WATER DISTRICT No. 1 of MIDLAND COUNTY
2022 DRINKING WATER QUALITY REPORT

NEWS AND NOTES

WD1 Staff continues to address damages to our metering equipment from the dam failure and resulting flooding. We are still looking to replace any meters that had been submerged during the flood. If your home has one of these meters, please call (989) 687-2709 to set up an appointment to have your meter changed out. Although those meters may still be working to some extent, the electronic components are likely to fail in time.

Monitoring requirements not met in 2022: Two sites are monitored in our system every 3 months for Trihalomethanes and Haloacetic acids. We did take samples for TTHM and HAA5 at both sites in June 2022, but they did not meet thermal preservation requirements and could not be used for compliance. We resampled at the first site, but mistakenly did not resample at the 2nd site believing that it had passed compliance requirements. Sampling can only take place during specific time periods and at specific locations. We have taken steps to be sure to monitor for TTHM and HAA5, as required. For more info, please contact our office at 989-687-2709.

As always, the goal of WD #1 is to build a better future by providing water to its citizens.

WHERE DOES OUR WATER COME FROM?

Water District #1 has purchased water from the City of Midland since our system's origin in 1970. Midland has received its source water supply from Lake Huron since 1948. The source water pumping facility is jointly owned and operated by the cities of Midland and Saginaw and is called the Saginaw-Midland Municipal Water Supply Corporation (SMMWSC). Water from Lake Huron is drawn into the system through two intake structures located one and two miles offshore at Whitestone Point near Au Gres.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and 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:

- 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 storm water 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, urban storm water runoff, and residential uses.
- 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the quantity of certain contaminants in water provided by public water systems. FDA regulation establishes limits for contaminants in bottled water which must provide the same protection for public health.

Source Water Assessment: In June 2003 the Michigan Department of Environmental Quality released a Source Water Assessment Report (SWAR) for our community's source of raw water. Our community is provided raw water from two Lake Huron water intakes located off the shores of Whitestone Point, which is roughly 8-miles north of Au Gres, MI. Included in the SWAR is a susceptibility analysis of our raw water. Susceptibility is a measure of the factors within the source water area that may pose a risk to the water supply. The SWAR concluded that our intakes have a **moderately low** susceptibility to potential contamination. Although the threat of contamination still exists, this rating is considered excellent for a surface water source. A copy of the report is available for review at the Water Office at Midland City Hall. If you have questions or need additional information on our SWAR please call the Water Plant at 837-3515

Information on copper: 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 contact their personal doctor. If you are concerned about elevated copper levels in your home's water, you may wish to flush your tap for 30 seconds to two minutes before using the water or have your home's water tested. For further information contact the Water District Office at 687-2709

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. Infant 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. Our records indicate that there are no lead service lines in our system.

WD1is 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 at 1-800-426-4791 or at http://www.epa.gov/drink/info/lead.

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 microbial contaminants are available from the Safe Drinking Water Hotline.

Water District #1 of Midland County Test Results for 2022

Substances regulated at the Water Treatment Plant

Substance	Unit	Amount Detected Range	Average	MCL	MCLG	Likely Source	Violation?
Fluoride	ppm	0.51-0.86	0.70	4	4	Erosion of natural deposits and treatment additive, promotes strong teeth	NO
Turbidity	ntu	0.02-0.17	n/a	TT[a]	n/a	Soil runoff; suspended matter in surface water	NO
Barium[b]	ppm	0.01	0.01	2	2	Erosion of natural deposits; discharge of drilling wastes; Discharge from metal or petroleum refineries. Discharge from mines.	NO

a. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system. The limits for turbidity state that all samples must be below 1 ntu, and that at least 95% of the samples each month be lower than 0.3 ntu. 100% of our monthly samples were less than 0.3 ntu.
b. Test date 2022. Testing for this substance conducted every nine years.

Substances regulated in the Distribution System

Substance	Unit	Amount Detected Range	Highest RAA[c]	MCL	Likely Source	Violation?
Total Trihalomethanes	ppb	45-69	64	80	By-products of drinking water chlorination	NO
Total Haloacetic Acids	ppb	3-27	18	60	By-products of drinking water chlorination	NO

				MRDL	**MRDLG**		
Chlorine	ppm	0.01-0.99	0.56	4.0	4.0	Treatment additive for Microbial contaminant control	NO

c. Highest Running Annual Average (RAA) calculated quarterly.

Substances regulated at the Customer's Tap (Water District No. 1 of Midland County)

Substance	Unit	90th Percentile	Amount Detected Range (#exceeding AL)	MCL	MCLG	Likely Source	Violation?
Copper [d, f]	ppm	0.4	0-0.5 (0)	AL=1.3	1.3	Corrosion of household plumbing systems	NO
Lead [e, f]	ppb	4.0	0-7 (0)	AL=15	0	Lead service lines, (there are none in our system)	NO

d. No testing sites exceeded the Copper Action Level of 1.300 ppm. Corrosion of household plumbing including fittings and fixtures
e. One testing sites exceeded the Lead Action Level of 15 ppb follow up sample did not. And erosion of natural deposits.
f Tested in 2022 Annual testing started in2019 to meet latest requirement of Lead and Copper.

Unregulated Parameters

Substance	Unit	Amount Detected	Likely Source	Violation?
Sodium	ppm	4.5	Erosion of natural deposits	NO

Unregulated Contaminants Monitoring Rule 4th Round (UCMR4 2019-20)

Halo Acetic Acids (3) -		Amount Detected Average	Range	Likely Source	Violation?
Bromochloroacetic acid	(ppb)	2.78	0.9-4.2	By-products of drinking water disinfection	NO
Bromodichloroacetic acid	(ppb)	3.59	1.7-5.7	By-products of drinking water disinfection	NO
Chlorodibromoacetic acid	(ppb)	0.68	0.4-1.4	By-products of drinking water disinfection	NO
METALS: Manganese	(ppb)	0.52	One Occurrence	Naturally Occurring	NO

Important Definitions

The following tables contain scientific terms and measures, some of which may require an explanation.

Action Level or AL: The concentration of a contaminant which, if exceeded, triggers the need for additional treatment or other requirements which a water system must meet.
Maximum Contaminant Level or MCL: The highest level of a contaminant, which 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 or MCLG: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level or 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 or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.
Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.
Part per million (PPM); part per billion (PPB): These units describe the levels of detected contaminants.
Nephelometric Turbidity Units (ntu).: A measure of water clarity. Lower numbers indicate clearer water.
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. City of Midland and the Water District have monitored for these contaminants and complete results of monitoring are available on request.

2022 Drinking Water Quality Report
Water District #1 of Midland County
P.O. Box 320, Sanford, Mi

BOARD OF TRUSTEES - MEETINGS
HELD THIRD WEDNESDAY EACH MONTH AT JEROME TOWNSHIP HALL 737 W. BEAMISH RD. SANFORD MI