Red River Authority of Texas

2023 Drinking Water Quality Report

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This report is a summary of the quality of the water provided to our customers for the period of January 1 to December 31, 2023. The summary was made using data from the most recent U.S. Environmental Protection Agency (EPA) required tests, and is presented in the attached pages. This report is available online at: www.rra.texas.gov/2023WaterReport.pdf .

En Español

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (866) 723-8697.

ENVIRONMENTAL PROTECTION AGENCY

SAFE DRINKING WATER HOTLINE (800) 426-4791

Information About Your 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. 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. Information about potential health risks can be found at the end of this report. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791. 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.

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. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns.

Unregulated Contaminants

Unregulated contaminants do not have EPA established drinking water standards. The purpose of monitoring these contaminants is to assist the EPA in determining if future regulation is warranted. For more information visit www.epa.gov/dwucmr .

Secondary Constituents

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 concerns. Therefore, secondary constituents are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

Some people may be more vulnerable to certain microbial contaminants such as 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. These people should seek advice about drinking water from a physician or health care provider.

Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA's Safe Drinking Water Hotline (800-426-4791).

Special Information About Lead

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 Authority is responsible for providing 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 two 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 EPA's Safe Drinking Water Hotline (800-426-4791) or at www.epa.gov/safewater/lead .

Public Participation Opportunities

The Authority's Board of Directors regularly meet on the third Wednesday of January, April, July, and September of each year. Specific times and locations for these or any special

meetings can be obtained by contacting the Authority at (866) 723-8697.

For more information about the water quality of your water system, public participation programs, water conservation programs, and/or general operations policies, call (866) 723-8697 or e-mail the Authority at: info@rra.texas.gov .

System Information

The Authority maintains a Water Conservation and Drought Contingency Plan for the Utility Division. Information on the plan is available on the Authority's web page at www.rra.texas.gov or can be obtained by calling (866) 723-8697.

The Texas Commission on Environmental Quality (TCEQ) has completed Source Water Susceptibility Assessments for all drinking water systems that own their source. These reports describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. For more information on source water assessments and protection efforts for our system, contact Mr. Fabian Heaney, General Manager, at (866) 723-8697.

Utility Service Area

The Authority's primary service area consists of 43 Texas counties lying within the watershed of the Red River Basin. However, the regional service area of the Utility Division is comprised of 15 counties scattered throughout the primary service area (Figure 1). The area served is under the Certificate of Convenience and Necessity #10202. All of the technical, accounting and administrative functions are performed at the headquarters of the Authority in Wichita Falls for the 31 water systems, while the operational and maintenance functions are keyed to a District Manager who is responsible for several water systems within the district boundaries. Potable water service is provided directly to the consumer via a transmission and distribution network of over 1,202 miles of pipeline. Refer to the Regional Water Supply Facilities map, Figure 1 for further description of the service area.

The Existing Water Supplies

The Utility Division utilizes water for distribution to the public from three basic sources: surface water, groundwater and water purchased from others. The RRA-Preston Shores Water System (Preston Shores) utilizes raw water from Lake Texoma. Groundwater is produced from various formations through Authority-owned water supply well fields, where it is treated and distributed to the public. Groundwater formations include the Ogallala Aquifer, the Alluvium formation, the Seymour Aquifer, and the Trinity Aquifer. Water is purchased from others through direct contract for supply from the City of Wichita Falls in Wichita County, the City of Turkey in Hall County, the City of Vernon in Wilbarger County, the City of Wellington in Collingsworth County, and the Greenbelt Municipal and Industrial Water Authority (GMIWA) in Donley County. Purchased water is then processed and distributed through Authority-owned facilities for service to the public.

Definitions and Abbreviations:

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

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.

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

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 (MCL): The highest level of a contaminant 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 (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 contamination.

Treatment Technique (TT): required process intended to reduce the level of a contaminant in drinking water.

NTU: Nephelometric Turbidity Units

MFL: million fibers per liter

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

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

ppb: parts per billion, or micrograms per liter (ug/l)

ppt: parts per trillion, or nanograms per liter

ppq: parts per quadrillion, or pictograms per liter (pg/L)

MG - million gallons

mrem: millirems per year (a measure of radiation absorbed by the body.

na: not applicable.

