

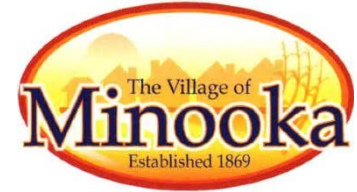
Village of Minooka

Annual Drinking Water Quality Report

IL0630550

Annual Water Quality Report

For the period of January 1 to December 31, 2016



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", one Class "B" and one Class "C" Operators that are 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/> 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 (IT'S A GOOD THING)

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. The U.S. Department of Health has lowered the minimum Fluoride standards from 0.9 ppm to 0.65 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 USEPA'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 that 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).

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 9 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 Ryan Anderson 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-factsheets.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. McEvelly Road.
- Scheduled meeting time is 7:00 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

Bi-monthly water rates are as follows:

First 4,000 gallons..... \$13.68 minimum charge
From 4,001 to 100,000 gallons\$3.42 per 1,000 gallons
Over 100,000 gallons\$3.15 per 1,000 gallons

Bi-monthly sewer rates are as follows:

First 4,000 gallons.....\$20.85 minimum charge
Over 4,000 gallons\$ 5.21 per 1,000 gallons

Note: Sewer charges are based on water consumption.

2016 Regulated Contaminants Detected

MINOOKA

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	2		2	N	Naturally present in the environment.

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 Collection Date	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violations	Likely Source of Contamination
9/22/2015							
Copper	1.3	1.3	0.6781	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	0	15	0	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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 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.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2016	0.4	0.2 - 0.5	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	2016	3	0 - 2.77	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
Barium	2016	0.0141	0 - 0.0141	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2016	1.16	1.07 - 1.16	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2016	.271	0 - 0.271		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]	2016	2	0 - 1.88	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	2016	152	110 - 152			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	2016	4	3.3 - 4.1	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2016	6	1.5 - 10.5	0	15	pCi/L	N	Erosion of natural deposits.

2016 Violations Table

Revised Total Coliform Rule (RTCR)

The Revised Total Coliform Rule (RTCRC seeks to prevent waterborne diseases caused by E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, and headaches. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found E. coli bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments."

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, E. COLI, POS E COLI (RTCRC)	06/01/2016	06/30/2016	<p>E. coli bacteria were found in our drinking water during the period indicated in violation of a standard. We had an E. coli-positive repeat sample following a total coliform-positive routine sample</p> <p>We were required to complete a Level 2 assessment because we found E. coli in our water system. In addition, we were required to take one corrective action and we completed the one action.</p>

Attached is a letter published on June 16th, 2016 concluding a Village-wide boil order that was issued on June 10th, 2016 and lifted on June 12th, 2016.

Village President

Patrick Brennan

Board of Trustees

Terry Houchens

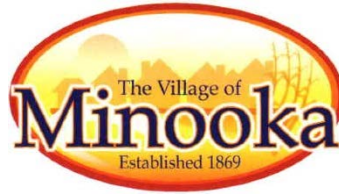
Dennis Martin

Rudy Martin

Ray Mason

Dick Parrish

Barry Thompson



Residents of Minooka,

This letter is provided in response to questions and concerns regarding the Boil Order that was issued on June 10th, 2016 and lifted on June 12th, 2016. Attached is an event log and some information regarding the cause of the boil order and what was performed to lift the boil order.

We have received comments regarding residents not being notified promptly. In addition to our email E-blast (that is available through our Village web-site) we are reviewing the possibility of implementing a call system that will notify residents of any emergency. In the meantime if you would like the Village to notify you through a phone call for any type of emergency, please send your information to Info@Minooka.com.

BOIL ORDER EVENT LOG June 2016

Minooka's Water Department collected half of our required monthly bacti-samples on Tuesday, June 7th. The Village received notice that one sample site tested positive for Total Coliform and E. coli on Thursday, June 9th at 10:06AM. Total Coliform and E. coli positive notification triggered a resample of the original site, including additional sampling of both the nearest upstream and downstream locations within 24 hours. Immediately following the notification we collect the samples at 12:05PM for the original repeat, 12:10PM for the upstream sample location, and 12:15PM for the downstream sample location. The upstream and downstream sample locations both came back negative of any Total Coliform or E. coli bacteria; however, the original site repeat sample came back positive for both Total Coliform and E. coli bacteria. The Village learned of the repeat sample testing positive on Friday, June 10th at 1:05PM. After contacting our Regional Illinois EPA and Illinois EPA Headquarters, we were informed a Tier 1 Public Notice must be issued within 24 hours. The Village issued a press release letter to be published at 3:36PM to local news media that include WCSJ & WJDK Radio and The Herald-News. It was then added to the Village web-page and sent out via email through the Villages E-blast at 4:06PM. Local health care professionals, restaurants and grocery/convenience stores were contacted by phone and directed to the Village web-site by 5:45 PM. During this time after receiving the sample result, the Water Department was completing a Tier 2 assessment of the sample site and verifying proper operation of water treatment plants chemical feed systems, water system pressure and any cross-contaminant possibilities. Assessment concluded with the belief of a contaminated sample tap at the sample site. The Water Department completed a low-flow flushing at this location and recollected a second repeat sample from a different sample tap at this sample site at 2:50PM. An additional 9 samples were taken throughout the Village's distribution system by 4:10PM and delivered to a certified lab in Joliet by 5:00PM. The same samples were again taken Saturday, June 11th (after 24 hours) and taken to the certified lab in Joliet. Lab results were received on Sunday, June 12th at 5:00PM. The results showed no signs of Total Coliform or E. coli bacteria and confirmed the Village water is safe. A press release letter was sent out to be published at 5:06PM to local radio stations, television stations, and social media. The Village sent out an E-blast to subscribers at 5:38PM.

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.

Sincerely,


Ryan Anderson

Superintendent of Public Works

VILLAGE HALL 121 East McEvilly Road • Phone: 815-467-2151 • Fax: 815-467-3599
POLICE DEPARTMENT 121 East McEvilly Road • 911 in an emergency • Phone: 815-467-2298 (non-emergency) • Fax: 815-467-9731 PUBLIC WORKS & BUILDING DEPARTMENT
608 Twin Rail Drive • Phone: 815-467-8868 • Fax: 815-467-8865
www.minooka.com

Water Restriction Information

In order to conserve our natural resource, **water** the Village has instituted water conservation measures limiting lawn watering to odd/even watering days. The Village will enforce the odd/even schedule.

Water customers are allowed to apply for a “**SPECIAL WATER USE PERMIT**” allowing the use of water for fourteen (14) days in order to start a lawn of seed or sod.

Watering Restrictions within the Village are as follows:

Commercial and Industrial Properties

- **Watering is allowed on an odd/even day according to address.**

Residential Properties

- **Watering is allowed on an odd/even day according to address.**

Failure to adhere to the prescribed watering restrictions shall result in the issuance of citations.

Watering of trees, shrubs, flowers, gardens along with car washing or other general maintenance use is allowed when a hand held hose is used on any given day.

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.