



2023

Annual Drinking Water Quality Report PWS ID: 42004699

This report contains important information about your drinking water. Have someone translate it for you or talk to someone who understands it.

Este informe contiene información importante acerca de se agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Dlaim ntawv tshaabzu nuav muaj lug tseemceeb heev nyob rua huv kws has txug cov dlej mej haus. Kuas ib tug paab txhais rua koj, los nrug ib tug kws paub lug thaam.

This annual report complies with federal and state drinking water regulations, which require us to provide water quality information to our customers each year. The report is designed to inform you about the quality of Fond du Lac's municipal water supply. Our goal is to provide you with a safe and dependable supply of drinking water every day. Unless otherwise noted, results are based on testing conducted in 2023.

Water System Information

If you have any questions or would like additional information about this report, please contact Water Utility General Manager Travis Kloetzke at 920-322-3683 or emailing tkloetzke@fdl.wi.gov. You can learn more about Fond du Lac Waterworks by visiting our website at <https://www.fdl.wi.gov/water/>. We also welcome you to provide public input at the Fond du Lac City Council meetings which are held regularly at 6:00 pm on the 2nd and 4th Wednesday of each month in the Council Chambers of the City/County Government Center located at 160 South Macy Street in Fond du Lac.

Health Information

Fond du Lac Waterworks continuously monitors and tests the water delivered to its customers daily to ensure conformance with State and Federal drinking water standards and regulations. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's safe drinking water hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person with cancer undergoing chemotherapy, person who have undergone organ transplants, people with HIV/AIDS or other immune systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Environmental Protection Agency's safe drinking water hotline (800-426-4791)

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water primarily from materials and components associated with service lines and home plumbing. Fond du Lac Waterworks is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimized exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Water Source

Fond du lac Waterworks source water comes from 17 deep wells from in and around the City of Fond du Lac. These wells range in depth from 745' to 1,150'. Water is then pumped to one of four water treatment plants where radium is removed, and chlorine is added as a disinfectant. Water is stored in five different ground storage reservoirs and three elevated storage towers before it is pumped through 222 miles of water main using six supply and distribution

booster pump stations before it ends in the homes of roughly 16,000 plus customers. If you would like a summary of the source water assessment, please contact the Water Utility General Manager.

| Source ID | Well Field | Treatment Plant | Source | Depth (ft) | Status |
|-----------|-------------|-----------------|-------------|------------|-------------------------------|
| 10 | North | Merrill WTP | Groundwater | 855 | Temp out of service for rehab |
| 11 | North | Merrill WTP | Groundwater | 760 | Active |
| 12 | North | Merrill WTP | Groundwater | 745 | Active |
| 13 | North | Merrill WTP | Groundwater | 790 | Active |
| 14 | Stand Alone | McDermott WTP | Groundwater | 835 | Active |
| 15 | North | Merrill WTP | Groundwater | 775 | Active |
| 16 | South | Trowbridge WTP | Groundwater | 970 | Active |
| 17 | South | Trowbridge WTP | Groundwater | 1025 | Active |
| 18 | South | Trowbridge WTP | Groundwater | 950 | Active |
| 19 | South | Trowbridge WTP | Groundwater | 870 | Active |
| 20 | South | Trowbridge WTP | Groundwater | 910 | Active |
| 21 | Stand Alone | Well 21 WTP | Groundwater | 783 | Active |
| 23 | South | Trowbridge WTP | Groundwater | 965 | Active |
| 24 | South | Trowbridge WTP | Groundwater | 1055 | Active |
| 25 | South | Trowbridge WTP | Groundwater | 1150 | Active |
| 26 | North | Merrill WTP | Groundwater | 816 | Temp out of service for rehab |
| 27 | North | Merrill WTP | Groundwater | 824 | Temp out of service for rehab |

Educational Information

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

| Term | Definition |
|-------|--|
| AL | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| HA | Health Advisory: An estimate of acceptable drinking water levels for a chemical substance based on health effects information. |
| HAL | Health Advisory Level: A concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice. Health advisories are determined by US EPA. |
| MCL | Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| MCLG | Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. |
| MRDL | Maximum residual disinfectant level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. |
| MRDLG | Maximum residual disinfectant level goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. |

| | |
|-------|--|
| pCi/l | picocuries per liter (a measure of radioactivity) |
| ppm | parts per million, or milligrams per liter (mg/l) |
| ppb | parts per billion, or micrograms per liter (ug/l) |
| ppt | parts per trillion, or nanograms per liter (ng/l) |
| PHGS | Public Health Groundwater Standards are found in NR 140 Groundwater Quality. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice. |
| RPHGS | Recommended Public Health Groundwater Standards; Groundwater standards proposed by the Wisconsin Department of Health Services. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice. |
| SMCL | Secondary drinking water standards or Secondary Maximum Contaminant Levels for contaminants that affect taste, odor, or appearance of the drinking water. The SMCLs do not represent health standards. |

