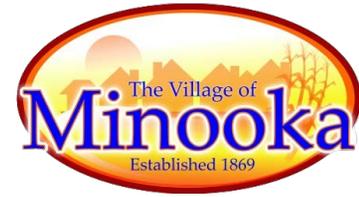


Village of Minooka



Annual Drinking Water Quality Report

IL0630550

Annual Water Quality Report

For the period of January 1 to December 31, 2021

This report is intended to provide you with important information about your drinking water and the efforts made by the MINOOKA water system to provide safe drinking water. The source of drinking water used by MINOOKA is Ground Water (Well Water).

This year, as in years past, your tap water was tested according to USEPA and state drinking water health standards. Our system vigilantly safeguards its groundwater supply, and we are working hard to continue providing the best water possible. This report summarizes the quality of water that we provided last year and informs you of the problems if any we are working to overcome. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

The proper performance of our work as Water Professionals serves to provide essential public health protection, enhances the quality of life and promotes economic prosperity for the people and the community.

For more information regarding this report, contact:

Ryan Anderson,
Superintendent of Public Works
Phone: (815) 467-8868 Extension 2303

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

CONSUMER CONFIDENCE IN MINOOKA'S WATER

Water quality has been the hot topic in the media regarding other parts of our Nation. Let us reassure you that the Water Operators on staff responsible for our water supply serve to provide essential public health protection, to enhance the quality of life, and promote economic prosperity for the people and communities of Illinois. A "Water Operator" means any person trained in the treatment or distribution of water who has practical working knowledge of the chemical, biological, and physical sciences essential to the practical mechanics of water treatment or distribution and who is capable of conducting and maintaining the water treatment or distribution processes in a manner which will provide safe, potable water for human consumption. The Village has two Class "A" and three Class "B" Operators licensed with the State of Illinois on staff. The Village assures residents that the water is safe and if any situation would arise that the water is not safe, every measure will be taken to complete Public Notice to notify all residents of any potential risk related to the community's water supply. Annual Consumer Confidence Reports are available on our website @ <http://www.minooka.com/documents/public-works/ccr-reports/> The water in our public water supply is safe to drink. The water supplied to your house does exceed I.E.P.A. standards and we can assure you it is a safe, aesthetic, usable product. Our deep wells draw water from 1,500 feet below the surface and does contain radium in its raw form. We have radium removal at our two deep well sites with continuous Cation-Exchange Treatment to remove this threat. We, at the Village, drink the tap water and have no reserve suggesting the public do the same. Our job is to provide the best quality product to ensure the safety and well-being of our resident.

WHAT CHEMICALS DO WE ADD?

As part of I.E.P.A. regulation standards and to provide a safe, reliable quality product we add chemicals at each one of our facilities. We add Chlorine, Phosphate, and Fluoride to our water.

CHLORINE

Used as a precautionary measure to disinfect any microbes that would be introduced to the water supply. Allowable chlorine levels in drinking water up to 4 parts per million pose no health risk according to EPA standards. The Village maintains an average 2 parts per million, which is minimal; however, still maintains an adequate margin of safety.

FLUORIDE

Used to help prevent pain and tenderness in your major skeletal joints. Also used to protect against pitting of tooth enamel. The one location that does not result in a natural occurring Fluoride of 0.65 milligrams per liter, we are required to add Fluoride to the water supply. In 2017 the U.S. Department of Health has lowered the minimum Fluoride standards from 0.9 ppm to 0.65 ppm. The Maximum Contaminant Level (MCL) is 4.0 ppm. "The reduction in fluoride levels will provide the same benefit of reducing tooth decay, particularly in children" according to the U.S. Department of Health and Human Services.

Source of Drinking Water:

The sources of drinking water (both tap water and bottled water) including rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves natural-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal or 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 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.

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 at (800) 426-4791.

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

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 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.

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 and 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>.

MINOOKA Source of Drinking Water

Our Village uses groundwater provided by five wells.

1. Well #3 is drilled into the Ironton Galesville aquifer (1,508' deep).
2. Well #6 (50' deep) and is considered shallow wells drilled into unnamed shallow gravel aquifer.
3. Well #7 (50' deep) and is considered shallow wells drilled into unnamed shallow gravel aquifer.
4. The water from the deep well #3 and shallow wells #6 or #7 are pumped through an independent transmission lines to a common blending point where the waters are mixed together prior to entering the water distribution system.
5. Well #8 is drilled into the Ironton Galesville aquifer (1,520' deep).
6. Well #9 is drilled into the Ironton Galesville aquifer (1,601' deep).

