Sebewaing Light & Water Department
Water Quality Report 2014

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, 4.776 miles of Sebewaing's distribution system was installed in the 1930's. We currently maintain 17 miles of underground water mains and use 2 elevated storage tanks. Last year, Light and Water department provided over 121 million gallons of ground water which accumulated from three pumps located within the village. Well #1 has a depth of 300 feet, Well #2 has a depth of 321 feet and Well #3 has a depth of 250 feet. In the summer of 2014, we replaced approximately 1,500 feet of water main with 8 inch PVC plastic piping, mainly on Auch, East Main and Mill Streets. We also, installed a new 1,000 foot section of water main, with 10 inch PVC plastic piping to connect Auch Street to Mill Street, which eliminated 2 dead ends. Well #3 had the column replaced with 3inch plastic certalok pipe. Both routine external water tower inspections were completed. The Light & 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 State preformed an assessment of our source water in the year 2003 to determine the susceptibility of the relative potential of contamination. The susceptibility rating is on a six-tiered scale from "very-low" to "high", based primarily on geological sensitivity, water chemistry and contaminant sources. The susceptibility of our source water for well # 1 is moderate, Well # 2 is moderately high and Well # 3 is moderate.

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 last Monday of every month 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.

- Take short showers – a 5 minute shower uses 4-5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- 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.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill.
- 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.

Inorganic Contaminants

	Health Limit MCL	Source	Test Result		Date Tested
BARIUM	2.0mg/L	Erosion of Natural Deposits	Well #1	0.03mg/L	6/08/12
			Well #2	0.04mg/L	6/08/12
			Well #3	0.04mg/L	2/27/13
CHROMIUM	0.1mg/L	Erosion of Natural Deposits	Well#1	not detected	6/08/12
			Well#2	not detected	6/08/12
			Well#3	not detected	2/27/13
SELENIUM	0.05mg/L	Erosion of Natural Deposits	Well #1	not detected	6/08/12
			Well #2	0.002mg/L	6/08/12
			Well #3	0.001mg/L	2/27/13
ARSENIC	0.01mg/L	Erosion of Natural Deposits	Well #1	not detected	6/08/12
			Well #2	not detected	6/08/12
			Well #3	not detected	2/27/13
FLUORIDE	4.0mg/L	Erosion of Natural Deposits	Well #1	0.77mg/L	3/05/14
			Well #2	0.71mg/L	3/05/14
			Well #3	0.71mg/L	3/05/14
LEAD	0.015mg/L	Erosion of Natural Deposits	Well #1	not detected	6/07/12
			Well #2	0.001mg/L	6/07/12
			Well #3	not detected	2/27/13

	Health Limit MCL	Source	# of Samples Exceeding MCL	Date Tested
COPPER-action level at consumer taps (ppm)	1.3mg/L	Erosion of Natural Deposits; household plumbing corrosion	0	6/26/14
LEAD-action level at consumer taps (ppm)	0.015mg/L	Erosion of Natural Deposits; household plumbing corrosion	0	6/26/14

Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal Regulations. Of those contaminants, only the ones listed below were found in your water.

SODIUM(automated)	N/A	Erosion of Natural Deposits	Well # 1	165mg/L	3/05/14
			Well # 2	298mg/L	3/05/14
			Well # 3	184mg/L	3/05/14
CHLORIDE	N/A	Erosion of Natural Deposits	Well # 1	303mg/L	3/05/14
			Well # 2	651mg/L	3/05/14
			Well # 3	322mg/L	3/05/14
IRON(automated)	N/A	Erosion of Natural Deposits	Well # 1	0.4mg/L	3/05/14
			Well # 2	0.4mg/L	3/05/14
			Well # 3	0.4mg/L	3/05/14

SULFATE	N/A	Erosion of Natural Deposits	Well # 1	78mg/L	3/05/14
			Well # 2	233mg/L	3/05/14
			Well # 3	76mg/L	3/05/14
HARDNESS AS CALCIUM CARBONATE	N/A	Erosion of Natural Deposits	Well # 1	270mg/L	3/05/14
			Well # 2	630mg/L	3/05/14
			Well # 3	277mg/L	3/05/14
ISOPROPYLBENZENE	N/A	Erosion of Natural Deposits	Well # 2	0.0006mg/L	6/12/12

	Health Limit MCL	**Test Result**	**Date Tested**
TOTAL TRIHAOLMETHANES (TTHM)	0.08mg/L	not detected	7/11/14
TOTAL HALOACETIC ACIDS (HAA5)	0.06mg/L	not detected	7/11/14

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

Chlorine Residuals	**Health Limit MRDL**	**RAA**	**Range**
Free	4.0ppm	0.89ppm	0.12-1.12ppm
Total	4.0ppm	0.97ppm	0.42-1.24ppm

Health Effects:

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 at http://www.epa.gov/safewater/lead.

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 consult their personal doctor.

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

Chromium--- Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

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.

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.

Fluoride--- Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of

children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

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

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 met all the monitoring and reporting requirements for 2013.

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 will be available at Sebewaing Light & Water Department.

Important Drinking Water Definitions:

Term	Definition
MCL	The highest level of a contaminant that is allowed in Drinking water. MCL's are set as close to the MCLG 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 disinfection 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.
N/A	Not Applicable
ppm	parts per million, or milligrams per liter(mg/L)
RAA	Running annual average

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Copies of this report are available at www.slandw.com/images/pdf/CCR2014.pdf