

2022 Water Quality Report for City of Hillsdale

Water Supply Serial Number: 03170

This report covers the drinking water quality for City of Hillsdale for the 2022 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2022. 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 6 groundwater wells, each over 68ft deep. 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 is Moderately High.

There are no significant sources of contamination in our water supply. We are making efforts to protect our sources by participation in the Wellhead Protection Program.

If you would like to know more about this report, please contact: Jeff Gier, Hillsdale BPU, 45 Monroe Street, Hillsdale, MI 49242. 517-437-6412 or email at jgier@hillsdalebpu.com,

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).

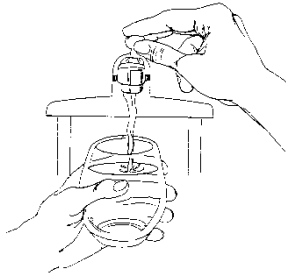
Vulnerability of sub-populations: Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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 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 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.
- 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.

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	ND	ND	2017	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.11	0.11	2017	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	ND	NA	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.49	NA	2019	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium ¹ (ppm)	N/A	N/A	25	NA	2019	No	Erosion of natural deposits
TTHM Total Trihalomethanes ⁴ (ppb)	80	N/A	58	1.2-97	2022	Yes	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids ⁴ (ppb)	60	N/A	36	9-60	2022	Yes	Byproduct of drinking water disinfection
Chlorine ² (ppm)	4	4	0.17	0-1.21	2022	No	Water additive used to control microbes
Combined radium (pCi/L)	5	0	ND	ND	2015	No	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	NA	2022	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	NA	2022	No	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	NA	2022	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	NA	2022	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	NA	2022	No	Discharge and waste from industrial facilities; breakdown of precursor compounds

Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	NA	2022	No	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	NA	2022	No	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 ³ (ppb)	15	0	1ppb	0-18ppb	2022	1	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper ³ (ppm)	1.3	1.3	0.9ppm	0.0-1.8ppm	2022	1	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.

⁴ Sample did not result in MCL violation but did trigger more sampling.

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. Hillsdale BPU 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.

Our water supply has 297 lead service lines and 1962 service lines of unknown material out of a total of 2846 service lines.

Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2020.

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 45 Monroe Street.

We invite public participation in decisions that affect drinking water quality. BPU Board Meetings occur regularly on the second Tuesday of each month, in the BPU Board Room at 45 Monroe Street. For more information about your water, or the contents of this report, contact Bill Briggs at 517-437-6412. For more information about safe drinking water, visit the U.S. EPA at <http://www.epa.gov/safewater>.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The City of Hillsdale BPU Did Not Meet Treatment Requirements

Our water system violated a drinking water standard in 2022, this same public notice was sent out at that time. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from quarterly samples collected 2022 show that our system exceeds the standard, or maximum contaminant level (MCL), for trihalomethanes and haloacetic acids. The standard for trihalomethanes is 80 micrograms per liter ($\mu\text{g/L}$) and 60 micrograms per liter ($\mu\text{g/L}$) for haloacetic acids. *The level of trihalomethanes and haloacetic acids in our system was determined by averaging the sample results collected during each quarter for the past 12 months.*

What should I do?

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking

water from their health care providers.

- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What does this mean?

This was not an emergency. If it had been an emergency, you would have been notified within 24 hours.

People who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

What was done?

The City of Hillsdale BPU altered the treatment at the water treatment plant and as a result, the trihalomethane and haloacetic acid levels have decreased.

Monitoring Requirements Not Met for the City of Hillsdale BPU

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. During April 1, 2022 to April 30, 2022, due to an independent lab failing to analyze the samples within the hold time, we 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 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	When all samples should have been analyzed	Date samples will be collected
TTHM	1 sample every 3 months	1	April 1, 2022 – April 30, 2022	July 1, 2022 – July 31, 2022

What happened? What is being done? We collected the required sample and sent it to an independent laboratory for analysis. Due to a lab error, the sample was not tested within the allowable hold time. We are making every effort to assure this does not happen again