

VILLAGE OF BURR RIDGE

2017 CONSUMER CONFIDENCE REPORT



IMPORTANT INFORMATION REGARDING THE
VILLAGE OF BURR RIDGE
DRINKING WATER SUPPLY



VILLAGE OF BURR RIDGE PUBLIC WATER SUPPLY

2017 CONSUMER CONFIDENCE REPORT



The Village of Burr Ridge, in compliance with The Safe Drinking Water Act (SDWA), is issuing this year's Consumer Confidence Report (CCR) for the period of January 1 to December 31, 2016. This report is intended to provide you with important information about the quality and source of your drinking water. During 2016, the water provided by the Village met all USEPA and state drinking water quality standards and we are pleased to report that there were no violations during this period. The Village diligently monitors the water distribution system by taking a minimum of 10 samples for bacteriological testing each month. We are committed to providing you with the safest and most reliable water supply possible. Periodically, water issues are addressed by the Village Board of Trustees. The Village Board meets on the second and fourth Monday of each month at 7:00 PM at the Burr Ridge Village Hall, 7660 S. County Line Rd, Burr Ridge, IL 60527. Public comments or statements regarding the public water supply are welcome. If you have any questions about this report or concerns about your water system, please contact James Lukas, Water and Sewer Division of the Village of Burr Ridge Public Works Department at (630) 323-4733 ext. 6050. This report is available on the Village of Burr Ridge website <http://www.burr-ridge.gov>.

SOURCE WATER

In 2016, all the water that the Village of Burr Ridge distributed came from Lake Michigan. Lake Michigan water, is treated by the City of Chicago, and is purchased through the Village of Bedford Park. Burr Ridge also has three stand-by wells that **were not used** during 2016. These wells are tested and maintained in working order and are intended to be used **in case of emergency only**.

Lake Michigan is a surface water supply, which provides drinking water for Chicago and over 125 suburban communities. It serves as a source of drinking water, as a place for swimming and fishing, and is utilized for both recreational boating and commercial shipping. Further information on our community's source water assessment is available on the USGS web site at <http://usgs.gov>, the Illinois Environmental Protection Agency (IEPA) at <http://www.epa.state.il.us/water/>, the City of Chicago Department of Water Management at <http://www.cityofchicago.org/WaterManagement/> or by calling the Division of Public Water Supplies (DPWS) of the Illinois EPA, Compliance Assurance Section (CAS) at **217-785-0561**.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater 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 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 can 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 can be naturally occurring or be the result of oil and gas production and mining activities.

EPA regulations restrict industrial and sewage treatment plant effluents from entering Lake Michigan, thereby reducing the risk of having these contaminants in the surface water supply.

In order to ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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**).

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).

INFORMATION ABOUT LEAD IN DRINKING WATER

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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

With recent news reports about elevated lead levels in the Flint, Michigan public water supply, the Village of Burr Ridge wants to assure all residents and consumers of the water quality and safety of the Burr Ridge public water supply system.

Lead is a common, naturally occurring metal found throughout the environment. Lead seldom occurs naturally in water supplies like rivers and lakes, and lead is rarely present in water coming from a treatment plant. Lead enters drinking water primarily as a result of corrosion or wearing away of materials in the water distribution system and household plumbing that contain lead. Despite concerns about drinking water, the U.S. Environmental Protection Agency notes that "the greatest exposure to lead is swallowing or breathing in lead paint chips or dust." See more at: <http://www.drinktap.org/water-info/whats-in-my-water/lead-in-water.aspx#sthash.fi35Hlig.dpuf>.

Lead can enter drinking water when service pipes that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures. The most common problem is with brass or chrome-plated brass faucets and fixtures with lead solder, from which significant amounts of lead can enter into the water, especially hot water. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. The Safe Drinking Water Act (SDWA) has reduced the maximum allowable lead content, content that is considered "lead-free".

To protect corrosive water from attacking plumbing materials, the City of Chicago adds chemicals (orthophosphate) to the water during treatment to elevate the water's pH and inhibit corrosion. The orthophosphate comes out of solution and sticks to the pipe walls, providing a protective film between the water and pipe material. In the case of Flint, Michigan, either no chemicals were added or an insufficient amount of chemical was used to ensure the water would not attack (corrode) the pipe and plumbing materials.

