

2018 Water Quality Report for City of Grayling

This report covers the drinking water quality for City of Grayling for the 2018 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2018. 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 two groundwater wells, each over 150 feet. In 2003 the State performed an assessment of our 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 susceptibility of our source the State determined Well 1 to have a low susceptibility to contamination and Well 2 to have a moderately low susceptibility. You may obtain a copy of this assessment report from City Hall, 1020 City Boulevard, Grayling, MI 49738. We are making efforts to protect our sources by participating in a Wellhead Protection Plan.

If you would like to know more about the report, please contact City of Grayling at (989)348-2131, 1020 city Blvd. Grayling MI, 49738. www.cityofgrayling.org Kyle Bond at kbond@cityofgrayling.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 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 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. 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. 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 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.



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

The table below lists all the drinking water contaminants that we detected during the 2018 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, 2018. 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 the data is representative of the water quality, but some are 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): 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
- 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 (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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.
- Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Regulated Chemical Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10	0	N/D	2015	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.01	2015	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	1	0.4	2018	No	Water additive which promotes strong teeth
Nitrate (ppm)	10	10	<1.0	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Unregulated Chemical Contaminants ¹		Our Water		Sample Date	Violation Yes / No	Typical Source of Contaminants
Sodium (ppm)			6	2018	No	Erosion of natural deposits
Calcium (ppm)			46-51 AVE = 48.5	2018	No	Erosion of natural deposits
Magnesium (ppm)			9	2018	No	Erosion of natural deposits
Sulfate (ppm)			<10	2018	No	Erosion of natural deposits
Chloride			23	2018	No	Erosion of natural deposits

Inorganic Contaminant Subject to Action Levels (AL)		Action Level	MCLG	Your Water ¹	Year Sampled
Lead (ppb)		15	0	1 ppb	2018
Copper (ppm)		1.3	1.3	0.10	2018
Microbial Contaminants	MCL or TT	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	TT	N/A	N/A	No	Naturally present in the environment
<i>E. coli</i> in the distribution system (positive samples)	See <i>E. coli</i> ¹ note below	0	0	No	Human and animal fecal waste
Fecal Indicator – <i>E. coli</i> at the source (positive samples)	TT	N/A	0	No	Human and animal fecal waste

¹ Ninety (90) percent of the samples collected were at or below the level reported for our water.

² Sodium is not a regulated contaminant.

³ *E. coli* MCL violation occurs if: (1) routine and repeat samples total coliform-positive and either is *E. coli*-positive, or (2) supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) supply fails to analyze total coliform-positive repeat sample for *E. coli*.

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 Grayling 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 or at <http://www.epa.gov/safewater/lead>.

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Monitoring and Reporting Requirements:

The State and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2018.

We, the City of Grayling employees, make every effort to provide quality water to every City of Grayling water tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. As part of a continuing effort to protect our water sources the City of Grayling began the process of implementing a Wellhead protection program in 2003 with delineation of Well 2. Delineation for Well 1 was submitted in 2009 and a revised Wellhead Protection Area was approved by the State of Michigan. A Wellhead protection program is a planning and management approach to protect groundwater supply systems from contamination by identifying and managing potential sources of contamination that can affect water supply wells.

We invite public participation in decisions that affect drinking water quality. City Council meetings are held the second and last Monday of each month, 6:30PM at Grayling City Hall, 1020 City Boulevard, Grayling, MI 49738. For more information about your water, or the contents of this report, contact Kyle Bond at 989-348-2131 or send email to kbond@cityofgrayling.org. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

We 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, 1020 City Boulevard, Grayling, MI 49738, or this report can be viewed on the internet at www.cityofgrayling.org. This report will not be sent to you.

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