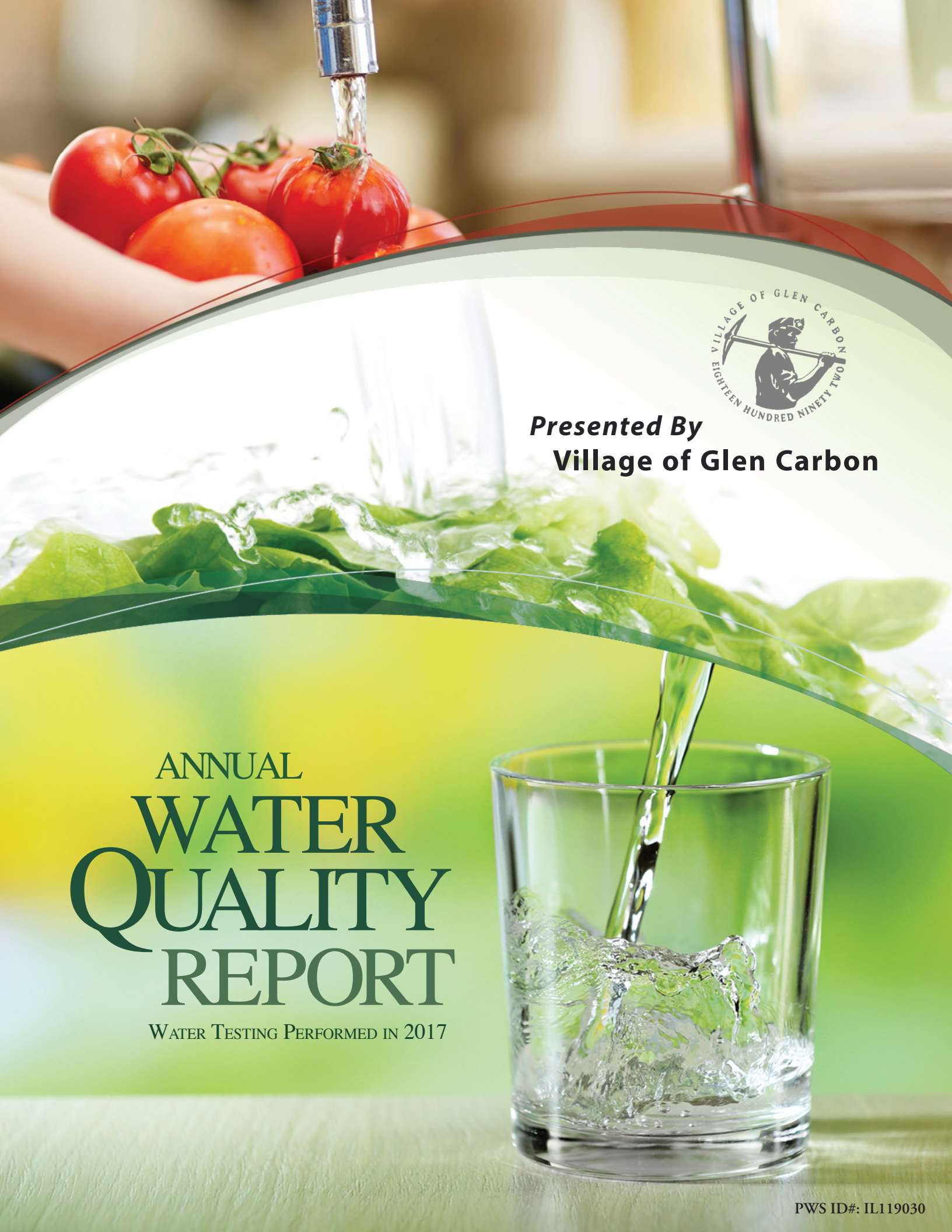


Presented By
Village of Glen Carbon

ANNUAL WATER QUALITY REPORT

Water Testing Performed in 2017

PWS ID#: IL119030

Quality First

Once again we are pleased to present our annual water quality report covering the period between January 1 and December 31, 2017. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

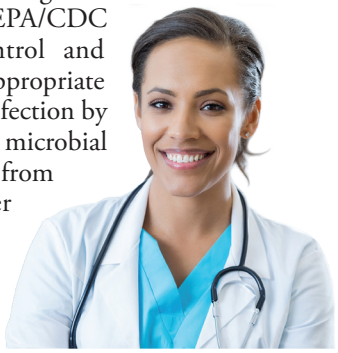
We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is available from the City of Edwardsville. The Source Water Assessment has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Edwardsville City Hall. To view a summary version of the completed Source Water Assessments, including Importance of Source Water; Susceptibility to Contamination Determination; and documentation and recommendation of Source Water Protection Efforts, you may visit the Illinois EPA Web site at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl and enter the following PWS ID # IL 1190250.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Water Treatment Process

