

Village of Glenview

IL0311020

Annual Water Quality Report

January 1 - December 31, 2019

Introduction

For the period of January 1 thru December 31, 2019, the Village of Glenview Water Supply (PWSID IL0311020) has met or exceeded all United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (IEPA) drinking water standards. This Consumer Confidence Water Quality Report is required by the IEPA to be published annually. The report summarizes the quality of the water that was provided this past year, including details about where your water comes from, what it contains, how it compares to current standards and who to contact if you have questions. Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Water Source and Delivery System

The Village of Glenview purchases its water from the Village of Wilmette. Wilmette's treatment plant receives its raw water from Lake Michigan. The water is treated at the Wilmette Water Plant on the Lake Michigan lakefront. A 4-million-gallon standpipe and a 3-million-gallon underground reservoir and pumping station provide additional storage of treated water on the west side of Wilmette, and are used to maintain water pressure in their distribution system as well as to supply a reliable flow of water to the Village of Glenview.

The water plant uses a mixture of chemicals, settling basins, and filters to remove all contaminants to below regulated levels. Chlorine residuals are maintained throughout the plant and distribution system to prevent the growth of bacteria. Operators are on duty 24 hours a day year-round to monitor the water system. In addition, the water plant has an Illinois Department of Public Health (IDPH) certified laboratory for conducting bacteriological testing.

The Village of Glenview operates five major pumping stations that deliver drinking water to our customers through a network of pipes which total over 230 miles. Our water system includes a total water storage capacity of 16.3 million gallons, over twice our daily average usage. As added reliability, the Village of Glenview has interconnections with the Village of Northbrook and Northbrook Township.

Sources of Drinking Water/ Water Contaminants

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that 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.

The sources of drinking water (both tap water and bottled water) include rivers, streams, lakes, ponds, reservoirs, springs, and wells. 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 human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from septic systems, sewage treatment plants, 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.
- Pesticide 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 may 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 be reasonably 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).

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. EPA/Center for Disease Control 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).

In addition to the informational section of the Water Quality Report, several tables are included, which provide detailed information about the contaminants that were detected in the system's water and some contaminants that were tested for but not detected.



The Village of Glenview

2019 Water Quality Data

Regulated Contaminants IL0311020

Disinfectants and Disinfection By-Products	MCLG	MCL	Highest Level Detected	Range Detected	Violation	Date of Sample	Likely Source of Contamination
Chlorine (ppm) Cl ₂	MRDLG=4	MRDL=4	1.0	0.9 – 1	none	2019	Water additive used to control microbes
Haloacetic Acids (HAA5) * (ppb)	No goal for the total	60	21	9.7 – 25	none	2019	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)* (ppb)	No goal for the total	80	49	16.09 –64.8	none	2019	By-product of drinking water disinfection

* Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Microbiological Contaminants IL0311020

Contaminant	Total Coliform MCL	Highest Number of positive	MCL	Total # of positive E.coli or fecal Coliform samples	Ideal Goal MCLG	Last Monitoring Period	Violation	Major Sources in Drinking Water
Coliform bacteria	5% of monthly samples are positive	1.6	Routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E.coli positive	0	0	2019	none	Naturally present in the environment

Lead and Copper Test Results IL0311020

Lead and Copper	Date Sampled	MCLG	ACTION LEVEL (AL)	90th Percentile	Sites over (AL)	Violation	Likely Source of Contamination
Lead (ppb)	8/17/17	0	15	4.89	0	none	Corrosion of household plumbing systems; Erosion of natural deposits.

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 Village cannot control the variety of materials used in plumbing components. If 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 <http://www.epa.gov/safewater/lead>.

Understanding the Water Quality Data

Definitions and Abbreviations:

MCLG: *Maximum Contaminant Level Goal*, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MCL: *Maximum Contaminant Level*, or 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.

ND: *-not detectable at testing limits*

ppb or ug/L: *parts per billion or micrograms per liter ; or one ounce in 7,350,000 gallons of water*

ppm or mg/L: *parts per million or milligrams per liter ; or one ounce in 7,350 gallons of water*

PWSID: *Public water supply identification number.*

mrem: *Millirems per year (a measure of radiation absorbed by the body)*

NTU: *Nephelometric Turbidity Units*

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

In most cases, the "Level Detected" column represents an average of sample result data, collected during the calendar year. If a date appears in the "Date of Sample" column, the Illinois EPA requires monitoring for this contaminant less than once a year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the calendar year.



2019 Village of Wilmette Water Quality Data

Listed below is data supplied by Village of Wilmette. This water analysis information was compiled from samples that Wilmette is required to take of its water supply system annually, and is required to be included in this report.

IL0313300

Inorganic Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Date of Sample	Likely Source of Contamination
Barium (ppm)	2	2	0.022	0.022 – 0.022	none	2019	Erosion of natural deposits
Fluoride (ppm)	4	4.0	0.754	0.754 - 0.754	none	2019	Erosion of natural deposits; water additive which promotes strong teeth
Iron (ppm)	NA	1	0.018	0.018 - 0.018	none	2019	Erosion of natural deposits
Sodium (ppm)	NA	NA	12	12.0 -- 12.0	none	2019	Erosion of natural deposits

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Date of Sample	Likely Source of Contamination
Highest single Measurement	1 NTU	0.11 NTU	none	2019	Soil Runoff
Lowest monthly % meeting limit	0.3 NTU	100%	none	2019	Soil Runoff

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. The Village of Wilmette monitors it because it is a good indicator of water quality and the effectiveness of the Water Plant's filtration system and disinfectants.

