2023 Water Quality Report for City of Three Rivers

WATER SUPPLY SERIAL NUMBER 06610

This report covers the drinking water quality for the City of Three Rivers, for the calendar year 2023. This information is a snapshot of the quality of the water that we provided to you in 2023. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (USEPA) and state standards.

Your water comes from 4 groundwater wells in various locations around the City with depths ranging from 78 feet to 129 feet. The State performed an assessment of our source water in 2015 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from “very-low” to “very high” based on geologic sensitivity, water chemistry and contamination sources. The susceptibility of our source is moderately high on all our wells. There are no significant sources of contamination to our supply. Additional information or a copy of this report is available by calling the Department of Public Services at 269-273-1845.

- **Contaminants and their presence in 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 **EPA’s Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** 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 Safe Drinking Water Hotline (800-426-4791).

- **Sources of Drinking Water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 storm water 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 and residential uses.
  Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.
  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 storm water runoff, and septic systems.

To ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water, which provide the same protection for public health. The State of Michigan and the USEPA require us to test our water on a regular basis to ensure its safety. The City of Three Rivers completed all required monitoring and reporting requirements for 2023.

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.

Arsenic: While your drinking water meets the USEPA standard for arsenic, it does contain low levels of arsenic. The USEPA standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The USEPA 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.

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. The City of Three Rivers 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 have a lead service line it is recommended that you run your water for at least five minutes to flush water from both your home plumbing and the lead service line. 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 at 800-426-4791 or at http://water.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 105 lead service lines and 970 service lines of unknown material out of a total of 2,691 service lines.

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 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 Wilson's disease should consult their personal doctor.

Coliform: Bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Other Contaminants: In 2023 we conducted tests for many other contaminants. All were either not detected or were below regulated limits for drinking water.

PFAS: In October of 2018 the Michigan PFAS Action Response Team (MPART) along with the City of Three Rivers tested our City water supply for Per-and Polyfluoroalkyl Substances (PFAS). The results of these tests concluded that PFAS was not detected in the City water supply. Annual follow-up sampling has revealed very small amounts of PFAS in our water. The City of Three Rivers will continue to monitor all contaminants as required by the Michigan Department of Environmental Quality and include the required results in this annual report.

Violations: The City experienced no violations in 2023.

We are committed to providing you with reliable, healthy water. We are pleased to provide you with this information to keep you fully informed about your water. We will be updating this report annually and will also keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at City Hall, Three Rivers DPS, Three Rivers Library, and on the City of Three Rivers Web page at http://www.threeriversmi.org/wp-content/uploads/2023-Water-Quality-Report.pdf. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. City Commission meetings are held the first and third Tuesdays of each month. For more information about your water, or the contents of this report, contact Amy Roth, Department of Public Services Director, or Mark Glessner, Water System Superintendent at (269) 273-1845. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2023 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data in this table is from testing done January 1 through December 31, 2003. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- Maximum Contaminant Level Goal (MCLG): 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.
- Maximum Contaminant Level (MCL): 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.
- N/A: Not applicable
- ND: not detectable at testing limit
- Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Residual Disinfectant Level (MRDL): 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.
- Treatment technique (TT): A required process intended to reduce the level of contaminant in drinking water.
- Maximum Residual Disinfectant Level Goal (MRDLG): 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 contamination.
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- ppt: parts per trillion or nanograms per liter
- pCi/l: picocuries per liter (a measure of radioactivity)

Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Unregulated Contaminant Name	Average Level Detected	Range	Year Sampled	Typical Source of Contaminant
PFBA (ppt)	7	0-7	2023	Results of monitoring are available upon request
PFPeA (ppt)	2	0-2	2023	Results of monitoring are available upon request

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	2	0-2	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Arsenic (ppb)	10	0	8	5-8	2023	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Nitrate (ppm)	10	10	.08	ND-.06	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	ND	ND	2023	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium[1] (ppm)	N/A	N/A	29	7.9-29	2023	No	Erosion of natural deposits
TTHM Total Trihalomethanes (ppb)**	80	N/A	6.2	4.1-6.2	2023	No	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)***	60	N/A	1	ND-1	2023	No	Byproduct of drinking water disinfection
Chlorine[2] (ppm)	4	4	.09	.08-.11	2023	No	Water additive used to control microbes
Combined radium (pCi/L)	5	0	.47	0-.47	2020,22	No	Erosion of natural deposits
Total Coliform (total number or % of positive samples/month)	TT	N/A	N/A	N/A	2023	N/A	Naturally present in the environment
E. coli in the distribution system (positive samples)	See *E. coli* note[3]	0	0	N/A	2023	N/A	Human and animal fecal waste
Fecal Indicator – *E. coli* at the source (positive samples)	TT	N/A	0	N/A	2023	N/A	Human and animal fecal waste

****** The MCL for total trihalomethanes is the sum of the concentration of the individual trihalomethanes.
*** The MCL for total haloacetic acids is the sum of the concentrations of the individual haloacetic acids

Inorganic Contaminant Subject to ALs	AL	MCLG	Your Water[4]	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	19	ND-4,338	2023	6	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
	15	0	16	ND-32	2023	5	
Copper (ppm)	1.3	1.3	0.3	ND-0.6	2023	0	Corrosion of household plumbing systems; Erosion of natural deposits
	1.3	1.3	0.4	ND-0.8	2023	0	

[1] Sodium is not a regulated contaminant.
[2] The chlorine "Level Detected" was calculated using a running annual average.
[3] *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.
[4] Ninety (90) percent of the samples collected were at or below the level reported for our water.