Measures that can Reduce Lead in Drinking Water:

Flush your pipes before drinking. The more time water has been sitting in your home's pipes, the more lead it may contain. Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until it becomes as cold as it will get. This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer. Only use cold water for eating and drinking: Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. Run cold water until it becomes as cold as it can get. Boiling water will NOT get rid of lead contamination.

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducir la información. (This report contains key information about the quality of their drinking water information. Please read this report or contact someone who can translate the information.)

ABOUT THE DATA & DATA TABLE FOOTNOTES

Turbidity - Turbidity is a measure of the cloudiness of the water. Chicago monitors it because it is a good indicator of water quality and the effectiveness of their filtration system and disinfectants.

Lead - Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than in other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to flush your tap for 30 seconds to 2 minutes before using the water, or have your water tested by an independent laboratory. Testing for lead done by

the Village of Burr Ridge shows results either not detectable or well below the Action Level. Additional general information is available from the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

Asbestos - Chicago examines samples for asbestos fibers on a routine basis. The EPA has determined that asbestos fibers greater than 10 microns in length could potentially cause lung cancer. They have not found fibers that are in this size category.

Haloacetic acids - Additional disinfectant by-products are being monitored. Chicago began analyzing for these compounds in July 1998. In December, 1998 the rule was finalized which set an MCL for HAAs at 60 ppb. Thus far, testing shows that Chicago is averaging 11.8 ppb, which is comfortably below the regulated level. The range of detections was 8.0 - 22.0 ppb. The Village of Burr Ridge also monitors for these by-products and our testing also shows results well below the regulated level.

Cryptosporidium - Analyses have been conducted monthly on the source water since April 1993. Cryptosporidium has not been detected in these samples. Treatment processes have been optimized to ensure that if there are cryptosporidium cysts in the source water, they will be removed during the treatment process. By maintaining a low turbidity and thereby removing the particles from the water, the threat of cryptosporidium organisms getting into the drinking water system is greatly reduced.

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

Sodium - There currently is not a state or federal Maximum Contaminant Level 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 the level of sodium in the water.

Voluntary testing - The Chicago Water Department and the Village of Burr Ridge both monitor for contaminants, which are proposed to be regulated, or for which no standards currently exist but which could provide useful information in assessing the quality of the source water or the drinking water.

Unregulated Contaminants - A maximum contaminant level (MCL) for other contaminants has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring other contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

DEFINITION OF TERMS

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.

Level Found: This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

Collection Date: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

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

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

Violation (V): If a violation had occurred an explanation of the violation and corrective measures taken would be explained in the informational section of this report

nd: Not detectable at testing limits.

n/a: Not applicable.

Units of Measure

ppb - Parts per billion, or micrograms per liter (ug/l)

ppm - Parts per million, or milligrams per liter

NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

%<0.5 NTU - Percent samples less than 0.5 NTU

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

CITY OF CHICAGO 2016 VIOLATION SUMMARY TABLE

The following table lists all City of Chicago violations that occurred during 2016. A brief summary of the violations is included.

	Violation Type	Violation Start Date - End Date	Violation Explanation
Consumer Confidence Rule	CCR Report	07/01/2016 – 08/03/2016	City failed to provide annual report about water quality on time.
Interim Enhanced SWTR Surface Water Treatment Rule	Monitoring, Routine (IESWTR/LT1), Minor	10/01/2016 – 10/31/2016	City failed to complete all required tests of drinking water for the contaminant and period indicted.
Interim Enhanced SWTR Surface Water Treatment Rule	Monitoring, Routine (IESWTR/LT1), Minor	11/01/2016 – 11/30/2016	City failed to complete all required tests of drinking water for the contaminant and period indicted.

