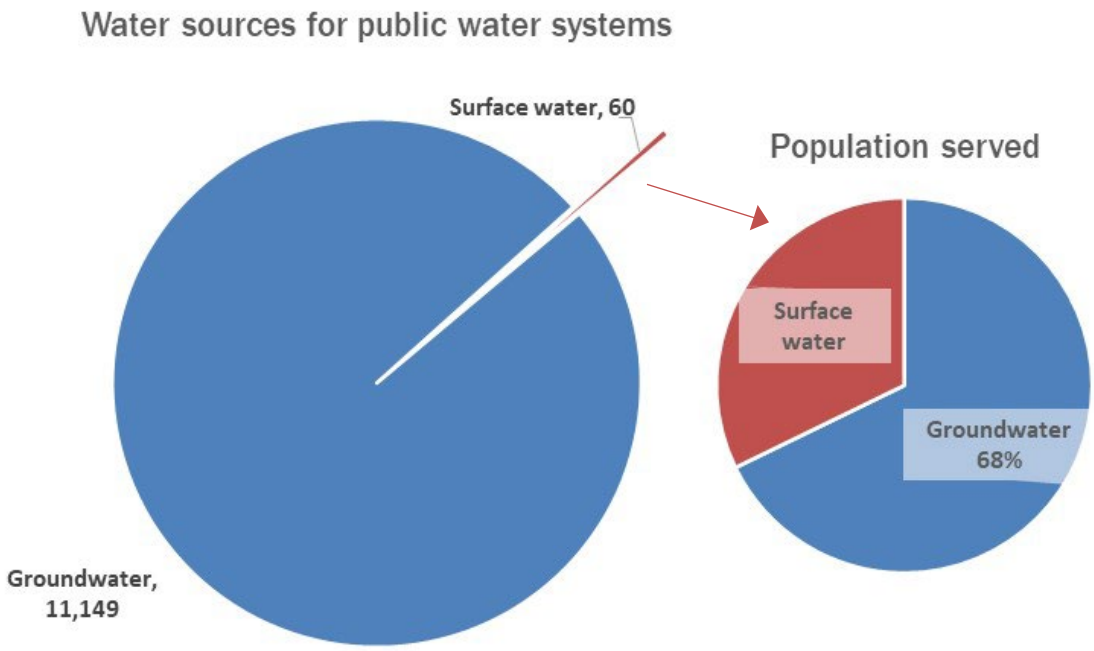
Non-Transient Non-Commmunity (NN)	Transient Non-Community (TN)
Regularly serve at least 25 of the same people for 6 months or more per year. They include schools, day care centers, office buildings, industrial facilities, dairies and many other businesses.	Serve at least 25 people (though not necessarily the same people) for 60 days or longer per year. They include campgrounds, parks, motels, restaurants, taverns and churches.

Figure 1. Wisconsin has more than 11,200 public water systems. The majority are very small transient non-community systems that serve non-residential consumers. The state's municipal water systems serve the largest share of the population.



Most of Wisconsin's public water systems rely on groundwater pumped from wells. However, 60 systems use Wisconsin lakes to provide drinking water to their consumers. These surface water systems serve some of the state's largest communities, including Milwaukee and Green Bay. So, while more than 99% of the state's public water systems use groundwater sources, surface water systems serve almost one-third of the state's population (Figure 2).

Figure 2. Most of Wisconsin's public water systems (more than 99%) rely on groundwater pumped from wells. However, the 60 systems that use surface water from lakes include most of the state's largest public water systems.



MONITORING AND TESTING FOR CONTAMINANTS IN DRINKING WATER

Protecting drinking water supplies depends on monitoring. All public water systems are required to test their water for contaminants and report the results to the DNR and consumers. Monitoring determines whether a system's water quality meets all Maximum Contaminant Level (MCL) limits.

Contaminants can have either acute or chronic health effects. Acute contaminants pose an immediate risk to human health—people can become ill within days or even hours of exposure. Chronic contaminants cause long-term health risks. Appendix A lists all the contaminants regulated in Wisconsin and their health-based standards or MCLs.

Action Levels for Certain Contaminants

The SDWA establishes "action levels" for two contaminants: lead and copper. Exceeding an action level does not cause a violation, but does require a water system to conduct additional monitoring and take steps to control levels of the contaminant in the drinking water supply. The action levels for lead and copper are listed in Table A-2 of Appendix A.

