



James E. Seeterlin Building
Department of Public Works



Multiple Award-Winning Water Treatment Plant
located at Hess-Hathaway Park



The elevated water storage tank at
Main Street and Walton Blvd.

The Waterford Township Department of Public Works (DPW) is proud to present this 25th Drinking Water Quality Report. While the United States Environmental Protection Agency (U.S. EPA) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) require water utilities to report the quality of their drinking water, the DPW considers it a priority to inform you, our customers, about the safety of the water you drink and the importance of protecting our water supply now and for future generations. The report includes details regarding where the Township's drinking water comes from, what it contains, and how it compares to U.S. EPA and Michigan standards. The DPW is pleased to announce there were no contaminant violations for Operational Year 2024. If you have any questions, desire more information about this report or any other subject related to your water quality, please contact Gerald Ward (Operator-in-Charge) at 248-618-7483 or gward@waterfordmi.gov.

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. The DPW utilizes wells to provide drinking water to Township water customers. As water travels over the land surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can collect substances resulting from the presence of animals or from human activity. 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. Additional information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791 or by visiting their website at www.epa.gov/safewater.

Where does Waterford Township water come from?

The Township's water supply is obtained from 19 wells located at eleven different sites throughout the Township. At ten water treatment plant sites, the groundwater is sent through filters for the removal of iron; chlorine is added for disinfection; and ortho-phosphate is added for corrosion control, preventing pipes from leaching lead and copper into the drinking water. In order to ensure that tap water is safe to drink, the U.S. EPA sets regulations, which limit the quantity of certain contaminants in water distributed to customers by public water systems. Federal Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which provide the same protection for public health.

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.
- **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.
- **Pesticides and Herbicides** may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants** can be naturally occurring or may be the result of oil and gas production and mining activities.

What contaminants are in Waterford Township water?

The following is a list of some common contaminants and their associated health effects when the Maximum Contaminant Level (MCL) is exceeded. If a particular MCL or Action Level (AL) is exceeded, additional treatment or other action may be required. However, the Township's water falls below the MCL and AL for contaminants described, and all other parameters monitored.

Copper: 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 may 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 Wilson's disease should consult their personal doctor.

Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years may develop bone disease, including pain and tenderness of the bones. Children may get mottled teeth. The DPW treatment process does not add fluoride to its finished water. However, fluoride occurs naturally in ground water. Refer to the data table on page 5 of the report for the levels of fluoride observed in the most recent tests. Please consult your health care provider for fluoride supplement recommendations.

Lead: 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. Waterford Township 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 you 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 at least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water and wish to have your water tested, contact Jodi Burchett, Water Supply Foreperson, at 248 618-7491 or jburchett@waterfordmi.gov for available resources. 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>.

There is no safe level of lead in drinking water. 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 persons 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.

Arsenic: Used in the manufacturing of pesticides, metal products, medicines, and pigments and dyes, arsenic is a naturally occurring element in the environment and can be found in groundwater. While a known carcinogen, the health effects of arsenic depend on the amount consumed. The current MCL for arsenic is 10 parts per billion (ppb), which was lowered from 50 ppb by the U.S. EPA. In operational year 2024, Township water tested below the new stringent arsenic criteria. Please visit the U.S. EPA's website for more information about arsenic at <https://nepis.epa.gov/Exe/ZyPdf.cgi?Dockey=20001XXE.txt>. While your drinking water meets the U.S. EPA standard for arsenic, it does contain low levels of arsenic. The U.S. EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. Nitrate is formed when oxygen, in the air or dissolved in water, combines with nitrogen. While nitrate is naturally occurring, concentrations can increase from septic tank leachate and fertilizers, which are rich in nitrogen. The MCL for nitrate is 10 parts per million (ppm). There were no nitrates detected in Township water samples taken in Operational Year 2024.

TTHMs and HAA5: Total Trihalomethanes (TTHMs) and Haloacetic Acid (HAA5) are a group of chemicals that are formed along with other disinfection by-products, when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic material in water.

Unregulated Contaminants: Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. Monitoring helps the U.S. EPA determine where certain contaminants occur and whether regulations are needed. The Township monitors these contaminants and selected results of monitoring are included in the Water Quality Report, as required, and additional results are available upon request.

Per- and Polyfluoroalkyl Substances (PFAS): Per- and polyfluoroalkyl substances, sometimes called PFCs, are a group of human-made chemicals that are fire resistant and repel oil, stains, grease, and water. PFAS chemicals are very persistent and do not easily break down in the environment. PFAS has been classified by the EPA as an emerging contaminant on the

national landscape. Although the understanding of these emerging contaminants is constantly evolving, elevated levels of PFAS have the potential to cause increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers. Links to these health effects in humans are supported by epidemiologic studies and by laboratory studies in animal models.

