

2021 ANNUAL DRINKING WATER QUALITY REPORT

(Consumer Confidence Report)

JEFFERSON COUNTY WCID 10

(409) 722-6922

Thomas McDonald, District Manager

Jefferson County WCID 10 Public Water System 1230003 provides Surface Water from the Lower Neches Valley Authority Sam Rayburn Reservoir.

PUBLIC PARTICIPATION OPPORTUNITY

Date: July 21, 2022

Time: 4:00 p.m.

Location: Board Room

3707 Central Blvd Nederland, TX 77627

Phone: (409) 722-6922

Our Drinking Water is Regulated

This report is a summary of the quality of water we provide our customers. The analysis was made using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests. The tables below show only those contaminants that were detected in the water.

Where Do We Get Our Drinking Water?

The source of drinking water used by Jefferson County WCID 10 is Surface 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 before treatment 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.

Special Notice – (Required for all community public water supplies)

You may be more vulnerable than the general population of certain microbial contaminants, like *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer, those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.

All Drinking Water May Contain Contaminants

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. 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 (1-800-426-4791).

Secondary Contaminants

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Source Water Assessment

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Thomas McDonald at (409) 722-6922 or visit <https://www.tceq.texas.gov/gis/swaview> or <http://dww2.tceq.texas.gov/DWW/>

Required Additional Health Information for Lead and Copper

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. This water supply is responsible for providing high quality drinking water but cannot control the variety of material 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. For information on lead in drinking water, testing methods, and steps you can take to minimize exposure call the Safe Water Hotline or <http://www.epa.gov/safewater/lead>.

Water Loss Statement

In the water loss audit submitted to the Texas Water Development Board for the time period of January-December 2021, our system lost an estimated 10,764,994 gallons.

En Español Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (409) 722-6922

JEFFERSON COUNTY WCID 10								
ANNUAL WATER QUALITY REPORT								
MAXIMUM RESIDUAL DISINFECTANT LEVEL	COLLECTION DATE	AVERAGE LEVEL	MINIMUM LEVEL	MAX LEVEL	MRDL	MRDLG	UNITS	SOURCE OF CONTAMINANT
Chloramines	2021	3.31	0.5	3.87	4	4	ppm	Disinfectant used to control microbes.
LEAD AND COPPER	COLLECTION DATE	MCLG	ACTION LEVEL (AL)	90TH PERCENTILE	# SITES OVERALL	UNITS	VIOLATION	LIKELY SOURCE OF CONAMINATION
Copper	2021	1.3	1.3	0.120	0	ppb	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing.
Lead	2021	0	15	4.3	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.								
REGULATED CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONAMINATION
Halacetic Acids	2021	24.6	5-35.7	n/a	60	ppb	N	By-product of drinking water disinfection.
TTHMs (Total trihalomethanes)	2021	15.8	10.2-28.5	n/a	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 CONAMINATION
Barium	2021	0.0358	0.0291-0.0291	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2021	0.01 MG/L	0.01-0.01	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Nitrate (measured as Nitrogen)	2021	0.06	0.2-0.2	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Atrazine	2021	0.1	0.1-0.1	3	3	ppb	N	Runoff from herbicide used on row crops.
Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six (6) months old of age. High nitrate levels in drinking water can cause blue babe syndrome. Nitrate levels may rise quickly for short periods of time due to rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider. While your drinking water meets EPA's 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 costs of removing arsenic from drinking water. EPA continues to research the health effects of low level 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.								
RADIOACTIVE CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONAMINATION
Combined radium 226/228	2021	1.5	1.5-1.5	0	5	pCi/L	N	Erosion of natural deposits.
*EPA considers 50 pCi/L to be the level of concern for beta particles								
Turbidity	COLLECTION DATE	LIMIT (TREATMENT TECHNIQUE)	LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONAMINATION
Highest Single Measurement	2021	1 NTU	0.35 NTU	n/a	n/a	NTU	N	Soil runoff.
Lowest Monthly % of Samples Meeting Turbidity Limit	2021	3 NTU	98.9%	n/a	n/a	NTU	N	Soil runoff.
Total Organic Carbon- The percentage of Total Organic Carbon (TOC) removal was measured each month								

Total Organic Carbon						
Total Organic Carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of this disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.						
Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2021	Source Water	6.81	3.82	18.6	ppm	Normally present in the environment

Violations

Surface Water Treatment Rule			
The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Low Disinfectant Residual Contact Time	02-17-2021	2-17-2021	Required 4-hour contact time with disinfectant was not met due to pressure loss from excessive water usage during February Winter Storm. The Water District was under a Boil Water Notice.

Definitions and Abbreviations

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

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

Avg: Regulatory compliance with some MCLs is based on running annual average of 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 occasions.

Maximum Contaminant Level or 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 Contaminant Level Goal or 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 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.

Maximum residual disinfectant level goal or 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.

MFL: Million fibers per liter (a measure of asbestos)

MREM: Millirems per year (a measure of radiation absorbed by the body)

NA: Not applicable.

NTU: Nephelometric turbidity units (a measure of turbidity)

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