

# Charter Township of White Lake, Michigan

## CONSUMER CONFIDENCE REPORT 2023

This report covers the drinking water quality for White Lake Township, for the calendar year 2023. This information is a snapshot of the quality of the water that we provided to you in 2021. 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 nine (9) 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 D. Potter, Director, Department of Public Services (certified operator D-1, S-1) at (248) 698-7700. We want our valued customers to be informed about their water quality. Information can be found online at [www.whitelaketwp.com](http://www.whitelaketwp.com) or [www.miwaterstewardship.org](http://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

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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 presented in this table is from testing done from January 1 to December 31, 2023. 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.
- **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.

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	0.003 ppm	N/A	5/5/2021	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics productions wastes
Barium	2	2	0.15 mg/L	N/A	5/5/2021	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Fluoride	2 ppm	2 ppm	0.36 ppm	0.11ppm to 0.36 ppm	1/3/2023 to 12/26/2023	No	Discharge of drilling wastes; Discharge from metal refineries & Erosion of natural deposits
Sodium * (2)	N/A	N/A	60 ppm	5 ppm to 60 ppm	1/3/2023 to 12/26/2023	No	Erosion of natural deposits
Disinfection By-Products							
Distribution System #1 Total Trihalomethanes (TTHM)	0.080 ppm	N/A	0.0663 ppm	N/A	6/26/2023	No	Byproduct of water disinfection
Distribution System #2 Total Trihalomethanes (TTHM)	0.080 ppm	N/A	0.0006 ppm		6/26/2023	No	Byproduct of water disinfection

(1) 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.

(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.

Regulated Contaminants	MCL	MCLG	Running Annual Average	Range of Detections	Sample Date	Violations	Typical Sources of Contaminants
Chlorine	4 ppm	4 ppm	0.49 ppm	0.00 ppm to 1.2 ppm	Jan. 2023 through Dec. 2023	No	Water additive used to control microbes

Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Our Water* 90 <sup>th</sup> Percentile	Range of Results	Number of Samples Over Action Level	Sample Date	Typical Sources of Contaminant
Distribution System #1 Lead	15 ppb	0 ppb	3 ppb	0-11 ppb	0 of 10	6/7/2023 thru 7/28/2023	Lead service lines, corrosion of household plumbing systems, erosion of natural deposits
Distribution System #1 Copper	1.3 ppm	1.3 ppm	0.9 ppm	0.1-1.1 ppm	0 of 10	6/7/2023 thru 7/28/2023	Corrosion of household plumbing systems, erosion of natural deposits
Distribution System #2 Lead	15 ppb	0 ppb	2 ppb	0-4 ppb	0 of 20	6/7/2023 thru 6/29/2023	Lead service lines, corrosion of household plumbing systems, erosion of natural deposits
Distribution System #2 Copper	1.3 ppm	1.3 ppm	0.8 ppm	0-1.3ppm	0 of 20	6/7/2023 thru 6/29/2023	Corrosion of household plumbing systems, erosion of natural deposits

\*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 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 Department of Public Services 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>

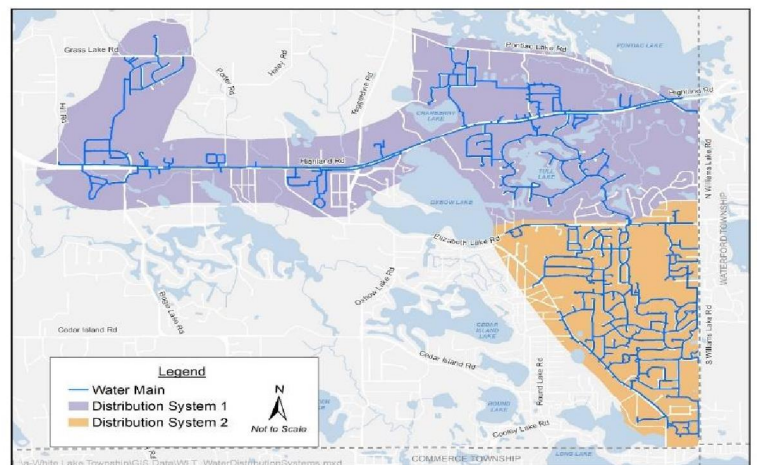


Figure 1: Distribution Systems Map

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. White Lake Department of Public Services 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>

White Lake has zero known water service lines that are made of lead material. However, we have 813 public and 960 private service lines of unknown material out of the total number of 2,390 water service lines. If you believe that you have a lead service line or would like assistance in identifying your service line material, please contact DPS at 248-698-7700.

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 Township collects (6) samples per month for routine monitoring.

Contaminant	Number of samples collected in 2022	Number of Samples Detected Positive	Sample Period	Susceptible Vulnerable Population	Typical Sources of Contaminant
Total Coliform	80	0	1/5/2023 to 12/18/2023	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

Per- and polyfluoroalkyl substances (PFAS) are a potential groundwater contaminant found in some firefighting foams and other industrial chemical products. These compounds are highly soluble in groundwater and remain in the environment for long periods of time. White Lake has found no detections of PFAS in our drinking water or source wells.

