# Annual Drinking Water Quality Report

MURPHYSBORO

IL0770500

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 MURPHYSBORO is Purchased Surface Water

For more information regarding this report contact:

Phone (218-684-2961

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 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 by-products 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 EPAs 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. FPA 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).

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

#### Source Water Information

	CC07 - MURPHYSBORO MASTER METER	CC05 - MURPHYSBORO MASTER METER	CC04 - MURPHYSBORO MASTER METER	CC03 - MURPHYSBORO MASTER METER	CC01 - MURPHYSBORO MASTER METER	Source Water Name
	FF IL0775100 TP02	FF IL0775100 TP02	FF IL0775100 TP02	FF IL0775100 TP02	FF IL0775100 TP02	
	WS	WS	WS	WS	WS	Type of Water
	Current	(Lucrent	(Jurrent)	Charent	('urrent	Report Status
Cedar Drive	Located at the intersection of Savanna Drive and	North of the intersection of Highway 13 and Sounth Hospital Drive, at St. Joseph's Hospital	Southeast of the intersection of 7th Street and Suburban Drive	Northeast of the intersection of 16th Street and High School Street, at the High School	AT 1.0 MG GRD STORAGE TANK, 0.1 miles north of the intersection of Illinois Ave. & Stave Mill Rd.	Location

#### 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 stop by City Hall or call our water operator at 1/13-1/51-3461. 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.pl.

Source of Water: KINKAID AREA WATER SYSTEMILLINOIS EPA considers all surface water sources of public water supply to susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline

#### 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.

Corrosion of household plumbing systems; Erosion of natural deposits.	z	ppb	0	2.1	15	0	08/28/2020	Lead
plumbing systems.								
Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household	z	ppm	0	0.1	1.3	1.3	08/28/2020	Copper
			AL	Percentile	(AL)		2000	
Violation Likely Source of Contamination	Violation	Units	# Sites Over	90th	Action Level	MCLG	Date Sampled	Lead and Copper
		Commence of the Commence of th						

## Wat

ppm: ppb: mrem:

Treatment Technique or TT:

A required process intended to reduce the level of a contaminant in drinking water. milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. millirems per year (a measure of radiation absorbed by the body)

			(AL)	Percentile	AL			
Copper	08/28/2020	1.3	1.3	0.1	0	ppm	z	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/28/2020	0	15	2.1	0	qdď	z	Corrosion of household plumbing systems; Erosion of natural deposits.
Water Quality Test Results	t Results							
Definitions:		The follow	ing tables con	tain scientifi	c terms and m	easures, some	of which may u	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:		Regulatory	compliance wit	th some MCLs a	re based on r	unning annual	Regulatory compliance with some MCLs are based on running annual average of monthly samples	thly samples.
Level 1 Assessment:		A Level 1 total coli	A Level 1 assessment is a study of the water system to identificatal coliform bacteria have been found in our water system.	a study of th have been foun	e water system d in our wate	Ç.	potential prob	fy potential problems and determine (if possible) why
Level 2 Assessment:		A Level 2 possible) system on	A Level 2 assessment is a very detailed study of the water syspossible) why an E. coli MCL violation has occurred and/or why system on multiple occasions.	a very detail MCL violation ions.	ed study of the has occurred	ne water syst and/or why t	em to identify otal coliform	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if oossible) 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 or MCL:	Sevel or MCL:	The highes using the	The highest level of a contaminant that is allowed in drinking using the best available treatment technology.	ontaminant tha	t is allowed hnology.		ater. MCLs are	water. MCLs are set as close to the MCLGs as feasible
Maximum Contaminant Level Goal or MCLG:	Level Goal or MCLG		The level of a contaminant in drinking water below which there for a margin of safety. $ \label{eq:contamination} % \left( \left( \frac{1}{2} \right)^{2} + \frac{1}{2} \left( \frac{1}{2} \right)^{2} + $	nt in drinking	water below		s no known or e	is no known or expected risk to health. MCLGs allow
$\label{eq:maximum} \mbox{Maximum residual disinfectant level or} \\ \mbox{MRDL:}$	infectant level or	The highes disinfecta	The highest level of a disinfectant allowed in drinking water. T disinfectant is necessary for control of microbial contaminants.	isinfectant al y for control	lowed in drin of microbial		There is convinc	There is convincing evidence that addition of a $\cdot$ .
Maximum residual disinfectant level goal or MRDLG:	infectant level	The level reflect th	The level of a drinking water disinfectant below which there is reflect the benefits of the use of disinfectants to control micr	water disinfec the use of dis	tant below wh infectants to	ich there is control mica	The level of a drinking water disinfectant below which there is no known or expecte reflect the benefits of the use of disinfectants to control microbial contaminants.	no known or expected risk to health. MRDLGs do not cobial contaminants.
na:		not applicable.	able.					