New requirements for Lead and Copper Rule during 2024

Revisions to the federal Lead and Copper Rule went into effect last year, and October 2024 was an important milestone for efforts to reduce exposure to lead in drinking water. All community and non-transient non-community water systems were required to take several actions:

- Lead service lines—Compile an inventory of lead service lines at each water system, listing all service lines in the distribution system (publicly and privately owned portions) with a classification of their materials.
    - Public availability—Make the inventory accessible to the public.
    - Public education—Notify consumers served at connections with service lines that are known to contain lead or potentially may contain lead.
- Communication—The EPA updated and strengthened the language used to communicate the health effects of lead exposure. Water systems now use this updated information.
- Public notice—When a water system exceeds the lead action level, it is required to notify consumers of the exceedance within 24 hours and provide information about how to reduce exposure to lead in drinking water.

The DNR assisted water systems with preparing their service line inventories and submitting the information. Additional requirements will take effect in coming years to continue efforts toward reducing exposure to lead in drinking water.

Secondary Standards

The SDWA sets aesthetic or “secondary” standards for additional contaminants. These substances may cause an unpleasant smell, taste, appearance, stained sinks or discolored clothes when they exceed certain levels. Iron, manganese and sulfate are included in this group. Public water systems may be required to perform additional monitoring or take corrective action if they exceed secondary standards. Table A-6 in Appendix A lists the secondary standards.

Treatment for Contaminants

Some public water systems may treat their water to meet MCL limits. Most treatments reduce or inactivate contaminants in the water. One common treatment is disinfection, which inactivates microbial contaminants so they cannot make us sick. Disinfecting drinking water has revolutionized our lives by virtually eliminating diseases that used to cause many deaths, like typhoid fever.

COMPLIANCE WITH DRINKING WATER REQUIREMENTS

Complying with drinking water requirements involves many things. Violations can occur when contaminant levels exceed permissible limits, deadlines are not met, water samples are not collected on time, tasks are not completed on time or public notices are not delivered. Table 1 is a quick reference for the basic types of drinking water violations.

Table 1. What do drinking water violations mean?	
Maximum contaminant level (MCL) violations	MCL violations occur when contaminants are detected at levels above what is permissible for protecting public health (i.e., the MCL standard).
Monitoring and reporting (MR) violations	MR violations occur when water samples are not collected on time or analyzed using approved methods, or when consumers are not notified of lead and copper results from samples collected in their homes.
Treatment technique (TT) violations	TT violations occur when water systems do not take the required actions to reduce exposure to contaminants. They include failure to correct "significant deficiencies" or "sanitary defects" and failure to follow approved start-up procedures for seasonal operation.
Notification violations	Notification violations occur when water systems do not provide required public notices, deliver Consumer Confidence Reports, or notify the DNR when significant deficiencies are corrected.

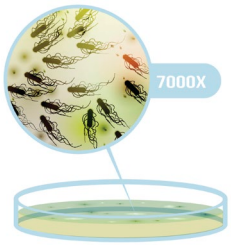
The majority of Wisconsin's public water systems (86.5%) met their regulatory requirements during 2024. Most violations that did occur were for failing to meet monitoring, reporting and public notice requirements. This section of the report summarizes compliance data for last year.

Maximum Contaminant Level (MCL) Violations

During 2024, more than 99% of Wisconsin's public water systems provided water that met all the health-based MCL standards for regulated contaminants. Only 60 systems (out of 11,209 statewide) experienced MCL exceedances. Table B-1 in Appendix B summarizes the MCL violations during 2024.

The contaminants encountered most frequently in Wisconsin were bacteria, nitrate, arsenic and radionuclides.

Exceeding a maximum contaminant level does not necessarily mean that consumers experienced adverse health effects from drinking the water, but it does require a water system to notify consumers and take action to correct the problem.



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- ***Microbial contaminants***

Escherichia coli (or *E. coli*) is an acute contaminant because a single exposure can make people ill. Exposure can cause diarrhea, nausea, cramps and headaches but may have more serious effects on vulnerable populations, including infants, young children and people with compromised immune systems. *E. coli* bacteria indicate that drinking water is contaminated by human or animal waste.

When these bacteria are detected in a drinking water sample, systems are required to take action to "find" sources of contamination and "fix" the issues. Follow-up work at affected systems has included identifying the sources of contamination, correcting defects and, in some cases, replacing a well or switching to a new water source.