Red River Authority of Texas
Regional Water Supply Facilities
With Line Miles & Meters

District 11	Miles:	107	Meters:	279
Estelline				
Estelline WWTP				
Newlin				
Harrels Chapel				
Rural #1				

District 12	Miles:	231	Meters:	406
N. Goodlett				
Quanah SW				
O. Goodlett				
Medicine Mound				
Quanah NE				
Kirkland-Lazar				

District 13	Miles:	119	Meters:	458
Lockett				
Box				
Hinds				
Farmers Valley				

District 14	Miles:	181	Meters:	414
Tell - Cee Vee				
Childress NE				
Saied				
Garden Valley				
Rural #3				

District 15	Miles:	200	Meters:	353
Guthrie Dumont				
Foard County				
Truscott - Gilliland				

District 16	Miles:	229	Meters:	254
Samnorwood				
Dodson				
Plaska - Friendship				
Donley Co. Rest Area				
Club Lake				
Memphis NE				

District 18	Miles:	50	Meters:	392
Howardwick				
Greenbelt Lake				

District 19	Miles:	55	Meters:	799
Arrowhead Lake				
Ringgold				

District 22	Miles:	17	Meters:	709
Preston Shores				
Lake Texoma				

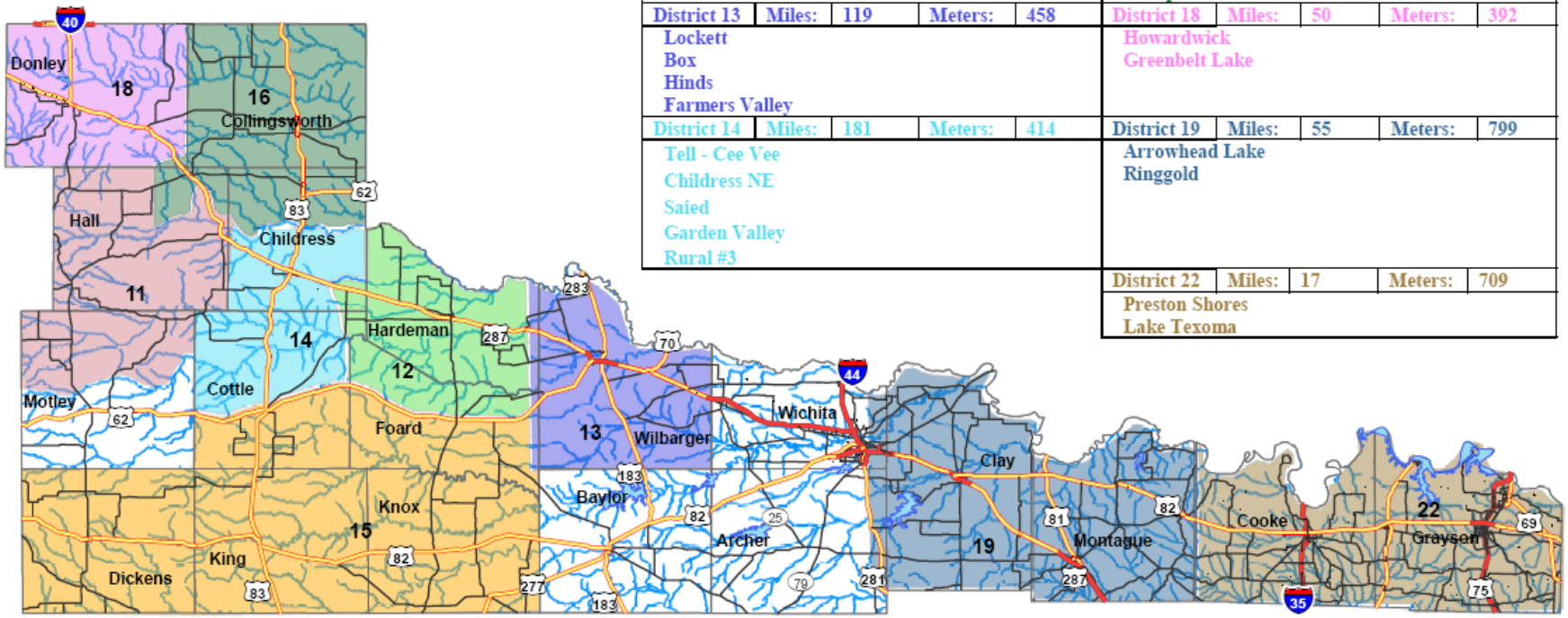

Figure 1

Water System Data

SYSTEM NAME	County	TCEQ ID. NO.	Water Producer	Water Source	Number of Customers	Report Data Pages
RRA - Turkey-Estelline	Hall	0960001	RRA Wells/Greenbelt MIWA/Turkey MWS	Seymour Aquifer/Greenbelt Lake	250	8, 49, 51
RRA - Newlin	Hall	0960016	Greenbelt MIWA	Greenbelt Lake	60	10, 49
RRA - Harrells Chappel	Hall	0960020	Greenbelt MIWA	Greenbelt Lake	49	11, 49
RRA - Carey-Northfield	Childress	0380015	Greenbelt MIWA	Greenbelt Lake	136	11, 49
RRA - New Goodlett	Hardeman	0990003	Greenbelt MIWA	Greenbelt Lake	78	12, 49
RRA - Quanah Southwest	Hardeman	0990044	Greenbelt MIWA	Greenbelt Lake	123	14, 49
RRA - Old Goodlett	Hardeman	0990012	Greenbelt MIWA	Greenbelt Lake	105	15, 49
RRA - Medicine Mound	Hardeman	0990013	Greenbelt MIWA	Greenbelt Lake	135	16, 49
RRA - Quanah Northeast	Hardeman	0990004	Greenbelt MIWA	Greenbelt Lake	275	18, 49
RRA - Kirkland-Lazare	Hardeman	0380012	Greenbelt MIWA	Greenbelt Lake	119	19, 49
RRA - Lockett	Wilbarger	2440008	City of Vernon	Seymour Aquifer	705	20, 54
RRA - Box	Wilbarger	2440006	City of Vernon	Seymour Aquifer	120	21, 54
RRA - Hinds Wildcat	Wilbarger	2440005	City of Vernon	Seymour Aquifer	190	22, 54
RRA - Farmers Valley	Wilbarger	2440007	RRA Wells/Greenbelt MIWA	Seymour Aquifer/Greenbelt Lake	132	24, 49
RRA - Tell- Cee Vee	Childress	0380013	Greenbelt MIWA	Greenbelt Lake	396	26, 49
RRA - Northeast Childress	Childress	0380014	Greenbelt MIWA	Greenbelt Lake	316	27, 49
RRA - Saied	Childress	0380019	Greenbelt MIWA	Greenbelt Lake	68	28, 49
RRA - Garden Valley	Childress	0380017	Greenbelt MIWA	Greenbelt Lake	125	29, 49
RRA - Guthrie-Dumont	King	1350001	RRA Wells	Alluvium & Ogallala Aquifers	332	30
RRA - Foard County	Foard	0780014	Greenbelt MIWA	Greenbelt Lake	282	32, 49