Per- and polyfluoroalkyl substances (PFAS)							
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	ND	ND	2023	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	ND	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	ND	2023	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	ND	2023	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	ND	2023	No	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	ND	2023	No	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	ND	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments

**100% of White Lake Township drinking water comes from wells. What Can You Do to Protect the Township’s Drinking Water Supply?**

- Always recycle household chemicals like gasoline, paint, and pesticides.
- Never dump chemicals onto the ground.
- Never flush chemicals down the toilet.

The Township hosts an annual Household Hazardous Waste Drop-Off event. The 2024 Annual Household Hazardous Waste Day is Saturday May 18, 2023 – 9:00am to 1:00pm. For more information on what materials are accepted, please contact White Lake DPS at the number below.

The State and EPA require us to test our water on a regular basis to ensure its safety. 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 248-698-7700 or visit our website at [www.whitelaketwp.com/water](http://www.whitelaketwp.com/water).

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**  
***Monitoring Requirements Not Met for White Lake Township***

*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 your drinking water meets health standards. During August 1 to August 31, 2023, we did not complete all monitoring or testing for total coliform bacteria, nor properly monitor or test for chlorine residuals, and therefore cannot be sure of the quality of your drinking water during that time.*

**What should I do?**

There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. Even though this is not an emergency, as our customers you have a right to know what happened and what we did to correct the situation.

The table below lists the contaminant we did not properly test for, how often we are supposed to sample for this contaminant, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date we collected follow-up samples.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	Dates additional samples will be taken
Total Coliform Bacteria	6 samples per month	3	August 1, 2023 to August 31, 2023	September, 12 2023
Chlorine Residual	6 samples per month	3	August 1, 2023 to August 31, 2023	September, 12 2023

**What happened? What is being done?**

We inadvertently missed taking a sample within this required sampling period. We are making every effort to ensure this does not happen again. We had returned to compliance on September 12, 2023 before we were notified of the violation on September 18<sup>th</sup>, 2023.

For more information, please contact: Aaron Potter, Director White Lake Township, 7525 Highland Road, White Lake. Michigan 48383 Email: [apotter@whitelaketwp.com](mailto:apotter@whitelaketwp.com) Phone: (248) 698-3300

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by White Lake Township.

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**  
**Monitoring Requirements Not Met for White Lake Township**

We are required to monitor your drinking water for specific analytes on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During January 1 to June 30, 2023, we did not monitor for Water Quality Parameters (WQP), and therefore cannot be sure of the quality of our drinking water during that time. However, this violation **does not** pose a threat to your supply's water.

**What should I do?** There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. Even though this is not an emergency, as our customers you have a right to know what happened and what we did to correct the situation.

The table below lists the analytes we did not properly test for, how often we are supposed to sample for this analyte, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date we will collect follow-up samples.

Analytes	Required sampling frequency	Number of samples taken	When all samples should have been taken between	Date samples were taken by
WQP <sup>1</sup> pH, sulfate, chloride, and orthophosphate	1 samples/ every two weeks	0	January 22, - February 4, 2023	February 7, 2023

**What happened? What is being done?** We failed to take and analyze samples for all of the required parameters within the required sampling periods due to confusion interpreting the requirements for the monitoring period under Michigan Administrative Rule R325.10710a(5). Samples were thought to be required twice per month which we collected 1/3/23, 1/17/23, 2/7/23, and 2/21/23. The rule requires samples to be collected every two weeks. White Lake Township was notified of this violation on August 15<sup>th</sup>, 2023 and appealed the violation.

Monitoring of Water Quality Parameters (WQPs) is an essential part of a corrosion control treatment program and is used to evaluate the potential aggressiveness of water on plumbing and fixtures. Sampling of WQPs is required to safeguard public health. We will continue to work with the Michigan Department of Environment, Great Lakes, and Energy to resolve this issue as quickly as possible.

For more information, please contact: Aaron Potter, Director      White Lake Township, 7525 Highland Road, White Lake, Michigan 48383 Email: [apotter@whitelaketwp.com](mailto:apotter@whitelaketwp.com) Phone: (248) 698-3300

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This notice is being sent to you by: White Lake Township

<sup>1</sup> WQP are a group of analytes that are indicators of corrosivity. They can include pH, alkalinity, calcium, conductivity, temperature, sulfate, chloride, and orthophosphate.



## WHITE LAKE TOWNSHIP DEPARTMENT OF PUBLIC SERVICES

7525 Highland Road, White Lake, Michigan 48383-2900, (248) 698-7700, [www.whitelaketwp.com](http://www.whitelaketwp.com)

### Public Service Announcement-PFAS Detection at Village Acres Treatment Plant

May 30, 2024

Many communities across Michigan, the United States, and around the world are being affected by the presence of compounds collectively known as PFAS in groundwater. These include our immediate neighbors, Waterford Township, and Independence Township.