All of Wisconsin's public water systems are required to monitor for coliform bacteria. During 2024, Wisconsin had 3 public water systems (only 0.03%) with MCL violations for *E. coli*. (Table A-1 in Appendix A has more details about the MCL for microbial contaminants.)

- ***Nitrate and nitrite***

  Nitrate and nitrite are acute contaminants because they can cause serious illness in infants younger than 6 months old. The condition, called methemoglobinemia or "blue baby syndrome," deprives infants' blood of oxygen and can be fatal in extreme cases. In addition, there is evidence of a link between nitrate exposure during early pregnancy and certain birth defects. Consuming water with high nitrate levels has been linked to chronic diseases in adults also, including increased cancer risk, because nitrate gets converted within the human body to compounds that are known carcinogens.

  Nitrate is the most widespread inorganic contaminant of drinking water here in Wisconsin. Because it is water-soluble, nitrate can move easily into the groundwater. Sources of nitrate and nitrite include agricultural fertilizers and animal wastes, according to the Wisconsin Groundwater Coordinating Council. Nitrate contamination is an ongoing challenge for water systems in Wisconsin.

  All of Wisconsin's public water systems are required to monitor for nitrate and nitrite. During 2024, violations for exceeding the nitrate MCL occurred at 29 public water systems (0.26% of all systems).

  Transient non-community systems may be allowed to operate and serve water that has nitrate above the MCL of 10 milligrams per liter (mg/L) but below 20 mg/L, providing certain conditions are met. Wisconsin had 212 transient non-community water systems using the provision for "continuing operation" during part or all of 2024.

  212 TN water systems operated with nitrate levels above the MCL during 2024.

- ***Arsenic***

  Arsenic's health effects come from long-term exposure. Increased risk of skin cancer is one, and arsenic has also been linked to cancers of the lungs, bladder, liver, kidney and colon. Exposure to arsenic can cause skin damage, circulatory system problems and nervous system effects (like tremors). Arsenic exposure during pregnancy and early childhood may also affect learning, IQ scores and risk of certain cancers later in life.

  Arsenic occurs naturally in some rock formations in Wisconsin and also is found in drinking water supplies here. Arsenic has no taste or odor, so testing is the only way to detect it in drinking water.

  During 2024, there were 6 water systems (0.31% of the systems regulated for this contaminant) with violations for exceeding the arsenic standard (0.01 mg/L).

- ***Radionuclides***

  Health risks from radium and uranium come from long-term exposure. Exposure over a lifetime could result in an elevated risk for cancer and kidney toxicity. Radionuclides are detected as contaminants of some drinking water supplies here because they occur naturally in rock formations in Wisconsin. Radionuclide standards apply to community (MC and OC) water systems that serve residential consumers. Of the 1,032 community water systems statewide, 12 (or 1.16%) had violations for exceeding radionuclide MCLs during 2024.


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- ***Lead and copper***

There is no safe level of lead exposure. Lead adversely affects the health of people of all ages and genders, and the health impacts are irreversible. Most significantly, lead impacts brain development of developing fetuses and small children. Copper is an essential nutrient, but long-term exposure to high levels can cause kidney and liver damage.

Lead and copper can leach into water as it flows through pipes and fixtures containing these elements (through the process of corrosion). Lead pipe, brass, chrome plated brass, copper plumbing and lead-based solder are all potential sources.

When an action level for lead or copper is exceeded, systems must provide special information to their consumers about health effects and steps people can take to reduce exposure. Systems also conduct additional monitoring to identify how water chemistry may contribute to lead and copper levels.

Table 2. Action level exceedances during 2024

contaminant	number of water systems			
	MC	OC	NN	total
copper	1	1	4	6
lead	2	3	4	9

During 2024, there were 9 public water systems with lead action level exceedances and 6 that exceeded the action level for copper (Table 2).

The DNR works with public water systems that have MCL violations and action level exceedances to help them correct problems and return to compliance as soon as possible. Corrective actions can include disinfection, reconstructing an existing well, drilling a new well, connecting to an alternate water source or installing a treatment system.

Monitoring and Reporting (MR) Violations

To measure contaminant levels, public water systems are required to monitor and test their water during specific time periods. During 2024, there were 1,419 MR violations at 827 of the state's public water systems (7.4%). Most often, these violations resulted from failure to collect required samples on time and failure to notify consumers of lead and copper results. Table B-2 in Appendix B summarizes the MR violations that occurred during the year.