Source Water Information

Source Water Name	Type of Water	Location
WELL 3 (22036)	GW	IN PMPHSE AT 203 E MONDAMON
WELL 6 (00576)	GW	LOT 173 UNIT 11 BONITA VISTA SUBDVN
WELL 7 (00577)	GW	LOT 173 UNIT 11 BONITA VISTA SUBDVN
WELL 8 (01608)	GW	500' W AND 150' S OF WILDY AND RIDGE RD
WELL 9 (01659)	GW	200' E AND 2400' S OF E BRANNICK AND RIDGE RD

The Village has an ongoing program replacing water mains, main line valves and fire hydrants in areas within the Village that have been determined to be unreliable based on age, pipe material, burial depth or inadequate size to handle water volumes to meet fire protection needs.

The Village has two Cation water treatment facilities which soften the water to 4 grains per gallon and also remove Radium 226 and 228 from both Wells #8 and Well #9.

MINOOKA - Source Water Assessment

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 of our supply has been completed by the Illinois EPA. If you would like a copy of this information, please contact Public Works at (815) 467-8868 extension 3180. To view a summary version of the completed Source Water Protection 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>

Based on information obtained in a Well Site Survey published in 1992 by the Illinois EPA, seventeen potential sources of possible problem sites were identified within the survey area of Minooka's wells. Furthermore, information provided by the Leaking Underground Storage Tank Section of the Illinois EPA indicated several additional sites with ongoing remediation which may be of concern. The Illinois EPA has determined that the Minooka Wells #3 source water is **NOT** susceptible to contamination. However, the source water obtained from Wells #6 and #7 is 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 hydrogeologic data on the wells. Scheduled monitoring is performed at each water source to ensure no contaminants are being introduced. Site contaminants would be treated at each facility with post chlorination if any containment would be introduced. If detection levels exceed monitoring limitations the site would be removed from service and notice to the public and the IEPA would be issued.

MINOOKA PUBLIC MEETINGS – Village Board Meetings

Minooka Village Board Meetings are public meetings held at the following location and times:

- Public meetings are held on the fourth Tuesday of each month.
- Located at the Minooka Village Hall, 121 E. McEvilly Road.
- Scheduled meeting time is 6:30 p.m.
- Agendas are posted 48 hours in advance of meetings.

If anyone has questions regarding the Village Board Meetings they may contact the Village Clerk or Administrator at phone number (815) 467-2151 Monday through Friday between 8:00 a.m. until 4:30 p.m.

Water and Sewer Rate Schedule

Monthly water rates are as follows:

First 2,000 gallons..... \$10.46 minimum charge
Over 2,000 gallons \$5.23 per 1,000 gallons

Monthly sewer rates are as follows:

First 2,000 gallons.....\$11.76 minimum charge
Over 2,000 gallons \$5.88 per 1,000 gallons

Note: Sewer charges are based on water consumption.

Lead and Copper

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.

----- 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 are responsible for providing high quality drinking water, but 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>. ----

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.578	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Water Quality Test Result

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 Assessments: 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 (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): 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.

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 MRDL: 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)

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.

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

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2021	0.7	0.6 - 1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2021	2	1.44 - 1.59	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	13	6.68 - 12.66	No goal for the total	80	ppb	N	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
Arsenic	2019	1.19	0 - 1.19	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics waste.
Barium	2019	0.01159	0.0159 - 0.0159	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2019	5.43	5.43 - 5.43	100	100	ppb	N	Discharge from steel and pulp mill; Erosion of natural deposits.
Fluoride	2019	0.96	0.96 - 0.96	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2019	0.0678	0.0678 - 0.0678		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen]	2021	1	0 - 1.1	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2019	4.61	0 - 4.61	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	2019	116	116 - 116			ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2021	5	2.89 - 4.76	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2021	10	3.73 - 10.02	0	15	pCi/L	Y	Erosion of natural deposits.
Uranium	2019	4	0 - 1.26352	0	30	Ug/l	N	Erosion of natural deposits.