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

| Disinfection Byproducts | | | | | | | | |
|-------------------------|------|------|-------------|-------------|--------------------------------|--------------------------------|---|---|
| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2023) | Violation | Typical Source of Contamination |
| HAA5 (ppb) | D-2 | 60 | 60 | 8 | 5-9 | | No | By-product of drinking water chlorination |
| HAA5 (ppb) | D-12 | 60 | 60 | 7 | 5-9 | | No | By-product of drinking water chlorination |
| HAA5 (ppb) | D-42 | 60 | 60 | 4 | 4-5 | | No | By-product of drinking water chlorination |
| HAA5 (ppb) | D-51 | 60 | 60 | 6 | 5-9 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-2 | 80 | 0 | 34.3 | 21.2-50.1 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-12 | 80 | 0 | 36.8 | 28.3-47.2 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-42 | 80 | 0 | 17.8 | 10-22.7 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-51 | 80 | 0 | 28.8 | 21.1-35.6 | | No | By-product of drinking water chlorination |
| Inorganic Contaminants | | | | | | | | |
| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2023) | Violation | Typical Source of Contamination | |
| Arsenic (ppb) | 10 | n/a | 3 | 0-3 | | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes | |
| Barium (ppm) | 2 | 2 | 0.05 | 0.034-0.050 | | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits | |
| Fluoride (ppm) | 4 | 4 | 0.6 | 0-0.6 | | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories | |
| Nickel (ppb) | 100 | | 2.4 | 1.1-2.4 | | No | Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel, and alloy products. | |
| Nitrate (NO3-N)(ppm) | 10 | 10 | 0.08 | 0-0.08 | | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits | |
| Selenium(ppb) | 50 | 50 | 3 | 0-3 | | No | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines | |
| Sodium(ppm) | n/a | n/a | 55 | 42-55 | | No | n/a | |

| Lead & Copper | | | | | | | |
|---------------------|--------------|------|-----------------------------|---|--------------------------------|-----------|--|
| Contaminant (units) | Action Level | MCLG | 90th Percentile Level Found | # of Results | Sample Date (if prior to 2023) | Violation | Typical Source of Contamination |
| Copper (ppm) | AL=1.3 | 1.3 | 0.49 | 0 of 30 results were above the action level | 6/22/2021 | No | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | AL=15 | 0 | 9.5 | 1 of 30 results were above the action level | 6/22/2021 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

| Radioactive Contaminants | | | | | | | | |
|-------------------------------|-----|------|-------------|---------|--------------------------------|-----------|---------------------------------|--|
| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2023) | Violation | Typical Source of Contamination | |
| Gross Alpha, Excl R&U (pCi/l) | 15 | 0 | 7.8 | 0.2-7.8 | | No | Erosion of natural deposits | |
| Radium, (226 + 228)(pCi/l) | 5 | 0 | 3.2 | 0.5-3.2 | | No | Erosion of natural deposits | |
| Gross Alpha, Incl. R&U (n/a) | n/a | n/a | 8.4 | 0.3-8.4 | | No | Erosion of natural deposits | |
| Combined Uranium (ug/l) | 30 | 0 | 1 | 0.1-1 | | No | Erosion of natural deposits | |

| Volatile Organics | | | | | | | | |
|---------------------|------|-----|------|-------------|-----------------|--------------------------------|-----------|------------------------------------|
| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2023) | Violation | Typical Source of Contamination |
| Toluene (ppm) | | 1 | 1 | 0.0003 | 0.0000 - 0.0003 | | No | Discharge from petroleum factories |

Contaminants with a Public Health Groundwater Standard, Health Advisory Level, or a Secondary Maximum Contaminant Level

The following table lists contaminants which were detected in your water and that have either a Public Health Groundwater Standard (PHGS), Health Advisory Level (HAL), or a Secondary Maximum Contaminant Level (SMCL), or both. There are no violations for detections of contaminants that exceed Health Advisory Levels, Public Health Groundwater Standards or Secondary Maximum Contaminant Levels. Secondary Maximum Contaminant Levels are levels that do not present health concerns but may pose aesthetic problems such as objectionable taste, odor, or color. Public Health Groundwater Standards and Health Advisory Levels are levels at which concentrations of the contaminant present a health risk.

