

The 2020 Annual Drinking Water Quality Report

What is this Report?

Is our water safe? Yes, it is! Manitowoc Public Utilities Water Department produces some of the highest quality drinking water in the nation. Last year, and in years past, your tap water met and exceeded every federal and state drinking water health standard. With our commitment to providing you with useful information, this report summarizes the quality of the water provided to our customers in 2020.

As mandated by the Safe Drinking Water Act (SDWA), this "Consumer Confidence Report" details our water sources, the results of our water tests, and how they compare to regulatory standards. You can count on MPU for quality water from your tap. Our results show it.

Sources of Water

| Source | Depth | Name |
|---------------|-------|-----------------------------|
| Groundwater | 66 ft | Ranney Well #1- Collector A |
| Groundwater | 84 ft | Ranney Well #3- Collector C |
| Surface Water | | Lake Michigan |

To obtain a summary of the source water assessment please call Robert Michaelson at 920-686-4354.

Health Information

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 persons with cancer undergoing chemotherapy, persons 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).

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 material, 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which 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, which 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.

In order 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.

For more information on Lead Awareness visit: <https://www.mpu.org/lead>

Manitowoc Public Utilities
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Water System Information

If you would like to know more about the information contained in this report, please contact Robert Michaelson, PE at 920-686-4354. MPU's Water Department staff members are also available to answer your questions about drinking water quality and the operations of our water treatment plant. You may also attend monthly MPU Commission meetings, scheduled on the 2nd and 4th Monday at 4pm, at MPU—1303 S. 8th Street.

2020 Key Accomplishments

- Replaced approximately 6100 feet of 10" watermain, 1930's era along with 45 lead service lines (LSLs) on Waldo Blvd in conjunction with WisDOT reconstruction.
- Replaced approximately 750 feet of 6" watermain on S. 29th St from Meadow Lane to Coolidge Place.
- Replaced approximately 550 feet of 6" watermain on S. 13th St from Washington St to Franklin St.
- Replaced approximately 1700 feet of 12" watermain on Menasha Ave.
- Replaced approximately 920 feet of 6" watermain on Maritime Drive, from N 6th St to Buffalo St.
- Completed the America's Water Infrastructure Act (AWIA) Risk and Resiliency assessment for the water facilities, and updated the Emergency Response Plan accordingly.

2021 Planned Activities

- Water main replacements concurrent with City street reconstruction:
 - * 2750 feet of 1967-era water main on S 30th St., from Division to Dewey.
 - * 1710 feet of 1940-era water main on Custer St., from S 29th to S 35.
 - * 1300 feet of 1946-era 20" water main on S 7th St., from Franklin to Marshall.
 - * 725 feet of 1911-era water main on Quay St., from S 6th St. to S 8th St.
- Administer the new 2021 WDNR Lead Service Line Replacement program, which provides funds to help customers replace their LSLs. MPU qualified for \$1,500,000 for the replacement of customer-owned LSLs in 2021.

On the Cover

Manitowoc residents rely on clean, safe water in our daily lives. MPU puts public safety at the top of the list when it comes to planning for your water needs now and in the future.



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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 along with the sample date.

Unregulated Contaminants

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.

Turbidity Monitoring

In accordance with s. NR 810.29 Wisconsin Administrative Code, the treated surface water is monitored for turbidity to confirm the filtered water is less than 0.1 NTU. Turbidity is a measure of the cloudiness of water. We monitor for it because it is good indicator of the efficiency of our filtration system. During the year, the highest single entry point turbidity measurement was 0.06 NTU.