2021 Violations Table

The Minooka public water system violated a drinking water standard over the past year (2021). Even though this was not an emergency, as our valued customers, you have the right to know what happened and what we did to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2021, we did not monitor or test or did not complete all monitoring or testing for the following contaminants.

Gross Alpha Particle Activity	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine Major	1/1/2021	12/31/2021	Test was properly delivered to lab for gross alpha Monitoring; however, the lab results were not correctly reported to the IEPA.

A follow up sample has been resubmitted and like the previous water samples have met all drinking water standards.

Adjustments have been made with the Village's lab to avoid this type of violation.

PFAS Detections {Perfluoroalkyl & Polyfluoroalkyl Acids}

In 2021, our PWS was sampled as part of the state of Illinois PFAS Statewide Investigation. Results from this sampling Indicated PFAS were detected in our drinking water {above the health advisory level/below the health advisory level} Established by Illinois EPA. Follow up monitoring is being conducted.

For more information about PFAS health advisories go to <http://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

PFAS	Collection Date	Highest level Detected	Range of levels Detected	MCLG	Units	Violation
PFBS	2021	5	0-5	2.0	ng/L	N

EMERGENCY WATER CONSERVATION

A. Outdoor Water Conservation Measures:

1. Irrigation: Except as set forth in subsection A2 below, lawn watering using the Village's public water supply as a source is limited to the hours of six o'clock (6:00) A.M. to ten o'clock (10:00) A.M. and the hours of six o'clock (6:00) P.M. and ten o'clock (10:00) P.M. as set forth below:
 - a. Lawns at even-numbered addresses may use the city public water supply to water lawns on even-numbered calendar days during authorized hours.
 - b. Lawns at odd-numbered addresses may use the city public water supply to water lawns on odd-numbered days during authorized hours.
2. The lawn watering restrictions set forth in subsection A1 shall not apply in the following circumstances:
 - a. Newly installed sod lawns may be watered within the permitted hours for fourteen (14) consecutive days after the sod is installed after first notifying the director of public utilities of the installation.
3. The use of water for irrigation from a recycled water system is allowed any time and on any day. Recycled system components shall be identified as non-potable water sources.
4. New/replacement sprinkler systems shall be equipped with a WaterSense labeled irrigation controller and shall be in compliance with Section 2.5(g) of the Illinois Plumbing License Law, 225 ILCS 320.

B. Indoor Conservation Measures:

1. Plumbing Fixtures And Fixture Fittings: Plumbing fixtures and fittings in all new and remodeled construction must be a labeled WaterSense product, as specified by the United States Environmental Protection Agency. In all new construction and in all repairs or replacement of fixtures in lavatories intended for public use, the faucets of such lavatories located in rest rooms intended for public use shall be of metering or self-closing type.
2. Water Recycling Systems In Commercial Car Wash Facilities: All new and remodeled commercial car-wash installations shall be equipped with a water recycling system.
3. Air Conditioning Systems: All new and remodeled installations of air conditioning shall be closed system only. (Ord. 2021-33, 12-21-2021; amd. Ord. 2022-9, 1-25-2022)

10-3-22: EMERGENCY WATER CONSERVATION:

The village board may impose mandatory water conservation by passage by majority vote of a resolution that a water emergency exists in the village. Immediately upon passage of such a resolution, the following restrictions shall apply:

- A. Residential watering of lawns, trees, flowers, shrubs, gardens, or other vegetation shall be restricted to the hours of five thirty o'clock (5:30) P.M. to eight o'clock (8:00) P.M. Such watering shall be further restricted to odd numbered calendar days for residences with odd numbered addresses and even numbered calendar days for residences with even numbers, except that watering of flowers, gardens, trees and shrubs by handheld hose may be done any day during the hours set forth in this subsection.
- B. Office, business and industrial watering of lawn, trees, flowers, shrubs or other vegetation shall be restricted to the hours of five o'clock (5:00) A.M. to nine o'clock (9:00) A.M. Such watering shall be further restricted to odd numbered calendar days for odd numbered addresses and even numbered calendar days for even numbered addresses, except that watering of flowers, gardens, trees and shrubs by handheld hose may be done any day during the hours set forth above. These restrictions shall not apply to any person or entity engaged in the business of growing or selling plants to the extent watering is necessary to maintain such business inventory.
- C. No water shall be used from a hose to wash automobiles, except at places of business where autos are washed on every business day either with attendants, with automatic equipment or by self- service. Any person may wash an automobile with water from a bucket.

