ANNUAL WATER QUALITY REPORT

Reporting Year 2024

Presented By
City of Cadillac

PWS ID#: 0001030

Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2024. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Where Does My Water Come From?

Cadillac's water comes from six wells owned by the city. Our wells draw groundwater from aquifers 300 and 400 feet belowground. The city's original well field and million-gallon water tower were constructed in 1960, ending our reliance on surface water from Lake Cadillac. The most current well field, consisting of three wells, was completed and put online in September 2022.

Because well water contains varying amounts of inorganic materials (iron, manganese, calcium), a blended solution of ortho- and polyphosphates is added at each well to sequester these substances. Phosphates ensure we maintain the highest water quality in the distribution system by inhibiting corrosion, scale, and biofilm and reducing lead and copper levels. Chlorine is added to our system to disinfect the water supply.

Community Participation

We want to inform our customers about their water utility. Copies of our operation budget and capital improvement plan are available at the municipal complex and at Cadillac-mi.net. If you would like to tour a facility or learn more about our operations, please call our office to make arrangements. City council meetings are another good public forum for community participation; feel free to attend one of our regularly scheduled city council meetings on the first and third Monday of each month at 7:00 p.m. at the Municipal Complex, 200 Lake Street.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. U.S. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or epa.gov/safewater.

Source Water Assessment

The state performed an assessment of our source water to determine the susceptibility to or relative potential for contamination. The susceptibility rating is on a seven-tier scale from very low to very high based on geologic sensitivity, well construction, water chemistry, and contamination sources. Cadillac's assessment was updated in 2022 based on its approved Wellhead Protection Program. The Michigan Department of Environment, Great Lakes, and Energy's (EGLE) revised assessment lists the wells as having high to very high susceptibility.

There are no significant sources of contamination in our water supply. We are making efforts to protect our source water by proactively sampling our wells for potential impact and following the framework of our Wellhead Protection Program. Copies of the complete source water assessment are available at Cadillac's Municipal Complex and the local EGLE office. To learn more about Cadillac's Wellhead Protection Program, please visit cadillac-mi.net.

Protecting Your Water

Bacteria are a natural and important part of our world. There are around 40 trillion bacteria living in each of us; without them, we would not be able to live healthy lives. Coliform bacteria are common in the environment and generally not harmful themselves. The presence of this bacterial form in drinking water is a concern, however, because it indicates that the water may be contaminated with other organisms that can cause disease.

In 2016 the U.S. EPA passed a regulation called the Revised Total Coliform Rule, which requires water systems to take additional steps to ensure the integrity of the drinking water distribution system by monitoring for the presence of bacteria like total coliform and *E. coli*. The U.S. EPA anticipates greater public health protection under this regulation due to its more preventive approach to identifying and fixing problems that may affect public health.

Though we are fortunate in having the highest-quality drinking water, our goal is to eliminate all potential pathways of contamination into our distribution system, and this requirement helps us accomplish that goal.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call the Utilities Director, Jeff Dietlin, at (231) 775-0181.

Substances That Could Be in Water

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 occur naturally in the soil or groundwater or may 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 occur naturally or as the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, U.S. 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.

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 mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by contacting the U.S. EPA by calling the Safe Drinking Water Hotline at (800) 426-4791 or visiting epa.gov/safewater.

Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Turn off the tap when brushing your teeth.

Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.

Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Lead in Home Plumbing

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. The City of Cadillac 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 it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling 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, or doing laundry or a load of dishes. If you have a lead or galvanized service line requiring replacement, you may need to flush your pipes for at least five minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead and wish to have your water tested, contact the City of Cadillac - Utilities Department at (231) 775-0181 for available resources. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

Lead Service Lines

Our October 2024 complete distribution system materials inventory (CDSMI) indicates 3,875 total service lines in the Cadillac community water supply, with zero known lead service lines. Ninety-eight lines have been identified as galvanized previously connected to lead (GPCL), and 333 lines are of unknown material. In compliance with the recently updated Michigan Lead and Copper Rule, we will continue to evaluate and update our CDSMI annually until all service lines of unknown material have been identified. A hard copy of our CDSMI is available in the Utilities Department office during regular business hours.

Per- and Polyfluoroalkyl Substances

Per- and polyfluoroalkyl substances (PFAS) are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the U.S. EPA as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, firefighting foams, and metal plating. They are still used today. PFAS have been found at low levels both in the environment and in blood samples from the general U.S. population.

In samples collected in 2024 from the City of Cadillac's municipal water supply entry points, PFAS were not detected above laboratory limits (ND). For information on perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and other PFAS, including possible health outcomes, visit epa.gov/pfas, atsdr.cdc.gov/pfas/, or michigan.gov/pfasresponse.

Tier 3 Reporting Violation

As a result of an administrative oversight in December 2024, we neglected to submit a report as required by the National Primary Drinking Water Regulations. While we collected our monthly total coliform samples on time, we did not report the results to EGLE by the deadline of December 10, 2024, for the November 2024 compliance period. As soon as the oversight was discovered, the report was submitted. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. We have taken steps to ensure this oversight does not happen again.

Test Results

Our water is monitored for many kinds of substances on a very strict sampling schedule. The information in the data tables shows substances that were detected. The presence of these substances does not necessarily indicate that the water poses a health risk. Our goal is to keep all detected substances below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

We participated in the fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if it needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data is available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2024	[4]	[4]	0.90[1]	0.25–1.40	No	Water additive used to control microbes
Haloacetic Acids [HAAs] (ppb)	2024	60	NA	1.1[1]	ND–1.7	No	By-product of drinking water disinfection
Nitrate (ppm)	2024	10	10	0.8	0.5–0.8	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2024	80	NA	6.5[1]	ND–6.5	No	By-product of drinking water disinfection
Uranium (ppb)	2024	30	0	1.4	0.4–1.4	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2022	1.3	1.3	0.4	ND–0.7	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2022	15	0	ND	ND–5	0/30	No	Lead service lines; Corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2024	250	NA	22	ND–22	No	Runoff/leaching from natural deposits
Sulfate (ppm)	2024	250	NA	13	ND–13	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness (ppm)	2024	169	138–169	Erosion of natural deposits
Sodium (ppm)	2024	6.0	2.9–6.0	Erosion of natural deposits

[1] Highest RAA.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

RAA (Running Annual Average): The average of sample analytical results for samples taken throughout the distribution system during the previous four calendar quarters. The Amount Detected value for chlorine is reported as the highest RAA.

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.