

Sebewaing Light & Water Department Water Quality Report 2020

Is my water safe?

Yes. We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide 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. This report is a snapshot of last year's water quality meeting all the State requirements for safe drinking water.

Do I need to take special precautions?

There are no significant sources of contamination in our well water supply. Yet, 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. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline 800.426.4791.

Where does my water come from?

Light and Water Department provided over 92.8 Million gallons of ground water, supplied from three well pumps located within the Village. Well #1 has a depth of 300 feet, Well #4 has a depth of 220 feet, and Well #3 has a depth of 250 feet. Approximately, 5.48 miles of Sebewaing's distribution system was installed in the 1930's. Today, the oldest water mains date back to the 1950's. We currently, maintain 17.8 miles of underground water mains and use 2 elevated storage tanks. In 2020, both water towers were inspected and the 300,000 gallon tower was drained and cleaned. We also replaced a high service pump at Well #4. The Light and Water department remains committed to making improvements to the water system and delivering the best water quality possible.

Source water assessment and its availability

The Source Water Assessment Score is a process that factors geologic and water well attributes, water chemistry, and potential contaminant sources for each drinking water source into a ranking system to determine the relative potential for contamination. This assessment is required by the Michigan Source Water Assessment Program under the provisions of the 1996 amendments to the Federal Safe Drinking Water Act. Significant sources of contamination include septic tanks, sewer lines, fuel tanks, landfills, lagoons or known plumes of groundwater contamination.

The Michigan Department of Environmental Quality (MDEQ), now EGLE, performed an assessment of our source water in 2018, to determine the susceptibility of the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "high", based primarily on geological sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source water for well # 1 is moderately low, Well # 3 is moderate and Well #4 is moderate. You may obtain a copy of this report at our Sebewaing Light and Water office.

What type of contaminants could be in my drinking water?

Sebewaing Light and Water monitors the quality of your drinking water and maintains adherence to the state requirements. Although, drinking water, including bottled water, may 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 U.S. 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. 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:

- **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 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 be the result of oil and gas production and mining activities.

How can I get involved?

Call us for the next opportunity for public participation in decisions that affect our drinking water. The Light and Water Committee meets once a month, at the Village Office, 222 N Center St., Sebawaing, MI 48759, 989.883.2700. The Village Council Meetings are the third Monday, of every month, at 7:00pm, 222 N Center St., Sebawaing, MI 48759, 989.883.2150.

Water Quality Data

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. The Federal Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which provide the same protection for public health. The table below lists all the drinking water contaminants that we detected during the 2020 calendar year. All sources of drinking water contain some naturally occurring contaminants. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few, naturally occurring minerals may improve the taste of drinking water and have nutritional values at low levels. 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. As such, some of our data, though representative, may be more than a year old. In this table you will find terms and abbreviations that might not be familiar to you. A list of these terms is found at the end of this report to help you better understand.

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 monitoring and reporting requirements, for 2020. There were not any violations.

Note: The EPA requires monitoring of over 80 drinking water contaminants. Below is the list of the contaminants found in your water. For a complete list, contact Sebawaing Light and Water Department.

Disinfection Byproducts					
Regulated Contaminants	MCL	MCLG	Level Detected	Year Tested	Typical Source of Contaminant
TTHM TOTAL TRIHALOMETHANES ¹ (ppb)	80	N/A	1.9	2020	Byproduct of drinking water disinfection
HAA5 TOTAL HALOACETIC ACIDS ¹ (ppb)	60	N/A	1.0	2020	Byproduct of drinking water disinfection

¹System collection site was 41 N Beck St. With these test levels no action was required.

Disinfectants						
Regulated Contaminants	MRDL	MRDLG	Range	RAA	Year Tested	Typical Source of Contaminant
Chlorine (ppm)	4	4	0.18 – 0.73	0.45	2020	Water additive used to control microbes

Inorganic Contaminants						
Regulated Contaminants	MCL	MCLG	Range	Level Detected	Year Tested	Typical Source of Contaminant
Arsenic (ppb)	10	0	0.0 – 4.0	4.0	2019	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes
Barium (mg/L)	2.0	2.0	0.0 – 0.04	0.04	2019	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries
Selenium (ppb)	50	50	0.0 – 12.0	12.0	2019	Erosion of natural deposits; discharge from petroleum refineries; discharge from mines
Fluoride (mg/L)	4.0	4.0	0.71 – 0.82	0.82	2020	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Sodium ² (mg/L)	N/A	N/A	170 – 420	420	2020	Erosion of natural deposits
² Sodium is not a regulated contaminant						

Inorganic Contaminants Subject to Action Level (AL)							
Inorganic Contaminants Subject to Action Level	Action Level	MCLG	Your Water⁴	Range	Number of Samples Above Action Level	Year Tested	Typical Source of Contaminant
Lead (ppb)	15	0	9	0.0 - 123	2	2020	Lead service lines, corrosion of household plumbing, including fittings and fixtures; erosion of natural deposits;
Copper (ppm)	1.3	1.3	0.3	0.0 – 1.1	0	2020	corrosion of household plumbing systems; erosion of natural deposits
⁴ Ninety (90) percent of the samples collected were at or below the level reported for our water.							

