

# The Roseville Water and Sewerage Department 2022 Consumers Annual Report on Water Quality

## ATTENTION: THIS IS AN IMPORTANT REPORT ON WATER QUALITY AND SAFETY

The City of Roseville Water and Sewerage Department wants you to know your tap water is safe to drink and that it meets or surpasses all federal and state standards for quality and safety.

**\*\*PLEASE CALL TO SCHEDULE YOUR SERVICELINE MATERIAL VERIFICATION\*\***

Drinking water quality is important to our community and the region. The City of Roseville and the Great Lakes Water Authority (GLWA) are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. The City of Roseville operates the system of water mains that carry this water to your home's service lines. This year's Water Quality Report highlights the performance of GLWA and The City of Roseville's water professionals in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking water.

The Roseville Water and Sewerage Department will notify you immediately if there is ever any reason for concern about our water. We are pleased to show you how we have surpassed water quality standards as mandated by the Environmental Protection Agency (EPA) and the State of Michigan Department of the Environmental Quality (MDEQ).

### **How Do We Know The Water is Safe to Drink?**

The Great Lakes Water Authority's treatment facilities operate 24 hours a day, seven days a week. The treatment process begins with disinfecting the source water with chlorine to kill harmful microorganisms that can cause illness. Next, a chemical called Alum is mixed with the water to remove the fine particles that make the water cloudy or turbid. Alum causes the particle to clump together and settle to the bottom. Fluoride is also added to protect our teeth from cavities and decay. The water then flows through fine sand filters called beds. These filters remove even more particles and certain microorganisms that are resistant to chlorine. Finally, a small amount of phosphoric acid and chlorine are added to the treated water just before it leaves the treatment plant. The phosphoric acid helps control the lead that may dissolve in water from household plumbing systems. The chlorine keeps the water disinfected as it travels through water mains to reach your home.

In addition to a carefully controlled and monitored treatment process, the water is tested for a variety of substances before treatment, during various stages of treatment, and throughout the distribution system. Hundreds of samples are tested each week in their certified laboratories by highly qualified, trained, staff. GLWA water not only meets safety and health standards, but also ranks among the top 10 in the country for quality and value.

### **People With Special Health Concerns**

Some people may be more vulnerable to contaminants in drinking water than is 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. 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. 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 (800-426-4791)**.

### **Help us keep your drinking water safe**

The Safe Drinking Water Act, Act 399 of 1976 was revised in 2018.

**The revisions require, all communities, to inventory the water service lines to their water customers.**

**In order to do that we need just a few minutes of your time.**

We understand you may not want anyone to enter your property but,

- ✓ **Our employees will follow proper CDC social distancing guidelines**
- ✓ **You will be given a definite time for them to arrive and**
- ✓ **It will only take a few minutes for us to look at your service line**

We appreciate your assistance, please call 586-445-5460 to schedule your appointment.

## Monitoring Contaminants

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. All of the data is representative of the water quality, but some are more than one year old.

## Detected Contaminants Tables

These tables are based on tests conducted by DWSD for the Roseville Water and Sewerage Department in the year 2018 and within the last five (5) calendar years. **We conduct many tests throughout the year however, only tests that show the presence of a contaminant are shown here.** The table on this page is a key to the terms used in the tables.

Symbol	Abbreviation	Definition/Explanation
>	Greater than	
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
Level 1	Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.
Level 2	Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	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 contaminant in drinking water below which there is no known or expected risk to health.
MRDL	Maximum Residual Disinfectant Level	The highest level of 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples during the previous four quarters.
SMCL	Secondary Maximum Contaminant Level	An MCL which involves a biological, chemical or physical characteristic of water that may adversely affect the taste, odor, color or appearance (aesthetics), which may thereby affect public confidence or acceptance of the drinking water.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
µmhos	Micromhos	Measure of electrical conductance of water

# Lake Huron and Northeast Water Treatment Plant

## 2022 Regulated Detected Contaminants Tables

Inorganic Chemicals – Monitoring at the Plant Finished Water Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	7-12-22	ppm	4	4	0.71	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	7-12-22	ppm	10	10	0.97	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	5-16-17	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge of meter refineries, Erosion of natural deposits

Disinfection By-Products – Monitoring in Distribution System, Stage 2 Disinfection By-Products								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2022	ppb	n/a	80	24	12.4-36.1	no	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2022	ppb	n/a	60	12.5	8.0-19.0	no	By-product of drinking water disinfection

Disinfectant Residuals – Monitoring in Distribution System by Treatment Plant								
Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2022	ppm	4	4	0.79	0.55-0.85	no	Water additive used to control microbes

2022 Turbidity – Monitored every 4 hours at Plant Finished Water					
Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)			Violation yes/no	Major Sources in Drinking Water
0.35 NTU	98.4 %			no	Soil Runoff
Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.					

