

ANNUAL WATER QUALITY REPORT

Reporting Year 2022

Presented By



PWS ID#: IL1190300



Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

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 p.m. on the second and fourth Tuesday of each month in Council Chambers at Village Hall at 151 N. Main Street, Glen Carbon, IL 62034.

Where Does My Water Come From?

The drinking water used by the Village of Glen Carbon is purchased from the Illinois American Granite City Water Treatment Facility, which draws surface water from the Mississippi River. The Mississippi River is subject to a variety of influences including agricultural, municipal, and industrial activities. Extensive monitoring and treatment ensure high-quality water service regardless of variations in the source water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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 online at: <http://water.epa.gov/drink/hotline>.

Cryptosporidium

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100-percent removal. Monitoring of source water or finished water indicates the presence of these organisms. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.



Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Source Water Assessment

The Illinois Environmental Protection Agency (IEPA) has completed a source water assessment for the Granite City system. 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, visit the Illinois EPA website at <http://dataservices.epa.illinois.gov/swap/factsheet/asp>



QUESTIONS?

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

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:

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.

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 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 at (800) 426-4791 or www.epa.gov/safewater/lead.



BY THE NUMBERS

The number of Olympic-sized swimming pools it would take to fill up all of Earth's water.

800
TRILLION

1 The average cost in cents for about 5 gallons of water supplied to a home in the U.S.

The percent of Earth's water that is salty or otherwise undrinkable, or locked away and unavailable in ice caps and glaciers.

99

50 The average daily number of gallons of total home water use for each person in the U.S.

The percent of Earth's surface that is covered by water.

71

330
MILLION

The amount of water on Earth in cubic miles.

The percent of the human brain that contains water.

75

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by IEPA.

The state recommends monitoring for certain substances less 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.

REGULATED SUBSTANCES									
				Village of Glen Carbon		Illinois American Water Granite City			
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	ND–1.6	1 ¹	ND–1 ¹	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine (ppb)	2022	3	3	NA	NA	0.8	ND–0.8	No	Runoff from herbicide used on row crops
Barium (ppm)	2017	2	2	0.13	0.12–0.13	NA	NA	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine (ppm)	2022	[4]	[4]	2	1–3	NA	NA	No	Water additive used to control microbes
Combined Radium (pCi/L)	2017	5	0	0.791	ND–0.791	1.29 ²	1.29–1.29 ²	No	Erosion of natural deposits
Fluoride (ppm)	2017	4	4	0.282	ND–0.282	0.7 ¹	0.73–0.73 ¹	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	2018	10	10	2.9	2.9–2.9	3 ¹	3.38–3.38 ¹	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
Turbidity ³ (NTU)	2022	TT	NA	NA	NA	1	0.3–1	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2022	TT = 95% of samples meet the limit	NA	NA	NA	0.2	NA	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community									
				Village of Glen Carbon		Illinois American Water Granite City			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2022	1.3	1.3	0.89	0/40	NA	NA	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	2022	15	0	1.8	0/40	NA	NA	No	Corrosion of household plumbing systems; erosion of natural deposits

OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Village of Glen Carbon		Illinois American Water Granite City		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Gross Alpha Particle Activity [excluding radon and uranium] (pCi/L)	2017	15	0	3.59	ND–3.59	2.84 ²	2.84–2.84 ²	No	Erosion of natural deposits
Haloacetic Acids [HAA5] (ppb)	2022	60	NA	22	10.84–28	NA	NA	No	By-product of drinking water disinfection
Iron (ppb)	2017	1,000 ⁴	NA	0.52	0.44–0.52	NA	NA	No	Erosion of naturally occurring deposits
Manganese (ppb)	2017	150 ⁵	NA	230	150–230	10 ⁶	4.7–16 ⁶	No	Erosion of naturally occurring deposits
Sodium (ppm)	2017	NA ⁷	NA	15	13–15	19 ¹	19.3–19.3 ¹	No	Erosion of naturally occurring deposits; used in water softener regeneration
Total Trihalomethanes (ppb)	2022	80	NA	33	15.9–49.7	NA	NA	No	By-product of drinking water disinfection

UNREGULATED SUBSTANCES⁸

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Village of Glen Carbon		Illinois American Water Granite City		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Perfluorobutanesulfonic Acid [PFBS] (ppt)	2022	NA	NA	4.4	0 - 4.4	Manufactured chemical(s); used in household goods for stain, grease, heat, and water resistance
Perfluorohexanoic Acid [PFHxA] ⁹ (ppt)	2022	NA	NA	3.6	2.0–3.6	Manufactured chemical used in household goods for stain, grease, heat, and water resistance
Perfluorooctanesulfonate Acid [PFOS] (ppt)	2022	NA	NA	2.6	ND–2.6	Manufactured chemical used in household goods for stain, grease, heat, and water resistance
Perfluorooctanoic Acid [PFOA] (ppt)	2022	NA	NA	2.4	ND–2.4	Manufactured chemical used in household goods for stain, grease, heat, and water resistance

¹ Sampled in 2022.

² Sampled in 2020.

³ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

⁴ Iron is not currently regulated by the U.S. EPA. However, the state has set an MCL for supplies serving a population of 1,000 or more.

⁵ Sampled in 2019.

⁶ Manganese is not currently regulated by the U.S. EPA. However, the state has set an MCL for supplies serving a population of 1,000 or more.

⁷ Sodium is not currently regulated by the U.S. EPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

⁸ No MCL or mandatory health effects language has been established for these contaminants by either state or federal regulations.

The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

⁹ The health-based guidance levels are intended to be protective of all people consuming water over a lifetime of exposure. It is important to understand that guidance levels are not regulatory limits for drinking water. Rather, the guidance levels are benchmarks against which sampling results are compared to determine if additional investigation or other response is necessary.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.