

2016 Water Quality Report for City of St. Clair And St. Clair Township.

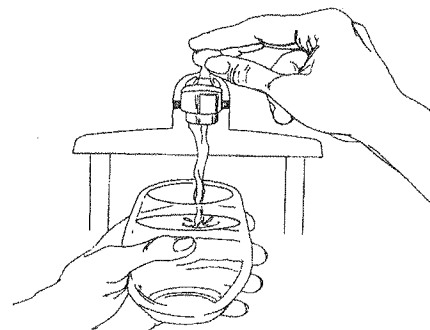
This report covers the drinking water quality for **City of St. Clair and St. Clair Township** for the calendar year **2016**. This information is a snapshot of the quality of the water that we provided to you in **2016**. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from **Saint Clair River**. The State completed an assessment of our source water in **2003** to determine the susceptibility of the potential for contamination. The Susceptibility rating is on a six-tiered scale from “very-low” to “high” based, primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source water is high given land uses and potential contaminant sources. A copy of the report is available from your water department.

- **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. Immune-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 surface water. 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:
 - T **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
 - T **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.
 - T **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
 - T **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
 - T **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.

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 regulations establish limits for contaminants in bottled water, which provide the same protection for Public health.



Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2016 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 presented in this table is from testing done January 1 – December 31, 2016. 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 of the data is representative of the water quality, but **some data** is more than one year old.

Terms and abbreviations used below:

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below that there is no known or expected risk to health. (MRDLG)'s do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below, which there is no known or expected risk to health. (MCLG) s 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 MCLG as feasible using the best available treatment technology.

NA: Not applicable **ND:** not detectable at testing limit **ppb:** parts per billion or micrograms per liter **ppm:** parts per million or milligrams per liter **pCi/l:** picocuries per liter (a measure of radioactivity).

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

Regulated Contaminant	MCL	MCLG	Level Detected	Range of Detections	Sample Date	Violation Yes / No	Typical Source of Contaminant
Fluoride (ppm)	4	4	.69	0.40 –.90	2016	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Nitrate	10	0	.29	NA	2016	No	Storm water runoff, septic systems
Halo-acetic Acid (HAA5) (ppb)	60.0	NA	17.0	<1.0 - 17	2016	No	By-product of drinking Water chlorination
Chlorine Residual (ppm)	MRDL 4.0	MRDGL 4.0	1.7	1.3 - 2.2	2016	No	By-product of drinking Water chlorination
TTHM (ppb)	80	NA	58.0	11 - 66	2016	No	By-product of drinking Water chlorination
Special Monitoring and Unregulated Contaminant **			Level Detected	Sample Date	Typical Source of Contaminant		
Sodium (ppm)			8.0	08/5/16	Erosion of natural deposits		
T.O.C. = Total Organic Carbon	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was so low, there is <u>no</u> requirement for TOC removal in St. Clair Water.					Naturally present in the environment	

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	>1 positive monthly sample	0	0	no	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	0	no	Human and animal fecal waste

** Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Water Quality Data

Contaminant Subject to AL	Action Level	MCLG	90% of Samples ≤ This Level	Sample Date	Number of Samples Above AL	Typical Source of Contaminant
City of St. Clair Lead (ppb)	15	0	1.6	2014	1	Corrosion of household plumbing systems; Erosion of natural deposits
City of St. Clair Copper (ppb)	1300	1300	35	2014	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
St. Clair Township Lead (ppb)	15	0	1.2	2014	0	Corrosion of household plumbing systems; Erosion of natural deposits
St. Clair Township Copper (ppb)	1300	1300	51	2014	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the AL 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. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of St. Clair Water Department 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>."

Turbidity

Highest Single Measurement Cannot Exceed 0.30 N.T.U.	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.30 N.T.U.	Violation Yes/No	Major Source
0.30	100 %	No	Soil runoff

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

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

Non-Detected Chemicals: Numerous tests for other contaminating chemicals were done on St. Clair City and St. Clair Township Water. None were detected. If anyone would like to see a complete list, you are welcome to call the Water Treatment Plant at (329-5276) for an appointment.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies will be available at **City Hall, and The Water Treatment Plant and St. Clair Township Hall.** **This report will NOT be mailed to you.**

We invite public participation in decisions that affect drinking water quality. **City Council meets the, First (1) and Third (3) Monday of each month in the council room at city hall, 547 North Carney Drive. St. Clair Township meets the, First (1) and Third (3) Monday of each month at the Township Hall.** For more information about your water or the contents of this report, call the City of St. Clair (Robert Plonka Jr., Lead Operator 329-5276) or visit our web site at www.cityofstclair.com. In St. Clair Twp. call the St. Clair Township Hall at 329-9042. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

**Copies of this report can be obtained at, St. Clair City Hall,
547 North Carney Drive, St. Clair, MI. 48079**

OR

For St. Clair Township at, 1539 South Bartlett Road, St. Clair, MI. 48079