RRA - Truscott-Gilliland	Knox	1380006	RRA Wells/Greenbelt MIWA	Seymour Aquifer/Greenbelt Lake	215	34, 49
RRA - Samnorwood	Collingsworth	0440016	RRA Wells	Seymour Aquifer	147	36
RRA - Dodson	Collingsworth	0440018	RRA Wells/Wellington Municipal WS	Seymour Aquifer	285	37, 55
RRA - Donley Co. Rest Area	Donley	0650018	Greenbelt MIWA	Greenbelt Lake	2	39, 49
RRA - Plaska Friendship	Donley	0960018	Greenbelt MIWA	Greenbelt Lake	51	39, 49
RRA - Club Lake-Memphis NE	Collingsworth	0960020	Greenbelt MIWA	Greenbelt Lake	78	40, 49
RRA - Howardwick	Donley	0650004	RRA Wells	Ogallala Aquifer	790	41
RRA - Greenbelt Lake Lots	Donley	0650014	Greenbelt MIWA	Greenbelt Lake	211	42, 49
RRA - Arrowhead Lake Lots	Clay	0390021	City of Wichita Falls	Arrowhead Lake	1770	43, 57
RRA - Ringgold	Montague	1690005	RRA Wells	Trinity Aquifer	172	45
RRA - Preston Shores	Grayson	0910037	RRA Surface Water	Lake Texoma	1795	46

About the Following Tables

The following tables contain all of the federally regulated or monitored constituents which have been found in your drinking water. The tables are organized by system. Data for water purchased from other providers (source water not produced by RRA) is noted in each applicable system with the page referenced where the data can be found. TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report.

RRA ESTELLINE TURKEY WATER SYSTEM TX0960001

RRA ESTELLINE TURKEY WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA ESTELLINE TURKEY WATER SYSTEM purchases water from TURKEY MUNICIPAL WATER SYSTEM. The TURKEY MUNICIPAL WATER SYSTEM provides ground water from the Seymour Aquifer located in Hall County. A table containing contaminants detected by Turkey MWS in their facilities is provided on Page 52.

RRA ESTELLINE TURKEY WATER SYSTEM also produces ground water from the Seymour Aquifer located in Hall County. Detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.4	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	1.4	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	12.8	12.8-12.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	26.2	26.2-26.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	3.1	3.1 - 3.1	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.23	0.23 - 0.23	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2022	2.3	2.3 - 2.3	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide	2022	47.6	47.6 - 47.6	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal.
Fluoride	2021	0.711	0.711 - 0.711	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and
Nitrate [measured as Nitrogen]	2023	9.41	1.9-9.41	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2020	8.7	8.7 - 8.7	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Gross alpha excluding radon and uranium	2020	6	6 - 6	0	15	pCi/L	N	Erosion of natural deposits.

