ANNUAL

Water Quality REPORT

2023

Pittsfield Charter Township

WSSN#: 5360

Keeping You Informed Pittsfield Charter Township provides your drinking water. We are pleased to present you with our annual water quality report. This report follows the guidelines set by the U.S. Environmental Protection Agency (EPA) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

Our Mission: Deliver the highest quality drinking water and reliable sanitary sewer collection in a cost effective and environmentally responsible manner while working together as one team for our community.

Our Vision: Strive to enhance the quality of life for the community in a safe, economical and cohesive manner. Professional staff with knowledge and experience to provide our community with the highest-level customer service and professional maintenance.

Information About Pittsfield Charter Township Pittsfield Charter Township purchases water from Ypsilanti Community Utility Authority (YCUA). Our Drinking water is produced by Great Lakes Water Authority (GLWA). Together our goal is to provide you with safe and reliable drinking water. Additional information regarding Pittsfield Charter Township's Utilities Department is available at www.pittsfield-mi.gov/394/Utilities Pittsfield Charter Township's annual Drinking Water Quality Report contains important information about the source and quality of your drinking water. Pittsfield Charter Township and GLWA are committed to safeguarding our water supply and delivering the highest quality drinking water to protect public health. If you have questions about Pittsfield's water system, please contact **Billy Weirich, Utilities Director, at weirichb@pittsfield-mi.gov or 734.822.3105.**

IMPROVEMENTS	COST
No Water System Updates in 2023	0.00
Water Quality Flushing throughout the Township	

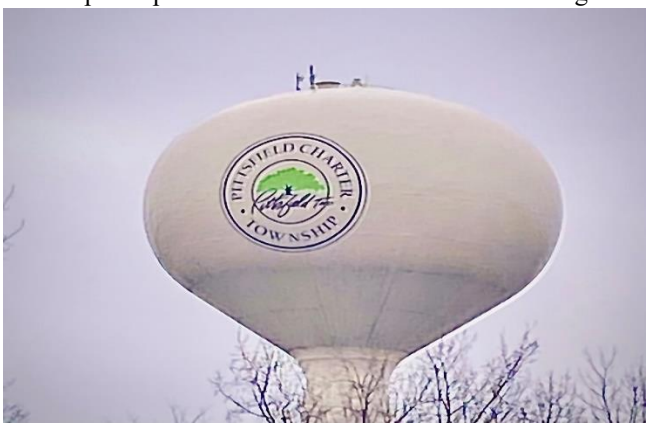
The Township' s water system service area contains three pressure districts. The Township is supplied directly with water from YCUA via a series of 11- meter pits along the eastern edge of the Township. The Township' s existing water system includes one elevated storage tank, one ground storage tank, two booster stations, approximately 2,328 hydrants, and 2,791 valves. The system also includes approximately 185 miles of watermains that are owned by the Township and vary in size between 6- and 36-inches.

How to Report an Emergency to the Utilities Department Report a water or sanitary sewer related emergency during normal business hours (Monday-Friday 8am-5pm) please call: **(734)822-3105**. If the issue is an **after-hours emergency please call (734)822-2107** to reach an on-call technician.

Information About GLWA Pittsfield Charter Township's drinking water is produced by the Great Lakes Water Authority (GLWA) water system. Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, and Ecorse River watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek, and Sydenham watersheds in Canada. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. Pittsfield Charter Township operates the system of water mains that carries this water to your home's service line.