Treatment Technique (TT) Violations

Treatment techniques are actions that public water systems must follow to control or reduce levels of contaminants like bacteria, lead and copper. When water systems don't complete required actions or fail to follow required procedures, treatment technique (TT) violations occur. TT violations signal the potential for health risks, since consumers cannot be certain whether their drinking water was treated or protected to reduce exposure to contaminants.

Among Wisconsin's 11,209 public water systems, 491 systems had treatment technique violations during 2024, meaning that 95.6% of the state's systems met these health-based requirements. Most TT violations resulted from not meeting deadlines for submitting lead service line inventories or submitting incomplete information. Table B-3 in Appendix B summarizes the treatment technique violations during 2024.

Notification and reporting violations

Communicating with consumers and the DNR is an important part of water system operation. Water systems are required to notify consumers about violations and emergencies or situations that pose human health risks. Table B-4 in Appendix B summarizes all the notification violations that occurred during 2024.

- ***Public notice violations*** — Public notice violations happen when water systems fail to notify consumers about violations or other risks to human health. Public notices must inform consumers about the nature of violations, potential health effects, corrective actions the water system is undertaking and any preventive measures that consumers should take. Public notice violations occurred at 1,005 of Wisconsin's public water systems last year (9% of all systems).

- ***Consumer Confidence Report violations*** — A Consumer Confidence Report (CCR) provides information to residential consumers, including the sources of a system's water, levels of contaminants detected in the water and violations incurred by the water system during the previous year. CCR violations occur whenever water systems fail to deliver this annual report on time. Of Wisconsin's 1,032 community water systems, 41 (or 4%) got violations last year for not delivering CCRs on time.

- ***Notification violations*** — Correcting significant deficiencies protects public health. Water systems are required to notify the DNR when these corrective actions are completed. During 2024, only 7 water systems (or 0.06%) incurred violations for failing to notify the DNR.

Overall compliance with drinking water requirements

Most of Wisconsin's public water systems met all their regulatory requirements in 2024 (86.5% overall). During 2024, compliance rates for MC and OC water systems were affected by the new requirements surrounding lead service line inventories (submitting inventories, creating publicly accessible inventories, and giving public notice when those tasks were completed after the deadline). The EPA is enforcing these new requirements while the DNR revises Wisconsin's drinking water regulations. Nationally, public water systems have found it difficult to comply with the new requirements due to a lack of historical service line records, private ownership of portions of service lines, a need to digitize records and having to establish real-time communication processes related to lead risks. Most of Wisconsin's public water systems will likely achieve compliance with these new requirements by the end of 2025. (Compliance rates for the four types of public water systems are shown in Appendix B, Table B-5.)

CONCLUSION

In Wisconsin, working toward the goal of safe drinking water is a cooperative effort involving public water systems, professional associations, individual operators, the DNR, local agencies, the EPA, water consumers and many others.

During 2024, Wisconsin's public water systems achieved excellent compliance with water quality standards, with 99.5% of water systems serving water that met all maximum contaminant level (MCL) limits. Nitrate was the most common contaminant among water systems that experienced MCL violations.

More than 90% of the water systems in the state also met all their monitoring, reporting and notification requirements last year.

The DNR is committed to protecting public health and the state's drinking water resources.

APPENDIX A. Maximum permissible levels of contaminants in drinking water

The tables in this appendix show the Maximum Contaminant Levels (MCLs) for the various types of regulated drinking water contaminants.

Table A-1. MCL for microbial contaminants

contaminant	MCL
Escherichia coli bacteria	MCL exceedance can occur in several ways: • *E. coli*-positive repeat sample following a total coliform-positive routine sample. • Total coliform-positive repeat sample following an *E. coli*-positive routine sample. • Failure to collect all required repeat samples following an *E. coli*-positive routine sample. • Failure to test for *E. coli* after a total coliform-positive repeat sample.

Table A-2. MCLs for inorganic contaminants

contaminant	MCL (mg/L)	contaminant	MCL (mg/L)	contaminant	MCL (mg/L)
Antimony	0.006	Chromium	0.1	Nickel	0.1
Arsenic	0.01	Copper	1.3 is Action Level*	Nitrate	10
Asbestos (fiber length >10 microns)	7 million fibers/L	Cyanide	0.2	Nitrite	1
Barium	2	Fluoride	4	Total Nitrate & Nitrite	10
Beryllium	0.004	Lead	0.015 is Action Level*	Selenium	0.05
Cadmium	0.005	Mercury	0.002	Thallium	0.002

* Exceeding an action level does not cause a violation; it requires water systems to take additional steps and employ techniques to control the corrosiveness of water.

