Annual Drinking Water Quality Report

Murdale Water District

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's (1-1-2024 to 12-31-2024) water quality. We are committed to providing you with information because informed customers are our best allies. *Este informe cintiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que to entienda bien.*

Do I need to take special precautions?

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/Centers for Disease Control (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).

Where does my water come from?

Your water originates in Kinkaid Lake in the Northwest portion of Jackson County, Illinois. Murdale Water District purchases treated surface water from the Kinkaid Reed's Creek Conservancy District.

Source Water Name: Murdale Water District (IL077 5200) & Kinkaid Area Water System (IL077 5100)

CC04 – Murdale PWD Master Meter FF IL 077 5100-TP02 SW **Active** 1 Edith Walsh Road, Murphysboro, Il. Intake (70620) Kinkaid Lake – SW – Jackson County

Source water assessment and its availability

We want our valued customers to be informed about their water quality. 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 the District Office at 8598 Old Highway 13, Murphysboro, Il. or call our water operator at (618) 684-8039. To view a summary version of the completed Source Water Assessments, including Importance of Source Water; Susceptibility to Contamination Determination; and document/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.

Illinois EPA considers all surface water sources of public water supply to be 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 erosion.

Why are there contaminants in my 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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: Possible contaminants consist of:

- *Microbial contaminants,* such as viruses and bacteria, that 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 may also come from gas stations, urban storm water runoff, and septic systems;
- *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, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

The Murdale Water District Board meets on the 2nd Tuesday of each month at 7:30 pm at the District Office located at 8598 Old Highway 13, Murphysboro, Illinois.

Additional Information for Lead

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 drinking water supplier is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's

risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standard Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water, you may wish to have your water tested, contact Curtis Mezo, Mgr./ROINC at (618) 684-8039.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Important Drinking Water Definitions

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

Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level" 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant that triggers treatment or other required actions by the water supply.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
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 sytem.
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.
MREM	Millirems per year (A measure of radiation absorbed by the body)
Avg	Regulatory compliance with some MCLs are based on running average of monthly samples.

2024 Regulated Contaminants Detected

Murdale Water District Results

Lead & Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over (AL)	Units	Violation	Likely source of Contamination
Copper	7/25/2023	1.3	1.3	0.208	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Murdale Water District submitted Lead samples in 2023, the 90th percentile was 0 mg/L and was considered a non-detect.

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.

Copper Range: ____.025_____ to ____.408_____

Lead Range: ____0____ to ___.001_____

To obtain a copy of the system's lead tap sampling data:

Curtis Mezo, Mgr. at (618)-684-8039 or

The lead sampling data is available on Illinois EPA's Drinking Water Watch

https://water.epa.state.il.us/dww/index.jsp

CIRCLE ONE: Our Community Water Supply has/~~has~~ not developed a service line material inventory. To obtain a copy of the system's service line inventory:

Contact: Curtis Mezo, Mgr at (618) 684-8039

Murdale Water District had 0 positive Coliform Bacteria samples in 2023 and is considered a non-detect.

Disinfectants and Disinfection By-Products

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2024	2.5	2 – 3	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2024	18	1.5 – 19	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2024	15	4 – 22.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Trihalomethanes and Haloacetic Acids, also known as disinfection by-products (DBP's) are formed by the reaction of chlorine disinfectant with naturally occurring organics found in the source water.

Some contaminants are sampled less frequently than once per year; as a result, not all

contaminants were sampled for 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.

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.

KINKAID AREA WATER SYSTEM IS THE PARENT SUPPLIER FOR MURDALE WATER DISTRICT WHICH IS A DISTRIBUTION ONLY SYSTEM.

Kinkaid Area Water System Results

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	2024	3.4	3.2 – 3.5	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes
Chlorite	2024	0.87	0.74 - 0.87	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)*	2024	12	12.1 – 12.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2024	10	10.1 – 10.1	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**
Fluoride	2024	0.8	0.78 – 0.78	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2024	0.16	0.16 – 0.16	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Sodium	2024	13	13.2 – 13.2			ppm	N	Erosion from naturally occurring deposits: Used in water softener regeneration.
Synthetic organic contaminants including pesticides and herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Atrazine	2024	0.2	0.1 – 0.2	3	3	ppb	N	Runoff from herbicide used on row crops.
2, 4 - D	2024	0.3	0.3 – 0.3	10	10	ppb	N	Herbicide runoff.

Turbidity (Kinkaid Area Water System)

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.

	Limit (Treatment Technique)	**Level Detected**	**Violation**	**Likely Source of Contamination**
Highest single measurement	1 NTU	0.22 NTU	N	Soil runoff
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff

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.

Abbreviations

N/A	Not applicable
AL	Action Level
TT	Treatment Technique
NTU	Nephelometric Turbidity Units
pCi/L	Picocuries per liter (a measure of radioactivity)
ppm	Parts per million, or milligrams per liter (mg/l) – or 1 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.
ppt	Parts per trillion, or nanograms per liter (ng/l) – or one ounce in 7,350,000,000 gallons of water.
ppq	Parts per quadrillion, or picograms per liter
ND	Not detectable at testing limits

MFL	Million Fibers per liter
Mrem/year	Millirems per year (a measure of radiation absorbed by the body)

Violations

No violations of Federal or State guidelines were experienced within CY 2024 by the Murdale Water District or Kinkaid Area Water System.

For more information please contact:

Murdale Water District

Curtis Mezo, District Manager

8598 Old Highway 13

Murphysboro, Illinois 62966

Phone: (618)-684-8039 E-Mail: murdalewaterdistrict@galaxycable.net

Or

Kinkaid Reed's Creek Conservancy District

J.T. Jenkins, Water Superintendent

1763 Water Plant Rd.

Murphysboro, Illinois 62966 Phone: (618)-687-2951