Consumer Confidence Report

Annual Drinking Water Quality Report

DALLAS RURAL WATER DISTRICT

IL0710010

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 DALLAS RURAL WATER DISTRICT is Ground Water

For more information regarding this report contact:

Name Rodney Pence

Phone 309-337-0435

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. 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).

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
WELL 1 (00870)		GW		
WELL 10 (01636)		GW		1700 FT SW OF WELL 1
WELL 2 (00871)		GW		
WELL 3 (01166)	BETWEEN WLS 1 & 2	GW		
WELL 5 (01470)	80 FT NW OF WTP	GW		
WELL 7 (01598)		GW		
WELL 8 (01599)		GW		225 FT NNW OF WELL 5
WELL 9 (01635)		GW		350 FT SW OF WELL 1

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 our office at 1105 E US Hwy 136 or call our office at 217-847-6577. 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: DALLAS RURAL WATER DISTRICT During the surveys of Dallas Rural Water District's source water protection areas, IRWA and Illinois EPA staff recorded potential sources, routes, or possible problem sites within the 400 foot minimum setback zones, the 1,000 foot Phase I Wellhead Protection Area (WHPA), or in the and the Phase II WHPA. The Phase II WHPA, also referred to as the recharge area, is the geographic area surrounding a well or well field providing potable water to a community water supply as modeled using computer software to determine a five-year time of travel. At the Lomax wells, a septic seepage field and oil and gas pipelines are located within the 1,000 foot Phase I WHPA. And at the Wilcox plant, two above ground fuel tanks are located within the Phase II WHPA of the wells. All of the land use around Dallas RWD's wells in the Lomax wellfield in the Phase I and Phase II WHPAs is considered "cultivated crops" (Figure 3). The United States Department of Agriculture (USDA) describes this Land Resource Region as the Central Feed Grains and Livestock Region. Further, USDA classifies this Major Land Resource Area as the Central Mississippi Valley Wooded Slopes, Eastern Part. The Cl/Br vs. Cl ratio indicates non-point source related to agriculture, as a possible source of nitrate in the area of the wells. The nitrate concentrations for well #1 ranged from 5.68 – 6.68 mg/L during the bi-monthly sample collection starting in November 2014 and continuing through November 2016. Figure 4 illustrates an increase in nitrates concentrations over a 20 year period, but a largely steady trend in nitrate concentration during the Nitrate Network. Both graphs show an increasing trend in chloride. The Illinois EPA has determined that Dallas Rural Water District's wells are susceptible to IOC, VOC, or SOC contamination. This determination is based on a number of criteria including monitoring conducted at the well, monitoring conducted at the entry point to the distribution system, land-use activities in the recharge area of the wells, and the available hydrogeologic data for the wells (see Potential Sources of Contamination section). The concentration of nitrate in the Lomax wellfield is above published values attributable to naturally occurring levels, and the increasing chloride concentrations are well below numerical groundwater quality standards. This does appear to show some susceptibility to contamination. All public water supplies using groundwater are required to sample their wells monthly for bacterial contaminants. In 2008, Dallas Rural Water District received a Non-Compliance Advisory (NCA) for bacteriological detections at Well #3. These samples were taken at a point prior to the water treatment process and distribution. Investigation performed by the facility at the well and well field indicated that the contamination was likely not in the source water or the water supplied to its customers. While the NCA has been resolved at this time, monthly monitoring data is continually being tracked in regards to all active potable wells at the facility.

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: 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)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.47	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Water Quality Test Results

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.
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.
na:	not applicable.
mrem:	millirems per year (a measure of radiation absorbed by the body)

Water Quality Test Results

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

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 a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2022	1.6	1.4 - 1.69	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2022	4	4.03 - 4.03	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	12	11.5 - 11.5	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	MCL	Violation	Likely Source of Contamination
Barium	7/19/2021	0.1	0.1 - .0.1	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Flouride	7/19/2021	0.705	0.705 - 0.705	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	7/19/2021	0.023	0.023 - 0.023		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	7/19/2021	49	49 - 49	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen] - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.	2022	7	0.51 - 6.6	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Selenium	7/19/2021	1.6	1.6 - 1.6	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	7/19/2021	18	18 - 18			ppm	N	Erosion from naturally occuring deposits. Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	10/05/2020	0.879	0.879 - 0.879	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	1/18/2021	3.3	3.3 - 3.3	0	15	pCi/L	N	Erosion of natural deposits.