Table A-3. MCLs for radionuclides

contaminant	MCL
Gross alpha particle activity	15 picocuries per liter
Radium-226 and Radium-228	5 picocuries per liter
Uranium	30 micrograms per liter
Beta particle activity	4 millirems per liter dose equivalent

Table A-4. MCLs for disinfectants and disinfection byproducts

DISINFECTION BYPRODUCTS		RESIDUAL DISINFECTANTS	
contaminant	**MCL (mg/L)**	**disinfectant**	**MRDL * (mg/L)**
Bromate	0.01	Chloramines (as Cl_2)	4
Chlorite	1	Chlorine (as Cl_2)	4
Haloacetic Acids	0.06	Chlorine dioxide (as ClO_2)	0.8
Total Trihalomethanes	0.08	* MRDL = maximum residual disinfectant level	

Table A-5. MCLs for organic contaminants

SYNTHETIC ORGANIC CONTAMINANTS (31 contaminants in group)

contaminant	MCL (mg/L)	contaminant	MCL (mg/L)	contaminant	MCL (mg/L)
2,4-D	0.07	Dinoseb	0.007	Lindane	0.0002
2,4,5-TP	0.05	Dioxin	3×10^{-8}	Methoxychlor	0.04
Alachlor	0.002	Diquat	0.02	Oxamyl	0.2
Atrazine	0.003	Endothall	0.1	Pentachlorophenol	0.001
Benzo[a]pyrene	0.0002	Endrin	0.002	PFOS and PFOA	0.000070
Carbofuran	0.04	Ethylene Dibromide	0.00005	Polychlorinated biphenyls (PCBs)	0.0005
Chlordane	0.002	Glyphosate	0.7	Picloram	0.001
Dalapon	0.2	Heptachlor	0.0004	Simazine	0.004
Di(2-ethylhexyl)adipate	0.4	Heptachlor epoxide	0.0002	Toxaphene	0.003
Di(2-ethylhexyl)phthalate	0.006	Hexachlorobenzene	0.001		
Dibromochloropropane	0.0002	Hexachlorocyclopentadiene	0.05		

VOLATILE ORGANIC CONTAMINANTS (21 contaminants in group)

contaminant	MCL (mg/L)	contaminant	MCL (mg/L)	contaminant	MCL (mg/L)
Benzene	0.005	1,2-Dichloroethylene,trans	0.1	Toluene	1
Carbon Tetrachloride	0.005	Dichloromethane	0.005	1,2,4 Trichlorobenzene	0.07
o-Dichlorobenzene	0.6	1,2-Dichloropropane	0.005	1,1,1-Trichloroethane	0.2
p-Dichlorobenzene	0.075	Ethylbenzene	0.7	1,1,2 Trichloroethane	0.005
1,2-Dichloroethane	0.005	Chlorobenzene	0.1	Trichloroethylene	0.005
1,1-Dichloroethlyene	0.007	Styrene	0.1	Vinyl Chloride	0.0002
1,2-Dichloroethylene,cis	0.07	Tetrachloroethylene	0.005	Xylenes (Total)	10

Table A-6. Secondary drinking water standards

Water containing inorganic chemicals in quantities above these limits is not hazardous to health but may be objectionable.

chemical	standard (mg/L)	chemical	standard (mg/L)
Aluminum	0.05 to 0.2	Iron	0.3
Chloride	250	Manganese	0.05
Color	15 units	Odor	3 (threshold number)
Copper	1	Silver	0.1
Corrosivity	Noncorrosive	Sulfate	250
Fluoride	2	Total Dissolved Solids (TDS)	500
Foaming agents	0.5	Zinc	5
Hydrogen Sulfide	Not detectable		

APPENDIX B. Summary of violations of drinking water requirements during 2024

This appendix contains a summary of violations at Wisconsin's public water systems during 2024. The tables show violations of contaminant standards, monitoring and reporting requirements, treatment technique requirements, and notification requirements.