Drinking water quality is important to our community. Pittsfield Charter Township and GLWA are committed to meeting state and federal water quality standards including the Lead and Copper Rule. This year's Drinking Water Quality Report highlights the performance of GLWA and Pittsfield Charter Township water professionals in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking water. If you wish to learn more about the plants that treat our water or obtain information regarding GLWA Board meetings, please visit www.glwater.org

Source Water Assessment EGLE, in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute, performed a source water assessment in 2004 to determine the susceptibility of GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale and ranges from very low to very high, determined primarily using geologic sensitivity, water chemistry, and potential contaminant sources. The report described GLWA's Detroit River intakes as highly susceptible to potential contamination. GLWA's Southwest and Springwells water treatment plants that draw water from the Detroit River have historically provided satisfactory treatment and meet drinking water standards. GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in the National Pollutant Discharge Elimination System permit program and has an emergency response management plan. In 2016, GLWA has an updated Surface Water Intake Protection Plan for the Belle Isle Intake and the Fighting Island Intake, which includes seven elements: roles and duties of government units and water supply agencies, delineation of source water protection areas, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new water sources, and public participation and education activities. If you would like to know more information about the Source Water Assessment report, please contact **GLWA at 313.926.8127**



<u>Communities served by Southwest & Springwells water treatment plants.</u>
Required information on Great Lakes Water Authority's (GLWA) Administrative Compliance Agreement (ACA) with Michigan Department of Environment, Great Lakes, and Energy Drinking Water and Environment Health Division (EGLE):

Great Lakes Water Authority (GLWA) is required to notify water users of any unresolved significant deficiencies identified by the Michigan Department of Environment, Great Lakes, and Energy, Drinking Water and Environment Health Division (EGLE). Below is the status of significant deficiencies in the GLWA water system identified by EGLE:

Date Identified by EGLE	Description	Compliance Agreement Deadline	Status
08-02-2022	Improper rapid mixing and coagulant feed location at the Southwest water plant	12-31-2027	Contractor has been identified
08-02-2022	Inoperable flocculation equipment at the Southwest water plant	07-31-2031	Preliminary procurement phase
05-25-2022	Inoperable rapid mixing equipment at the Springwells 1930's water plant	12-31-2023	Completed in December 2023.
05-25-2022	Inoperable flocculation equipment at the 1958 Springwells water plant	11-11-2027	Phase I - Construction phase in progress and is scheduled to be completed in 2025

Information about 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. Pittsfield 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 two minutes before using water for drinking or cooking. If you have a service line that is lead, galvanized previously connected to lead, or unknown but likely to be lead, it is recommended that you run your water for at least five minutes to flush water from both your home plumbing and the lead service line. 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 1.800.426.4791 or at http://www.epa.gov/safewater/lead

Information for People with Special Health Concerns 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/Center for Disease Control 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)**

Safe drinking water is a shared responsibility The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business. Pittsfield Charter Township performs required lead and copper sampling and testing in our community. Water consumers also have a responsibility to maintain the plumbing in their homes and businesses and can take steps to limit their exposure to 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. The Safe Drinking Water Act requires water utilities to inventory the service lines in its service area**.**

RUN WATER AFTER VACATION Another factor that affects water quality in your home is how ‘stale’ your water is. When you leave your home or business for a long time, as you may when you take a vacation, the water in the pipes and plumbing doesn’t move. When water has been sitting in the pipes for days, bacteria can grow. The best thing to do when you get back from being away after a long time is to run the water on full blast for 30 seconds to two minutes before using it for drinking and cooking. Always use cold water for cooking, to draw in fresh water from the outside.

What can be found 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 at 800.426.4791.**

Sources of drinking water (tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land surfaces 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 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, urban stormwater runoff and residential uses.
• Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
• Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.
Based on testing results during 2017 - 2022 (Test Results Table), all of these contaminants were below the level of concern for safe drinking water standards set by EPA.