Total Organic Carbon

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

Unregulated Contaminant Monitoring Rule (UCMR). A maximum contaminant level (MCL) for these contaminants have not been established by either state or federal regulations, nor has mandatory health

Additional Contaminants – UCMR4

Every five years, in accordance with the Safe Drinking Water Act, the EPA identifies a new list of contaminants that are suspected to occur in public water systems. This list is referred to as the effects language been set. The purpose of unregulated contaminant monitoring is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2019, thirty chemical contaminants were monitored. Below are the contaminants that yielded detectable results, the remaining contaminants returned with non-detects.

Unregulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCL	Units
Bromochloroacetic Acid	2019	3.05	2.09 – 3.05	N/A	ppb
Bromodichloroacetic Acid	2019	2.20	1.82 – 2.20	N/A	ppb
Chlorodibromoacetic Acid	2019	0.74	0.57 – 0.74	N/A	ppb
Dibromoacetic Acid	2019	0.95	0.70 – 0.95	N/A	ppb
Dichloroacetic Acid	2019	6.92	2.48 – 6.92	N/A	ppb
Trichloroacetic Acid	2019	4.41	1.93 – 4.41	N/A	ppb

Source Water Assessment

The Illinois EPA considers all surface water sources of community water supply 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. A work group from the Great Lakes States was organized to develop a protocol for assessing the Great Lakes. The mission of the Great Lakes Protocol was to develop a consistent procedure allowing the flexibility necessary to properly conduct source water assessments of the Great Lakes as a drinking water source. This flexibility takes into account the variability of these sources and site-specific concerns for determination of source sensitivity and susceptibility (Illinois EPA, 1999). Sensitivity is defined as the intrinsic ability of surface water to be isolated from contaminants by the physical attributes of the hydrologic or geologic setting. With this in mind, the degree of sensitivity becomes the prevailing factor in the susceptibility determination for intakes on the Great Lakes. Intakes located close to shore or close to a major shipping lane will be more sensitive and thus more susceptible to potential contamination. The sensitivity analysis of both Wilmette’s intakes show that they are located far enough offshore that shoreline impacts are not considered a factor on water quality. However, at certain times of the year the potential for contamination exists due to wet-weather flows from the North Shore Channel. If currents are flowing in a northerly direction, contaminants from these flows could migrate to Wilmette’s intakes and compromise water quality. Correlation between Evanston’s rainfall data, North Shore Channel discharge dates and Wilmette’s coliform data show the potential effect of these flows on Wilmette’s water quality. In addition, the proximity to a major shipping lane adds to the susceptibility should there be a spill near the intakes.

The Village of Glenview wants its valued customers to be informed about water quality. You are invited to participate in the decision-making processes that affect drinking water quality. Please feel welcome to attend any of the Village's regularly scheduled Village Board of Trustee meetings which are held at 7:30 p.m. on the first and third Tuesdays of the month at Village Hall, 2500 East Lake Avenue. Check the Calendar on the Village of Glenview website for more meeting information. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility of Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://dataservices.epa.illinois.gov/swap/factsheet.aspx>.

If you have any questions concerning this report or your water system, please contact Public Works Director Phil Perna at (847) 904-4463. This report is available on the internet at the Glenview web site, www.glenview.il.us/2019waterqualityreport. Printed copies are available at the Customer Service counter at Village Hall, 2500 E. Lake Ave., Glenview, IL 60026

.Did You Know?

Glenview has been purchasing water from the Village of Wilmette since 1938. In fact, about **70 percent of the water Wilmette pumps and treats comes into Glenview.**

On average, a Glenview resident uses 85 **gallons of water per person each day.**

The water supply is **monitored 24 hours a day** by both Wilmette and Glenview.

Both Glenview and Wilmette constantly **test water samples for biological and chemical contaminants.** Wilmette has a laboratory on site at its water plant where full-time staff members routinely do "spot checks" of raw and treated water, and Glenview tests a minimum of 50 water samples each month for total coliform and E.coli.

The Village is prepared for emergencies! The Village of Glenview has **agreements and underground connections with both the Village of Northbrook and the Village of Northfield for emergency supplies of water,** should we need them. Wilmette has back-up power at its water plant, and the Rugen Road and West Lake reservoir/pumping stations have **two sources of power.** All of Glenview's major pumping stations also have **emergency back-up generators.**

Is it advisable to use water from the hot water tap for drinking, cooking or making baby formula?
No. Hot water generally comes from a hot water heater that may contain impurities that should not be ingested. Some of these impurities might be metals from household plumbing that are dissolved and concentrated in the heating process.

Why does water sometimes have a musty taste and odor?
During the summer months, residents may notice a slight "musty" or "earthy" taste and odor in the water. The chemicals that cause this are naturally occurring but harmless in the concentrations found in Wilmette's/Glenview's drinking water. Wilmette adds activated carbon to the water to help remove these odors. Keeping an open container of water in the refrigerator allow the odors to dissipate and improves the taste of the water.

Why does the water coming out of the faucet sometimes look milky or opaque?
This generally occurs in cold weather, when water entering the house is colder than the temperature inside. Cold water holds more oxygen than warm water. As the cold water warms, the oxygen escapes in tiny air bubbles that make the water look "milky."

What is the hardness of the water?
The tap water has a hardness of 150mg/L, or about 8.2 grains.

Is bottled water safer than tap water? Not necessarily. Studies have shown that microbes can grow in bottles while on the grocers' shelves. Residents do not need to buy bottled water for safety reasons since Glenview's tap water meets all federal and state drinking water standards. Those who prefer water with a different taste can buy bottled water, but it costs up to 1,000 times more than tap water. Of course, in emergencies, bottled water can be a vital source of drinking water for people without water.