Uranium	2020	3.6	3.6 - 3.6	0	30	ug/l	N	Erosion of natural deposits.

Synthetic organic contaminants	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	2023	0.5	0 - 0.5	0	6	ppb	N	Discharge from rubber and chemical factories.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.98	0.22-1.88	4	4	ppm	N	Water additive used to control microbes.

RRA NEWLIN TX0960016

RRA NEWLIN WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA NEWLIN WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.109	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	0.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	20.8	16-20.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	47.3	30.1-47.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	1.91	1.91-1.91	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.13	0.25-1.88	4	4	ppm	N	Water additive control microbes.

RRA HARRELLS CHAPPEL TX0960020

RRA HARRELLS CHAPPEL WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA HARRELLS CHAPPEL WATER SYSTEM water quality test results are as follows:

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.08	0.22-2.47	4	4	ppm	N	Water additive control microbes.

RRA CAREY NORTHFIELD TX0380015

RRA CAREY NORTHFIELD WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA CAREY NORTHFIELD WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.029	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	21.9	17.5-21.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	45.5	25-45.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	1.87	1.87-1.87	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.02	0.23-1.77	4	4	ppm	N	Water additive to control microbes.

Violations

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/17/2018	11/09/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

RRA NEW GOODLET TX0990003

RRA NEW GOODLETT WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA NEW GOODLETT WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.05	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	3.4	3.4-3.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	26.3	26.0-26.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	1.78	1.78-1.78	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.92	0.50-1.41	4	4	ppm	N	Water additive to control microbes.

Violations

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/17/2018	11/09/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

RRA SOUTHWEST QUANAH TX0990044

RRA SOUTHWEST QUANAH WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA SOUTHWEST QUANAH WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

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	0.13	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	1.3	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	17.6	17.6-17.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

Total Trihalomethanes (TTHM)	2023	26.9	26.9-26.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Nitrate [measured as Nitrogen]	2023	2.01	2.01-2.01	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Unit of Measure**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	0.94	0.50-1.80	4	4	ppm	N	Water additive to control microbes.

RRA OLD GOODLET TX0990012

RRA GOODLETT WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA GOODLETT WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	**Total Coliform Maximum Contaminant Level**	**Highest No. of Positive**	**Fecal Coliform or E. Coli Maximum Contaminant Level**	**Total No. of Positive E. Coli or Fecal Coliform Samples**	**Violation**	**Likely Source of Contamination**
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper	**Date Sampled**	**MCLG**	**Action Level (AL)**	**90th Percentile**	**# Sites Over AL**	**Units**	**Violation**	**Likely Source of Contamination**
Copper	2021	1.3	1.3	0.1	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	18.8	18.8-18.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	28.2	28.2-28.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	1.79	1.79-1.79	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.07	0.50-1.82	4	4	ppm	N	Water additive to control microbes.

RRA MEDICINE MOUND TX0990013

RRA MEDICINE MOUND WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA MEDICINE MOUND WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination

Copper	2021	1.3	1.3	0.26	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	0.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Haloacetic Acids (HAA5)	2023	38	15.7-38	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	85	30.9-85	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Nitrate [measured as Nitrogen]	2023	2.01	2.01-2.01	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Units**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	1.08	0.5-1.82	4	4	ppm	N	Water additive to control microbes.

Violations

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MCL, LRAA	01/01/2023	03/31/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

RRA QUANAH NORTHEAST TX0990004

RRA NORTHEAST QUANAH WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA NORTHEAST QUANAH WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

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	0.1	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	1.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	21.8	21.8-21.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	29.4	29.4-29.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	1.96	1.96-1.96	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.91	0.50-1.60	4	4	ppm	N	Water additive to control microbes.

RRA KIRKLAND-LAZARE TX0380012

RRA KIRKLAND LAZARE WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA KIRKLAND LAZARE WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

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	0.6	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	26.1	0-26.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	103	50.4-103	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination

Nitrate [measured as Nitrogen]	2023	1.72	1.72-1.72	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Unit of Measure**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	0.95	0.50-1.41	4	4	ppm	N	Water additive to control microbes.

RRA LOCKETT TX2440008

RRA LOCKETT WATER SYSTEM purchases water from the CITY OF VERNON. The CITY OF VERNON provides ground water pumped from wells in the Seymour Aquifer in Wilbarger County. A table containing contaminants detected by the CITY OF VERNON in their facilities is provided on Page 55.