The Michigan PFAS drinking water rules took effect on August 3, 2020. The rules established MCLs and sampling requirements for seven PFAS compounds as presented in the table on page 5 of this report. The amount of PFAS regulated compounds in the samples collected at the Township's entry points to the distribution system in 2024 ranged from NOT DETECTED to 5 ng/L (or ppt), which is 10 times lower than the MCL for the particular compound. There are many other PFAS compounds that currently do not have MCL levels. For additional information on PFOA, PFOS, and other PFAS compounds, including health concerns, visit the following websites: <https://epa.gov/pfas>; <https://www.atsdr.cdc.gov/pfas>; or <https://www.michigan.gov/pfasresponse>.

Reporting Requirements Not Met for Waterford Township

Every month, the Township DPW is required to report the results of your drinking water for specific contaminants and the amount of water pumped with treatment calculations. Results of regular monitoring are an indicator of whether your drinking water meets health standards. The DPW completed daily treatment documentation, as well as collected more than the required number of total coliform samples on time and **they all tested negative for bacteria**. However, the DPW did not report results and submit the Monthly Operating Report to EGLE by the December 10, 2024, deadline for the November 1 to November 30, 2024, compliance period. This resulted in a *reporting violation* from EGLE.

What should I do? There is nothing you need to do at this time. This is not an emergency. The results of the samples were negative for bacteria. You **do not** need to boil water or use an alternative source of water. Even though public health was not impacted, as our customers you have a right to know what happened and what the Township did to correct the situation.

What happened? What is being done? While the DPW collected the samples and completed daily treatment on time, the DPW inadvertently missed reporting the sample results to EGLE by the required deadline. The DPW is required to monitor total coliform by collecting 80 samples per month. The DPW completed the required treatment documentation from November 1 to November 30, 2024, and collected the required samples on November 4th, 12th, 18th, & 19th, 2024, but failed to report the results for both, until January 6, 2025. The Water System has already returned to compliance status and is making efforts to ensure this does not happen again. For additional information contact Jodi Burchett, Water Supply Foreperson, at (248) 618-7491.

Waterford Township Wellhead Protection Program

Since Waterford Township's source water is derived from wells, it is in the community's best interest to safeguard the resource. Part of this protection included the Township's development of eleven Well Head Protection Areas (WHPA), which have been approved by the Michigan Department of Environment, Great Lakes, and Energy. These areas define the boundaries of the 1, 5, and 10-year zone of capture for the specific wellheads. If untreated, a contaminant released or spilled at the edge of the boundary would, theoretically, take one, five, or ten years to reach the wellhead. The Township wells range in susceptibility from moderately low to high as defined by the State's Source Water Assessment Report. A copy of the Source Water Assessment Report can be obtained by contacting the DPW at 248-674-2278. The DPW has also developed a Wellhead Protection Program.

Education is a major component of the Program and includes the following:

- Informational road signs placed throughout the Township. Look for signs around the community wherever roads intersect Wellhead Protection Areas.
- Informational booths at community civic events, including the Waterford Showcase.
- Township's Wellhead Protection Program website:
<https://www.waterfordmi.gov/269/Wellhead-Protection-Program>.

Waterford Township partners with the North Oakland Household Hazardous Waste Consortium (No Haz) that provides residents with a safe, reliable, and environmentally responsible way to dispose of household hazardous waste (HHW). Visit <https://www.oakgov.com/community/community-development/waste-recycling/nohaz> to find out when and where upcoming collection events will be held throughout the County. Please remember, you can do your part by disposing of contaminants properly, as well as reporting spills and dumping. For more information on this topic please contact Kristin Goetze, P.E., DPW Engineer, at 248-618-7451.

Lead Service Line Report

The Waterford Township DPW submitted the Complete Distribution System Materials Inventory (CDSMI) Summary to EGLE before the October 16, 2024, deadline. The Report listed a total of 25,026 service lines of which one was known to be lead. By using building construction dates, material physical verification, and predictive modeling it was determined that all services lines, except the one described above, were non-lead. The known lead service line was replaced by the DPW in November 2024. The DPW was notified, after that replacement, that a service line at a neighboring home was also lead. The DPW replaced that line in December 2024. Service lines are the lines that connect from the Township's water distribution main to a customer's meter to supply water to homes, businesses, and irrigation systems.

Frequently Asked Questions

Do I need to take special precautions with my drinking water?