2022 Lead and Copper Monitoring at Customer Tap									
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90th Percentile Value*	Range	Number of Samples over AL	Violation yes/no	Typical Source Of Contaminant
Lead	2022	ppb	0	15	8.0 ppb	0 ppb-26.1 ppb	1 Service line to meter replaced after test results received.	no	Lead service lines, corrosion of Household plumbing including Fittings and fixtures; Erosion Of natural deposits
Copper	2022	ppm	1.3	1.3	0.1 ppm	0.00 ppm-0.138 ppm	0	no	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.
*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value If the 90th percentile value is above the AL additional requirements must be met.									

Roseville Service Lines		
Unknown	Galvanized	Lead
17,261	27	52

Safe drinking water is a shared responsibility. The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business. The City of Roseville performs required lead and copper sampling and testing in our community. Water consumers also have a responsibility to maintain the plumbing in their homes and businesses, and can take steps to limit their exposure to lead. Infants and children who drink water containing lead in excess of the action level 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. If you have a service line that is lead, galvanized previously connected to lead, or unknown but likely to be lead, 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 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 Roseville 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 service line that is lead, galvanized previously connected to lead, or unknown but likely to be lead, 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 (800)426-4791 or <http://water.epa.gov/drink/info/lead>

2022 Microbiological Contaminants – Monthly Monitoring in Distribution System					
Regulated Contaminant	MCLG	MCL	Highest Number Detected	Violation yes/no	Major Sources in Drinking Water
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	0.0	no	Naturally present in the environment
E. coli Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	0.0	no	Human waste and animal fecal waste

2022 Microbiological Contaminants – Monthly Monitoring in Distribution System cont.		
Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no TOC removal requirement	Erosion of natural deposits

Radionuclides 2014						
Regulated contaminant	Test date	Unit	Health Goal MCLG	Level detected	Violation Yes/no	Major Sources in Drinking water
Combined Radium 226 and 228	5-13-14	pCi/L	0	0.86 + or – 0.55	no	Erosion of natural deposits

Special Monitoring 2022						
Contaminant	Test Date	Unit	MCLG	MCL	HIGHEST LEVEL DETECTED	SOURCE OF CONTAMINANT
Sodium	07-12-22	Ppm	n/a	n/a	5.6	Erosion of natural deposits

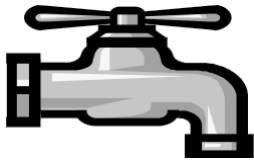
### Other Monitoring

In addition to testing, the Great Lakes Water Authority (GLWA) is required to perform water system voluntarily tests for hundreds of additional substances and microscopic organisms to make certain that the water is safe and of the highest quality. If you are interested in a more detailed report, contact the Water Quality Division at (313) 267-3629.

Tours of Water Treatment Plants can be arranged. Please contact the Roseville Water Department at (586) 445-5466 for additional information.

UCMR3 Special Monitoring and Unregulated Contaminant***	Unit	Average Level Detected	Range	Year Sampled
Hexavalent Chromium	ppb	0.093	.083-.10	2014
Chromium Total	ppb	0.26	.21-.37	2014
Stontium Total	ppb	98.7	94.25-102	2014
1-2 Dichlorobenene	ppb	110	106-118	2014
4 Bromofluorobenze	ppb	96.8	92.6-102	2014
Methyl=Butyl ether-d3	ppb	103	86-115	2014
1,4 Dioxane-d8	ppb	91.6	79.9-108	2014
UCMR4 Special Monitoring and Unregulated Contaminant***				
Alpha-BHC	ppb	.0036		2022
Chlorpyrifos	ppb	.011		2022
Dimethipin	ppb	.072		2022
Ethoprop	ppb	.011		2022
Merphos-Oxone	ppb	.025		2022
Oxyfluorfen	ppb	.018		2022
Permethrin	ppb	.014		2022
Profenofos	ppb	.011		2022
Tebuconazole	ppb	.072		2022
Surrogates				
1,3-Dimethyl-2-nitrobenzene(S)	%	91		2022
Benzo(a)pyrene-d12(S)	%	96		2022
Triphenylphosphate(S)	%	93		2022
Alcohols				
N-Butanol	ppb	.67		2022
2-Methoxyethanol	ppb	.13		2022
2-Propen-1-ol (Allyl alcohol)	ppb	.17		2022
Surrogates				
2-Propen-1-ol-d6(S)	%	81		2022
n-Butanoi-d10(S)	%	89		2022
MET ICPMS UCMR				
Germanium	ppb	.10		2022
Manganese	ppb	.52		2022

\*\*\*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.