CITY OF CHICAGO 2016 WATER QUALITY DATA Regulated Contaminants Detected

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Collection Date
<u>Coliform Bacteria</u>						
TOTAL COLIFORM BACTERIA (% positive / mo.) Human and animal fecal waste. Naturally present in environment.	0	5% of monthly samples are positive	0.9	0	none	2016
<u>Turbidity</u>						
TURBIDITY (% < 0.3 NTU) Soil runoff. Lowest monthly percent meeting limit.	n/a	TT (Limit 0.3 NTU)	100%	100% - 100%	--	2016
TURBIDITY (NTU) Soil runoff. Highest single measurement.	n/a	TT (Limit 1 NTU)	0.16	n/a	--	2016
<u>Inorganic Contaminants</u>						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.0206	0.0196 - 0.0206	--	2016
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.46	0.40 - 0.46	--	2016
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.46	0.40 - 0.46	--	2016
<u>Lead and Copper</u>						
COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural Deposits.	1.3	AL = 1.3	0.0782 (90 th percentile)	0 sites exceeding AL	--	09/20/2015
LEAD (ppb) Corrosion of household plumbing systems; Erosion of natural deposits	0	AL = 15	9.11 (90 th percentile)	3 site exceeding AL	--	09/20/2015
<u>Disinfectants/Disinfection By-Products</u>						
CHLORINE (as Cl ₂) (ppm) Drinking water disinfectant	4	4	1	1 - 1	--	12/31/2016
TTHMs (TOTAL TRIHALOMETHANES) (ppb) By-product of drinking water disinfection.	n/a	80	26	10.1 – 45.4	--	2016
HAA5 (HALOACETIC ACIDS) (ppb) By-product of drinking water disinfection.	n/a	60	14	2.5 – 25.9	--	2016
<u>Total Organic Carbon</u>						
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA						
<u>Unregulated Contaminants</u>						
SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	25.7	25.0 – 25.7	--	2016
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener	n/a	n/a	8.92	8.49 – 8.92	--	2016
<u>State Regulated Contaminants</u>						
FLOURIDE (ppm) Water additive, which promotes strong teeth.	4	4	0.78	0.62 – 0.78	--	2016
<u>Radioactive Contaminants</u>						
COMBINED RADIUM (226/228) (pCi/L) Decay of natural and man-made deposits.	0	5	0.84	0.50 – 0.84	--	2/11/2014
GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	6.6	6.1 – 6.6	--	2/11/2014

CITY OF CHICAGO 2016 VOLUNTARY MONITORING

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli bacteria in its source water as part of its quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has continued the 24 months long monitoring program that was started in April 2015, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia and E. coli and turbidity, with no detections for Cryptosporidium and Giardia reported so far.

In 2016, the Chicago Department of Water Management has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address: https://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/chromium-6.html.

VILLAGE OF BEDFORD PARK 2016 WATER QUALITY DATA

NO DRINKING WATER QUALITY VIOLATIONS WERE RECORDED DURING 2016

Regulated Contaminants Detected

Regulated Contaminant Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Collection Date
CHLORINE (ppm) Drinking water disinfectant used to control microbes.	4	4	0.9	0.7 – 1	No	12/31/2016
TOTAL HALOACETIC ACIDS (HAA5)* (ppb) By-product of drinking water disinfection.	n/a	60	17	16.6 – 16.6	No	2016
TOTAL TRIHALOMETHANES (TTHM)* (ppb) By-product of drinking water disinfection.	n/a	80	28	27.5 – 27.5	No	2016

VILLAGE OF BURR RIDGE 2016 VIOLATION SUMMARY TABLE

NO DRINKING WATER QUALITY VIOLATIONS WERE RECORDED DURING 2016

VILLAGE OF BURR RIDGE 2016 WATER QUALITY DATA

Regulated Contaminants Detected

Contaminant (unit of measure) Typical Source of Contamination	MCLG	MCL	Level Found	Range of Detections	Violation	Collection Date
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Microbial Contaminants

TOTAL COLIFORM BACTERIA (# positive samples/mo.) Human and animal fecal waste. Naturally present in environment.	0	>1	0	0	No	2016 (monthly)
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Contaminant (unit of measure) Typical Source of Contamination	MCLG	Action Level (AL)	90 th Percentile	No. of Sites Over AL	Violation	Collection Date
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Lead and Copper

LEAD (ppb) Corrosion of household plumbing systems; Erosion of natural deposits. Naturally present in the environment.	0	15	6.8	0	No	9/10/2014 (3 year schedule)
COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural deposits.	1.3	1.3	0.088	0	No	9/10/2014 (3 year schedule)

Regulated Contaminant Typical Source of Contamination	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Collection Date
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Disinfectants/Disinfection By-Products

