



2020 City of Wayne, MI Water Quality Report

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Source water assessment and its availability

Safe Drinking Water is a Shared Responsibility

Drinking water quality is important to our community and the region. The City of Wayne and the Great Lakes Water Authority (GLWA) are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. The City of Wayne operates the system of watermains that carry this water to your homes service line. This year's Water Quality Report highlights the performance of GLWA and The City of Wayne water professionals in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking water.

In compliance with the Federal Safe Drinking Water Act Amendments, the City of Wayne is providing its customers with the 2020 Annual Report on Water Quality. This report explains where your water comes from, what it contains and how it compares to Environmental Protection Agency (EPA) and State standards. We are committed to providing you with a safe and dependable supply of drinking water.

Safe Drinking Water Act

Under the Safe Drinking Water Act (SDWA), the United States Environmental Protection Agency (USEPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Similarly, Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Each agency continually monitors these substances and reports directly to the USEPA if they are detected in the drinking water. USEPA uses this data to ensure customers are receiving clean water and verify that states are enforcing the laws that regulate drinking water.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Lead Message

Safe drinking water is a shared responsibility. The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business. The City of Wayne performs required lead and copper sampling and testing in our community. Water consumers also have a responsibility to maintain the plumbing in their homes and businesses, and can take steps to limit their exposure to lead.

Additional Information for Lead

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. City of Wayne 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 minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. "Infants and children who drink water containing lead 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.

Our water supply has 398 lead service lines and 50 service lines of unknown material, out of a total of 5850 service lines.

The City of Wayne and The Great Lakes Water Authority are committed to safeguarding our water supply and delivering the highest quality drinking water to protect Public Health. Please contact us with any questions or concerns about your water.

Where does my water come from?

Water Source

The City of Wayne is supplied by the Great Lakes Water Authority (GLWA) and is serviced by the Springwells and Southwest treatment plants. The GLWA provides drinking water to approximately 4.2 million people in 126 southeastern Michigan communities. The water supply for the Springwells treatment plant is from Belle Isle intakes which are located in the Detroit River on the east end of the island. The water supply for the Southwest treatment plant is from intakes which are located in the Detroit River east of the international boundary line between Canada and the United States near Fighting Island.

Detroit River Intakes

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale and

ranges from very low to very high determined primarily using geologic sensitivity, water chemistry, and potential contaminant sources. The report described GLWA's Detroit river intakes as highly susceptible to potential contamination. However, all four GLWA water treatment plants that service the city of Detroit and draw water from the Detroit River have historically provided satisfactory treatment and meet drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in the National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. In 2016, the Michigan Department of Environmental Quality approved the GLWA Surface Water Intake Protection Program plan. The programs include seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection areas, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new water sources, public participation and public education activities. If you would like to know more information about the Source Water Assessment report please, contact GLWA at (313) 926-8102.

Why are there contaminants in my drinking water?

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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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:

microbial contaminants, such as viruses and bacteria, that 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; and 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

Results of Cryptosporidium monitoring

2020 GLWA Cryptosporidium – Giardia Statement:

GLWA voluntarily monitors our source water for the presence of Cryptosporidium and Giardia In 2020. The presence of Cryptosporidium and Giardia were detected in the source water at the Belle Isle Detroit River Intake serving Water Works Park, Springwells and the Northeast treatment plants. Cryptosporidium was detected once in March and Giardia once in April. All other samples monitored in 2020 were absent for the presence of Cryptosporidium and Giardia. Current test methods do not enable us to determine if these organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. Cryptosporidium must be ingested for it to cause disease and may be passed through other means than drinking water. Surface water treatment systems like GLWA must provide treatment so that 99.9% Giardia is removed or inactivated.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