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 disorders, some elderly people, and infants can be particularly at risk from infections. These people may seek advice about drinking water from their health care providers. The U.S. EPA and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791 or on the U.S. EPA website at www.epa.gov/safewater. The Water Quality Data Table on the last page of this report lists the drinking water contaminants that were detected during the calendar year of this report. Additionally, information in this report describes contaminants in your water and the methods the DPW uses to protect the water supply. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Does the Township recommend a water softener?

While DPW treatment facilities significantly remove iron from the water, hardness remains, and water softeners are recommended. Water hardness experienced by property owners will vary depending on the source of groundwater at the treatment facility in a given area. The DPW suggests that customers set their water softener units at 18 to 20 grains initially and subsequently adjust the units, as necessary. In Operational Year 2024, the average grains per gallon were 20.1 based on sampling. Please feel free to call the Water Treatment Division at 248-618-7491 for individual settings for your water softener.

What should I know about hydrant flushing?

Fire hydrant flushing is conducted to improve water quality and is completed in the spring and fall of each year. The DPW conducts hydrant flushing at night to minimize service interruptions and inconveniences to customers. However, it is not uncommon to experience rusty looking water immediately following flushing. This condition should clear up shortly after flushing has been completed.

Is there an easier way to pay my water/sewer bill or access my utility account?

The DPW offers customers the convenience of paying their water and sewer bills via auto-debit from their checking or savings accounts. Please visit the DPW website for enrollment forms. The DPW also offers customers the convenience of viewing their account status, as well as the option of paying their water and sewer utility bills online with a credit card, 24 hours a day. The account viewing service is free of charge. A convenience charge of 2.95% is applied for credit card payments and 2.25% is applied for debit card payments by the third-party processing company. Visit the DPW web site at: <http://waterfordmi.gov/264/Water-Sewer-Bill>.

Did you know?

- The Township has approximately 355 miles of water main that are operated and maintained by the DPW.
- The DPW is somewhat unique in southeastern Michigan in that it is responsible for the pumping, treatment, and distribution of drinking water to its approximately 25,000 water accounts. A majority of southeastern Michigan water customers are provided drinking water from the Great Lakes Water Authority (GLWA).
- The Township water system has 3,800 fire hydrants that are serviced and maintained by the DPW.
- The DPW has deployed a radio based Fixed Network (FN) Meter Reading System. Meter readings and alerts from this system are sent to the DPW, without the need for staff to enter customers' property.
- The DPW allows a second (sprinkler) meter for outside watering. The advantage of this meter is that sewer fees are not charged for water usage through the meter. Customers do need to purchase the meter, have the plumbing installed, and an inspection completed for the second meter. The second meter can be advantageous for customers with sprinkler systems that have high outside water usage.
- The Waterford Township Board meets every second and fourth Monday of each month, unless Monday is a holiday. The meeting will be held on Tuesday, if Monday is a holiday. At the meetings, there is time available for members of the public to comment on and raise concerns regarding the water system.

Photo Credit (this page): Jodi Burchett, DPW Water Supply Foreperson

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2024 WATER QUALITY DATA TABLE

Per EGLE and/or EPA monitoring requirements, contaminant-monitoring schedules vary and can exceed calendar years in collection and testing frequency.
Unless otherwise noted, the data presented in this table is from testing done in the calendar year 2024. Abbreviations are identified on the following page.

