Sebewaing Light & Water Department
Water Quality Report 2018

Is my water safe?
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 standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?
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/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?
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 2018, we replaced 2,970 ft of 4" cast iron water main with 12" PVC water main. In addition, 335' of new 8" water main was installed to eliminate 3 dead ends. An automatic flusher was also installed to eliminate another dead end. The 300,000-gallon water tower exterior was painted, as well. Last year, Light and Water department provided over 77 Million gallons of ground water, which was supplied from three 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. A new GIS system was utilized to locate and track the 225 valves in the system. 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) preformed 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.

Why are there contaminants in my drinking 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 Environmental Protection Agency's (EPA) 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:

- **Microbial contaminants,** such as viruses and bacteria that 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 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

Call us for the next opportunity for public participation in decisions about our drinking water. The Light and Water Committee meets the first Monday of every month, at 6:30pm, at the Light and Water Department Office, 110 W. Main St., Sebewaing, MI 48759, (989-883-2700).

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Has your water usage gone up? Check your toilet, faucets and pipes for leaks. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, take some food coloring or a dye strip from us and place it in the tank of the toilet. Wait 15-20 minutes. If the coloring seeps into the toilet bowl without flushing, you have a leak.
- Install water saving showerheads and ultra-low-flush toilets.
- Run your clothes washer and dishwasher only when they are full.
- When washing dishes by hand, don't run the water. Fill the sink with water or use a wash tub/basin for rinsing.
- When cleaning fruits and vegetables don't let the water run. Use a wash basin or plug the sink.
- Scrape dishes instead of rinsing before placing in the dishwasher.
- Keep a bottle of drinking water in the refrigerator instead of running the faucet until the water is cold.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Cover your pool to reduce evaporation.
- Use mulch around trees, shrubs and plants. This will slow down evaporation and prevent weed growth.
- Visit www.epa.gov/watersense for more information.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. 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 actually, improve the taste of drinking water and have nutritional values at low levels. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. 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 is found at the end of this report to help you better understand these terms.

All testing requirements were met, for 2018.

Disinfection Byproducts

	MCL	MCLG	Source	Level Detected	Date Tested
TOTAL TRIHAOLMETHANES (TTHM)	80ppb	N/A	Byproduct of drinking water disinfection	0.8ppb	7/25/18
TOTAL HALOACETIC ACIDS (HAA5)	60ppb	N/A	Byproduct of drinking water disinfection	not detected	7/25/18

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

Disinfectants

	MRDL	Source	Range	RAA
CHLORINE RESIDUAL	4.0ppm	Water additive use to control microbes	0.04-0.74ppm	0.35ppm

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Inorganic Contaminants

	MCL	MCLG	Source	Range	Level Detected	Date Tested
BARIUM	2.0mg/L	2.0mg/L	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries	0.03mg/L-0.04mg/L	0.04mg/L	5/6/16
SELENIUM	50ppb	50ppb	Erosion of natural deposits; discharge from petroleum refineries; discharge from mines	1ppb-5ppb	5ppb	5/6/16
FLUORIDE	4.0mg/L	4.0mg/L	Erosion of natural deposits; discharge from fertilizer and aluminum factories	0.79mg/L-0.86mg/L	0.86mg/L	5/31/18
SODIUM[1]	N/A	N/A	Erosion of natural deposits	164mg/L-390mg/L	390mg/L	5/31/18

[1]Soduim is not a regulated contaminant

Lead and Copper

	Action Level	MCLG	90% of Samples ≤This Level	Source	# of Samples Exceeding Action Level	Date Tested
LEAD-action level at consumer taps	15ppb	0ppb	4ppb	Erosion of Natural Deposits; household plumbing corrosion;	0	9/22/17
COPPER-action level at consumer taps	1.3ppm	1.3ppm	0.19ppm	Erosion of Natural Deposits; household plumbing corrosion; leaching from wood preservatives	0	9/22/17

Radionuclides

	MCL	MCLG	Source	Range	Level Detected	Date Tested
ALPHA PARTICLES	15pCi/L	0pCi/L	Erosion of natural deposits	0pCi/L-13.3pCi/L	13.3pCi/L	2018
COMBINED RADIUM	15pCi/L	0pCi/L	Erosion of natural deposits	0pCi/L-4.4pCi/L	4.4pCi/L	2018

Additional Unregulated Contaminants

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

	Average Level Detected	Range	Year Tested
CHLORIDE[2]	377mg/L	231mg/L-612mg/L	2018
IRON(automated)[2]	567ppb	400ppb-700ppb	2018
SULFATE[2]	106mg/L	63mg/L-182mg/L	2018
HARDNESS AS CALCIUM CARBONATE[2]	335mg/L	232mg/L-495mg/L	2018

[2]Results of monitoring are available upon request.

