The City of Prospect Heights
Annual Drinking Water Quality Report
For 2021

We are pleased to present to you this year's ***Annual Drinking Water Quality Report.*** The report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the effort we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of our water. The City of Prospect Heights has water operators certified by the Illinois Environmental Protection Agency (IEPA) on staff, to maintain and monitor water quality. We are members of the American Water Works Association, Illinois Rural Water Association, and North Suburban and Mid-Central Water Operators Association.

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Prospect Heights to provide safe drinking water. The source of drinking water used by Prospect Heights is Lake Michigan, produced by the Village of Wilmette and travels through the water main system owned by the Village of Glenview and provided from Illinois American Water Company through a purchase agreement. In total, over 120 contaminants were tested and were all within range of EPA's quality standards. The tap water has a hardness of 150 mg/l or about 8.02 grains per gallon. This report will provide information pertaining to surface water supplies.

The public may comment on items pertaining to the water system, at a council meeting and register to speak to the City Council members. The council meetings are held the second and fourth Mondays of every month, beginning at 6:30 pm.

For more information regarding this report, contact:

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Source Water

Source of the Drinking Water

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 workgroup 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 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. Water supply officials from Wilmette are active members of the West Shore Water Producers Association. Coordination regarding water quality situations (i.e., spills, tanker leaks, exotic species, etc) is frequently discussed during the associations quarterly meetings Lake Michigan, as well as all the Great Lakes, has many different organizations and associations that are currently working to either maintain or improve water quality. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of watershed protection activities in this document is aimed at this purpose.

Substances Expected to be in Drinking Water

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 acquire 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicide; 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, may also come from gas stations, urban storm water runoff, and septic systems.

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

To ensure that tap water is of high quality, USEPA prescribes regulations limiting the amount of certain substances in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Important Health Information

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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/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 800-426-4791.

A Message for People with Severely Weakened Immune Systems

Cryptosporidium is a protozoan found in untreated surface waters throughout the United States (the organism is generally not present in a ground water source). Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100% removal. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, people with severely weakened immune systems have a risk of developing life-threatening illness. We encourage such people to consult their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it is spread through means other than drinking water.

LEAD

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 City of Prospect Heights 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 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.

How to Read the Data Tables

The results of our monitoring are reported in the data tables. While most monitoring was conducted in 2017, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting these tables, see the "Table Definitions" section and footnotes.

2019 REGULATED CONTAMINANTS DETECTED

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCGL	MCL	Units	Violation	Likely Source of Contaminant
Chlorine	2021	1	0.63 – 1.24	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Total Haloacetic Acids (HAA5)	2021	19	18.99 – 18.99	N/A	60	ppb	No	By-product of drinking water chlorination
Total Trihalamethane (TTHMs)	2021	44	44 – 44	N/A	80	ppb	No	By-product of drinking water chlorination

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Barium	2021	0.028	0.028 – 0.028	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2021	1.1	1.1 – 1.1	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge

State Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Iron This contaminant is not currently regulated by USEPA. However the IEPA has set and MCL for this contaminant for supplies serving a population of 1000 or more.	2021	0.43	0.43 – 0.43	N/A	1.0	ppm	No	Erosion from naturally occurring deposits
Manganese This contaminant is not currently regulated by USEPA. However the IEPA has set and MCL for this contaminant for supplies serving a population of 1000 or more.	2021	10	10 - 10	150	150	ppb	No	Erosion of naturally occurring deposits
Sodium There is no IEPA or USEPA MCL for sodium. Monitoring is required to provide consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you	2021	28	28 - 28	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; Used in water softener regeneration should consult a physician about the level of sodium in the water.

Nitrate (as N)	1/24/2017	0.2	0.2 – 0.2	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks and sewage; Erosion of natural deposits
Zinc	2021	0.0071	0.0071 – 0.0071	5	5	ppm	No	Naturally occurring discharge from metal

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Combined Radium 226/228	2019	8.23	8.23 – 8.23	0	5	pCi/L	No	Erosion of natural deposits
Alpha Emitters	2019	9.6	9.6 – 9.6	0	15	pCi/L	No	Erosion of natural deposits

Lead and Copper (Collected at customers' taps within the City water system)

Date	Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	Number of Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	Number of Sites Over Copper AL	Likely Source of Contamination
2020	0	15 ppb	4	0	1.3 ppm	1.3 ppm	.12	0	Corrosion of household plumbing systems; Erosion of natural deposits

Compliance with the Lead and Copper Rule (LCR) is determined by the levels of lead and copper found in samples taken from customers' taps. LCR requirements are met if the 90th percentile of all samples taken does not exceed the action level of 15 ppb for lead or 1.300 ppm for copper.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated levels of lead in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the EPA's Safe Drinking Water Hotline 800-426-4791.