#### Regulated Contaminants

Total Trihalomethanes (TTHM)	Haloacetic Acids (HAA5)	Chloramines	Disinfectants and Disinfection By- Products
2022	2022	12/31/2022	Collection Date
37	29	2.7	Highest Level Detected
4.68 - 54.3 No goal for the total	9.07 - 39.6 No goal for the total	2.2 - 3	Highest Level Range of Levels Detected Detected
No goal for the total	No goal for the total	MRDLG = 4	MCLG
80	60	MRDL = 4	MCT
ppb	ppb	mqq	Units
z	z	z	Violation
By-product of drinking water disinfection.	By-product of drinking water disinfection.	Water additive used to control microbes.	Violation Likely Source of Contamination

# Annual Drinking Water Quality Report

## KINKAID AREA WATER SYSTEM

#### IL0775100

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 KINKAID ARRA WATER SYSTEM is Surface Water

For more information regarding this report contact:

Name JT Jenkins

618-687-2951

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### Source of Drinking Water

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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. Whe cannot control the variety of materials used in plumbing components. When your water has been slitting 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 trinking or cooking. If you are concerned about flead 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 brinking Water Hotline or at http://www.epa.qov/safewater/lead.

Source Water Information

INTAKE (70620) KINKALD LAKE	Source Water Name
SW	Type of Water
Caroni	Report Status
	Location Jackson County

Source Water Assessment

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Source of Water: KINKAID AREA WATER SYSTEMILITED BEA considers all surface water sources of public water supply to susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, problems. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems)

# 2022 Regulated Contaminants Detected

## Water Quality Test Results

Definitions:
Avg:
Level 1 Assessment:

Maximum Contaminant Level or MCL:

Level 2 Assessment:

Maximum Contaminant Level Goal or MCLG:

Maximum residual disinfectant level or MRDL:

Maximum residual disinfectant level goal or MRDLG:

па:

mrem:

ppb:

Treatment Technique or II:

The following tables contain scientific terms and measures, some of which may require explanation.

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

A Level 1 aggessment 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.

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an B. coll MCL violation has occurred and/or why total coliform bacteris have been found in our water

using the best available treatment technology. The highest level of a contaminant that is allowed in drinking water. MCLS are set as close to the MCLGs as feasible system on multiple occasions.

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLOS allow

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a for a margin of safety.

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDIGS do not reflect the henefits of the use of disinfectants to control microbial contaminants. disinfectant is necessary for control of microbial contaminants.

not applicable.

millirems per year (a measure of radiation absorbed by the body)

micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

milligrams per liter or parts per million -.or one omnce in 7,350 gallons of water.

A required process intended to reduce the level of a contaminant in drinking water.

Regulated Conteminants	nts							
Disinfectants and Disinfection By-	lection Date	Highest Level   Detected	Range of Levels Detected	MCILG	MCT	Units	Violation	Violation Mikely Source or Concemnmenton
Chlorandnes	12/31/2022	3.3	3 - 3.5	MRDLG = 4	MRDL = 4	ਘਰੋਹੋ	×	Water additive used to control microbes.
Chlorite	2022	0.75	0.44 - 0.75	0.8	н	mđđ	И	By-product of drinking water disinfection.
Haloacetic Acids (BAA5)	2022	22	21.8 - 21.8	No goal for the total		ppb	м	By-product of drinking water disinfection.
Total Tribalomethanes (TIEM)	2022	33	32.5 - 32.5	No goal for the total	80	qđđ	И	By-phoduct of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Rauge of Levels	MCILG	WCT	Units	Violation	Likely Source of Contamination
Fluoride	2022	0.4	0.27 - 0.6	44	4.0	mďď	×	Erosion of natural deposits; natural which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2022	0.07	0.07 - 0.07	10	10	ppm	z	Runoff from fertilizer use; Leaching from septic tanks, sewags; Erosion of natural deposits.
Sodium	2022	ä	11.2 - 11.2			, ppm	и	Erosion from naturally occuring deposits. Used in water softener regeneration.
Synthetic organic contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	B WCI'A	NCT	Unite	Violation	Idkely Source of Contamination
and horbicides Atrazine	2022	0.3	0.2 - 0.3	w	3	ppb	Я	Runoff from herbicide used on row crops.
Simazine	2022	0.08	0 - 0.08	æ	4	qđđ	z	Herbicide rumoff.
_		-						

#### Turbidity

Technique)	Limit (Treatment Level Detected
	Level Detected
	Violation
	Likely Source of Contamination

	Lowest monthly & meeting limit	Highest single measurement	
	0.3 NTU	טייע 1	
	100%	0.09 NTO	
	N	N	
ביים ביים ביים ביים ביים ביים ביים ביים	Soil rmoff.	Soil runoff.	

Information Statement: 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.

#### 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.

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