Michigan Bessemer

Water Quality Report 2022

What's the deal with all the construction?!

The City just finished the second year of our 3-year USDA-RD Water and Wastewater Systems Improvements Project! The City received $16,000,000 in grant funding to be used toward this project, helping the City get much needed upgrades to leaky lines, booster pumps, and burying the lines deep enough so they don't freeze. By the end of this project 9 miles of roads will have been replaced at a value of about $5,100,000.

The City is also working with C2AE to identify and replace any Lead service lines that are found through the Drinking Water Asset Management program.

Is my water safe?

Last year, as in years in the past, our water met all federal and state drinking water health standards. This report is designed to provide you with a snapshot of where your water comes from, what is in it, and how it compares to standards from the state and federal government. We are committed to serving high quality, safe water to our water users.

To the left is Sophie St before it was repaved this summer

Shown to the right is the inside of an old pipe that was removed as part of our construction project. A great example of why it's necessary to keep improving our system!

Where Can I Find More Information?

This report will not be automatically mailed to individual utility customers of the City of Bessemer; however, a copy of this report may be obtained at City Hall, 411 S. Sophie St., Bessemer, MI 49911, or website www.cityofbessemer.org/government/services/water-sewer/. We invite public participation in decisions that affect drinking water quality. Gogebic Range Water Authority meetings happen on the 2nd Thursday of the month at 6 pm in the City Hall Council Chambers. City Council meets every 2nd and 4th Monday of the month in the City Hall Council Chambers at 6 pm.

For more information contact Neal Nelson at the Dept. of Public Works garage (906-667-0453).

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/

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Overview: This report covers the drinking water quality for Bessemer, for the calendar year 2022. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We will update this report annually and will keep you informed of any problems that may occur throughout the year as they happen.

Water Quality Data: In order 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health. We met all the monitoring and reporting requirements for 2022.

The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. 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. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2022

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): means 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 Goal (MRDG): means 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 disinfectant to control microbial
- contaminants
- 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: The concentration of a contaminant which, if exceeded, triggers other requirements that a water system must follow.
- Level 1 Assessment: A study of the water supply to identify potential problems.

Did you know?

An American home can waste, on average, more than 11,000 gallons of water every year due to running toilets, dripping faucets, and other household leaks? Nationwide, more than 1 trillion gallons of water leak from U.S. homes each year. A minor toilet leak can waste up to 30 gallons of water per day. These can be caused by something as simple as the flush valve or flapper becoming loose or the flush handle getting stuck, causing water to keep dripping down the drain.

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Regulated Contaminant	MCL	MCGL	Level Detected	Sample Date	Violation Yes/No	Typical Source of Contaminant
Fluoride (ppm)	4	4	0.13	8/20	No	**Erosion of natural deposits**
Cyanide(ppm)	200	200	0.079	8-20	No	**Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.**
Barium (ppb)	2000	2000	110	8/14	No	**Erosion of natural deposits**
Chlorine (ppm)	MRDL 4	MRDLG 4	0.23 AVG. (.03-.64)	Daily	No	**Water additive used to control microbes**
Disinfection By-Products – Monitoring in Distribution System Stage 2 Disinfection Byproducts						
TTHMs (ppb) Trihalomethanes	80	N/A	3.04	8/22	No	By-product of drinking water disinfection
HAAs (ppb) Haloacetic Acids	80	N/A	<1.5	8/22	No	By-product of drinking water disinfection

Radioactive Contaminant	MCL	MCLG				
Alpha emitters (pCi/L)	15		0.56	8/22	No	Erosion of natural deposits
Combined Ra226/228	5		0.18	11/02	No	Erosion of natural deposits

Special Monitoring and Unregulated Contaminant*	Level Detected	Sample Date	Typical Source of Contaminant
Sodium (ppm)	9.1	8/20	Erosion of natural deposits

Contaminant Subject to an Action Level	Action Level	90th percentile	Sample Date	Number of Samples Above AL	Typical Source of Contaminant
Copper (ppb)	1300	340	8/21	0	Corrosion of household plumbing
Lead (ppb)	15	0.72	8/21	0	Corrosion of household plumbing