RRA LOCKETT WATER SYSTEM detected contaminants are as follows:

Maximum Contaminant Level Goal	**Total Coliform Maximum Contaminant Level**	**Highest No. of Positive**	**Fecal Coliform or E. Coli Maximum Contaminant Level**	**Total No. of Positive E. Coli or Fecal Coliform Samples**	**Violation**	**Likely Source of Contamination**
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper	**Date Sampled**	**MCLG**	**Action Level (AL)**	**90th Percentile**	**# Sites Over AL**	**Units**	**Violation**	**Likely Source of Contamination**
Copper	2021	1.3	1.3	0.093	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	1.4	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Haloacetic Acids (HAA5)	2023	5.1	0-5.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

Total Trihalomethanes (TTHM)	2023	21.1	2.44-21.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Nitrate [measured as Nitrogen]	2023	8	4.9-11.3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of

*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.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Unit of Measure**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	2.18	0.67-3.80	4	4	ppm	N	Water additive to control microbes.

RRA BOX TX2440006

RRA BOX COMMUNITY WATER SYSTEM purchases water from the CITY OF VERNON. The CITY OF VERNON provides ground water pumped from wells in the Seymour Aquifer in Wilbarger County. A table containing contaminants detected by the CITY OF VERNON in their facilities is provided on Page 55.

RRA BOX COMMUNITY WATER SYSTEM detected contaminants are as follows:

Lead and Copper	**Date Sampled**	**MCLG**	**Action Level (AL)**	**90th Percentile**	**# Sites Over AL**	**Units**	**Violation**	**Likely Source of Contamination**
Copper	2021	1.3	1.3	0.09	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	3	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Total Trihalomethanes (TTHM)	2022	5.79	5.79 - 5.79	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	13.1	4.71-13.1	10	10	ppm	Y	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.03	0.75 – 2.14	4	4	ppm	N	Water additive to control microbes.

Violations

Nitrate [measured as Nitrogen]			
Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MCL, SINGLE SAMPLE	07/01/2023	09/30/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

RRA HINDS WILDCAT TX2440005

RRA HINDS WILDCAT WATER SYSTEM purchases water from the CITY OF VERNON. The CITY OF VERNON provides ground water pumped from wells in the Seymour Aquifer in Wilbarger County. A table containing contaminants detected by the CITY OF VERNON in their facilities is provided on Page 55.

RRA HINDS WILDCAT WATER SYSTEM detected contaminants are as follows:

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	0.14	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Lead	2022	0	15	1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Haloacetic Acids (HAA5)	2022	2.5	2.5 - 2.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	7.18	7.18 - 7.18	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Arsenic	2021	1.1	1.1 - 1.1	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2021	0.22	0.22 - 0.22	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2021	0.501	0.501 - 0.501	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]	2023	16.2	15.3-16.2	10	10	ppm	Y	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Gross alpha excluding radon and uranium	2021	2	2 - 2	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2021	3.4	3.4 - 3.4	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	2.51	0.40-5.70	4	4	ppm	N	Water additive to control microbes.

Violations

Nitrate [measured as Nitrogen]			
Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MCL, SINGLE SAMPLE	01/01/2023	03/31/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	04/01/2023	06/30/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	07/01/2023	09/30/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	10/01/2023	12/31/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

RRA FARMERS VALLEY TX2440007

RRA FARMERS VALLEY WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA FARMERS VALLEY WATER SYSTEM also produces ground water from the Seymour Aquifer located in Wilbarger County. Detected contaminants are as follows:

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	0.12	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Lead	2022	0	15	3.4	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Haloacetic Acids (HAA5)	2023	24.1	24.1-24.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	53.2	53.2-53.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Arsenic	2021	1.4	1.4 - 1.4	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2021	0.15	0.15 - 0.15	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2022	0.67	0.67 - 0.67	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]	2023	7.62	4.65-7.62	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Gross alpha excluding radon and uranium	2021	2	2 - 2	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2021	3.6	3.6 - 3.6	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.67	0.15-10.70	4	4	ppm	N	Water additive to control microbes.

Violations

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/17/2018	11/09/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

RRA TELL CEE VEE TX0380013

RRA TELL CEE VEE WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA TELL CEE VEE WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.109	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	28	14.9-28	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	56	21-56	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	2.09	2.09-2.09	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.98	0.20-1.84	4	4	ppm	N	Water additive to control microbes.