Regulated Substances (Measured in the water leaving the Village of Wilmette treatment facility)

Substance	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2018	1	1 – 1	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2021	0.02	0.02 – 0.02	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Di(2-ethylhexyl) phthalate	2010	0.76	0 – 0.76	0	6	ppb	No	Discharge from rubber and chemical factories
Fluoride	2021	0.7	0.677 – 0.677	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Nitrate	2020	0.44	0.44 – 0.44	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	2013	2.48	ND – 2.48	50	50	ppb	No	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Total Nitrate & Nitrite	2014	0.35	0.35 – 0.35	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.9 mg/L to 1.2 mg/L.

Turbidity (Measured in water leaving the Village of Wilmette treatment facility)

Substance	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Turbidity (%<0.3 NTU)	2021	100%	100% - 100%	N/A	TT	NTU	No	Soil runoff
Turbidity	2021	.19 NTU	N/A	N/A	TT = 1 NTU max	NTU	No	Soil runoff

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The treatment technique requires that at least 95% of routine samples are less than or equal to 0.3 NTU, and no sample exceeds 1 NTU. We are reporting the percentage of all readings meeting the standard of 0.3 NTU, plus the single highest reading for the year.

State Regulated Substances (Measured in water leaving Village of Wilmette treatment facility)

Substance	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Sodium	2021	11	11 - 11	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; Used in water softener regeneration

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

Unregulated Substances (Measured in water leaving Village of Wilmette treatment facility)

Substance	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Sulfate	2021	23	23	ppm	Erosion naturally occurring deposits

Additional Unregulated Contaminants (PFAS) (Measured in water leaving the Village of Wilmette treatment facility)

Substance	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Guidance Level (ng/L)
Perfluoroocatanic Acid (PFOA)	2021	2.4	<2.0 – 2.4	ng/L	2.0 IEPA 70 USEAP
Perfluorooctanesulfonic Acid (PFOS)	2021	2.6	2.2 – 2.5	ng/L	14 IEPA 70 USEPA
Perfluorobutanesulfonic Acid (PFBS)	2021	<2.0	<2.0 - <2.0	ng/L	2,100
Perfluoroheptanoic Acid (PFHpA)	2021	<2.0	<2.0 - <2.0	ng/L	N/A
Perfluorohexanesulfonic Acid (PFHxS)	2021	<2.0	<2.0 - <2.0	ng/L	140
Perfluorononanoic Acid (PFNA)	2021	<2.0	<2.0 - <2.0	ng/L	21
Perfluorodecanoic Acid (PFDA	2021	<2.0	<2.0 - <2.0	ng/L	N/A
Perfluorohexanoic Acid (PFHxA)	2021	<2.0	<2.0 - <2.0	ng/L	560,000
Perfluorododecanoic acid (PFDoA)	2021	<2.0	<2.0 - <2.0	ng/L	N/A

Perfluorotridecanoic Acid (PFTrDA)	2021	<2.0	<2.0 - <2.0	ng/L	N/A
Perfluoroundecanoic Acid (PFUnA)	2021	<2.0	<2.0 - <2.0	ng/L	N/A
N-ethyl Perfluorooctanesulfonamidoacedic Acid	2021	<2.0	<2.0 - <2.0	ng/L	N/A
N-methyl Perfluorooctanesulfonamidoacedic Acid	2021	<2.0	<2.0 - <2.0	ng/L	N/A
HFPO-DA	2021	<2.0	<2.0 - <2.0	ng/L	560
ADONA	2021	<2.0	<2.0 - <2.0	ng/L	N/A
PCI-PF3ONS	2021	<2.0	<2.0 - <2.0	ng/L	N/A
11CI-PF3OUdS	2021	<2.0	<2.0 - <2.0	ng/L	N/A
Perfluorotetradecanoic Acid (PFTeDA)	2021	<2.0	<2.0 - <2.0	ng/L	N/A

Perfluoroalkyls (PFAS) are man-made chemicals that have been used in industrial and consumer products worldwide since the 1950s. Research on two kinds of PFAS forms the basis of our scientific understanding of this group of chemicals. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) were manufactured for the longest time, are the most widespread in the environment, and are the most well-studied. They have been used in non-stick cookware, water-repellant clothing, stain-resistant fabrics, some cosmetics, some firefighting foams, as well as products that resist grease, water, and oil. While many PFAS have been phased out of use in the US, they are considered "forever chemicals" because they persist in the environment

Table Definitions and Abbreviations

- Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- Compliance Achieved: Indicates that the levels found were all within the allowable levels as determined by the USEPA.
- Highest Level Detected: In most cases this column is the highest detected level unless compliance is calculated on a Running Annual Average or Locational Running Annual Average. If multiple entry points exist, the data from the entry point with the highest value is reported.
- 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 disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.
- MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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 contamination.
- N/A: Not applicable
- ND: Not detectable at testing limits
- pCi/L (picocuries per liter): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).
- ppm (parts per million): One part substance per million parts water, or milligrams per liter.
- ppb (parts per billion): One part substance per billion parts water, or micrograms per liter.
- Range Of Detections: The range of individual sample results, from lowest to highest, that were collected during the sample period.
- S: Single sample