VILLAGE OF FRANKLIN WATER QUALITY REPORT

JANUARY 1 – DECEMBER 31, 2021

Public Water Supply – ID# IL 1370150

Source Water and Drinking Water Contaminants

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

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.

Source Water Name		Type of Water	Report Status	Location
CC 01-Meter From Jacksonville FF IL1370200 TP01	SW		Good	RT 104 East of Interstate 72

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.

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, you are welcome to attend any of our regularly scheduled meetings. Village Committee meetings are held on the first (1st) Tuesday of each month at 7:00 P.M. at Village Hall. If you would like a copy of this information, please stop by Village Hall between 7:30AM to 4:00PM Mon. thru Fri. The source water assessment for our supply has been completed by the Illinois EPA. To view a summary version of the completed Source Water 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://epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl

Franklin's source of water is purchased surface water from Jacksonville. EPA considers all surface water source of community water to be acceptable to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to the lake include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural runoff, land disposal (septic systems), and shoreline erosion. Figure 1 shows the watersheds for Lake Jacksonville and Mauvaise Terre Lake and the potential contamination sources located within them. Figure 2 shows the location of the Jacksonville community water wells, the Minimum and Maximum Setback Zones associated with each well and the delineated 5-Year Recharge Area. In addition, the potential sources of contamination located near the wells are also displayed. Due to the presence of potential sources and the unconfined nature of the wells, Illinois EPA considers these well to be susceptible to contamination.

Lead and Copper

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman 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 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 .

Definitions:

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 margin of safety.

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

Regulated Contaminants

Disinfection and disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2021	1.4	0.9 – 1.9	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2021	13	10 – 14	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomenth anes (TTHM)	2021	56	39 - 65	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Water Quality Test Results

Definitions: The following tables contains scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCL's are based on running annual average or monthly samples.

Level 1 Assessment: 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 occasion.

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

Maximum residual disinfectant level goal or MRDLG: The level of drinking water disinfectant below which there is no know or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

mrem: Millirems per year (a measurement of radiation absorbed by the body)

PPB: Micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

NA: not applicable.

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 contaminant in drinking water.

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MUNICIPAL UTILITIES

2021 Water Quality Report

City of Jacksonville
IL1370200

For more information regarding this report, contact:
Ricky Hearin,
Superintendent of Operations

(217)479-4660
WWW.JACKSONVILLEIL.GOV

This report is intended to provide you with important information about your drinking water (for January 1 to December 31, 2021) and the efforts made by the City of Jacksonville water system to provide safe drinking water.

SOURCE WATER ASSESSMENT

A Source Water Assessment Fact Sheet has been prepared by the Illinois EPA in cooperation with the US Geological Survey for the City of Jacksonville. The source of drinking water used by the City of Jacksonville is ground water under the direct influence of surface water.

Drinking water for the City of Jacksonville is supplied by the Jacksonville community water supply (CWS). Two lakes and three wells act as the source of this drinking water.

Illinois EPA considers all surface water sources of community water supplies to be susceptible to potential pollution problems; hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to the lake include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural runoff, land disposal (septic systems), and shoreline erosion.

Potential sources of contamination are also located near the well sites. Due to the presence of potential sources and the unconfined nature of the wells, Illinois EPA considers these wells to be susceptible to contamination. The Illinois EPA provides minimum protection zones of 400 feet for Jacksonville's wells. In 1991, the City of Jacksonville enacted a Maximum Setback Zone Ordinance providing for additional protection out to a distance of 2,500 feet from the wellhead.

WHAT ELSE SHOULD I KNOW?

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

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).

CHARACTERISTICS OF DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or 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 may 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; and
- Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

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).

City of Jacksonville (IL1370200) Regulated Contaminants Detected in 2021 (collected in 2021 unless noted)

Coliform Bacteria

MCL - Coliform	MCLG	Total Coliform Maximum Contaminant Level	Highest Number of Positive	MCL- Fecal Coli-form or E-Coli	Violation ?	Total # Positive E-Coli or Fecal Coliform Samples	Likely Source of Contaminant
Monthly Samples	0		0	0	No	0	Naturally present in the environment

Lead & Copper (Collection Date 8/4/2020)

	Lead Action Level (AL)	90th Percentile	# Sites Over (AL)	MCLG	Units	Violation ?	Likely Source of Contamination
Lead **	15	1.3	0	0	ug/L	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper **	1.3	0.0048	0	1.3	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

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 City of Jacksonville 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.

Regulated Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contaminant
Disinfectants & Disinfection By-Products							
Free Chlorine	1	1.0 - 1.4	ppm	MRDLG = 4	MRDL=4	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	14	6.3 - 12.9	ppb	No goal for total	60	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	58	29.5 - 67.8	ppb	No goal for total	80	No	By-product of drinking water disinfection
Inorganic Contaminants (Sodium is not currently regulated by the USEPA. However, the state has set an MCL for supplies serving a population of 1,000 or more.)							
Barium	0.0068	0.0068 - 0.0068	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	0.5	0.53 - 0.53	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate(measured as Nitrogen)	2	1.6 - 1.6	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium	23	23 - 23	ppm			No	Erosion of naturally occuring deposits; used in water softener regeneration
Total Organic Carbon	The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set , unless a TOC violation is noted in the violations section.						

In 2021, our Public Water Supply was sampled as part of the State of Illinois PFAS Statewide Investigation. Eighteen PFAS compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS health advisories visit http://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination	
Lowest monthly % meeting limit	0.3 NTU	100%	No	Soil Runoff	Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.
Highest single measurement	1 NTU	0.21 NTU	No	Soil Runoff	

Radioactive Contaminants UNTREATED SOURCE WATER							
Combined Radium 226/228 (sample date 08/09/17)	0.26	0.26 - 0.26	pCi/L	0	5	No	Erosion of natural deposits
Gross Alpha (Excluding Radon & Uranium) (sample date 08/26/20)	0.25	0.25 - 0.25	pCi/L	0	15	No	Erosion of natural deposits

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 for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please call Rick Hearin, Superintendent of Operations, at (217)479-4660. To view a summary version of the completed Source Water 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.p1.
Source Water Information - Intake (52123) Lake Mauvaisterre Intake, Water type SW, Report Status good, 600 ft SE WTP, Well (52120) Local #1,2,3 Ranney Collector Well, IL River, Water type GU, Report Status good, Naples IL.
**The state requires us to monitor for 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.

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. **NTU:** The amount of turbidity in a water sample as measured by a nephelometric turbidimeter.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **pCi/L:** Picocuries per liter - a measure of radioactivity.
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. **mrem:** millirems per year (a measure of radiation absorbed by the body)
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. **Na:** Not applicable
Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
ppm: Milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** Micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **ug/L:** Parts per billion.
Treatment Technique or TT: A required process intended to reduce the level of contaminant in drinking water.
Maximum Residual Disinfectant Level (MRDL): The highest level of 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 (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.