Radionuclides						
Regulated Contaminants	MCL	MCLG	Range	Level Detected	Year Tested	Typical Source of Contaminant
Alpha Particles (pCi/L)	15	0	0.0 – 13.3	13.3	2016, 2018	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	0.0 – 4.4	4.4	2016, 2018, 2019	Erosion of natural deposits

Per- and Polyfluoroalkyl Substances (PFAS)

PFAS, sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the U.S. EPA as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products. Some of these items include waterproof and stain resistant fabrics such as clothing, carpet, and upholstery, food paper wrappings, microwave popcorn bags, nonstick coatings on cookware, some cleaning supplies including soaps and shampoos, fire-fighting foams, and metal plating. People can be exposed to these chemicals in house dust, indoor and outdoor air, food, and drinking water. PFAS have been found at low levels both in the environment and in blood samples from the general U.S. population. These chemicals are persistent, which means they do not break down in the environment. There is still uncertainty regarding these routes of exposure and more research is necessary. For information on PFAS, including possible health outcomes, you may visit these websites: <https://www.epa.gov/pfas>, <https://www.atsdr.cdc.gov/pfas/>, or <http://www.michigan.gov/pfasresponse>.

Per- and Polyfluoroalkyl Substances (PFAS)						
Regulated Contaminants	MCL	MCLG	Typical Source of Contaminant	Range	Level Detected	Year Tested
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) (ppt)	370	N/A	Discharge and waste from industrial facilities utilizing the Gen X chemical process	ND	ND	2021
Perfluorobutane Sulfonic Acid (PFBS) (ppt)	420	N/A	Discharge and waste from industrial facilities; stain-resistant treatments	ND	ND	2021
Perfluorohexane Sulfonic Acid (PFHxS) (ppt)	51	N/A	Firefighting foam; discharge and waste from industrial facilities	ND	ND	2021
Perfluorohexanoic Acid (PFHxA) (ppt)	400,000	N/A	Firefighting foam; discharge and waste from industrial facilities	ND	ND	2021
Perfluorononanoic Acid (PFNA) (ppt)	6	N/A	Discharge and waste from industrial facilities; breakdown of precursor compounds	ND	ND	2021
Perfluorooctane Sulfonic Acid (PFOS) (ppt)	16	N/A	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities	ND	ND	2021
Perfluorooctanoic Acid (PFOA) (ppt)	8	N/A	Discharge and waste from industrial facilities; stain-resistant treatments	ND	ND	2021

Additional Unregulated Contaminants

Unregulated contaminants are those for which the U.S. EPA has not established drinking water standard. Monitoring helps the U.S. EPA to determine where certain contaminants occur and whether regulation of those contaminants is needed.

Unregulated Contaminants	Average Level Detected	Range	Year Tested
Chloride (mg/L)	416	242 – 720	2020
Iron (automated) (ppb)	343	310 – 370	2020
Sulfate (mg/L)	154	72 – 308	2020
Hardness as Calcium Carbonate (mg/L)	395	244 – 664	2020
Calcium (mg/L)	112	68 – 190	2020
Magnesium (mg/L)	28	18 – 46	2020

Health Effects:

PFAS--- Some scientific studies suggest that certain PFAS may affect different systems in the body. Although, more research is needed, some studies have shown that certain PFAS may: lower a woman’s chance of getting pregnant, increase the chance of high blood pressure in pregnant women, increase the chance of thyroid disease, increase cholesterol levels, change immune response, and increase the chance of cancer, especially kidney and testicular cancers. The National Center for Environmental Health (NCEH)/Agency for Toxic Substances and Disease Registry (ATSDR) is working with various partners to better understand how exposure to PFAS might affect people’s health. Currently, scientists are still learning about the health effects of exposures to mixtures of PFAS. If you are concerned about exposure to PFAS in your drinking water, please contact the MDHHS Toxicology Hotline at 800.648.6942 or the CDC/ATSDR: www.cdc.gov/cdc-info or 800.232.4636

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. Sebewaing Light & Water Dept. 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 800.426.4791 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--- 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 and kidney damage. People with Wilson’s Disease should consult their personal doctor.

Arsenic--- Some people who drink water containing arsenic, in excess, of the MCL, over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

Barium--- Some people who drink water containing barium, in excess, of the MCL, over many years could experience an increase in their blood pressure.

Fluoride--- Water additive which promotes strong teeth

Selenium--- Selenium is an essential nutrient. However, some people who drink water containing selenium, in excess, of the MCL, over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

Sodium---High levels of salt intake may be associated with hypertension in some individuals

Alpha Particles---Increased risk of cancer

Combined Radium--- Increased risk of cancer

Chlorine---Eye/nose irritation; stomach discomfort

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.

Important Drinking Water Definitions	
Term	Definition
PFAS	Perfluoroalkyl and polyfluoroalkyl substances
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.
MCLG	Maximum Contaminant Level Goal: the level of a contaminant in drinking water below which there is no known or expected risk of health. MCLG's allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level: 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.
MRDLG	Maximum Residual Disinfectant Level Goal: 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
pCi/L	picocuries per Liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/L)
mg/L	milligrams per liter or parts per million (ppm)
ppb	parts per billion or micrograms per liter (ug/L)
ppt	parts per trillion or nanograms per liter
RAA	Running Annual Average
Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
PFAS	Perfluoroalkyl and polyfluoroalkyl substances
PFCs	Perfluorochemicals

We are pleased to provide you with this information to keep you fully informed about your water. We will be updating this report, annually, and will also keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at www.slandw.com/images/CCR2020.pdf , Sebewaing Light and Water's Office or the Village Office 222 N Center St, Sebewaing

For more information about your water or the contents of this report, please contact:
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 Phone: 989.883.2700 Website: www.slandw.com