



2024 Consumer Confidence Report Data MIDDLETON WATERWORKS, PWS ID: 11302423

We are pleased to present this year's City of Middleton Water Quality Report, (C.C.R.). This report is designed to inform you about the quality of water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

This report shows our water quality and what it means

If you have any questions with this report, please contact the **Middleton Water Utility at 608-821-8370**, Monday-Friday 8:00-4:00. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at the City of Middleton, 7426 Hubbard Avenue at 6:30 pm on the 2nd and 4th Mondays of each month. Copies of this report are available in English or Spanish at City Hall, or on the City's Web Site at cityofmiddleton.us. **Copias de Este informe están disponibles en Español en las oficinas de la ciudad, o en el sitio Web cityofmiddleton.us.**

The Middleton Water Utility routinely monitors for constituents in our drinking water according to Federal and State laws. The table shows the most recent results of our monitoring.

Wellhead Protection

The City of Middleton has adopted a Wellhead Protection Plan and Ordinance. The purpose of these land use controls is to help protect the source of our drinking water. Copies of the plan are available for inspection at City Hall.

Cross Connection Control Program

A cross connection is a direct or potential connection between any part of the public water supply system and a source of contamination or pollution. The most common form of cross connection is a garden hose, which is easily connected to the public water supply system and can be used to apply a variety of potentially dangerous substances, including chemicals and fertilizer. Other common cross connections include dishwashers, toilets, pressure washers, boilers, pools, and lawn sprinkler systems.

In order to reduce overall costs for compliance with DNR Regulation NR810.15, the City of Middleton Water Utility has implemented a comprehensive cross connection survey program. There is no cost for the survey and each on-site survey takes less than 45 minutes on average for a business and less than 30 minutes for a home survey when conducted at the time of new water meter installation.

The City will send postal notices to perform surveys of residential, commercial, and industrial buildings throughout the community. This is to detect actual & potential cross connections and make recommendations for the installation of backflow prevention devices or assemblies where necessary. This will help ensure that contaminated or polluted water cannot backflow into clean drinking water.

Water System Information

If you would like to know more about the information contained in this report, please contact Marc Cobbs at (608) 206-9910.

Opportunity for input on decisions affecting your water quality

Generally held on the 2nd & 4th Monday of the month @ 6:30pm CST. At City Hall, Conference Room, 7426 Hubbard Ave, Middleton WI 53562

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).

Source(s) of Water

| Source ID | Source | Depth (in feet) | Status |
|-----------|-------------|-----------------|--------|
| 2 | Groundwater | 330 | Active |
| 3 | Groundwater | 600 | Active |
| 4 | Groundwater | 851 | Active |
| 5 | Groundwater | 807 | Active |
| 6 | Groundwater | 856 | Active |
| 8 | Groundwater | 740 | Active |

To obtain a summary of the source water assessment please contact, Marc Cobbs at (608) 206-9910.

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.

Definitions

| 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 and HAL | HA: Health Advisory. An estimate of acceptable drinking water levels for a chemical substance based on health effects information. HAL: Health Advisory Level is 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. |
| HI | HI: Hazard Index: A Hazard Index is used to assess the potential health impacts associated with mixtures of contaminants. Hazard Index guidance for a class of contaminants or mixture of contaminants may be determined by the US EPA or Wisconsin Department of Health Services. If a Health Index is exceeded a system may be required to post a public notice. |
| Level 1 Assessment | A Level 1 assessment is a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system. |
| Level 2 Assessment | A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has occurred or why total coliform bacteria have been found in our water system, or both, on multiple occasions. |
| 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. |
| MFL | million fibers per liter |
| 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. |
| mrem/year | millirems per year (a measure of radiation absorbed by the body) |
| NTU | Nephelometric Turbidity Units |
| 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 |
| ppq | parts per quadrillion, or picograms per liter |

| Term | Definition |
|-------------|---|
| PHGS | 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 | 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. |
| TCR | Total Coliform Rule |
| TT | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |

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 2024) | Violation | Typical Source of Contaminant |
|----------------------------|-------------|------------|-------------|--------------------|--------------|---------------------------------------|------------------|---|
| HAA5 (ppb) | D-2 | 60 | 60 | 1 | 1 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-2 | 80 | 0 | 0.0 | 0.0 | | No | By-product of drinking water chlorination |
| HAA5 (ppb) | D-79 | 60 | 60 | 4 | 4 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-79 | 80 | 0 | 10.7 | 10.7 | | No | By-product of drinking water chlorination |

Inorganic Contaminants

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2024) | Violation | Typical Source of Contaminant |
|-----------------------|------|-----|------|-------------|-------------|--------------------------------|-----------|--|
| BARIUM (ppm) | | 2 | 2 | 0.073 | 0.073 | | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| FLUORIDE (ppm) | | 4 | 4 | 0.1 | 0.1 | | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| NICKEL (ppb) | | 100 | | 1.7000 | 1.7000 | | No | Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. |
| NITRATE (N03-N) (ppm) | | 10 | 10 | 4.80 | 0.00 - 4.80 | | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| SODIUM (ppm) | | n/a | n/a | 3.10 | 3.10 | | No | n/a |

| Contaminant (units) | Action Level | MCLG | 90th Percentile Level Found | Range | # of Results | Sample Date (if prior to 2024) | Violation | Typical Source of Contaminant |
|---------------------|--------------|------|-----------------------------|-----------------|--------------------------------|--------------------------------|-----------|---|
| COPPER (ppm) | AL=1.3 | 1.3 | 0.2000 | 0.0000 - 0.2500 | 0 of 30 results were above the | 6/26/2023 | No | Corrosion of household plumbing systems; Erosion of natural |

| Contaminant (units) | Action Level | MCL G | 90th Percentile Level Found | Range | # of Results | Sample Date (if prior to 2024) | Violation | Typical Source of Contaminant |
|---------------------|--------------|-------|-----------------------------|--------------|--|--------------------------------|-----------|--|
| | | | | | action level. | | | deposits; Leaching from wood preservatives |
| LEAD (ppb) | AL=150 | 0 | 4.00 | 0.00 - 19.00 | 1 of 30 results were above the action level. | 6/28/2023 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