	Testing Violations	Testing Date(s)	MCLG	MCL	Township Water	Sample Range	Major Sources in Drinking Water
Inorganic Contaminants:							
Fluoride (ppm)	NO	2024	4	4	0.44	Not Detected to 0.62	Erosion of natural deposits and discharge from fertilizer and aluminum factories.
Arsenic (ppb)	NO	2024	0	10	3.60*	Not Detected to 8.0	Used in agricultural production and naturally found in the environment.
Barium (ppm)	NO	2024	2	2	0.14	0.12 to 0.15	Discharge of drilling wastes and metal refineries as well as erosion of natural deposits.
Radioactive Contaminants:							
Combined Radium (pCi/L)	NO	2022	0	5	1.63	0.631 to < 1.0	Erosion of natural deposits.
Uranium (ppb)	NO	2024	0	30	0.38	ND to 0.8	Erosion of natural deposits.
Gross Alpha (pCi/L)	NO	2024	0	15	1.11	0.00 to 2.00	Erosion of natural deposits.
Organic Contaminants:							
TTHM (Total Trihalomethanes) (Distribution System) (ppb)	NO	2024	N/A	80	28.6	14.6 to 42.5	By-product of drinking water disinfection. See report page 3 for additional information.
HAA5 (Haloacetic Acids) (Distribution System) (ppb)	NO	2024	N/A	60	7.0	4.0 to 10.0	By-product of drinking water disinfection.
Microbial Contaminants - Monthly Monitoring in the Distribution System							
Total Coliform Bacteria	NO	2024	0	>5% of monthly	ND	Highest Not Detected	Major Sources in Drinking Water
E. Coli (fecal) Coliform Bacteria	NO	2024	0		ND	In one month = ND	Naturally Present in the Environment. No violation in 2024.
						In one year = ND	Human waste and animal fecal waste. No violation in 2024.
Special Monitoring of Contaminants							
			MRDLG	MRDL		Sample Range	
Sodium (ppm)	NO	2024	N/A	N/A	49.0	16.0 to 110.0	Erosion of natural deposits.
Chlorine (ppm)	NO	2024	4	4	0.36*	0.27 to 0.48	Water additive used to control microbes.
Lead and Copper							
			MCLG	AL	90th%	Sites above AL / Sample Range	Major Sources in Drinking Water
Lead (ppb) (1/1 - 6/30/2024)	YES	2024	0	15	1	2 out of 60 sites 0 to 51	Lead service lines, corrosion of household plumbing including fittings and fixture; Erosion of natural deposits
Lead (ppb) (7/1 - 12/31/2024)	NO	2024	0	15	2	0 out of 60 Sites 0 to 11	Lead service lines, corrosion of household plumbing including fittings and fixture; Erosion of natural deposits
Copper (ppm) (1/1 - 6/30/2024)	YES	2024	1.3	1.3	1.0	2 out of 60 sites 0.0 to 1.7	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm) (7/1 - 12/31/2024)	YES	2024	1.3	1.3	0.9	1 out of 60 Sites 0.0 to 1.4	Corrosion of household plumbing systems; Erosion of natural deposits
Per- and Polyfluoroalkyl Substances (PFAS)							
			MCLG	MCL	Township Water	Sample Range	Typical Source of Contaminant
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) (ppt)	NO	2024	N/A	370	0*	N/A	Discharge and waster from industrial facilities utilizing the Gen X chemical process
Perfluorobutane Sulfonic Acid (PFBS) (ppt)	NO	2024	N/A	420	1.25*	0 to 3	Discharge and waste from industrial facilities; Stain-resistant treatments
Perfluorohexane Sulfonic Acid (PFHxS) (ppt)	NO	2024	N/A	51	1.44*	0 to 5	Firefighting foam; Discharge and waste from industrial facilities
Perfluorohexanoic Acid (PFHxA) (ppt)	NO	2024	N/A	400,000	0.25*	0 to 2	Firefighting foam; Discharge and waste from industrial facilities
Perfluorononanoic Acid (PFNA) (ppt)	NO	2024	N/A	6	0*	N/A	Discharge and waste from industrial facilities; Breakdown of precursor compounds
Perfluorooctane Sulfonic Acid (PFOS) (ppt)	NO	2024	N/A	16	0*	N/A	Firefighting foam; Discharge from electroplating facilities; Discharge and waster from industrial facilities
Perfluorooctanoic Acid (PFOA) (ppt)	NO	2024	N/A	8	0*	N/A	Discharge waste from industrial facilities; Stain-resistant treatments
Fifth Unregulated Contaminant Monitoring Rule (UCMR5)							
Unregulated Contaminant	Average Level Detected	Range	Year Sampled	MRL	Comments		
Lithium (µg/L)	10.57	ND - 11.6	2023	9	Results of monitoring are available upon request. Naturally occurring metal that may concentrate in brine waters; lithium salts are used as pharmaceuticals, used in electrochemical cells, batteries, and in organic syntheses.		

Terms and Abbreviations

*Indicates a running annual average (RAA) calculation.

Township Water: The highest single value obtained during the reporting period unless noted with an *.

Sample Range: The lowest to the highest values obtained.

MCLG: The Maximum Contaminant Level Goal is the level below which there are no known or expected health risks. MCLGs allow for a margin of safety.

MCL: The Maximum Contaminant Level is the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRL: Minimum Reporting Level

MRDLG: The Maximum Residual Disinfectant Level Goal is the highest level of a drinking water disinfectant below which there is no known or expected health risk.

MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MRDL: Maximum Residual Disinfectant Level is the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

AL: The Action Level is the concentration of contaminant which, if exceeded, requires treatment.

90th Percentile: 90% of the homes tested have lead/copper levels at or below the 90th percentile value.

RDL: The Reporting Detection Limit. This is the maximum detectable limit for reporting the presence of this chemical.

N/A: Not Applicable

RAA: Running Annual Average Calculation.

ppm - parts per million

ppb - parts per billion

ppt - parts per trillion

ng/L - nanograms per liter

µg/L - micrograms per liter

pCi/L - picocuries per liter (a measure of radioactivity)

ND - Non-Detect