CHLORINE (ppm) Drinking water disinfectant used to control microbes.	4	4	0.7	0.49 – 0.72	No	12/31/2016
HALOACETIC ACIDS (HAA5)* (ppb) By-product of drinking water chlorination.	n/a	60	25	5.39 – 32.8	No	2016
TOTAL TRIHALOMETHANES (TTHM)* (ppb) By-product of drinking water chlorination.	n/a	80	39	0 – 50.8	No	2016

VILLAGE OF BURR RIDGE EMERGENCY STANDBY WELL WATER QUALITY DATA
(EMERGENCY STANDBY WELL WATER WAS NOT USED IN VILLAGE WATER DISTRIBUTION SYSTEM DURING 2016)

Regulated Contaminant Typical Source of Contamination	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Collection Date
<u>Inorganic Contaminants</u>						
Arsenic (ppb) Erosion of natural deposits; runoff from orchards and glass And electronics production wastes.	0	10	7.2	2.1 – 7.2	No	10/15/2014
Barium (ppm) Discharge of drilling wastes and metal refineries; erosion of natural deposits.	2	2	0.047	0.025 – 0.047	No	10/15/2014
Fluoride (ppm) Erosion of natural deposits; water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.	4	4	0.358	0.297 – 0.358	No	10/15/2014
Iron (ppm) Erosion of natural deposits.	n/a	1.0	7.7	1.9 – 7.7	No	10/15/2014
Manganese (ppb) Erosion of natural deposits.	150	150	73	25 – 73	No	10/15/2014
Sodium (ppm) Erosion of natural deposits.	n/a	n/a	36	29 – 36	No	10/15/2014
Zinc (ppm)	5	5	0.023	0 – 0.023	No	10/15/2014
<u>Radioactive Contaminants</u>						
Combined Radium 226/228 (pCi/L) Erosion of natural deposits.	0	5	1.377	0.529 – 1.377	No	1/22/2014
GROSS ALPHA excluding radon and uranium (pCi/L) Erosion of natural deposits.	0	15	5.66	0.824 – 5.66	No	1/22/2014
Uranium (ug/l) Erosion of natural deposits.	0	30	4.0379	0 – 4.0379	No	1/25/2011

CONSUMER EDUCATION

(Some material courtesy of the American Water Works Association and EPA)

- The Village of Burr Ridge pumped a total of 602,574,848 gallons into the water distribution system in 2016; a daily average of 1,648,806 gallons. The peak 24 hour period was 3,529,472 gallons on July 12, 2016.
- State of Illinois Plumbing Code, 77 Ill. Adm. Code Section 890.1140(d) specifically requires that a reduced pressure principle backflow preventer assembly (RPZ) be installed on all lawn sprinkler systems in the State of Illinois in order to protect the potable water supply. This is a retroactive requirement and no other type of device is acceptable.
- On average, 50% - 70% of household water is used outdoors for watering lawns and gardens. Make the most of the water you use outdoors by never watering at the hottest times of the day or when it's windy. Turnoff your sprinklers when it's raining.
- As much as 30% of water can be lost to evaporation by watering the lawn during midday.
- In the Village of Burr Ridge, lawn sprinkling is permitted 18 hours per day, three days per week, with sprinkling hours regulated from May 15th through September 15th. North of 83rd Street sprinkling is permitted on Monday, Thursday & Saturday from midnight to noon & 6:00 p.m. to midnight. South of 83rd Street sprinkling is permitted on Tuesday, Friday & Sunday from midnight to noon & 6:00 p.m. to midnight. Lawn sprinkling is not permitted between 12 noon and 6:00 p.m. on any day of the week and is not permitted on Wednesdays. Residents using private wells are not subject to lawn sprinkling restrictions but must notify the Police Department that a well is in use.
- Make sure you have a rain gauge sensor for your lawn irrigation system. This will ensure that water is not being wasted.
- One inch of rain falling on one acre of land is equal to about 27,154 gallons of water. (United States Geological Survey)
- During winter months, cold water holds more dissolved oxygen than warm water. As cold water enters your home it is warmed as it sits in the interior pipes. This forces the dissolved oxygen out of the water in the form of bubbles, which makes the water seem cloudy. Running the water for a short period of time will eliminate this condition.
- To find easy practices you can undertake at home to reduce your water bill and environmental impact, visit <http://www.epa.gov/watersense>.