PFAS Contaminants with a Recommended Health Advisory Level

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals that have been used in industry and consumer products worldwide since the 1950. The following table list PFAS contaminants which were detected in your water and that have a Recommended Public Health Groundwater Standard (RPHGS) or Health Advisory Level (HAL). There are no violations for detections of contaminants that exceed the RPHGS or HAL. The RPHGS are levels at which concentrations of the contaminant present a health risk and are based on guidance provided by the Wisconsin Department of Health Services.

Note: The recommended health-based levels in the table below were in effect in 2024. These levels were revised by WDHS in 2025. They can be found here <https://www.dhs.wisconsin.gov/water/gws.htm>.

| Typical Source of Contaminant | | Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills. | | | | |
|-------------------------------|------|--|-------------|-------------|--------------------------------|--|
| Contaminant (units) | Site | RPHGS or HAL (PPT) | Level Found | Range | Sample Date (if prior to 2024) | |
| PFBS (ppt) | | 450000 | 0.97 | 0.00 - 0.97 | 3/15/2023 | |
| PFHXS (ppt) | | 40 | 0.78 | 0.00 - 0.78 | 2/7/2023 | |
| PFOS (ppt) | | 20 | 0.64 | 0.00 - 0.64 | 2/7/2023 | |
| PFOA (ppt) | | 20 | 1.10 | 0.00 - 1.10 | 2/7/2023 | |
| PFHXA (ppt) | | 150000 | 1.40 | 0.00 - 1.40 | 3/15/2023 | |

| | | | | | |
|--------------------------------------|-------------|--|--------------------|--------------|---------------------------------------|
| Typical Source of Contaminant | | Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills. | | | |
| Contaminant (units) | Site | RPHGS or HAL (PPT) | Level Found | Range | Sample Date (if prior to 2024) |
| PFOA AND PFOS TOTAL (ppt) | | 20 | 1.74 | 0.00 - 1.74 | 2/7/2023 |

Radioactive Contaminants

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2024) | Violation | Typical Source of Contaminant |
|----------------------------------|-------------|------------|-------------|--------------------|--------------|---------------------------------------|------------------|--------------------------------------|
| GROSS ALPHA, EXCL. R & U (pCi/l) | | 15 | 0 | 4.9 | 4.9 | | No | Erosion of natural deposits |
| RADIUM, (226 + 228) (pCi/l) | | 5 | 0 | 3.9 | 3.9 | | No | Erosion of natural deposits |
| GROSS ALPHA, INCL. R & U (n/a) | | n/a | n/a | 5.0 | 5.0 | | No | Erosion of natural deposits |
| COMBINED URANIUM (ug/l) | | 30 | 0 | 0.2 | 0.2 | | No | Erosion of natural deposits |

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) | Site | SMCL (ppm) | PHGS or HAL (ppm) | Level Found | Range | Sample Date (if prior to 2024) | Typical Source of Contaminant |
|---------------------|------|------------|-------------------|-------------|-------|--------------------------------|--|
| SULFATE (ppm) | | 250 | | 1.30 | 1.30 | | Runoff/leaching from natural deposits, industrial wastes |

Additional Health Information

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Middleton Waterworks is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact Middleton Waterworks (Marc Cobbs at (608) 206-9910). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

Additional Information on Service Line Materials

We are required to develop an initial inventory of service lines connected to our distribution system by October 16, 2024 and to make the inventory publicly accessible. You can access the service line inventory here/by:

<https://middleton.maps.arcgis.com/apps/dashboards/2a20fd93dc7f43918388ca5f183f4135>

<https://www.cityofmiddleton.us/> On the cities homepage you can click the lead service line lookup info icon or by clicking "Departments", "Water & Sewer Utilities", "Lead Service Line Lookup", and lastly "Lead Service Line Lookup Dashboard."

Other Compliance

Other Drinking Water Regulations Violations

| Description of Violation | Date of Violation | Date Violation Resolved |
|--|-------------------|-------------------------|
| Failed to develop and report an initial inventory for service line materials that meets federal requirements | 10/17/2024 | |

Actions Taken

The lead service line inventory is a continued work in progress. We hope to have an initial report that passes DNR review within the next couple months. We are working continually with our partners at MSA and Jacobs Engineering to produce an accurate inventory. This is a compilation of over 48,000 single data entries that must be extracted from our GIS and formatted to the EPA's spreadsheet. The water utility maintains that we are unaware of any lead service line laterals within the distribution system.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilsons Disease should consult their personal doctor.

We failed to develop an inventory that meets all federal requirements and/or to make the inventory publicly accessible. We failed to submit this initial inventory of service lines by October 16, 2024.

We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or manmade. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the 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 at 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 system 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 microbiological contaminants are available from the Safe Drinking Water Hotline 800-426-4791.

Please call the **Middleton Water Utility at 608-821-8370** if you have any questions. This data may also be found on the Wisconsin DNR webpage at <https://apps.dnr.wi.gov/dwsportalpub/DS/View/134795>