White Lake DPS has been monitoring for the presence of PFAS at all White Lake water treatment facilities annually beginning in 2018. During water quality testing in the spring of 2024, White Lake PFAS samples collected at the Village Acres Water Treatment Plant reported a detects for Perfluorobutanoic Acid (PFBA) and Perfluoropentanoic Acid (PFPeA), unregulated contaminants in the PFAS family. These results were at or near the minimum detectable level. White Lake DPS proactively collected another sample set from the plant after notification of the results. Since PFAS are analyzed in such small quantities - parts per trillion - even the smallest cross-contamination could contribute to a false positive sample. The re-sample also showed detect for the same compounds at the minimum detectable level. There are currently no Maximum Contaminant Levels (MCL) or Action Levels (AL) for these compounds. There are no violations for the water system with these detections. Even though White Lake is not required to take any action due to these detects, we are taking proactive actions to ensure that our drinking water meets the highest quality standards and that our public is informed.

#### PFAS – What is it and where does it come from?

Per- and polyfluoroalkyl substances (PFAS) are a potential groundwater contaminant found in some firefighting foams and other industrial chemical products. These compounds are highly soluble in groundwater and remain in the environment for long periods of time. They can also be present in many things we use in our everyday life, such as water-resistant and stain-resistant products. PFAS can also be present in:

- Personal care products such as cosmetics and lotions.
- Insect repellants and sunscreens.
- Pizza boxes and fast food wrappers.
- Recycled paper products such as paper towels and notebook paper.
- Sampling equipment - in the material of the equipment itself or due to PFAS being used in the manufacturing process.
- Ordinary latex gloves. (Because PFAS is in latex gloves, samplers must use powderless nitrile gloves.)

Actions to commercially produce PFAS were first developed in the 1940's. In the 1950's several companies began manufacturing PFAS for product applications because of its ability to repel water, protect surfaces, resist heat and many other useful properties.

Chemicals in this class of more than 5,000 substances are found in products such as nonstick pans that contain Teflon, food packaging, waterproof jackets and carpets to repel water, grease, and stains. In recent years, experts have become increasingly concerned by the potential effects of high concentrations of PFAS on human health. These chemicals don't break down in the environment and also bioaccumulate, meaning the amount builds up over time in organs and the bloodstream. Although our understanding of these contaminants is advancing, elevated levels of PFAS have the potential to cause increased cholesterol, changes in the body's hormones and immune system, decreased fertility and increased risk of certain cancers. Links to these health effects in humans are supported by scientific, expert and laboratory studies in animals.

### **How People Are Exposed to PFAS**

There are a variety of ways that people can be exposed to these chemicals and at different levels of exposure. For instance, people can be exposed to low levels of PFAS through contaminated food. Which can be present in contaminated soil and water used to grow food, food packaging containing PFAS as well as leather goods, non-stick cookware, weather repellants and commercially stain treated products.

### **How can I stay updated on the situation?**

White Lake DPS will continue to post updates on our website at <https://www.whitelaketwp.com/water> .

Michigan has developed a website to find information about PFAS contamination and efforts to address it. The website will be updated as additional Information becomes available. The website address: <http://michigan.gov/pfasresponse>.

### **What is currently being done about this issue?**

Additional testing of the Village Acres plant and other nearby plants will be ongoing to ensure that PFBA, PFPeA, or any other PFAS compounds are closely monitored and below any existing or future regulatory levels. DPS is currently working with DLZ Engineering and the State of Michigan Department of Environment, Great Lakes, and Energy (EGLE) to develop investigation, treatment, and funding strategies in an effort to gain more information regarding these detections as rapidly as possible.

### **How PFAS Affect People's Health**

Studies have determined that at very high doses of some PFAS compounds can result in adverse health effects in animals. However, scientific evidence does not show that PFAS causes harm to the environment or people at current or historical levels. Research has shown that the levels of PFAS in the general population have dropped by more than 70 percent since 2000. Currently,



scientists are still learning about the health effects of exposures to PFAS and more research is needed to establish the human health effects of exposure to PFAS. Epidemiologic studies have examined a number of health effects, many that are described in Fact Sheets available at: <https://www.atsdr.cdc.gov/pfc/>.

**Who can I call if I have questions about PFAS in my drinking water?**

For questions regarding this, residents may contact the State of Michigan Environmental Assistance Center at 800-662-9278, Monday through Friday, 8:00 AM to 4:30 PM. If you are concerned about exposure to PFAS in your drinking water, please contact the Michigan Department of Health and Human Services Toxicology Hotline at 800-648-6942, the Center for Disease Control and Prevention/ATSDR at <https://www.cdc.gov/cdc-info/>, 800-232-4636, or White Lake DPS at 248-698-7700 ext. 8.

Sincerely,

A handwritten signature in black ink that reads "Aaron Potter". The signature is written in a cursive style with a large initial "A".

Aaron Potter  
Director, Department of Public Services  
Charter Township of White Lake