



2021 Water Quality Report

This report covers the drinking water quality for City of Petoskey for the 2021 calendar year. This information is a snapshot of the quality of the water that the City provided to you in 2021. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and state standards.

Your water comes from 7 groundwater wells, each well varies in depth and are listed in Table 1 below. The State performed an assessment of the City's source water 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 Department of Environment, Great Lakes, and Energy (EGLE), formally known as Michigan Department of Environmental Quality (MDEQ), completed the assessment of the City of Petoskey source water in 2015. EGLE determined in that assessment the City's wells have a low to moderate susceptibility to contamination, see Table 1. The assessment is available upon request.

Table 1

Well	Depth of Well in feet	Geological Sensitivity
WL002	258	Moderate Low
WL004	405	Low
WL010	460	Low
WL008	565	Moderate
WL009	565	Moderate Low
WL011	542	Moderate Low
WL012	537	Moderate Low

There are no significant sources of contamination in the City's water supply. Staff is making efforts to protect City water sources by monitoring and testing on a regular basis. The City along with EGLE also completed a delineation study in 2015.

If you would like to know more about this study, please contact Jason Berndt with EGLE via email at berndtj1@michigan.gov.

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 U.S. 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 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. U.S. 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.

Sources of drinking water:

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs and wells. City 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 can be 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 stormwater runoff, and septic systems.



Participants inside the tower as part of the College for Kids program.



In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

Table 2 lists all the drinking water contaminants that we detected during the 2021 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 through December 31, 2021. The State allows the City 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 collected represents the City's water quality, but some are more than one year old.



Terms and abbreviations below help to understand tables:

- 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.
- 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
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- ppt: parts per trillion or nanograms per liter
- pCi/l: picocuries per liter (a measure of radioactivity)
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Table 2

REGULATED CONTAMINANT	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10	0	<1	<1	2019	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.10	0.074-0.10	2019	N	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	0.23	ND – 0.23	2021	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	1.6	0.87 – 1.6	2020	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium ¹ (ppm)	N/A	N/A	33	6.4 – 33	2020	N	Erosion of natural deposits
TTHM - Total Trihalomethanes (ppb)	80	N/A	8.8	8.8	2021	N	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	ND	ND	2021	N	Byproduct of drinking water disinfection
Chlorine ² (ppm)	4	4	1.0	1.0	2021	N	Water additive used to control microbes
Alpha emitters (pCi/L)	15	0	2.6	2.6	2021	N	Erosion of natural deposits
Combined radium (pCi/L)	5	0	1.97	1.97	2021	N	Erosion of natural deposits

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	2021	N	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	ND	2021	N	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	ND	2021	N	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	ND	2021	N	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	ND	2021	N	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	ND	2021	N	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	ND	2021	N	Discharge and waste from industrial facilities; stain-resistant treatments
Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water ³	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	3	ND – 5.5	2021	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.3	0.027–0.47	2021	0	Corrosion of household plumbing systems; Erosion of natural deposits

¹ Sodium is not a regulated contaminant.

² The chlorine “Level Detected” was calculated using a running annual average.

³ Ninety (90) percent of the samples collected were at or below the level reported for our water.

Additional Monitoring

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. City of Petoskey 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 have a lead service line it is recommended that you run your water for at least 5 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 or at <http://www.epa.gov/safewater/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.

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.

The City's water supply consists of 3,360 service lines. Of these 3,360 services lines, 36 have been identified as lead. To be defined as a lead service line, the line must have an actual lead component or be a line that had been previously connected to a lead component. 1,314 as copper or other and 2,010 are currently unknown.

Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements The State of Michigan and the U.S. EPA require the City to test public supply water on a regular basis to ensure its safety. The City met all the monitoring and reporting requirements for 2021.

The City of Petoskey will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at City Hall upon request. This report will not be sent to you.

The City invites public participation in decisions that affect drinking water quality. City of Petoskey Council meetings are held on the first and third Mondays of each month. These meetings are held at City Hall located at 101 East Lake Street, Petoskey, Michigan 49770. Please refer to the City's website for any information on those meetings. For more information about your water, or the contents of this report, email waterquality@petoskey.us or contact Sherrie Elliott or Martin Flynn in the City of Petoskey Water Division at 231-347-2500. For more information about safe drinking water, visit the U.S. EPA at <http://www.epa.gov/safewater>.