More Resources
EPA Safe Drinking Water Hotline: 800.426.4791
Website: www.epa.gov/ground-water-and-drinking-water
Michigan Department of EGLE Website: www.michigan.gov/egle

BE CROSS CONNECTION COMPLIANT Connections to your water outside your home can influence water quality in your home. The outdoor spigot connection to a hose, irrigation systems, swimming pools, water operated sump pumps, fire sprinkler systems all can provide a potential way for pollutants to enter your plumbing. There is the potential for chemicals from your lawn or pool to be accidentally sucked back into your internal plumbing. Pittsfield Charter Township has implemented a program to prevent this from happening by making corrections to your plumbing, installing and testing backflow preventers. View our webpage, https://www.pittsfield-mi.gov/2279/Cross-Connection-Control-Program program for more information

Springwells Water Treatment Plant 2023 Regulated Detected Contaminants Table

Your drinking water is continuously monitored above and beyond Federal and State regulations. The table below lists all of the contaminants detected in your drinking water during the calendar year 2023. All results are reported for the Charter Township of Pittsfield. The presence of contaminants in the water does not necessarily indicate a health risk. This table does not show the hundreds of other contaminants tested for, but not found in your drinking water. The test results confirm that ALL DETECTED CONTAMINANTS WERE BELOW REGULATED LEVELS. Abbreviations are listed on page 8.

2023 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	4-11-2023	ppm	4	4	**0.86**	**n/a**	**no**	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	4-11-2023	ppm	10	10	**0.63**	**n/a**	**no**	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	05/16/2017	ppm	2	2	**0.01**	**n/a**	**no**	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Lead and Copper Monitoring at the Customer's Tap in 2023

Regulated Contaminant	Unit	Year Sampled	Health Goal MCLG	Action Level AL	90th Percentile Value*	Range of Individual Samples Results	Number of Samples Over AL	Major Sources in Drinking Water
Lead	ppb	2023	0	15	1 ppb	**0 ppb-33 ppb**	**1**	Lead services lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits.
Copper	ppm	2023	1.3	1.3	**0.1 ppm**	**0 ppm-0.4 ppm**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits.

*** The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.**

2023 Disinfection Residual - Monitoring in the Distribution System

Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Chlorine Residual	2023	ppm	4	4	**0.74**	**0.67-0.81**	**no**	Water additive used to control microbes

2023 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap			
Highest Single Measurement Cannot Exceed 1 NTU	**Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)**	**Violation**	**Major Sources in Drinking Water**
0.09 NTU	**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			

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon ppm	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC is measured each quarter and because the level is low, there is no requirement for TOC removal.	Erosion of natural deposits

2023 Special Monitoring						
Contaminant	**Test Date**	**Unit**	**MCLG**	**MCL**	**Highest Level Detected**	**Source of Contaminant**
Sodium	4-11-2023	ppm	n/a	n/a	**7.0**	Erosion of natural deposits

Radionuclides - Monitored at the Plant Finished Tap in 2014							
Regulated Contaminant	**Test Date**	**Unit**	**MCLG**	**MCL**	**Level Detected**	**Violation**	**Major Sources in Drinking Water**
Combined Radium Radium 226 and 228	5-13-14	pCi/L	0	5	**0.65 ± 0.54**	**no**	Erosion of natural deposits

These tables are based on tests conducted by GLWA in the year 2023 or the most recent testing done within the last five calendar years. GLWA conducts tests throughout the year only tests that show the presence of a substance or require special monitoring are presented in these tables. 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. The data is representative of the water quality, but some are more than one year old.

2023 Disinfection By-Products - Stage 2 Disinfection By-Products Monitoring in the Distribution System								
Regulated Contaminant	**Test Date**	**Unit**	**Health Goal MCLG**	**Allowed Level MCL**	**Highest Level LRAA**	**Range of Quarterly Results**	**Violation**	**Major Sources in Drinking Water**
Total Trihalomethanes (TTHM)	2023	ppb	n/a	80	**59.0 ppb**	**20 ppb-59 ppb**	**yes**	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2023	ppb	n/a	60	**20.0 ppb**	**14 ppb-20 ppb**	**yes**	By-product of drinking water chlorination

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Pittsfield 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 our drinking water meets health standards. Between November 1, 2023 and November 30, 2023 we were required to take a sample from a designated location and have it analyzed for haloacetic acids (five) (HAA5). We inadvertently missed collecting the sample.

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 are doing to correct the situation.