### **Special Note to Our Residents:**

If you should experience sanitary sewer problems in your home, the City of Roseville Water & Sewerage Department can help you determine what needs to be done to correct the situation. Please contact our department at (586) 445-5466, Monday through Friday, between 7:30 a.m. and 4:00 p.m. Remember, we are here to assist you whenever possible.

**ALWAYS GET A SECOND OPINION BEFORE YOU HAVE YOUR SEWER EXCAVATED.**

### **Public Act 222**

If you experience an overflow or backup of the sewage disposal system or storm water system, **you must file a written claim** with the City of Roseville, within 45 days after the overflow or backup is discovered. Notice should be mailed to the Insurance Department at P.O. Box 290, Roseville, MI 48066. The Insurance Department phone number is (586) 445-5425. **Failure to provide the required notice will prevent recovery of damages.** Contact the Roseville Water and Sewer Department immediately upon discovery of an overflow or backup at (586) 445-5466.

### **About Our System**

The Roseville Water and Sewerage Department purchases water from the Great Lakes Water Authority. They provide drinking water to approximately 4.2 million people in 126 southeastern Michigan communities. The system uses surface water drawn from the Detroit River, situated within Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The water is directed to four (4) large water treatment plants for processing. A fifth water treatment plant, located in St. Clair County, uses surface water from Lake Huron watershed. The watershed includes numerous short, seasonal streams that drain to Lake Huron. The City of Roseville's water is treated at the Lake Huron and the Northeast Water Treatment Plants. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Great Lakes Water Authority and the Michigan Public Health Institute performed a source water assessment to determine the susceptibility of potential contamination. The susceptibility rating is on a seven-tiered scale from very low to high based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. Historically, all five water treatment plants have provided satisfactory treatment of this source water to meet drinking water standards. Please contact the Great Lakes Water Authority or the City of Roseville Water Department if you would like more information.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. If you would like to know more information about this report or a complete copy of this report, please contact the Roseville Water Department at (586) 445-5466.

Your source water comes from the Detroit River, situated within the Lake St. Clair, and several watersheds within U.S. and Canada. The Michigan Department of Environmental Quality in partnership the Detroit Water and Sewerage Department and several other governmental agencies performed a source water assessment in 2004 to determine the susceptibility or relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contamination sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination. However, all four Detroit water treatment plants that use source water from Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. GLWA voluntarily developed and receive approval in 2018 for a source water protection program (SWIPP) for the Detroit River intakes. The programs includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation and education. If you would like to know more information about the Source Water Assessment or SWIPP, contact your water department (586)445-5466.

Your source water comes from the lower Lake Huron watershed. The watershed includes numerous short, seasonal streams that drain to Lake Huron. The Michigan Department of Environmental Quality in partnership the Detroit Water and Sewerage Department and several other governmental agencies performed a source water assessment in 2004 to determine the susceptibility or relative potential of contamination. The susceptibility rating is on a seven-tiered scale ranging from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contamination sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA voluntarily developed and received approval in 2018 for a source water protection program (SWIPP) for the Lake Huron Water Treatment Plant intake. The program includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation and education. If you would like to know more information about the Source Water Assessment or the SWIPP please, contact your water department (586)445-5466.

This report contains important information about your drinking water. Have someone translate if for you, or speak with someone who understands it.

## Opportunities for Public Participation

The GLWA Board meets the fourth Thursday of each month. There are also public hearings and meetings open to the public.

To confirm dates and times or for information on other activities happening in the Authority, please contact their General Information number 844-445-GLWA(4592).

We welcome your comments and opinions about this report and will be happy to answer any questions you may have.

Please direct your comments or questions to the Roseville Water Department Director at (586) 445-5466.

## Additional Information

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 Safe Drinking Water Hotline at (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 [Lake Huron and/or Detroit River as appropriate]. 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 include:

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 run-off, and residential uses.

Organic chemical contaminants, including synthetic and volatile organics, 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, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Warning about the vulnerability of some populations to contaminants in drinking water. (§151.154(a)).