| Contaminant (units) | SMCL (ppm) | PHGS or HAL (ppm) | Level Found | Range | Sample Date (if prior to 2023) | Typical Source of Contamination |
|---------------------|------------|-------------------|-------------|--------|--------------------------------|---|
| Chloride (ppm) | 250 | | 120 | 79-120 | 8/24/2020 | Runoff/Leaching from natural deposits, road salt, water softeners |
| Sulfate (ppm) | 250 | | 170 | 89-170 | | Runoff/leaching from natural deposits, industrial wastes |

Unregulated Contaminants

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in Determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

| Contaminant (units) | Level Found (ppb) | Range (ppb) | Sample Date (if prior to 2023) | Typical Source of Contamination |
|----------------------------|-------------------|-------------|--------------------------------|---|
| Bromodichloromethane (ppb) | 3.7 | 0-3.7 | | By-product of drinking water chlorination |

| | | | | |
|----------------------------|------|----------|--|---|
| Bromoform (ppb) | 39 | 0.43-39 | | By-product of drinking water chlorination |
| Chloroform (ppb) | 0.8 | 0-0.8 | | By-product of drinking water chlorination |
| Dibromoacetic Acid (ppb) | 8.51 | 2.8-8.51 | | By-product of drinking water chlorination |
| Dibromochloromethane (ppb) | 14 | 0.34-14 | | By-product of drinking water chlorination |
| Dibromomethane (ppb) | 0.95 | 0 - 0.95 | | |
| Dichloroacetic Acid (ppb) | 0.99 | 0-0.99 | | |
| Monobromoacetic Acid (ppb) | 1.1 | 0-1.1 | | |
| Trichloroacetic Acid (ppb) | 0.38 | 0-0.38 | | |

Unregulated Contaminant Monitoring Rule (UCMR)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

| UCMR 4 | | | | |
|---------------------------------------|-------------|----------|--------------------------------|---------------------------------|
| Contaminant (units) | Level Found | Range | Sample Date (if prior to 2023) | Typical Source of Contamination |
| 1,3-dimethyl-2-nitrobenzene | 85 | 82-85 | 7/1/2020 | |
| 1-Butanol-d10 | 97 | 77-97 | 7/1/2020 | |
| 2-Bromobutanoic Acid | 130 | 110-130 | 7/1/2020 | |
| 2-Propen-1-ol-d6 | 90 | 72-90 | 7/1/2020 | |
| Benzo[a]pyrene-d12 | 99 | 84-99 | 7/1/2020 | |
| Bromochloroacetic acid (BCAA) (ppb) | 1.3 | 0.35-1.3 | 7/1/2020 | |
| Chlorodibromoacetic acid (CDBAA)(ppb) | 1.3 | 0.33-1.3 | 7/1/2020 | |
| Dibromoacetic acid (DBAA)(ppb) | 6.3 | 3.6-6.3 | 7/1/2020 | |
| Dichloroacetic acid (DCAA)(ppb) | 0.46 | 0-0.46 | 7/1/2020 | |
| Monobromoacetic acid (MBAA)(ppb) | 1 | 0.47-1.0 | 7/1/2020 | |
| o-toluidine-d9 | 79 | 51-79 | 7/1/2020 | |
| quinoline-d7 | 92 | 81-92 | 7/1/2020 | |
| Tribromoacetic acid (TBAA)(ppb) | 2.7 | 0-2.7 | 7/1/2020 | |
| Triphenyl phosphate | 96 | 80-96 | 7/1/2020 | |
| Bromide, as Br- (unfiltered)(ppb) | 1400 | 140-1400 | 7/1/2020 | |
| Manganese (ppb) | 1.2 | 0-1.2 | 7/1/2020 | |
| Total Organic Carbon (ppb) | 1100 | 0-1100 | 7/1/2020 | |

Unregulated Contaminant Monitoring Rule (UCMR 5)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring. UCMR 5 included testing for 29 PFAS compounds and lithium. Our water system did not have any detected results in 2023.

| Contaminant (ppb) | Level Found | Range | Sample Date (if prior to 2023) | Typical Source of Contamination |
|-------------------|-------------|-------|--------------------------------|---|
| Lithium | 20 | 12-20 | | Lithium can get in groundwater from lithium mining, manufacturing / recycling of batteries that contain lithium |