2023 ANNUAL DRINKING WATER REPORT

Channahon 1970200
For the period of January 1, 2022 to December 31, 2022

Why Read This Report?

Because it contains important information about your drinking water and the Village of Channahon's efforts to provide safe drinking water to your home. The source of your drinking water is groundwater.

Pump, Test, and Then What?

The Village of Channahon draws its groundwater from two shallow wells and three deep wells, all located in Village limits and drilled into aquifers. An aquifer is simply a geological formation that contains water. Testing for bacteria is then performed on the raw water. Fluoride and chlorine are added at Wells 2/3/5. Water from Wells 4 and 6 is treated with chlorine, and radium and iron are removed at the water treatment plant. Since they are deep wells, they contain natural fluoride. Water from all five wells blend once in the system.

IEPA Source Water Assessment

The Safe Drinking Water Act has established the criteria for determining the vulnerability of a source water to potential sources of contamination. The tool used to apply these criteria is the source water assessment. The Village of Channahon's source water assessment was prepared by the Illinois EPA and is summarized as follows:

"The Illinois EPA has determined that the Channahon wells' source water is not susceptible to contamination."

"The Illinois EPA has determined that the Channahon wells' 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 hydrogeologic data on the wells. The Illinois Environmental Protection Act

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Questions? Concerns?

About this report or your water system, contact:
Ed Dolezal, Director of Public Works
815-467-6644 or email:
edolezal@channahon.org

Watering Restriction

Help us conserve this precious natural resource. Please be aware that sprinkling of lawns is limited to even-numbered days for even street addresses between the hours of 6:00am to 9:00am and 6:00pm to 9:00pm and odd-numbered days for odd addresses from 6:00am to 9:00am and 6:00pm to 9:00pm. Tickets will be issued for violations. Per ordinance No. 2059

Installing a Water Softener?

You need to know the following...
Water hardness:
18-20 grains per gallon

Inside…

Village of Channahon
where the waters meet

IEPA Source Water Assessment continued…

available hydrogeologic data on the wells, and the land-use activities in the recharge area of the wells." Additional information on Joliet water supply's source water assessment is available from the Channahon Public Works Department at 815-467-6644.

General Information About Drinking Water

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 United States Environmental Protection Agency's (USEPA) 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).

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of:

- 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 may 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 may also come from gas stations, urban stormwater runoff and septic systems; and
- Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The water quality tables on the following pages contain the results of the Village of Channahon and City of Joliet's routine testing for the above contaminants, for the above contaminants, if any were found. All sample results fall within the established limits.

The following tables identify the contaminants that were detected in the water supply. In addition to the following contaminants that were detected in the water supply, over 100 other contaminants were tested for and were NOT DETECTED in the water supply.

Definitions - the following tables contain scientific terms and measures, some of which may require explanation:

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.

Maximum Residual Disinfectant Level (MRDL): The highest level of drinking water 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 (MRDLG): 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.

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

DISINFECTANTS & DISINFECTION BY-PRODUCTS

Results meet or surpass state and federal drinking water regulations

	Amounts Detected		EPA Standards			
Substance Detected (units)	**Highest Level Detected**	**Range of Detections**	**MCL**	**MCLG**	**Violation**	**Typical Source of Contamination**
Chloramines (ppm)	2.3	1.8 – 2.6	MRDL=4	MRDLG=4	NO	Water additive used to control microbes.
Total Trihalomethanes(ppb)	2	1.6-1.6	80	No Goal for the total	No	By-product of drinking water disinfection

ppm–parts per million, or milligrams per liter (mg/l) – or one ounce in 7,350 gallons of water. **ppb**–parts per billion, or micrograms per liter (ug/l) – or one ounce in 7,350,000 gallons of water

*Running Annual Average

**Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

INORGANIC CHEMICALS

Inorganic Chemicals (IOCs) include salts, metals, minerals and nutrients which can be naturally occurring or which can result from stormwater runoff, wastewater discharges, or farm activities. Because our source of drinking water is groundwater, a significant amount of naturally occurring minerals are dissolved in the water.

Results meet or surpass state and federal drinking water regulations

	Amounts Detected		EPA Standards				
Substance Detected (units)	**Highest Level Detected**	**Range of Detections**	**MCL**	**MCLG**	**Violation**	**Typical Source of Contamination**	**Date of Sample**
Barium (ppm)	0.0304	0.0304 – 0.0304	2	2	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2021
Fluoride (ppm)	.48	0.48 – 0.48	4	4.0	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	2021
Nitrate (measured as Nitrogen) (ppm)	3	0 – 2.63	10	10	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	2022

ppm–parts per million, or milligrams per liter (mg/l) – or one ounce in 7,350 gallons of water.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Note: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the Consumer Confidence Report calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

LEAD AND COPPER

Results for Lead and Copper sampled 2022

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Violation	Typical Source of Contamination
0	15 ppb	0	0	1.3 ppm	1.3 ppm	0.137 ppm	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

ppm–parts per million, or milligrams per liter (mg/l) – or one ounce in 7,350 gallons of water. **ppb**–parts per billion, or micrograms per liter (ug/l) – or one ounce in 7,350,000 gallons of water

Note: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the Consumer Confidence Report calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Channahon Public Water Supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

RADIONUCLIDES

Radionuclides are man-made or natural elements that emit radiation. A picocurie per liter (pCi/l) is a unit of radioactivity. A curie is the amount of radioactivity in a gram of radium. A picocurie is one trillionth of a curie.

