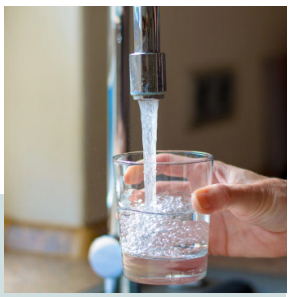
THE VILLAGE OF BARRINGTON

IN BARRINGTON

Be Inspired.

2024 Water Quality Report



All residents are notified yearly of their water test results and the report is available on the Village website at barrington-il.gov

The Annual Water Quality Report for the period of January 1 to December 31, 2023 is intended to provide you with important information about your drinking water and the efforts made by the Barrington water system to provide safe drinking water. The source of drinking water used by Barrington is groundwater.

The United States Environmental Protection Agency (EPA) requires all communities to provide to their consumers a Consumer Confidence Report on the quality of their system's drinking water. This report summarizes the quality of water that we provided during the last year. Barrington meets the EPA standards for water quality and now is only required to analyze lead and copper quantities once every three years, rather than twice a year.

The Village tests for Per- and Polyfluoroalkyl Substances (PFAS) when required. PFAS compounds were sampled and results were below detection in our finished drinking water. For more information about PFAS health advisories, visit https://epa.illinois.gov/topics/water-quality/pfas.html.

Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Also included in this year's report is a Source Water Assessment Summary. Community water supplies are required to report a summary of their source water susceptibility determination, which was compiled by the Illinois Environmental Protection Agency (IEPA).

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

EPA and FDA Regulations

To ensure that tap water is safe to drink, 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. Some people may be more vulnerable to contaminated drinking water than the general population.

The table on the next page will give you a better picture of the contaminants that were detected in your water and the contaminants that were tested for, but not detected.

Sources of Your 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 dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

All Water Can Be Contaminated by the Following:

Inorganic contaminants, such as salts and metals, which can be naturally occurring or 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 can also come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

2024 Water Report
Village of Barrington
200 S. Hough Street
Barrington, IL 60010
(847) 304-3400
barrington-il.gov

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Karen Darch, *Village President*
Tony Ciganek, *Village Clerk*

Trustees
Jason Lohmeyer
Todd Sholeen
Jennifer Wondrasek
Kate Duncan
Mike Moran
Brian Prigge

QUESTIONS?

If you have any questions about this report or about your water system, please contact **Kevin Fecske, Utilities Superintendent** at (847) 381-7903. If you would like to learn more, please feel free to attend any of our regularly scheduled Board Meetings, on the 2nd and 4th Mondays of each month at 8 p.m. at Village Hall. Copies of the report are available online at barrington-il.gov or at Village Hall, 200 S. Hough St., Barrington.

Regulated Contaminants Detected in 2023

CONTAMINANT (units)	LIKELY SOURCE OF CONTAMINANT	MCLG	AL	90th Percentile	# Sites Over AL	Violation?	Collection Date
LEAD (ppb)	Corrosion of household plumbing systems; erosion of natural deposits	0	AL = 15	14	3	No	2021
COPPER (ppm)	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	1.3	AL = 1.3	1	1	No	2021

CONTAMINANT (units)	LIKELY SOURCE OF CONTAMINANT	MCLG	MCL	HNOP	# Positive Samples	Violation?
COLIFORM BACTERIA	Naturally present in the environment.	0	1 positive monthly sample	0	0	N

INORGANIC CONTAMINANTS		MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation?	Collection Date
BARIUM (ppm)	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	2	2	.076	.054 - .076	No	2021
FLUORIDE (ppm)	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	4	4	.689	.676 - .689	No	2021
IRON (ppm)	Regulated by IL EPA, not USEPA. Erosion of naturally occurring deposits	n/a	1	0.75	.25 - .75	No	2021
MANGANESE (ppb)	Regulated by IL EPA, not USEPA. Erosion of naturally occurring deposits	150	150	15	5.5 - 15	No	2021
SODIUM (ppm)	Erosion from naturally occurring deposits; Used as water softener regeneration	n/a	n/a	33	19-33	No	2021
ZINC (ppm)	Regulated by IL EPA, not USEPA. Naturally occurring; discharge from metal factories	5	5	.014	.0067 - .014	No	2021
DISINFECTANTS & DISINFECTION BY-PRODUCTS							
HALOACETIC ACID (ppb)	By-products of drinking water disinfection	n/a	60	1	0 - 1.08	No	2023
CHLORINE (ppm)	Water additive used to control microbes	mrdlg = 4	mrdl = 4	1.3	0.98/2.0	No	2023
TTHM (ppb)	By-product of drinking water disinfection	n/a	80	3	1.348 - 2.539	No	2023
UNREGULATED CONTAMINANTS LITHIUM	Unregulated contaminants mentioned by the EPA	9	9	12.0	9.27 - 12	No	2023

Understanding This Chart: Key Terms

Highest Number of Positive – HNOP: 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 Goal – 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 – 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.

n/a: Not applicable

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

Maximum residual disinfectant level – mrdl: The highest level of disinfectant allowed in drinking water.