The treatment process consists of a series of five steps. First, ground water is drawn from the well field and piped to an aeration tower where oxygen is introduced. The oxygen allows oxidation of iron and manganese to take place and helps remove these substances from the water. The water is then piped to a raw water reaction basin where a portion of oxidized iron and manganese settles, or precipitates, out of the water. Chlorine that is added prior to the reaction basin assists with the oxidation process and is the sole source of preliminary disinfection. The water is then treated through rapid-rate pressure filters where particulate matter is removed along with additional removal of iron and manganese. The filtered water is then treated through ion-exchange water softeners. These softeners operate much like home water softeners, but on a much larger scale, removing calcium and magnesium, which contribute to water hardness. After the water is softened to a zero hardness, it is blended with a percentage of water which has not been softened, to maintain a desired level of hardness in the water. Once blending is complete, phosphate is added for corrosion control and chlorine is added for final disinfection. The blended water is then sent to a clear well for storage and delivery to the water distribution system.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 or at www.epa.gov/lead.

Community Participation

The Village of Glen Carbon Board of Trustees has the decision-making responsibility regarding contractual agreements and expenditure of funds for the water system. You are invited to attend our regularly scheduled meetings, which are held at 7:00 pm on the second and fourth Tuesdays of each month in the Council Chambers of the Village Hall, located at 151 North Main Street, Glen Carbon.

Where Does My Water Come From?

The source of drinking water used by the Village of Glen Carbon is Purchased Water. Water is purchased from the City of Edwardsville. It it obtained from a well field that draws water from the American Bottoms Underground Aquifer.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

> "Water treatment is a complex, time-consuming process."

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call John Leezy, Utility Department Superintendent, at (618) 288-2661.

FOG (Fats, Oils, and Grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

BY THE NUMBERS

The number of gallons of water produced daily by public water systems in the U.S. **34 BILLION**

1 MILLION The number of miles of drinking water distribution mains in the U.S.

The amount of money spent annually on maintaining the public water infrastructure in the U.S. **135 BILLION**

300 MILLION The number of Americans who receive water from a public water system.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.

REGULATED SUBSTANCES

				Village of Glen Carbon		City of Edwardsville			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2017	10	0	1.6	0–1.6	1[1]	1–1[1]	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2017	2	2	0.13	0.12–0.13	0.072[1]	0.072–0.072[1]	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2017	[4]	[4]	1.2	1–1.2	1.2[2]	1–1.3[2]	No	Water additive used to control microbes
Combined Radium (pCi/L)	2017	5	0	0.791	0–0.791	1.328[3]	1.328–1.328[3]	No	Erosion of natural deposits
Fluoride (ppm)	2017	4	4	0.282	0–0.282	1.14[1]	1.14–1.14[1]	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Gross alpha excluding radon and uranium (pCi/L)	2017	15	0	3.59	0–3.34	2.11[3]	2.11–2.11[3]	No	Erosion of natural deposits
Haloacetic Acids [HAA5] (ppb)	2017	60	NA	5	4.1–5.47	4	0–3.91	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	3.2	3.2–3.2	1	0.99–0.99	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2017	50	50	7.5	5.8–7.5	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Total Trihalomethanes (ppb)	2017	80	NA	22	18.47–22	30	23.42–30.2	No	By-product of drinking water disinfection

Definitions

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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 a contaminant in drinking water below which there is no known or expected risk to health. MCLGs 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.

NA: Not applicable

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	Village of Glen Carbon: AMOUNT DETECTED (90TH%TILE)	Village of Glen Carbon: SITES ABOVE AL	City of Edwardsville: AMOUNT DETECTED (90TH%TILE)	City of Edwardsville: SITES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	1.3	1.3	2	0.55[4]	0[4]	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2015	15	0	10	1	1.8[4]	0[4]	No	Corrosion of household plumbing systems; Erosion of natural deposits

STATE REGULATED SUBSTANCES [5]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Village of Glen Carbon: AMOUNT DETECTED	Village of Glen Carbon: RANGE LOW-HIGH	City of Edwardsville: AMOUNT DETECTED	City of Edwardsville: RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Iron (ppb)	2017	1,000	NA	520	440–520	NA	NA	No	Erosion from naturally occurring deposits
Manganese (ppb)	2017	150	NA	230	150–150	13[1]	13–13[1]	No	Erosion of naturally occurring deposits
Sodium (ppm)	2017	NA	NA	15	13–15	140[1]	140–140[1]	No	Erosion of naturally occurring deposits; Used in water softener regeneration
Zinc (ppm)	2015	5,000	NA	NA	NA	0.018	0.018–0.018	No	Naturally occurring; Discharge from metal factories

[1] Sampled in 2015.
[2] Sampled in 2016.
[3] Sampled in 2014.
[4] Sampled in 2017.
[5] Iron, manganese, sodium, and zinc are not currently regulated by the U.S. EPA. However, the State has set an MCL for each of these substances for supplies serving a population of 1,000 or more.