

## ANNUAL DRINKING WATER QUALITY REPORT

Murrayville-Woodson Water Commission

IL1375150

Annual Water Quality Report for the period of January 1 to December 31, 2022

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by Murrayville Woodson Water Commission is Purchased Surface Water.

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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

### SOURCE 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. In some cases, the water may dissolve radioactive material. Water can also 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 system, 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 byproducts 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, EPA 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.

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 USEPAs 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).

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

### Source Water Information

Source Water Name	Type of Water	Report Status	Location
CC01 – Booster Pump Station - FF IL1370200	Surface Water	—	Woodson; west side of Rte. 67

### 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 for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please call 1-217-370-2195. To view a summary version of the completed Source Water Assessments, including: Importance of Source Waters, 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>.

Murrayville-Woodson Water Commission purchases water from the City of Jacksonville. Illinois EPA considers all surface water sources of community water supply 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. Due to the presence of potential sources and the unconfined nature of the wells, Illinois EPA considers these wells to be susceptible to contamination.

## 2022 Regulated Contaminants Detected

### 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 (AL):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	.019	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	2022	0	15	7	1	Ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.

### Water Quality Test Results

Definitions:

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 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.

Maximum Residual Disinfectant Level (MRDL):

The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Level 1 Assessment:

A level 1 assessment is the 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.

### Regulated Contaminants

Disinfectants and Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2022	1.3	1 – 1.4	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)*	2022	13	9.8 – 15.4	n/a	60	ppb	No	Byproduct of drinking water chlorination.
Total Trihalomethanes (TTHM)	2022	38	27.7 – 46.3	n/a	80	ppb	No	Byproduct of drinking water chlorination.

<sup>2</sup> This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

<sup>3</sup> There is no 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.

Abbreviations:

n/a: not applicable

ppb: parts per billion or micrograms per liter (µg/L)

ppm: parts per million or milligrams per liter (mg/L)

pCi/L: picocuries per liter (a measure of radioactivity)

Note: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled during the CCR 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.

Note: This report includes raw, finished and distribution water sample results.

THE FOLLOWING WATER MONITORING DATA IS PROVIDED BY THE CITY OF JACKSONVILLE, ILLINOIS, AS THE PARENT WATER SUPPLY FOR THE MURRAYVILLE-WOODSON WATER COMMISSION.

# City of Jacksonville (IL1370200) Regulated Contaminants Detected in 2022 (collected in 2022 unless noted)

Coliform Bacteria							
MCL - Coliform	MCLG	Total Coliform Maximum Contaminant Level	Highest Number of Positive	MCL- Fecal Coliform 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
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Some contaminants may include raw water data from emergency backup wells.

Disinfectants & Disinfection By-Products							
Free Chlorine	1.1	1 - 2	ppm	MRDLG = 4	MRDL=4	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	13	8.05 - 14.92	ppb	No goal for total	60	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	49	23.14 - 58.9	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.)**

Arsenic	6.8	0 - 6.8	ppb	0	10	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
While our drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.							
Barium	0.12	0.0076 - 0.12	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	0.5	0 - 0.532	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Iron	5.4	0 - 5.4	ppm		1	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	460	0 - 460	ppb	150	150	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate (measured as Nitrogen)	1.8	0.05 - 1.8	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium	24	21 - 24	ppm			No	Erosion of naturally occurring deposits; used in water softener regeneration
Zinc	0.0091	0 - 0.0091	ppm	5	5	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal.

**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
Highest single measurement	1 NTU	0.08 NTU	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.

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

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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.

**Level 1 Assessment:** 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 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.

**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 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.