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 United States Environmental Protection Agency (U.S. EPA) as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, fire-fighting foams, and metal plating. They are still used today. 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 are also many other PFAS compounds that currently do not have LHA levels. For information on PFOA, PFOS and other PFAS, including possible health outcomes, you may visit these websites: websites: https://www.epa.gov/pfas; https://www.atsdr.cdc.gov/pfas/; or http://www.michigan.gov/pfasresponse.

	LHA	Average Level Detected	Date Tested
PFOS + PFOA	70ppt	not detected	2018

The U.S. EPA has not established enforceable drinking water standards, called maximum contaminant levels, for these chemicals. However, the U.S. EPA has set a LHA level in drinking water for two PFAS: perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). The PFOA and PFOS LHA is the level, or amount, below which no harm is expected from these chemicals. The LHA level is 70ppt for PFOA and 70ppt for PFOS. If both PFOA and PFOS are present, the LHA is 70ppt for the combined concentration.

Why was Sebewaing Light and Water's source water tested for PFAS? The Michigan Department of Environmental Quality (MDEQ) coordinated a statewide initiative to proactively investigate sources and locations of PFAS contamination in Michigan, to protect our drinking water, and to inform the public about PFAS. Also, to determine if public health actions are needed.

Who can I call if I have questions about PFAS in my drinking water? If any resident has additional questions regarding this issue, the State of Michigan Environmental Assistance Center can be contacted at 800-662-9278. Representatives may be reached to assist with your questions Monday through Friday, 8:00 AM to 4:30 PM. You may also contact Sebewaing Light and Water at 989-883-2700.

Is it safe to eat fish in these areas? Wild fish samples are being collected from local lakes and rivers. These samples will be analyzed to determine the levels of PFAS in fish and make recommendations on how much is safe to eat. Some information is already available in the State of Michigan Eat Safe Fish guides, which are available at http://www.michigan.gov/eatsafefish.

May I bathe or swim in water containing PFAS? Yes, information currently available suggests that this is not a major contributor to overall exposure.

What other ways could I be exposed to PFOA, PFOS and other PFAS compounds? PFAS are used in many consumer products. They are used in food packaging such as fast food wrappers and microwave popcorn bags; waterproof and stain resistant fabrics such as outdoor clothing, upholstery, and carpeting; nonstick coatings on cookware; and cleaning supplies including some soaps and shampoos. People can be exposed to these chemicals in house dust, indoor and outdoor air, food, and drinking water. There is still uncertainty regarding these routes of exposure and more research is necessary.

What is being done about this issue? State and local agencies are actively working to obtain more information about this situation as quickly as possible. Additional testing of the drinking water will be conducted to demonstrate that the PFAS levels are consistent and reliably below the existing LHA. Additional monitoring in and around our region and other affected areas will also be performed by the Michigan Department of Environment, Great Lakes and Energy, which will help us answer more questions and determine next steps.

How can I stay updated on the situation? The state has created a website where you can find information about PFAS contamination and efforts to address it in Michigan. The site will be updated as more information becomes available. The website address is: http://michigan.gov/pfasresponse.

Health Effects:

PFAS--- They bioaccumulate, meaning the amount builds up over time in the blood and organs. Elevated levels have the potential to cause increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers. Links to these health effects in humans are supported by epidemiologic studies and by laboratory studies in animal models. Some scientific studies suggest that certain PFAS may affect different systems in the body. 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. If you are concerned about exposure to PFAS in your drinking water, please contact the Michigan Department of Health and Human Services Toxicology Hotline at 800-648-6942, or the Center for Disease Control and Prevention/ATSDR at https://www.cdc.gov/cdc-info/ or 800-232-4636. Currently, scientists are still learning about the health effects of exposures to PFAS, including exposure to mixtures.

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 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 (1-800-426-4791) or on the USEPA Web site. (http://water.epa.gov/drink/info/lead/index.cfm).

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

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.

Chlorine---Eye/nose irritation; stomach discomfort

Note: The EPA requires monitoring of over 80 drinking water contaminants. Those listed above are not the only contaminants tested for in your drinking water. For a complete list, contact Sebewaing Light and Water Department.

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.

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:**
LHA	Lifetime Health Advisory
PFAS	Perfluoroalkyl and polyfluoroalkyl substances
PFOS	Perfluorooctanesulfonic acid
PFOA	Perfluorooctanoic acid
MCL	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal: the level of a contamination 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 disinfection level: The highest level of a disinfect-ant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
N/A	Not Applicable
pCi/L	picocuries per Liter
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
RAA	running annual average
Action Level	The concentration of a contaminant which, if exceeded, triggers treatments or other requirements which a water system must follow.

For more information about your water or the contents of this report, please contact:
Name: Sebewaing Light and Water
Address: 110 W. Main St., Sebewaing, MI 48759
Phone: (989) 883-2700 Fax: (989) 883-2792
Website: www.slandw.com

Copies of this report are available at www.slandw.com/images/CCR2018.pdf and at Sebewaing Light and Water Dept.