

2014 Water Quality Report for White Lake Township, Michigan

This report covers the 2014 drinking water quality for White Lake Township, Michigan. This information is a snapshot of the quality of the water that we provided to you in 2014. 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 twelve (12) 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.

If you would like to know more about the report, please contact White Lake Township Water Department at 7525 Highland Rd., White Lake, MI 48383 (248) 698-3300 Ext. 8. We want our valued customers to be informed about their water quality. Information can be found on line at www.whitelaketwp.com or www.miwaterstewardship.org.

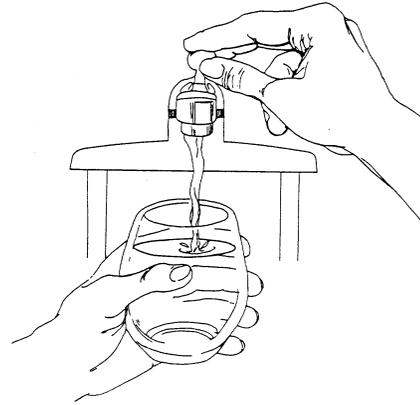
- **Contaminants and their presence in water:** Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and 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 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 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 table on back lists all the drinking water



contaminants that were detected during the 2014 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, 2014. 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):** means 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.
- **N/A:** Not applicable; **ND:** not detectable at testing level; **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:** If the concentration of the contaminant is exceeded, guidelines to treatment have been defined through regulation.

Water sampled at various locations throughout the White Lake Township Water District

Regulated Contaminant	MCL	MCLG	Range	Highest Level Detected	Sample Date	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10	10	0-.0006	7*	2012-2013	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes * only 1 site/6
Barium (ppm)	2	2	0 - .29	.29 ppm	2008 & 2011	NO	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Iron (ppm)	NA	.3	0.89 – 2.0	2.0 ppm	2014	NO	Erosion of Natural Deposits
Fluoride (ppm)	4	4	<.0.2 - .37	.37 ppm	2014	NO	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Chloride (ppm)	250	NA	5.2- 110	110 ppm	2014	NO	Salt water intrusion. It is often present in all groundwater from bedrock and road salt.
Residual Chlorine (ppm)	MRDL 4.0	MRDLG 4.0	0.1-0.3	0.3	2014	NO	Chlorine is used as a disinfectant in the water treatment process
Total Trihalomethanes	80 ppb	N/A	0-10.0 ppb	1.1.0 ppb	2014 – 1 sample result	NO	By-product of drinking water chlorination
Dalapon and Haloacetic Acid	60 ppb	N/A	ND	ND	2014- 1 results	NO	By-product of drinking water disinfections
Gross Alpha	15	N/A	-2.05-3.27	3.27	2014-3	NO	Erosion of natural deposits
Radium 226 & 228	5	N/A	0.492 & 0.661	0.661	2014-1	NO	Erosion of natural deposits
Special Monitoring and Unregulated Contaminant **			Average	Sample Date		Typical Source of Contaminant	
Sodium (ppm)			25	2014		Erosion of natural deposits	
Hardness (as CaCO3) (ppm)			290	2014		Generally found in ground and surface water	
Contaminant Subject to AL	Action Level	MCLG	Sample Date	90 th Percentile Value*	Number of Samples Above AL	Typical Source of Contaminant	
Lead (ppb)	15	0	2014	2.4 ppb	0 of 20	Corrosion of household plumbing systems; Erosion of natural deposits	
Copper (ppm)	1.300	1.300	2014	1126 ppb	2 of 20	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	

*The 90th percentile value means 90 percent of the locations tested have lead and copper levels below the 90th percentile value shown.

** 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.

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 to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	0 positive monthly sample (5% of monthly samples positive)	0	ND	NO	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive	0	ND	NO	Human and animal fecal waste

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.

While some of our wells may exceed the MCLG for iron (though not detected as such), the limit was established for aesthetic reasons and not for health concerns. Levels above the MCLG have been known to cause discoloration, taste and odor problems. Iron (and manganese) has always been present in our source water. We continue to monitor these levels. Iron Treatment was evaluated in 2013 and we hope to have it implemented in 2014/15.

Monitoring and Reporting Requirements: The State and EPA require us to test our water on a regular basis to ensure its safety.

Annual updates will keep you informed of any problems that may occur throughout the year. Copies are available at the White Lake Township Water Department, on-line at www.whitelaketwp.com, and the White Lake Township Library.

We invite public participation in decisions that affect drinking water quality. The White Lake Township Board Meeting is held at 7PM the third Tuesday of every month at the Township Hall. For more information about your water, or the contents of this report, contact Paul Shearlock at the White Lake Township Water Department at 7525 Highland Rd., White Lake MI 48383 (248) 698-3300 Ext. 8. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

We are pleased to announce White Lake Townships Water System Review from the MDEQ was rated satisfactory and we are in compliance with the Michigan Safe Drinking Water Act.