Health Effects for Contaminants with MCL Violations/Action Level Exceedances

LEAD: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Additional Health Info

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. MPU 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 3 to 5 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 minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

| Contaminant | Year Tested | Unit | MCL | MCLG | Detected Level | Range | Major Sources | Violation |
|--------------------------------------|-------------|-------|--------|------|------------------|---|--|-----------|
| Disinfection By-products | | | | | | | | |
| HAA5, D-26 | 2020 | ppb | 60 | 60 | 25 | 15 - 24 | By-product of drinking water chlorination | No |
| HAA5, D-18 | 2020 | ppb | 60 | 60 | 23 | 14 - 21 | By-product of drinking water chlorination | No |
| TTHM, D-26 | 2020 | ppb | 80 | 0 | 37.1 | 31.9 - 36.5 | By-product of drinking water chlorination | No |
| TTHM, D-18 | 2020 | ppb | 80 | 0 | 38.5 | 26.7 - 34.4 | By-product of drinking water chlorination | No |
| Inorganic Contaminants | | | | | | | | |
| Arsenic | 2020 | ppb | 10 | n/a | 1 | 0 - 1 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes | No |
| Barium | 2020 | ppm | 2 | 2 | 0.077 | 0.021 - 0.077 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits | No |
| Copper | 2019 | ppm | AL=1.3 | 1.3 | 0.21(90th perc.) | 0 of 60 results were above action level | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives | No |
| Fluoride | 2020 | ppm | 4 | 4 | 0.7 | 0.2 - 0.7 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories | No |
| Lead | 2019 | ppb | AL=15 | 0 | 8.5(90th perc) | 4 of 60 results were above action level | Corrosion of household plumbing systems; erosion of natural deposits | No |
| Nickel | 2020 | ppb | 100 | n/a | 3.60 | .47 - 3.60 | Naturally occurring in soils, ground & surface waters and is often used in electroplating, stainless steel and alloy products | No |
| Nitrite (NO3 + NO2) | 2020 | ppm | 10 | 10 | 0.36 | 0.36 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits | No |
| Nitrate (NO3-N) | 2019 | ppm | 10 | 10 | 0.44 | 0.44 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits | No |
| Radioactive Contaminants | | | | | | | | |
| Gross Alpha, Excl. R&U | 2020 | pCi/l | 15 | 0 | 1.1 | 0.0 - 1.1 | Erosion of natural deposits | No |
| Radium, (226 + 228) | 2020 | pCi/l | 5 | 0 | 0.6 | 0.0 - 0.6 | Erosion of natural deposits | No |
| Combined Uranium | 2020 | ug/l | 30 | 0 | 1.7 | 0.3 - 1.7 | Erosion of natural deposits | No |
| Unregulated Contaminants | | | | | | | | |
| Bromodichloromethane | 2020 | ppb | n/a | n/a | 3.5 | 3.5 | Disinfectant byproducts that are formed when disinfectants are used to treat water and react with naturally occurring organic and inorganic matter present | No |
| Chloroform | 2020 | ppb | n/a | n/a | 2.6 | 2.6 | Disinfectant byproducts that are formed when disinfectants are used to treat water and react with naturally occurring organic and inorganic matter present | No |
| Chromium | 2015 | ppb | n/a | n/a | 0.2 | 0.2 | Naturally occurring element; used in steel and other alloys; dyes, pigments, leather tanning and wood preservation | No |
| Chromium-6 | 2015 | ppb | n/a | n/a | 0.2 | 0.2 | Naturally occurring element; used in steel and other alloys; dyes, pigments, leather tanning and wood preservation | No |
| Manganese | 2018 | ppb | n/a | n/a | 0.7 | 0.7 | Naturally-occurring element that can be found ubiquitously in the air, soil, and water | No |
| Metolachlor | 2020 | ppb | n/a | n/a | 0.01 | 0.00 - 0.01 | | No |
| Strontium | 2015 | ppm | n/a | n/a | 120 | 110 - 120 | Naturally occurring element; commercial use in faceplate glass of cathode-ray tube televisions to block x-ray emissions | No |
| Sulfate | 2020 | ppm | n/a | n/a | 110.00 | 21.00 - 110.00 | Naturally occurs in mineral salts found in soil | No |
| Vanadium | 2015 | ppb | n/a | n/a | 0.3 | 0.2-0.3 | Naturally occurring elemental metal; used as a chemical intermediate and a catalyst | No |
| Volatile Organic Contaminants | | | | | | | | |
| Tetrachloroethylene | 2020 | ppb | 5 | 0 | 0.7 | 0.0 - 0.7 | Leaching from PVC pipes, discharge from factories and dry cleaners | No |

Data Table Definitions

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.

AL- Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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)

NTU- Nephelometric Turbidity Units