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

Contaminant	Required sampling frequency	Number of samples taken	Number of samples required	When all samples should have been collected	Date follow-up samples were collected
HAA5	1 sample/ quarter	0	1	November 1, 2023 – November 30, 2023	February 1, 2024
TTHM	1 sample/ quarter	0	1	November 1, 2023 – November 30, 2023	February 1, 2024

What happened? What is being done? We are required to collect 1 TTHM and 1 HAA5 sample in February, May, August, and November. We inadvertently missed collecting samples in November 2023. We are making every effort to ensure this does not happen again.

For more information, please contact **Billy Weirich, Department of Utilities Director at 734-822-3105**

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 Pittsfield Charter Township.

IMPORTANT CONTACTS

Pittsfield Charter Township: (734)822-3105
EPA Safe Drinking Water Hotline: 800-426-4791
EPA Website: www.epa.gov/safewater
Michigan EGLE Website: www.michigan.gov/EGLE
Pittsfield Charter Township Website: www.pittsfield-mi.gov
Water and Sanitary Sewer emergencies can be reported 7 days a week, 24 hours a day @ (734)822-2107

2023 Springwells Tap Water Mineral Analysis

Parameter	Units	Max.	Min.	Avg.	Parameter	Units	Max.	Min.	Avg.
Turbidity	NTU	**1.08**	**0.03**	**0.14**	**Phosphorus**	ppm	**0.61**	**0.37**	**0.49**
Total Solids	ppm	**153**	**115**	**138**	**Free Carbon Dioxide**	ppm	**11.6**	**4.4**	**8.4**
Total Dissolved Solids	ppm	**156**	**102**	**129**	**Total Hardness**	ppm	**146**	**90**	**116**
Aluminum	ppm	**0.077**	**0.018**	**0.038**	**Total Alkalinity**	ppm	**94**	**70**	**77**
Iron	ppm	**0.4**	**0.2**	**0.3**	**Carbonate Alkalinity**	ppm	**ND**	**ND**	**ND**
Copper	ppm	**0.003**	**ND**	**0.001**	**Bi-Carbonate Alkalinity**	ppm	**94**	**70**	**77**
Magnesium	ppm	**8.4**	**7.2**	**7.9**	**Non-Carbonate Hardness**	ppm	**66**	**10**	**39**
Calcium	ppm	**28.5**	**25.3**	**26.9**	**Chemical Oxygen Demand**	ppm	**11.1**	**ND**	**4.5**
Sodium	ppm	**7.0**	**4.6**	**5.3**	**Dissolved Oxygen**	ppm	**20.0**	**7.2**	**11.4**
Potassium	ppm	**1.3**	**1.0**	**1.0**	**Nitrite Nitrogen**	ppm	**ND**	**ND**	**0.0**
Manganese	ppm	**0.001**	**ND**	**ND**	**Nitrate Nitrogen**	ppm	**0.63**	**0.32**	**0.38**
Lead	ppm	**ND**	**ND**	**ND**	**Fluoride**	ppm	**0.86**	**0.10**	**0.59**
Zinc	ppm	**0.003**	**ND**	**0.001**	**pH**		**7.52**	**7.09**	**7.28**
Silica	ppm	**2.9**	**1.1**	**2.1**	**Specific Conductance @ 25 °C**	µmhos	**219**	**180**	**191**
Sulfate	ppm	**32.3**	**22.5**	**25.0**	**Temperature**	°C	**23.4**	**3.4**	**13.2**
Chloride	ppm	**11.5**	**9.5**	**10.4**					

Key to the Detected Contaminants Table

Symbol	Abbreviation	Definition/Explanation
AL	Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
>	Greater than	
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, di-bromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
Level 1	Level 1 Assessment	A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our system.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	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.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow a margin of safety.
MRDL	Maximum Residual Disinfectant Level	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.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which 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.
n/a	not applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of all analytical results for all samples during the previous four quarters.
SMCL	Secondary Maximum Contaminant Level	
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
µmhos	Micromhos	Measure of electrical conductance of water