D. No swimming pools shall be filled, except that children's wading pools of fifty (50) gallons or less may be filled. Upon written application, the superintendent may issue permits, which allow watering otherwise in violation of the above restrictions, if strict compliance therewith would impose an undue hardship on the applicant. Said permits shall be limited to ten (10) days' duration and shall allow only so much watering as is necessary to relieve such undue hardship. Said restrictions shall cease to be in effect on the date the village board passes a resolution, by majority vote, that the water emergency no longer exists. Any person violating any provisions of this section shall be punishable as provided in section 1-4-1 of this code. The superintendent shall use his best efforts to notify village residents and businesses of the imposition of mandatory water conservation, due to a water emergency, including posting a notice in the village hall and notifying local newspapers and radio stations. Failure to receive notification shall not be a defense or excuse for violation of this section. (Ord. 2021-33, 12-21-2021; amd. Ord. 2022-9, 1-25-2022)

Here are some helpful hints and suggestions for recognizing water loss and ideas how to conserve our precious recourse water.

Outdoor Water Conservation Tips

1. The height of your grass is directly proportional to the depth of the roots, so encourage roots to grow deeper by cutting grass at a height of 3 inches.
2. Level all sprinkler heads to grade to prevent spray blockage or tripping hazards.
3. Observe and alter watering times for each section of your yard depending on exposure, shade and sprinkler output. Make sure you manually or have an automatic sensor to turn off sprinklers in the event of rainfall.
4. Develop a separate watering schedule for turf, trees, shrubs and flower beds. Most trees and shrubs don't like to be watered as often as turf or annual flowers.
5. In the summer, water your yard during the night or early morning hours.
6. Use a drip irrigation system to water trees, shrubs and flower beds.
7. Check for broken or misaligned irrigation heads after each mowing.
8. Repair or replace damaged sprinkler components with identical parts.
9. Aim sprinkler heads to water the lawn, not the street, sidewalk, driveway, or building
10. Aerate your lawn in the spring and fall to loosen soil and reduce water run-off.
11. When washing your car at home be sure to use shut-off nozzle and a bucket. Use the minimal amount of water necessary to clean your vehicle. Some commercial car washes use less water than washing your vehicle at home.
12. Sweep, blow or rake leaves and dirt off of your sidewalks and driveway, don't hose them away.
13. Whenever using your hose check it for leaks. Be sure to use washers between spigots and water hose accessories to prevent leaks.
14. Put a spray nozzle with a cut-off handle on your hose so that water is not flowing continuously.

Indoor Water Conservation Tips

1. Don't run the tap to get cold water. Instead, keep a bottle or pitcher of tap water in the refrigerator.
2. Maintain the water level in the toilet tank at least 1 ½ inches below the top of the overflow tube. If needed, bend the flow arm to adjust toilet tank level. Check for toilet valve assembly leaks frequently. A helpful hint is to use some food grade dye in your toilet tank to color the water. Don't flush after dye is added to tank leaving the water set for approximately 5 minutes. If the water in the toilet bowl turns color this would indicate a leak in the rubber flapper or water entering the overflow tube.
3. Check every faucet for leaks. Even a slow drip can waste more than 20 gallons every day. Fix it and you'll save more than 7,000 gallons per year.
4. Know where your water shut-off valves are just in case of a water line break.
5. Only run the laundry when there is a full load of laundry. Clothes washers are more water and energy efficient when full. One load of laundry uses 38 to 45 gallons of water. Side loading washers use between 19 and 25 gallons. Consider purchasing a side load washer if you are in the market for replacement.
6. Dishwashers use between 12 and 20 gallons a load, so only run full loads.
7. Install low-flow faucet aerators. Aerators can cut water usage by more than 50 percent.
8. Water savings can be increased by using easy-to-install retrofit devices, such as low-flow shower heads or toilet flappers, which reduce the amount of water used in a toilet, sink or shower.
9. Take showers instead of baths. Low flow, 2.5 gallon-per-minute showerheads offer a relaxing, invigorating shower while saving money and energy.
10. If your home was constructed before 1992 and the toilet has not been replaced, you may be using between 3.5 to 7 gallons per flush. Multiply by the number of gallons per flush with the number of people in the house and it adds up! Consider replacing your toilet with an ultra low-flow model.