RRA CHILDRESS NE TX0380014

RRA NORTHEAST CHILDRESS WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA NORTHEAST CHILDRESS WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.1	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	16	16.2-16.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	30	30-30	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	2.3	2.3-2.3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.94	0.20-1.82	4	4	ppm	N	Water additive to control microbes.

RRA SAIED TX0380019

RRA SAIED WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA SAIED WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.58	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	2.98	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	17.9	17.9-17.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	27.2	27.2-27.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	2.25	2.25-2.25	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.04	0.20-1.99	4	4	ppm	N	Water additive to control microbes.

Violations

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/17/2018	11/09/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

RRA GARDEN VALLEY TX0380017

RRA GARDEN VALLEY WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA GARDEN VALLEY WATER SYSTEM detected contaminants are as follows:

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	0.069	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	6.5	6.5-6.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	26.9	26.9-26.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Nitrate [measured as Nitrogen]	2023	2.11	2.11-2.11	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of	Violation	Source in Drinking Water
Chlorine	2023	0.78	0.20-1.62	4	4	ppm	N	Water additive to control microbes.

RRA GUTHRIE-DUMONT TX1350001

RRA GUTHRIE-DUMONT WATER SYSTEM produces groundwater from the Alluvium Aquifer located in King County, and from the Ogallala Aquifer located in Dickens County. Detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

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	0.13	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	3.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2022	2.75	2.75 - 2.75	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2023	1.3	1.3-1.38	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2023	0.065	0.065-0.065	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2023	1.1	1.1-1.1	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	03/04/2021	0.0712	0.0712 - 0.0712	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]	2023	9.39	7.35-9.39	10	10	663	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Selenium	2023	5.1	5.1 - 5.1	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination

Combined Radium 226/228	2022	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.
Uranium	2022	1.1	1.1 - 1.1	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	2.47	0.13-4.70	4	4	ppm	N	Water additive to control microbes.

Violations

E. coli			
Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.			
Violation Type	**Violation Type**	**Violation Type**	**Violation Type**
MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	10/05/2023	12/07/2023	We failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

RRA FOARD COUNTY TX0780014

RRA FOARD COUNTY WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA FOARD COUNTY WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.27	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	1.4	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	64	13.9-64	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	139	93.7-139	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	2.57	2.57-2.57	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.89	0.20-10.20	4	4	ppm	N	Water additive to control microbes.

Violations

Haloacetic Acids (HAA5)			
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MCL, LRAA	01/01/2023	03/31/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**

PUBLIC NOTICE RULE LINKED TO VIOLATION	01/19/2023	02/15/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MCL, LRAA	01/01/2023	03/31/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	04/01/2023	06/30/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	07/01/2023	09/30/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	10/01/2023	12/31/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

RRA TRUSCOTT-GILLILAND TX1380006

RRA TRUSCOTT-GILLILAND WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA TRUSCOTT-GILLILAND WATER SYSTEM also produces groundwater from the Seymour Aquifer located in Knox County. Detected contaminants are as follows:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

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	0.17	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2022	34.5	34.5 - 34.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2023	2.6	2.6-2.6	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2023	0.14	0.14-0.14	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2023	1	1 - 1	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2023	0.551	0.551-0.551	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]	2023	9.2	9.2-9.2	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Selenium	2023	9.2	9.2-9.2	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/photon emitters	2021	8.3	8.3 - 8.3	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Gross alpha excluding radon and uranium	2021	1	1 - 1	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2021	8	8 - 8	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Unit of Measure**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	1.89	0.10-6.80	4	4	ppm	N	Water additive to control microbes.

RRA SAMNORWOOD TX0440016

RRA SAMNORWOOD WATER SYSTEM produces groundwater from the Seymour Aquifer located in Collingsworth County. Detected contaminants are as follows:

Lead and Copper	**Date Sampled**	**MCLG**	**Action Level (AL)**	**90th Percentile**	**# Sites Over AL**	**Units**	**Violation**	**Likely Source of Contamination**
Copper	2023	1.3	1.3	0.044	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Haloacetic Acids (HAA5)	2022	2.8	2.8 - 2.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	13.7	13.7 - 13.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	1.4	1.4 - 1.4	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.024	0.024 - 0.024	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2023	0.46	0.46-0.46	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]	2023	1.95	1.95-1.95	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Gross alpha excluding radon and uranium	2021	2	2 - 2	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2021	4.1	4.1 - 4.1	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2022	0.93	0.70 - 1.30	4	4	ppm	N	Water additive to control microbes.

RRA DODSON TX0440018

RRA DODSON WATER SYSTEM purchases water from the Wellington Municipal Water System. The Wellington Municipal Water System provides groundwater from the Seymour Aquifer located in Collingsworth County. A table containing contaminants detected by the Wellington Municipal Water System in their facilities is provided on Page 56.