## IMPORTANT NOTICE

The City of Roseville Water Department is asking your help in reducing our water usage in the city. This will assist us in maintaining the lowest possible charges from the Great Lakes Water Authority, (GLWA).

One of the largest costs incurred from GLWA related to producing potable water is the energy used during peak hours. We as a community can help keep costs down by doing our part in reducing our peak hour consumption. Our City Council like many others, recently adopted a change in our Water Ordinance requiring all residential and commercial customers to observe **mandatory odd/even** outdoor water use restrictions (based on your property address) from May 15<sup>th</sup> thru October 1<sup>st</sup>. Along with this new restriction you can also help reduce costs by setting your irrigation systems timers to water

**between the hours of 11:00 p.m. and 5:00 a.m. (off peak hours)**, thus reducing the impact of our community on GLWA's production. We ask that you voluntarily run your irrigation systems during these times (on odd/even days correlating with your address) to help lessen future water cost increases.

Should you have any questions or concerns, please feel free to contact our department at (586) 445-5466 Monday thru Friday 7:30 a.m. – 4:00 p.m. For further water conservation tips, please visit the City's website at [www.roseville-mi.gov](http://www.roseville-mi.gov), and click on *General Information Sheet* found under the Water and Sewage Department link.

Drinking water quality is important to our community and the region. The City of Roseville and the Great Lakes Water Authority (GLSW) are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. The City of Roseville operates the system of water mains that carry this water to your home's service line. This year's Water Quality Report highlights the performance of GLWA and The City of Roseville's water professional in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking water.

The City of Roseville and the Great Lakes Water Authority are committed to safeguarding our water supply and delivering the highest quality drinking water to protect public health. Please contact us with any questions or concerns about your water.

# 2022 Northeast Tap Water Mineral Analysis

Parameter	Units	Max.	Min.	Avg.	Parameter	Units	Max.	Min.	Avg.
Turbidity	NTU	0.09	.03	.04	Phosphorus	ppm	.5	.24	.42
Total Solids	ppm	163	110	138	Free Carbon Dioxide	ppm	12.6	6.9	8.9
Total Dissolved Solids	ppm	169	98	135	Total Hardness	ppm	104	76	92
Aluminum	ppm	0.111	0.016	0.047	Total Alkalinity	ppm	100	70	79
Iron	ppm	.5	.2	.3	Carbonate Alkalinity	ppm	ND	ND	ND
Copper	ppm	0.003	0.001	0.002	Bi-Carbonate Alkalinity	ppm	100	70	78
Magnesium	ppm	8.5	7.2	7.7	Non-Carbonate Hardness	ppm	34	ND	14
Calcium	ppm	28.0	24.8	26.	Chemical Oxygen Demand	ppm	10.2	ND	3.3
Sodium	ppm	7.1	4.8	5.4	Dissolved Oxygen	ppm	14.1	7.6	11.1
Potassium	ppm	1.1	0.9	1.0	Nitrate Nitrogen	ppm	ND	ND	ND
Manganese	ppm	ND	ND	ND	Nitrate Nitrogen	ppm	.97	.25	.39
Lead	ppm	ND	ND	ND	Fluoride	ppm	.80	.50	.58
Zinc	ppm	0.010	ND	0.001	pH		7.34	7.08	7.25
Silica	ppm	2.5	1.6	2.1	Specific Conductance @ 25°C	umhos	283	167	218
Sulfate	ppm	31.3	19.9	26.7	Temperature	°C	23.1	6.	14.5
Chloride	ppm	14.4	8.3	10.7					



## Help us keep your drinking water safe

The Safe Drinking Water Act, Act 399 of 1976 was revised in 2018.

