City of Saline
Annual Drinking Water Quality Report
Covering Calendar Year 2019

This report is designed to inform you about your water quality. Our goal is to provide you with a safe and dependable supply of drinking water. We are pleased to present this report and want you to understand we are committed to ensuring the quality of your water and will continue our efforts to improve the water treatment process and protect our water resources.

The City of Saline draws its water from five wells throughout the city. All five wells are 120 feet deep and are drawing water from glacial deposits. We distributed 1,159,000 gallons of water on average per day in 2019. On August 2nd, we reached our peak day and pumped 1,908,000 gallons. In 2019 we produced a total of 422,416,000 gallons.

This report shows our water quality and what it means. If you have any questions about this report, or concerning your water utility, please contact Steve Wyzgoski at 734-944-2003. We want our valued customers to be informed about their water utility.

The **City of Saline** routinely monitors for contaminants in your drinking water according to Federal and State laws. As water travels underground, it can pick up substances or contaminants. These include:

- ✓ Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock, and wildlife.
- ✓ Inorganic contaminants, such as salts and metals, which can be natural or may result from storm runoff, wastewater discharges, oil and gas production, and farming.
- ✓ Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- ✓ Organic chemicals, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also originate from gas stations, storm runoff, and septic systems.
- ✓ Radioactive substances, which can be naturally occurring, or be the result of oil and gas production, and mining activities.

The City's Reverse Osmosis Water Treatment Plant began full operation in May, 2005. The plant provides for iron and manganese removal through the use of greensand filters. Hardness, which consists mainly of calcium and magnesium, is removed using reverse osmosis membranes. This softened water is then blended with raw water to produce hardness in the approximate range of 110-120 mg/l. Chlorine is then added for disinfection and fluoride is added to help prevent tooth decay. The Water Treatment Plant has a maximum daily capacity of 3.5 million gallons.

The State of Michigan performed an assessment of our source water in 2003 to determine the susceptibility or relative potential of contamination. The susceptibility rating is on a six-tiered scale from "very-low" to "high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our source water is "moderately high". The City of Saline is making efforts to protect our water sources which include participation in the Wellhead Protection Program and remediation of known sources of contamination within the Wellhead Protection Area to prevent movement of contamination to municipal wells.

Unregulated Contaminant Monitoring Rule (UCMR3) – Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. We monitored for these contaminants in 2013. The results were received in August of 2014 and the results of this monitoring are available upon request.

The City of Saline Annual Drinking Water Report for 2019 is available to consumers and may be obtained at City Hall, on the City's website at http://www.cityofsaline.org, or by calling 734-944-2003. Information from the Source Water Assessment Report can also be obtained by calling the number above. These reports are not being mailed to customers.

The table shows the results of our monitoring for the period of January 1st to December 31st, 2019. Some of these tests are required less than annually. The most recent results of these are also included. All drinking water may reasonably be expected to contain at least small amounts of some of these constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Below, we defined some of the terms and abbreviations that are found in the table that follows.

- **N/A –** Not Applicable
- **Parts per million (ppm) or Milligrams per liter (mg/l)** – One part per million corresponds to one minute in two years or a single penny in $10,000.
- **Parts per billion (ppb) or Micrograms per liter** – One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- **Action Level (AL) –** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Maximum Contaminant Level (MCL) –** The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG) –** The "Goal" is 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 Residual Disinfectant Level (MRDL) –** The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG) –** 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.
- **Minimum Reporting Level (MRL)**

We test for a total of 152 possible contaminants including 66 volatile organic, and 74 synthetic organic contaminants including pesticides and herbicides. Below is a list of contaminants where minimum detection levels were reached.

WATER QUALITY TEST RESULTS **Inorganic Parameters** Sampled at the Plant Tap

Parameter	MCL	MCLG	Saline Water	Range of Detections	Violation	Sample Date	Likely Source of Contamination
Barium	2 ppm	2 ppm	0.054 ppm	N/A	NO	6/14/13	Erosion of natural deposits. Discharge of drilling waste; discharge from metal refineries.
Fluoride	4 ppm	4 ppm	0.40 ppm	0.10 to 0.90 ppm	NO	2019	Erosion of natural deposits; Water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Chromium	0.1 ppm	0.1 ppm	0.002 ppm	N/A	NO	6/14/13	Discharge from steel and pulp mills; erosion of natural deposits.
Selenium	0.05 ppm	0.05 ppm	0.0012 ppm	N/A	NO	6/14/13	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines.

Sampled at Consumers Tap							
Lead***	AL=15 ppb	0	90th percentile 0 ppb****	0-0	NO	2019	Corrosion of household plumbing systems.
Copper***	AL=1300 ppb	1300 ppb	90th percentile 600 ppb	0-1000	NO	2019	Corrosion of household plumbing systems.
Total*** Trihalomethanes	80 ppb	N/A	17.4 ppb	N/A	NO	6/28/19	Byproducts of drinking water disinfection.
Total Haloacetics (Five)***	60 ppb	N/A	2 ppb	N/A	NO	6/28/19	Byproducts of drinking water disinfection.

	MRDL	MRDLG	AVG				
Chlorine*	4 ppm	4 ppm	0.4 ppm	0.10 to 1.3 ppm	NO	2019	Water additive to control microbial contaminants.

Unregulated Parameters Sampled at the Plant Tap							
Hardness*****	N/A	N/A	168 ppm	64 to 323 ppm	NO	2019	Naturally present in the environment.
Sodium	N/A	N/A	18 ppm	N/A	NO	7/26/19	Erosion of natural deposits.
Chloride	N/A	N/A	25 ppm	14-36	NO	2019	Erosion of natural deposits.
Sulfate	N/A	N/A	21 ppm	13-30	NO	2019	Erosion of natural deposits.

Please note that the City did not obtain a sulfate and chloride sample during the first two weeks of July 2019 due to sampling error.

Microbiological Contaminants							
Total Coliforms	One positive a month	0	1	0 - 1	NO	May 2013	Naturally present in the environment.

Unregulated Contaminant Monitoring Rule – UCMR3				
Parameter	**MRL**	**Saline Water**	**Range of Detection**	**Sample Dates**
Manganese	10 ppb	5.1 ppb	4.1 to 9.0 ppb	4/8/13 10/23/13
Molybdenum	1 ppb	2.1 ppb	2.0 to 2.2 ppb	4/8/13 10/23/13
Strontium	0.3 ppb	371 ppb	310 to 424 Ppb	4/8/13 10/23/13
Chlorate	20 ppb	201 ppb	120 to 322 ppb	4/8/13 10/23/13

**MCL and MCLG for radon have not been determined as yet.

***These contaminants are tested at the consumers tap. 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 Saline 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 two 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 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. Additional information is available from the Safe Drinking Water Hotline.

****The 90th percentile value means 90 percent of the homes tested have lead and copper below the given 90th percentile value.

*****Hardness is expressed in ppm. To convert to grains of hardness, divide by 17.1.

As you can see by the table, we did not exceed any maximum contaminant levels. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels. The City is continuing efforts to maintain a safe and dependable water supply through system improvements.

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 infection. 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 microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.