

June 1, 2022

**Village of Skokie**  
**2021 Consumer Confidence Report**  
**Annual Drinking Water Quality Report**  
**January 1 to December 31, 2021**

**Skokie Water System Number: IL0312880**

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.

The Skokie Water Distribution System sends an average of 7.3 million gallons a day of pure drinking water to residential and commercial customers. This is enough to cover the entire Village with several feet of water in a year's time. Skokie residents can be confident that every gallon, every glass of their drinking water exceeds the federal standards set by the United States Environmental Protection Agency (USEPA).

For years, Skokie's residents have enjoyed a safe, economical water supply (purchased surface water from the City of Evanston) with no reported water-borne illnesses. Evanston has a long history of drinking water safety. In 1914, when typhoid fever, cholera and dysentery gripped the nation, Evanston was the first community on Lake Michigan to treat its water. In 1947, Evanston became the first city in Illinois to provide **fluoridated\*** water. In 1973, Evanston's water treatment plant eliminated all water discharge into Lake Michigan. Today, in addition to over 50 chemical and bacteriological tests conducted by Evanston water personnel daily, the Village of Skokie's water professionals monitor drinking water for **chlorine** levels, contaminant levels and **lead, copper** and total **trihalomethanes**. To protect citizens' health, over 70 Village-wide samples are collected each month from the taps of Skokie homes and businesses. The result is that Skokie's drinking water is among the safest in the United States.

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. In 1986 Congress banned the installation of lead service lines, however many service lines installed at Skokie homes before then have not been removed by property owners. 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 at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

With the publication of this Annual Drinking Water Quality Report, Skokie continues the water quality tradition. Not only were there no treatment, monitoring or reporting violations in the reporting period, but every substance detected in Skokie's water was well below federal standards. Over 65 contaminants tested for were totally absent in the drinking water. This includes such major contaminants as synthetic organic substances and radon. This USEPA-mandated Annual Drinking Water Quality Report is result of the consumer movement which has successfully championed the public's right to know the impact of water quality on health.

*\* Words in bold are defined in the About the Data section on page eight.*

### **Why Does Skokie Test the Water Supply?**

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 land surface or through the ground, it dissolves naturally occurring minerals and radioactive material. Water also picks up substances resulting from the presence of animals and human activity. Contaminants that may be present in source water include: 1) microbial contaminants such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; 2) inorganic contaminants such as salts and metals which can be naturally occurring or result from urban storm runoff, industrial or domestic water discharges, oil and gas production, mining or farming; 3) pesticides and herbicides which come from agricultural, storm water runoff and residential uses; 4) organic chemical contaminants, including synthetic and volatile organics which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm runoff and septic tanks; and 5) radioactive contaminants which can be naturally occurring or the result of oil and gas production and mining activities. The primary sources of pollution threatening Lake Michigan include air deposition (pollution from the air, rain and snow), runoff and industrial discharge. 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 US Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800/426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

### **Lake Michigan, Skokie's Source of Drinking Water**

Skokie's tap water comes from Lake Michigan which, like the other Great Lakes, was formed as glaciers retreated north during the last ice age. Lake Michigan is the largest lake in the United States at 118 miles wide and 307 miles long. Lake Michigan averages 279 feet in depth and reaches 925 feet at its deepest point. The lake's drainage basin, which is approximately twice as large as its 22,300 square miles of surface water, includes portions of Illinois, Indiana, Michigan and Wisconsin. The Great Lakes are one of the world's most valuable sources of fresh surface water. Almost half of all the liquid fresh water in the world is found in the Great Lakes. Most of the world's surface fresh water is locked away in the ice caps around the North and the South Poles, which makes us appreciate the Great Lakes that much more. All 63 miles of Illinois shoreline support drinking water uses. The primary sources of pollution threatening Lake Michigan include air, rain and snow pollution, storm water runoff and industrial discharges.