Results meet or surpass federal drinking water regulations

	Amounts Detected		EPA Standards				
Substance Detected (units)	Highest Level Detected	Range of Detections	MCL	MCLG	Violation	Typical Source of Contamination	Date of Sample
Gross Alpha excluding radon and uranium (pCi/l)	9	1.7 – 9.44	15	0	NO	Erosion of natural deposits	2022
*Combined radium 226/228 (pCi/l)	3	0. – 3.06	5	0	NO	Erosion of natural deposits	2022

pCi/l-picocuries per liter (a measure of radioactivity). **Mrem/yr**-millirems per year. *Running annual average of quarterly samples

Note: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the Consumer Confidence Report calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

STATE REGULATED CONTAMINANTS

In addition to enforcing the Safe Drinking Water Act, the Illinois EPA enforces state regulations.

Results meet or surpass federal drinking water regulationsSample Collected in 2021

	Amounts Detected		EPA Standards			
Substance Detected (units)	Highest Level Detected	Range of Detections	MCL	MCLG	Violation	Typical Source of Contamination
Sodium (ppm) There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician.	72.5	72.5 – 72.5	N/A	N/A	NO	Erosion of naturally occurring deposits; Used in water softener regeneration.

N/A-not applicable. **ppm**–parts per million, or milligrams per liter (mg/l) – or one ounce in 7,350 gallons of water.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

PFAS DETECTION

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 established by Illinois EPA. Follow up monitoring is being conducted. For more information about PFAS health advisories please visit the following link:
https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx

			Results (PPT)					
PFAS Analyte	**Acronym**	**Guidance Level(ppt)**	**TP06 Collected 5/3/22**	**Well 2 Collected 5/3/22**	**Well 3 Collected 5/3/22**	**Well 5 Collected 5/3/22**	**Well 2 Collected 6/1/22**	**Well 5 Collected 6/1/22**
Perfluorobutanesulfonic acid	PFBS	2,100	13	21	<2.0	19	16	16
Perfluorohexanesulfonic acid	PFHxS	140	<2.0	2.9	<2.0	28	2.4	2.3
Perfluorononanoic acid	PFNA	21	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctanesulfonic acid	PFOS	14	4.7	7.5	<2.0	6.7	6.9	6.4
Perfluorooctanoic acid	PFOA	2	**4.3**	**6.5**	<2.0	**6.3**	**6.2**	**5.8**
Perfluorohexanoic acid	PFHxA	560,000	9	15	<2.0	12	13	11
Hexafluoropropylene oxide dimer acid	HFPO-DA	560	2.6	3.7	<2.0	3.7	3.4	3.1
Perfluoroheptanoic acid	PFHpA	NONE	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

			Results (PPT)						
PFAS Analyte	**Acronym**	**Guidance Level(ppt)**	**TP06 Collected 7/5/22**	**Well 2 Collected 7/5//22**	**Well 3 Collected 7/5/22**	**Well 5 Collected 7/5/22**	**TP06 Collected 11/2/22**	**Well 2 Collected 11/2/22**	**Well 5 Collected 11/2/22**
Perfluorobutanesulfonic acid	PFBS	2,100	12	20	<1.9	19	15	27	22
Perfluorohexanesulfonic acid	PFHxS	140	<1.9	2.5	<1.9	2.6	1.9	3.2	2.8
Perfluorononanoic acid	PFNA	21	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Perfluorooctanesulfonic acid	PFOS	14	4.5	7	<1.9	6.2	4.8	7.8	7.3
Perfluorooctanoic acid	PFOA	2	**4.1**	**6.3**	<1.9	**6.4**	**4.2**	**6.5**	**6.5**
Perfluorohexanoic acid	PFHxA	560,000	7.2	11	<1.9	11	8.8	16	12
Hexafluoropropylene oxide dimer acid	HFPO-DA	560	2.2	3.3	<1.9	3.2	2.4	3.9	3.5
Perfluoroheptanoic acid	PFHpA	NONE	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9

Minimum reporting level (MRL) = 2.0 ng/L
ND = Not Detected
Nanograms per liter(ng/L) = part per trillion
Bold represents values exceeding guidance levels