

Charter Township of White Lake, Michigan

CONSUMER CONFIDENCE REPORT 2018

This report covers the drinking water quality for White Lake Twp., for the calendar year 2018. This information is a snapshot of the quality of the water that we provided to you in 2018. 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 eleven (11) groundwater wells, each over eighty (80) feet deep. The State performed an assessment of the water source in 2003 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, well construction, water chemistry and contamination sources. The susceptibility for our wells is **HIGH**.

There are no known significant sources of contamination in our water supply. We are making efforts to protect our sources by participating in a Wellhead Protection Program, signage, fencing, site plan reviews, periodic water analysis and other water management programs.

For more information about your water, additional copies of this report, or to participate on issues that affect your water quality contact Aaron Potter, DPS Director (certified operator D-1, S-1) at (248) 698-3300 Ext. 166. We want our valued customers to be informed about their water quality. Information can be found online at www.whitelaketwp.com or www.miwaterstewardship.org.

- **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 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 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/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 discharge, 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 are naturally occurring or be 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 runoff, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations established 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 2018 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 from January 1 to December 31, 2018. 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 data is representative of the water quality, but some is 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.

- **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.

- **Maximum Residual Disinfectant Level Goal (MRDLG):** means 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.

- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water

- **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 which a water system must follow.

- **Level 1 Assessment:** A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

- **ppm:** parts per million or milligrams per liter.

- **ppb:** parts per billion or micrograms per liter

Inorganic Contaminants	MCL, TT, or MRDL	MCLG	Highest Level Detected	Range of Detections	Sample Date	Violations	Typical Sources of Contaminants
Arsenic (1)	0.010 ppm	ND	ND	.002 to .010 ppm	9/10/2018	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics productions wastes
Barium	2	2	0.16 mg/L	N/A	9/10/2018	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Fluoride	2 ppm	2 ppm	0.24 ppm Avg.	0.18 to 0.29 ppm	06/06/2018	No	Discharge of drilling wastes; Discharge from metal refineries & Erosion of natural deposits
Sodium * (2)	N/A	N/A	49 ppm Avg.	7 - 49 ppm	6/06/2018	No	Erosion of natural deposits
Disinfection By-Products							
Total Trihalomethanes (TTHM)	0.080 ppm	N/A	0.0037 ppm	0.0005 to 0.080 ppm	6/12/2018	No	Byproduct of water disinfection

(1) Arsenic found in only one well in the Township.

(2) Sodium is an unregulated contaminant and thus there is no MCL associated with it. Unregulated contaminant monitoring helps EPA to determine whether there is a need to regulate that contaminant.

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

Regulated Contaminants	MCL	MCLG	Running Annual Average	Range of Detections	Sample Date	Violations	Typical Sources of Contaminants
Chlorine	4 ppm	4 ppm	0.6492 ppm	0 to 0.7526ppm	Jan. 2018 through Dec. 2018	No	Water additive used to control microbes

Contaminant	Action Level	Our Water* 90 th Percentile	Number of Samples Over Action Level	Sample Date	Typical Sources of Contaminant
Lead	15 ppb	4 ppb	0 of 20	01/01/2018 thru 06/30/2018	Corrosion of household plumbing systems; Erosion of natural deposits Lead and Copper testing due in 2018
Lead	15 ppb	4 ppb	1 of 40	07/01/2018 thru 12/31/2018	Corrosion of household plumbing systems; Erosion of natural deposits Lead and Copper testing due in 2018
Copper	1.3 ppm	1.20 ppm	3 of 20	01/01/2018 thru 06/30/2018	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives. Lead and Copper testing due in 2018
Copper	1.3 ppm	1.20 ppm	2 of 40	07/01/2018 thru 12/31/2018	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives. Lead and Copper testing due in 2018

*90 percent of samples at or below this level

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.

Lead: Infants and children who drink water containing lead in excess of the action level 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. 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. White Lake Twp. Water Dept. 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>

Total Coliforms: Coliforms are a type of bacteria that is naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. White Lake Twp. collects (7) samples per month for routine monitoring.

Contaminant	Number of samples collected in 2017	Number of Samples Detected Positive	Sample Period	Susceptible Vulnerable Population	Typical Sources of Contaminant
Total Coliform	95	0	1-1-18 to 12-31-18	Infants, young children, the elderly and people with severely compromised immune systems.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Is our water system meeting other rules that govern our operations? The State and EPA require us to test our water on a regular basis to ensure its safety. We have met all the monitoring and reporting requirements for 2018. For more information about your water, additional copies of this report, the contents of this report or to participate on issues that affect your water quality, contact Aaron D. Potter, Director, Department of Public Services (certified operator D-1, S-1) at 248-698-3300 ext. 166.