## Skokie's Drinking Water

Skokie's vast water system includes two 4.9-million-gallon storage facilities and over 2,300 hydrants. A full-time staff of laboratory professionals, public works staff and public health professionals devote themselves to Skokie's water safety.

Skokie's drinking water has received several awards for purity. A State-Certified Water Plant Operator is on duty 24 hours a day at the Evanston plant, and over 50 chemical and bacteriological tests are conducted daily. Skokie water professionals continue the quality vigilance with frequent tests for chlorine levels, microbial contamination, trihalomethanes\* and copper and lead levels.

The Evanston Treatment Plant, which supplies Skokie's water, is capable of pumping 108 million gallons a day to communities like Skokie. Its raw water pumps bring Lake Michigan water in, while its finished water pumps send water to users. Natural gas engines fuel these pumps so the community never goes without safe drinking water, even during power outages.

Here's how the water is treated:

- Six centrifugal pumps lift the water from suction wells to begin its journey through the treatment plant.
- Chlorine to disinfect, fluoride for dental health and aluminum sulphate and polymers to coagulate suspended solids are added to the water. Carbon is added as necessary to enhance taste and odor.
- The resulting **floc** sinks to the bottom of settlement basins in four to eight hours.
- Water inches through filters that contain a layer of anthracite and filter sand, removing the tiniest of particles and bacteria.
- After post chlorination, water goes to reservoirs where a blended polyphosphate is added to prevent copper and lead contamination. Water is sampled one more time for quality assurance before being pumped into the distribution system.

Some people may be more vulnerable to contaminants in tap or bottled water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be at particular risk for infections. These people should seek advice from their health care providers about drinking water. The EPA and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the Safe Drinking Water Hotline at 800/426-4791.

For specific information about Skokie's Water Division, the community's water quality, a complete water quality report of all tested contaminants, water conservation information, on-source pollutant information or any other water or sewer-related questions, please call 847/933-8427 or visit the Village webpage at [www.skokie.org](http://www.skokie.org). The Skokie Water and Sewer Division is located at 9050 Gross Point Road in the Public Works building. The public is welcome to attend Village Board Meetings at Village Hall, 5127 Oakton Street, at 8 p.m. on the first and third Mondays of each month. Many decisions regarding Village matters, such as water, are made at these meetings.

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### Source Water Assessment Summary

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by Village Hall or call our Environmental Health Division at (847) 933-8484. 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>

Source of Water: EVANSTON 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. All three of Evanston’s intakes 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 exist due to the proximity of the North Shore Channel and wet-weather flows. In addition, the proximity to a major shipping lane adds to the susceptibility of these three intakes.

### How Much Water Do You Use?

Lake Michigan affords a plentiful supply of water which may cause people not to consider conservation a primary concern. Water conservation means using water intelligently, not just reducing the amount of water consumed.

Before you can conserve water, you need to know how to measure the amount of water you use. Your water bill and water meter are the tools that can help to determine your water consumption and start your own water conservation program.

### Year 2021 Water Quality Data Skokie

<b>Coliform Bacteria</b>						
<b>Maximum Contaminant Level Goal</b>	<b>Total Coliform Maximum Contaminant Level</b>	<b>Highest No. of Positive</b>	<b>Fecal Coliform or E. Coli Maximum Contaminant Level</b>	<b>Total No. of Positive E. Coli or Fecal Coliform</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
0	5% of monthly samples are positive	1.3		2	No	Naturally present in environment
<b>Lead and Copper</b>						

Definitions: 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. Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	08/17/2020	0	15	3.46	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

### Regulated Contaminants

Disinfectants and Disinfection ByProducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2021	1	0-1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2021	15	8.95 - 17.4	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	34	18.4 - 44.3	No goal for the total	80	ppb	No	By-product of drinking water disinfection.