| Contaminants | MCLG or MRDLG | MCL, TT, or MRDL | Detect In Your Water | Range | | Sample Date | Violation | Typical Source |
|---|---------------|------------------|----------------------|-------|------|-------------|-----------|---|
| | | | | Low | High | | | |
| Disinfectants & Disinfection By-Products | | | | | | | | |
| (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) | | | | | | | | |
| Chlorine (as Cl ₂) (ppm) | 4 | 4 | .79 | .49 | .79 | 2020 | No | Water additive used to control microbes |
| Haloacetic Acids (HAA5) (ppb) | NA | 60 | 33 | 10 | 33 | 2020 | No | By-product of drinking water chlorination |
| TTHMs [Total Trihalomethanes] (ppb) | NA | 80 | 46 | 21 | 46 | 2020 | No | By-product of drinking water disinfection |
| Total Organic Carbon (% Removal) | NA | TT | 0 | NA | NA | 2020 | No | Naturally present in the environment |
| Inorganic Contaminants | | | | | | | | |
| Barium (ppm) | 2 | 2 | .01 | .01 | .01 | 2020 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 4 | .37 | .61 | 2020 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |

| Contaminants | MCLG or MRDLG | MCL, TT, or MRDL | Detect In Your Water | Range | | Sample Date | Violation | Typical Source |
|--|---------------|------------------|----------------------|--------------------|------|-------------|------------------------------------|--|
| | | | | Low | High | | | |
| Nitrate [measured as Nitrogen] (ppm) | 10 | 10 | .61 | .37 | .61 | 2020 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Sodium (optional) (ppm) | NA | | 6.81 | 5.37 | 6.81 | 2020 | No | Erosion of natural deposits; Leaching |
| Microbiological Contaminants | | | | | | | | |
| Total Coliform (RTCR) | NA | TT | NA | NA | NA | 2020 | No | Naturally present in the environment |
| Turbidity (NTU) | NA | 0.3 | 100 | NA | NA | 2020 | No | Soil runoff |
| 100% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was .21. Any measurement in excess of 1 is a violation unless otherwise approved by the state. | | | | | | | | |
| Radioactive Contaminants | | | | | | | | |
| Radium (combined 226/228) (pCi/L) | 0 | 5 | .65 | .11 | .65 | 2014 | No | Erosion of natural deposits |
| Contaminants | MCLG | AL | Your Water | Range (Low) [High] | | Sample Date | # Samples Exceeding AL/ Exceeds AL | Typical Source |
| Inorganic Contaminants | | | | | | | | |
| Copper - action level at consumer taps (ppm) | 1.3 | 1.3 | .22145 | (.0037) [.40622] | | 2020 | 0/No | Corrosion of household plumbing systems, including fittings and fixtures. Erosion of natural deposits. |
| Lead - action level at consumer taps (ppb) | 0 | 15 | 5.84 | (0) [142.51] | | 2020 | 1/No | Lead service lines, corrosion of household plumbing systems, including fittings and fixtures. Erosion of natural deposits. |

Violations and Exceedances

Level 1 Assessment and Sanitary Defects

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliform indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct one Level 1 Assessment(s). One Level 1 Assessment(s) were completed. In addition, we were required to take one corrective action(s) and we completed one assessment(s).

Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

| Name | Reported Level | Range | |
|------------------|----------------|-------|------|
| | | Low | High |
| manganese (ug/L) | .48 | 0 | .48 |

| Unit Descriptions | |
|--------------------------|--|
| Term | Definition |
| ug/L | ug/L : Number of micrograms of substance in one liter of water |
| ppm | ppm: parts per million, or milligrams per liter (mg/L) |
| ppb | ppb: parts per billion, or micrograms per liter (µg/L) |
| pCi/L | pCi/L: picocuries per liter (a measure of radioactivity) |
| NTU | NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. |
| % positive samples/month | % positive samples/month: Percent of samples taken monthly that were positive |
| NA | NA: not applicable |
| ND | ND: Not detected |
| NR | NR: Monitoring not required, but recommended. |

| Important Drinking Water Definitions | |
|--------------------------------------|---|
| Term | Definition |
| MCLG | 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. |
| MCL | 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. |
| TT | TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |
| AL | AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |

| Important Drinking Water Definitions | |
|---|---|
| Variations and Exemptions | Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions. |
| MRDLG | MRDLG: Maximum residual disinfection 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. |
| MRDL | 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. |
| MNR | MNR: Monitored Not Regulated |
| MPL | MPL: State Assigned Maximum Permissible Level |

For more information please contact:

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