Microbial Contaminants	MCL	MCGL	Number Detected	Violation Yes/No	Typical Source of Contaminant
Total Coliform Bacteria	1 positive monthly sample (Positive in > 5% of samples	0	1**	No	Naturally present in the environment

* Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

** Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliform were found in 1 routine and 3 repeat samples, in September. Subsequent testing has shown the system is clear of coliform bacteria. During the past year, we were required to conduct one Level 1 Assessment. One Level 1 Assessment was completed.

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at **www.epa.gov/safewater/**

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More information on 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. The City of Bessemer 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 at 1-800-426-4791 or at http://water.epa.gov/drink/info/lead/index.cfm.

Our water supply has 475 service lines of unknown material out of a total of 1038 service lines.

Why are there contaminants in my 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 the potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (800-426-4791)**.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from wells. As water travels over 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 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 and residential uses.
- **Radioactive contaminants**, which are 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.

Do I need to take any special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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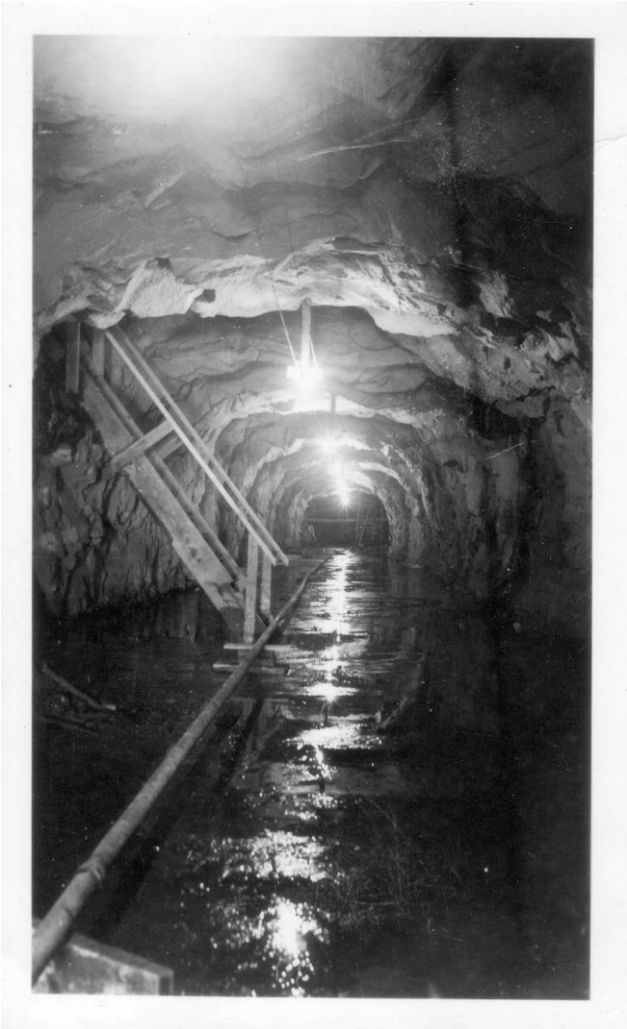
Where does my water originate?

The supply comes from ground water wells at the Black River well field located north of town between Stone Road and the Black River. This well field consists of three (3) drilled wells, each over 70 ft in depth. In its effort to supply you with the safest and most pleasing product the city filters out iron and manganese that cause staining and odor then adds chlorine for a disinfectant. A Wellhead Protection Plan for this well field has been approved by the Michigan Department of Environmental Quality.

Shown above are the new booster pumps that were upgraded as part of our improvements project

Shown below is an old photo of the lower tunnel in the Bluff Reservoir approx. 1938



Tell me more about our water supply

The City of Bessemer has two water tanks. One is carved inside the Bluff at Bluff Valley Park and the other is on the top of Tilden Hill.

After this massive construction project about 75% of pipes in the system will be newer than 1980.