### Year 2021 Water Quality Data Evanston

### Regulated Contaminants

Disinfectants and Disinfection ByProducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2021	1	1 - 1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2021	14	6.4-17.9	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	28	12.7-37	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	.021	0.021 - 0.021	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2021	0.7	0.7 - 0.7	4	4.0	ppm	No	Erosion of natural

								deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2021	.3	0.3 - 0.3	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
Sodium	2021	8	8.1 - 8.1			ppm	No	Erosion from naturally occurring deposits. Used in water softener regeneration.
<b>Radioactive Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Combined Radium 226/228	01/28/2020	1.02	1.02-1.02	0	5	pCi/L	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium	01/28/2020	0.72	0.72-0.72	0	15	pCi/L	No	Erosion of natural deposits.
<b>Turbidity</b>								
		<b>Limit (Treatment Technique)</b>	<b>Level Detected</b>				<b>Violation</b>	<b>Likely Source of Contamination</b>
		Highest single measurement	1 NTU	0.17 NTU			No	Soil runoff.
		Lowest monthly % meeting limit	0.3 NTU	100%			No	Soil runoff.

**Information Statement:** 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.

**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.

### **Water Quality Test Results Definitions:**

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

**Avg:** Regulatory compliance with some MCLs 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 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 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 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.

**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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**na:** not applicable.

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

**NTU:** Nephelometric Turbidity Unit. Used to measure cloudiness in drinking water.

**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.

**ppt:** Parts per trillion

**pcl/l:** Picocuries per liter. Used to measure radioactivity and infection practices.

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

### **PFOS: City of Evanston Results**

Information Statement:

PFOS- In 2021, the City of Evanston's PWS was sampled as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated PFAS were detected in the sampled drinking water. PFOA was detected above the health advisory level and PFOS was detected below the health advisory level established by the Illinois EPA. Follow-up monitoring is being conducted by the City of Evanston. ppt=parts per trillion. Results can be found at

<http://www.cityofevanston.org/government/departments/public-works/public-outreach/historical-pfsa-results>

For more information about PFAS health advisories visit

<https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	IEPA Guidance Level	US EPA Guidance Level	Violation	Likely Source of Contamination
Perfluorooctanesulfonic acid (PFOS)	2021	2.4	2.2-2.4	14 ppt	70 ppt	No	Surfactant for firefighting foam, mist suppressant fro metal plating baths, grease and water resistance to materials such as textiles, carpets and paper. Production ceased in 2002.
Perfluorooctanoic acid (PFOA)	2021	2.3	2.2-2.3	2.0 ppt	70 ppt	No	Surfactant for firefighting foam, mist suppressant from metal plating baths, grease and water resistance to materials such as textiles, carpets and paper. Production ceased in 2015.

### About the Data

**Chlorine:** A byproduct formed when chlorine dioxide is used to disinfect water.

**Coliform:** Bacteria that are commonly found in the intestines of humans and other vertebrates.

**Copper:** Copper is a metal found in natural deposits as ores containing other elements. It is widely used in household plumbing materials.

**Floc:** A mass formed in a fluid through the aggregation of suspended particles.

**Fluoridated:** Adding a fluorine compound to water helps reduce tooth decay.

**Lead:** Lead poses a significant danger, especially to infants and young children. It is possible that lead levels in some homes may be higher than at other homes in the community as a result of materials used in household plumbing. If you are concerned about lead levels in your water, you may wish to have your water privately tested.

**Nitrate (as Nitrogen):** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

Radon: Largely inert gaseous element formed by the radioactive decay of radium.

**Sodium:** USEPA or IEPA does not regulate sodium, but monitoring is required to provide information about sodium intake due to dietary precautions. Consult a physician if the level is greater than 20 mg/l and you are on a sodium-restricted diet.

**Synthetic Organic Compounds:** A group of compounds not included among the trihalomethanes that may have carcinogenic (cancer causing) potential to humans.

**Trihalomethanes:** A group of compounds formed from decayed vegetable or animal matter present in most surface and some groundwaters. The EPA regulates the level found in drinking water because of the toxic nature that may produce disease in humans and animals.