Maximum residual disinfectant level goal – mrdlg: The level of disinfectant in drinking water below which there is no known or expected risk to health. Mrdlg's allow for a margin of safety.

ppm: Parts per million or milligrams per liter

ppb: Parts per billion or micrograms per liter

pCi/L: Picocuries per liter, used to measure radioactivity

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

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About the Data in the Chart on Page 2

The Maximum Contaminant Level (MCL) is 15 parts per billions (ppb) for lead and 1.3 parts per million (ppm) for copper. When lead or copper exceeds their Action Levels (AL), some form of treatment is required, which the water system must follow. The Village of Barrington adds polyphosphates to the potable water system. This is to help prevent lead in your home's plumbing from leaching into the water. In the Regulated Contaminants Detected chart, the number 3.7 represents the 90th% level found in (ppb) for lead.

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. 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 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 EPA's Safe Drinking Water Hotline (800) 426-4791 or www.epa.gov/safewater/lead.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Iron: The contaminant is not currently regulated by the EPA. However, the State has set an MCL for this contaminant for supplies serving a population of 1,000 or more. Iron is not a health risk, but it does create aesthetic problems, such as giving water a metallic taste and causing stains on fixtures and clothing.

Sodium: There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who are concerned about intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

Manganese: This contaminant is not currently regulated by EPA. However, the state has set an MCL for manganese for supplies serving a population of 1,000 or more.

Safe Drinking Water Hotline

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

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

We are advised by the IEPA that 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/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 EPA's Safe Drinking Water Hotline (800) 426-4791.

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2023 Source Water Assessment

Importance of Source Water

The Village of Barrington utilizes groundwater from four wells, separated into two sets of two wells each. The first set of wells is drilled in a sand and gravel aquifer and the second set is drilled in a limestone aquifer. An aquifer is a geological formation that contains water. All of the wells are located within the Village limits. Water is pumped from all four wells and treated.

Your home normally receives a mixture of water from both sets of wells. Due to favorable history, aquifer characteristics, and inventory of potential sources of contamination, monitoring for Volatile Organic Chemicals (VOCs) and Synthetic Organic Chemicals (SOCs) are performed on a 6-year and 9-year schedule. VOC samples were collected and analyzed in January 2014. The source water assessment for our supply was completed in 1992 by the IEPA. ***If you would like a copy of this information, please stop by the Public Works facility or contact the Water Division at (847) 381-7903.***

Susceptibility to Contamination

Based on information obtained in a Well Site Survey, published in 1992 by the IEPA, fourteen potential sources or possible problem sites were located within the survey area of Barrington's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the IEPA indicated several sites with ongoing remediation, which may be of concern.

The IEPA has determined that the Barrington Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria, including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydro-geologic data on the wells.

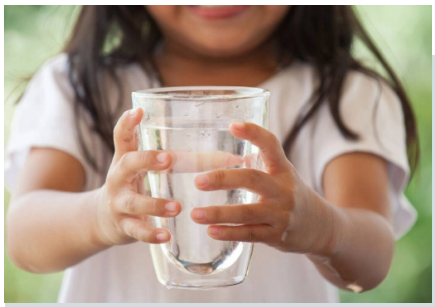
Furthermore, in anticipation of the United States EPA's proposed Ground Water Rule, the IEPA has determined that the Barrington Community Water Supply is not vulnerable to viral contamination. This determination is based upon the completed evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; a hydro-geologic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics were not evaluated for this groundwater supply.

Source Water Protection Efforts

The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Barrington's wells. Minimum protection zones are regulated by the IEPA. To further reduce the risk to source water, the facility has implemented a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the IEPA, which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the facility considerable laboratory analysis costs.

To further minimize the risk to Barrington's groundwater supply, the IEPA recommends that three additional activities be assessed. First, the community may wish to enact a "maximum setback zone" ordinance to further protect their water supply. These ordinances are authorized by the Illinois Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to a fixed distance, normally 1,000 feet from their wells.

Second, the water supply staff may wish to revisit their contingency planning documents, if available. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize its risk of being without safe and adequate water. Finally, the water supply staff is encouraged to review their Cross Connection Control Program to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the community.



2023 Water Facts

More than 7,000 separate tests were performed on water samples from our system.

(Below numbers are approximated)

Population served **14,500**

Metered customers **4,500**

Miles of water main **90**

# of fire hydrants **999**

Water production **1.251**

(average million gallons/day)

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Special Notices

Special Notice for Availability of Unregulated Contaminant Monitoring Data

Important Information About Your Drinking Water

Availability of Monitoring Data for Unregulated Contaminants for the Village of Barrington

The Village of Barrington water system has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. As Barrington's customers, you have the right to know that these data are available. **Please note that all testing performed to date has come back with NON-DETECT RESULTS**. If you are interested in examining the results, please contact Utilities Superintendent Kevin Fecske at (847) 381-7903 or kfecske@barrington-il.gov. This notice is being provided to you by the Village of Barrington, State Water System ID#: 0974080.

Date distributed: May 2024

Lead

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before and during pregnancy can have an increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Daycares and schools can test for lead levels at any time, free of charge.