Charter Township of White Lake, Michigan
CONSUMER CONFIDENCE REPORT 2016

This report covers the drinking water quality for White Lake TWP., 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 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 review, 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, Water Department Superintendent (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'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

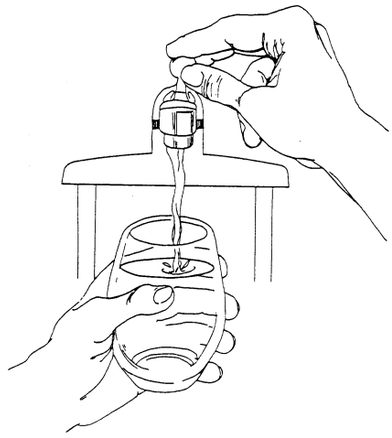
- **Contaminants that may be present in source water:**

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 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 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 water 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 tables on page 2 list all the drinking water contaminants that were 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 are more than one year old.



Terms and abbreviations used:

- **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):** 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.
- **N/A:** Not applicable.
- **Action Level:** 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	MCLG	Level Detected	Range of Detections	Sample Date	Violations	Typical Sources of Contaminants
Arsenic*(1)	10 ppb	N/A	6ppb*	0-6 ppb	7/13/16	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2	2	0.16 ppm	N/A	7/13/16	NO	Discharge or drilling wastes; Discharge or metal refineries; Erosion of natural deposits.
Fluoride	2ppm	2 ppm	0.21 ppm AVG	.0150-0.39 ppm	7/12/16	NO	Discharge of drilling wastes; Discharge from metal refineries & Erosion of natural deposits
Sodium*(2)	N/A	N/A	27.2 ppm AVG	7-50 ppm	7/12/16	NO	Erosion of natural deposits
Total Trihalomethanes (TTHM)	80 ppb	N/A	0.0016 ppm	N/A	6/30/16	NO	By-product 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	MRDL	MRDLG	Running Annual Average	Range of Detection	Sample Date	Violations	Typical Sources of Contaminants
Chlorine	4	4	0.29 ppm	0-0.63 ppm	January 2016 through December 2016	No	Water additive used to control microbes

Contaminant	Action Level	Our Water* 90th Percentile	Number of Samples Over Action Level	Sample Date	Typical Sources of Contaminant
Lead	15 ppb	2.4	0 of 20	2014	Corrosion of household plumbing systems; Erosion of natural deposits Lead and Copper testing due in 2017
Copper	1.3 ppm	1.13 ppm	2 of 20	2014	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives. Lead and Copper testing due in 2017

*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 excel of the action level over many years, could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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. White Lake Township 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

Contaminant	Number Of Samples Collected In 2016	Number Of Samples Detected Positive	Sample Period	Susceptible Vulnerable Population	Typical Sources of Contaminant
Total Coliform	96	2	1/1/16 to 12/31/16	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.

Total Coliforms: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments. White Lake Twp. collects seven (7) samples per month for routine monitoring. In June 2016, coliforms were found in two (2) routine sample. Due to an injury to the previous Water/Sewer Department Director, the required repeat samples were not taken in the required time frame. **What was done?** Upon notification of the violations for missing the required repeat samples and well samples, repeat samples were **immediately** collected and tested negative for coliforms. During the past year, we were required to conduct one Level 1 Assessment, which was completed 9/20/2016. In addition, we were required to take one corrective action, which was also completed. None of our samples collected throughout 2016 tested positive for Fecal Coliforms/E. Coli.

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 2016.