Table B-1. Maximum Contaminant Level violations during 2024

contaminant	number of water systems with violations					number of violations
	total systems*	MC	OC	NN	TN	
MICROBIAL CONTAMINANTS	**7**	**0**	**0**	**0**	**7**	**13**
Total coliform bacteria					4	4
E. coli bacteria					3	9
INORGANIC CONTAMINANTS	**37**	**6**	**1**	**13**	**17**	**88**
arsenic	6	1	1	4	n/a	19
fluoride		1			n/a	3
nickel				1	n/a	7
nitrate	29	4		8	17†	59
RADIONUCLIDES	**12**	**10**	**2**	**n/a**	**n/a**	**65**
combined radium-226 and radium-228		10	1			39
beta particle and photon activity			1			1
gross alpha particle activity		3	1			25
SYNTHETIC ORGANIC CONTAMINANTS	**2**	**0**	**0**	**2**	**n/a**	**6**
di(2-ethylhexyl) phthalate				2		6
VOLATILE ORGANIC CONTAMINANTS	**2**	**1**	**0**	**1**	**n/a**	**8**
benzene		1				6
dichloromethane				1		2
DISINFECTION BYPRODUCTS	**1**	**1**	**0**	**0**	**n/a**	**5**
haloacetic acids		**1**				2
total trihalomethanes		1				3
Overall totals	**60**	**18**	**2**	**16**	**24**	**185**

* Some water systems have multiple violations in a contaminant group or violations in multiple categories.

† An additional 212 TN systems operated with nitrate levels above the MCL of 10 mg/L but below 20 mg/L during 2024.

Table B-2. Monitoring and reporting violations during 2024						
contaminant	**number of water systems with violations**					**number of violations**
	total systems*	**MC**	**OC**	**NN**	**TN**	
MICROBIAL CONTAMINANTS	**480**	**7**	**45**	**44**	**384**	**722**
Ground Water Rule		4	5	5	55	87
Total Coliform Rule					8	9
Revised Total Coliform Rule monitoring		3	42	39	332	616
Revised Total Coliform Rule reporting				1	5	10
INORGANIC CONTAMINANTS (18 contaminants in group)	**406**	**132**	**62**	**59**	**153**	**572**
arsenic		5	3	5	n/a	15
lead and copper		140	88	55	n/a	371 (519 individual contaminants)
nitrate and nitrite		13	12	7	153	205 (226 individual contaminants)
other inorganic contaminants (13 contaminants)		8	9	1	n/a	24 (126 individual contaminants)
RADIONUCLIDES	**16**	**11**	**5**	n/a	n/a	**19** (55 individual contaminants)
SYNTHETIC ORGANIC CONTAMINANTS (31 contaminants in group)	**19**	**10**	**8**	**1**	n/a	**26** (449 individual contaminants)
VOLATILE ORGANIC CONTAMINANTS (21 contaminants in group)	**23**	**9**	**8**	**6**	n/a	**28** (608 individual contaminants)
DISINFECTANTS & DISINFECTION BYPRODUCTS	**40**	**33**	**3**	**4**	n/a	**52**
residual disinfectants		1		1		2
disinfection byproducts		33	3	4		50 (97 individual contaminants)
Overall totals	**827**	**172**	**124**	**95**	**436**	**1,419**

*Some water systems may have multiple violations within a contaminant group or violations in multiple groups.

Table B-3. Treatment technique violations during 2024

contaminant	number of water systems with violations					number of violations
	total systems*	MC	OC	NN	TN	
MICROBIAL CONTAMINANTS	**43**	**9**	**12**	**6**	**16**	**53**
Ground Water Rule	19	7	6	2	4	26
Revised Total Coliform Rule	25	2	6	4	13	27
CHEMICALS—LEAD AND COPPER RULE	**450**	**316**	**97**	**37**	n/a	**466**
DISINFECTANTS & DISINFECTION BYPRODUCTS	**18**	**15**	**1**	**2**	n/a	**19**
Overall totals	**491**	**328**	**104**	**42**	**17**	**538**

*Some water systems may have violations in multiple categories.

Table B-4. Notification violations during 2024

requirement	number of water systems with violations					number of violations
	total systems*	MC	OC	NN	TN	
Consumer Confidence Report	41	24	17	n/a	n/a	46
Ground Water Rule	7	2	1	1	3	7
Public Notice	1,005	338	119	71	477	1,525
Overall totals	**1,026**	**348**	**128**	**72**	**478**	**1,578**

*Some water systems may have multiple violations within this group.

Table B-5. Overall compliance with drinking water requirements during 2024

water system type	number of water systems	systems with violations	systems with full compliance	percent of systems complying
Municipal community	610	403	207	33.9%
Other-than-municipal community	422	180	242	57.3%
Non-transient non-community	909	161	748	82.3%
Transient community	9,268	769	8,499	91.7%
Overall totals	**11,209**	**1,513**	**9,696**	**86.5%**