RRA DODSON WATER SYSTEM also produces ground water from Seymour Aquifer located in Collingsworth County. Detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2020	1.3	1.3	0.02	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	2.1	2.1 - 2.1	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.11	0.11 - 0.11	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2022	4.1	4.1 - 4.1	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2021	0.416	0.416 - 0.416	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]	2023	9.73	2.27-9.73	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Gross alpha excluding radon and uranium	2022	4	4 - 4	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2022	3.1	3.1 - 3.1	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.93	0.70-1.20	4	4	ppm	N	Water additive to control microbes.

RRA DONLEY COUNTY REST AREAS TX0650018

RRA DONLEY COUNTY REST AREAS WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA DONLEY COUNTY REST AREAS WATER SYSTEM detected contaminants are as follows:

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	2.11	2.11-2.11	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.27	0.90-1.40	4	4	ppm	N	Water additive to control microbes.

RRA PLASKA FRIENDSHIP TX0960018

RRA PLASKA FRIENDSHIP WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA PLASKA FRIENDSHIP WATER SYSTEM water quality test results are as follows:

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.27	0.90-1.4	4	4	ppm	N	Water additive to control microbes.

RRA CLUB LAKE TX0960019

RRA CLUB LAKE WATER SYSTEM purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA CLUB LAKE WATER SYSTEM detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.0301	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	15.2	15.2-15.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	20.4	20.4-20.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	2.08	2.08-2.08	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.22	1.10-1.40	4	4	ppm	N	Water additive to control microbes.

RRA HOWARDWICK TX0650004

RRA HOWARDWICK WATER SYSTEM produces groundwater from the Ogallala Aquifer located in Donley County. Detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.114	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	0.92	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2022	1.4	1.4 - 1.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	6.89	6.89 - 6.89	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	1.2	1.2 - 1.2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.05	0.05 - 0.05	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2022	4.3	4.3 - 4.3	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2021	0.89	0.89 - 0.89	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]	2023	5.65	5.38-5.65	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Selenium	2022	10	10 - 10	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/photon emitters	2022	6.7	4.9 - 6.7	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Combined Radium 226/228	2020	1	0 - 1.23	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2022	5	2 - 5	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2022	16.6	16.3 - 16.6	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Unit of Measure**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	0.98	0.40-1.96	4	4	ppm	N	Water additive to control microbes.

RRA GREENBELT LAKE LOTS TX0650014

RRA GREENBELT LAKE purchases water from GREENBELT MIWA. GMIWA provides surface water from Greenbelt Lake in Donley County. A table containing contaminants detected by GMIWA in their facilities is provided on Page 50.

RRA GREENBELT LAKE WATER SYSTEM detected contaminants are as follows:

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	0.17	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	1.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	16.6	16.6-16.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	37.7	37.7-37.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	1.78	1.78-1.78	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	0.95	0.51-2.09	4	4	ppm	N	Water additive to control microbes.

RRA ARROWHEAD LAKE LOTS TX0390021

RRA ARROWHEAD LAKE LOTS purchases water from CITY OF WICHITA FALLS. CITY OF WICHITA FALLS provides purchase surface water from Arrowhead Lake located in Clay County. A table containing contaminants detected by CITY OF WICHITA FALLS in their facilities is provided on Page 58.

RRA ARROWHEAD LAKE LOTS WATER SYSTEM Detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.014	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2021	0	15	1.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	20	1-20	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	23.8	12.1-23.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.028	0.028 - 0.028	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2021	74.1	74.1 - 74.1	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2021	0.699	0.699 - 0.699	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]	2023	0.307	0.128-0.307	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrite [measured as Nitrogen]	2021	0.34	0.34 - 0.34	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2018	9.7	9.7 - 9.7	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Combined Radium 226/228	2018	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	2.36	1.80-3.20	4	4	ppm	N	Water additive to control microbes.

RRA RINGGOLD TX1690005

RRA RINGGOLD WATER SYSTEM produces groundwater from the Trinity Aquifer located in Montague County. Detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.025	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2022	7.01	7.01 - 7.01	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.0067	0.0067 - 0.0067	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2022	1.1	1.1 - 1.1	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride **(Please see page 59 for additional information on Fluoride for the Ringgold Water System.)**	2021	2.74	2.74 - 2.74	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]	2023	0.129	0.129-0.129	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2019	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2023	1.87	0.80-4.00	4	4	ppm	N	Water additive to control microbes.

