



VILLAGE OF GLENCOE

WATER UTILITY CONSUMER CONFIDENCE REPORT

ANNUAL WATER QUALITY REPORT FOR THE PERIOD JANUARY 1- DECEMBER 31, 2017 | FACILITY #: IL0310990

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. We want our valued customers to be informed about their water quality. This year, as in years past, your tap water met all USEPA and state drinking water health standards. For more information regarding this report contact Alex Urbanczyk, (847) 461-1651. If you would like to learn more, please feel welcome to attend any of our regularly scheduled Village Board meetings on the third Thursday of every month at the Village Hall at 675 Village Court. The source water assessment for our supply has been completed by the Illinois EPA and information on that is included below.

SOURCE OF DRINKING WATER

The source of drinking water used by Glencoe is Surface Water from Lake Michigan. 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 can dissolve 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 may 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 may be naturally occurring or be the result of oil and gas production and mining activities.

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 which must provide the same protection for public health.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

SOURCE WATER INFORMATION

Source Water	Name	Type of Water	Location
INTAKE (00106)	LAKE MICHIGAN	Surface Water	3,300 FT NE PLANT

SOURCE WATER ASSESSMENT

To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Susceptibility is defined as the likelihood for the source water(s) of a public water system to be contaminated at concentrations that would pose a concern. The Illinois EPA considers all surface water sources of community water supplies to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intakes with no protection only dilution, which is the reason for mandatory treatment for all surface water supplies in Illinois. Glencoe's intake is located far enough offshore that shoreline point sources are not considered a factor on water quality. However, at certain times of the year the potential for contamination exists due to storm water runoff and wet-weather flows from the North Shore Channel. If currents are flowing in a northerly direction, contaminants from these flows could migrate to Glencoe's intake and compromise water quality. A correlation between Northbrook's rainfall data and North Shore Channel's discharge dates show the potential effect of these flows on Glencoe's water quality. The proximity to a major shipping lane adds to the susceptibility should there be a spill near the intake.

2017 REGULATED CONTAMINENTS DETECTED

LEAD AND COPPER

Definitions:

- *Action Level*: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Action Level Goal (ALG)*: The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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 Glencoe Water Utility 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 1 to 5 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 <http://www.epa.gov/safewater/lead>.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	7/11/2015*	1.3	1.3	0.323	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	7/11/2015*	0	15	9.1	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

*Note: The state requires monitoring of these contaminants on a triennial basis. Therefore this data, while accurate, is more than one year old.

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

- *Avg*: Regulatory compliance with some MCL's are based on running annual average of monthly samples.
- *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 our water system.
- *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 has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- *Maximum Contaminant Level Goal or MCLG*: 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 Contaminant Level or MCL*: 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.
- *Maximum residual disinfectant level goal or MRDLG*: 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.
- *Maximum residual disinfectant level or MRDL*: 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.
- *na*: not applicable
- *pCi/L*: picocuries per liter (a measure of radioactivity)
- *ppb*: micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.
- *ppm*: milligram per liter or parts per million – or one ounce in 7,350 gallons of water.
- *Treatment Technique or TT*: A required process intended to reduce the level of a contaminant in drinking water.
- *NTU*: Nephelometric Turbidity Units - a measure of water clarity.
- *Turbidity*: Is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

REGULATED CONTAMINANTS

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2017	0.7	0.6 – 1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2017	18.55	14.7 – 18.55	No goal for the total	60	ppb	No	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM)	2017	35.3	30.6 – 35.3	No goal for the total	80	ppb	No	By-product of drinking water chlorination.

Avg: Regulatory compliance with some MCL's are based on running annual average of monthly samples.

ppb: micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

ppm: milligram per liter or parts per million – or one ounce in 7,350 gallons of water.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2017	1.1	1.1 – 1.1	0	10	ppb	No	Erosion of natural deposits; Runoff from glass and electronics production wastes.
Barium	2017	0.02	0.02 – 0.02	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2017	0.729	0.729 – 0.729	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese	2017	1.2	1.2 – 1.2	150	150	ppb	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate (Measured as Nitrogen)	2017	0.49	0.49 – 0.49	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	2017	8.8	8.8 – 8.8	na	na	ppm	No	Erosion from naturally occurring deposits: Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	1/5/2015*	1.39	1.39 – 1.39	0	5	pCi/L	No	Erosion of natural deposits.

Avg: Regulatory compliance with some MCL's are based on running annual average of monthly samples.

na: not applicable

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

ppm: milligram per liter or parts per million – or one ounce in 7,350 gallons of water.

**Note:* The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore this data, while accurate, is more than one year old.

TURBIDITY

Definitions:

- *Turbidity*: Is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.
- *Treatment Technique or TT*: A required process intended to reduce the level of a contaminant in drinking water.

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Lowest monthly % meeting limit	TT = 0.3 NTU	100%	No	Soil runoff.
Highest single measurement	TT = 1 NTU MAX	0.094 NTU	No	Soil runoff.

NTU: Nephelometric Turbidity Units - a measure of water clarity.

TOTAL ORGANIC CARBON

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

VIOLATIONS SUMMARY TABLE

We are happy to report that no monitoring, reporting, treatment technique, maximum disinfectant residual level, or maximum contaminant level violations were recorded during 2017.