

Annual Drinking Water Quality Report for 2017
City of Negaunee Water Utility
February 26, 2018

The City of Negaunee is pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is to provide you with a continuous, safe, and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment and delivery processes and to protect our water resources. We are committed to ensuring the quality of your water. The City of Negaunee purchases its water from the Negaunee/Ishpeming Water Authority (NIWA), which draws water from wells in the N. Carp River and Cooper Lake Road Aquifers. This water is treated through chemical clarification, filtration for the removal of manganese and iron, and the pH is adjusted for lead and copper corrosion control. The water treatment plant is operated by State certified treatment plant operators employed by NIWA.

NIWA has completed a source water protection plan, which provides detailed information on groundwater flow and potential sources of contamination. This plan is available for review at the water treatment plant.

Drinking water delivered by the City of Negaunee is safe and meets federal and state requirements. Because the City purchases water produced by the Negaunee/Ishpeming Water Authority, questions regarding quality can best be addressed by **Tony McGrath, NIWA Plant Manager at 486-8399**. If you want to learn more about water quality, please attend any regularly scheduled meeting of the Negaunee/Ishpeming Water Authority. They are held on the third Wednesday of the month at 4:00 PM at the water treatment plant's conference room located at 1800 North Road, Ishpeming, Michigan. Questions about water distribution within the City, utility policies, and rates should be directed to the **Negaunee City Manager at 475-7700 Ext. 11** or the Negaunee City Council which meets the second Thursday of each month at the Negaunee Senior Center, 410 Jackson Street.

The water treatment plant staff and City of Negaunee routinely monitor for regulated and unregulated contaminants in your drinking water according to Federal and State laws. In compliance with the Safe Drinking Water Act, NIWA completed sampling for unregulated contaminants in 2009. The water quality data gathered through the unregulated sampling requirement is used in the development of future drinking water quality standards. Copies of the unregulated sampling test results are available for review at the water plant. The following table shows the results of our regulated monitoring for the period of January 1st to December 31st, 2017. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

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 this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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 Contaminant Level Goal - The “Goal” (MCLG) is 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.

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.

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

Regulated Contaminant	MCL, TT, or MRDL	MCL G or MRDLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Inorganic Contaminants							
Fluoride (ppm)	4	4	.67		2017	No	Erosion of natural deposits; Water

							additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead (ppb)	15	0	5.0		2017	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.6		2017	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Disinfectants & Disinfection By-Products							
TTHM - Total Trihalomethanes (ppb)	80	N/A	65.2	44.2-88.6	2017	No	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	22.25	7-25	2017	No	Byproduct of drinking water disinfection
Chlorine ¹ (ppm)	4	4	0.2	.05-.40	2017	No	Water additive used to control microbes

¹ The chlorine "Level Detected" was calculated using a running annual average.

*TTHM range was 44.2 to 88.6 ppb. 65.2 ppb was the running annual average.

**HAA5 range was 7 to 25 ppb. 22.25 ppb was the annual running average.

We're proud that your drinking water meets or exceeds all Federal and State requirements. While the monitoring and testing we perform has detected some trace chemical constituents, the EPA has determined that your water is SAFE at these levels. Monthly testing is also performed for microbiological contaminants.

During the past year we were required to conduct 1 level 1 assessment. 1 level 1 assessment was completed. In addition we were required to take 2 corrective actions and we completed 2 of these actions.

1 Institutional business needed extensive testing to confirm that the contamination was limited to that business's internal plumbing. The City assisted by increasing chlorine concentrations in the water supply to alleviate the problem for a three week period.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental

Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Contaminants	Susceptible Vulnerable Subpopulation	Level of Concern
Fecal Coliform/E. Coli	Infants, young children, and people with severely compromised immune systems	Confirmed presence (any confirmed detect)
Copper	People with Wilson's Disease	1.3 mg/l (ppm)
Fluoride	Children	4.0 mg/l (ppm)
*Lead	Infants and children	15.0 ug/l (ppb)
Nitrate	Infants below the age of 6 months.	10.0 mg/l (ppm)
Nitrite	Infants below the age of 6 months	1.0 mg/l (ppm)
Barium	People with high blood pressure	2.0 mg/l (ppm)

* If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking is primarily from materials and components associated with service lines and home plumbing. The Negaunee 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 1 to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may 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>.

The City of Negaunee works continuously to provide top quality water to every 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 a part of that protection we must routinely reinvest in the infrastructure that is used to treat and deliver water to your home or business and this requires periodic adjustments to the rate structure that funds operation of the water utility.

Thank you for allowing us to continue providing your family with clean, quality water this year.