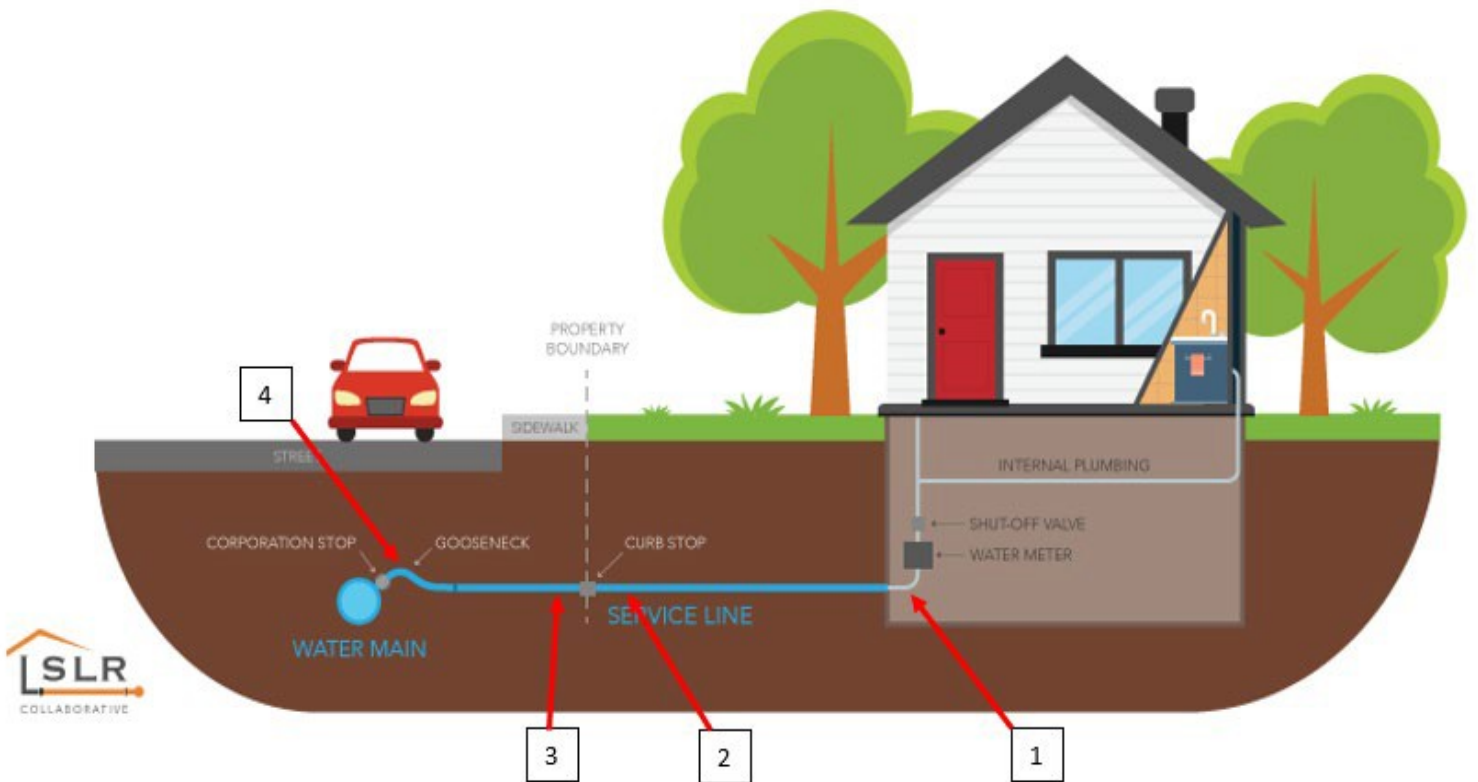
**The revisions require, all communities, to inventory the water service lines to their customer's homes.**

**In order to do that we need just a few minutes of your time.**

We understand you may not want anyone in your home but,

- ✓ **Our employees will follow proper CDC social distancing guidelines**
- ✓ **You will be given a definite time for them to arrive and**
- ✓ **It will only take a few minutes for us to look at your service line**

We appreciate your assistance, please call 586-445-5460 to schedule your appointment



### LEAD SERVICE LINE VERIFICATION REQUIREMENTS

Per the Michigan Department of Environment, Great Lakes, and Energy (EGLE) all communities must verify interior and exterior service lines. Below you will find the guidelines all communities must follow:

1. **Interior portion** of the service line up to the first shutoff valve or 18 inches inside the building, whichever is shorter;
2. **Curb stop to building**, a minimum of 18 inches from the curb stop; and
3. **Main to curb stop**, a minimum of 18 inches from the curb stop.
4. **Lead connector (gooseneck/pigtail)**, if present. In this context, a gooseneck or pigtail is a short section of material, typically not exceeding two feet, which can be bent and used for connection between a rigid fitting (corporation stop) and the service line piping.

If a lead connector is present, a water supply must **EITHER**:

- Conduct a physical verification;

**OR**

- Have a control that was in place demonstrating they were never used;

**OR**

- Assume locations with galvanized service lines between the main and curb stop contain (or previously contained) a lead connector. If a water supply makes this assumption, they may skip physical verification of the gooseneck material.

**Note:** Unless assuming the current or previous presence of a lead gooseneck, most water supplies with galvanized service lines between the main and curb stop must physically verify the connector material.