RRA PRESTON SHORES TX0910037

RRA PRESTON SHORES WATER SYSTEM produces surface water from Lake Texoma in Grayson County. Detected contaminants are as follows:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2021	1.3	1.3	0.035	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite	2023	0.742	0 - 0.742	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2023	44.9	10.1-44.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	159	69.4-159	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2023	0.14	0.14 - 0.14	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2023	162	162-162	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2023	0.25	0.25-0.25	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]	2023	0.204	0.204-0.204	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2021	4.9	4.9 - 4.9	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Combined Radium 226/228	2021	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.

Uranium	2021	2.7	2.7 - 2.7	0	30	ug/l	N	Erosion of natural deposits.

Synthetic organic contaminants including pesticides and herbicides	**Collection Date**	**Highest Level Detected**	**Range of Individual Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Atrazine	2022	0.1	0.1 - 0.1	3	3	ppb	N	Runoff from herbicide used on row crops.

Disinfectant Residual	**Year**	**Average Level**	**Range of Levels**	**MRDL**	**MRDLG**	**Unit of Measure**	**Violation (Y/N)**	**Source in Drinking Water**
Chlorine	2023	2.04	0.50-4.60	4	4	ppm	N	Water additive to control microbes.

Turbidity	**Level Detected**	**Limit**	**Violation**	**Likely Source of Contamination**
Highest single measurement	0.73 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	N	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.

Violations

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MCL, LRAA	01/01/2023	03/31/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	04/01/2023	06/30/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

MCL, LRAA	07/01/2023	09/30/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	10/01/2023	12/31/2023	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

Source Water Data for Purchased Water

The following is data for the source water of RRA's purchased water provider.

Greenbelt MIWA TX0650013

Surface Water Source: Greenbelt Lake in Donley County

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	20	19.5-19.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes	2023	33	33-33	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2023	3	2.9-2.9	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2023	0.27	0.27-0.27	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2023	0.9	0.945-0.945	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]	2023	2	1.57 - 1.57	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/photon emitters	2021	7.6	7.6 - 7.6	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Combined Radium 226/228	2021	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.
Uranium	2021	2.9	2.9 - 2.9	0	30	ug/l	N	Erosion of natural deposits.

Turbidity	**Level Detected**	**Limit**	**Violation**	**Likely Source of Contamination**
Highest single measurement	0.37 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	99%	0.3 NTU	N	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.

Violations

Interim Enhanced SWTR			
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**
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	05/01/2023	05/31/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Surface Water Treatment Rule (SWTR)			
The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	05/01/2023	05/31/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Turkey Municipal Water System TX0960003

Groundwater Source: Seymour Aquifer in Hall County

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2020	1.3	1.3	0.0668	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2021	3.6	3.6 - 3.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	13.6	13.6 - 13.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA% or TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2021	4	4 - 4	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2021	0.017	0.017 - 0.017	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2021	1.2	1.2 - 1.2	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.

Fluoride	2021	1.66	1.66 - 1.66	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]	2023	17	15.8-18.2	10	10	ppm	Y	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2021	19	19 - 19	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/photon emitters	2021	6.7	6.7 - 6.7	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Gross alpha excluding radon and uranium	2021	3	3 - 3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2021	14.2	14.2 - 14.2	0	30	ug/l	N	Erosion of natural deposits.

Violations

Lead and Copper Rule

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.

Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2023	2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Nitrate [measured as Nitrogen]

Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**

MCL, SINGLE SAMPLE	01/01/2023	03/31/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	04/01/2023	06/30/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	07/01/2023	09/30/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	10/01/2023	12/31/2023	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MONITORING, ROUTINE MAJOR	01/01/2023	03/31/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, ROUTINE MAJOR	07/01/2023	09/30/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Public Notification Rule

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	07/11/2016	02/01/2024	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	12/09/2016	02/01/2024	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	06/19/2021	06/21/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	04/02/2022	06/21/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	05/30/2022	06/21/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

PUBLIC NOTICE RULE LINKED TO VIOLATION	11/24/2022	06/21/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	03/26/2023	06/21/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	10/31/2023	2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

City of Vernon TX2440001

Groundwater Source: Seymour Aquifer in Wilbarger County

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.1857	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	3.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2023	1	0-1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	5	1.27-4.99	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 and TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.2	0.2 - 0.2	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2022	3	3 - 3	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.

Fluoride	2023	0.388	0.388-0.388	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]	2023	8	1.3-11.9	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Uranium	2023	1.2	1.2-1.2	0	30	ug/l	N	Erosion of natural deposits.

Violations

Lead and Copper Rule			
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.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2023	2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Wellington Municipal Water System TX0440001 Groundwater Source: Seymour Aquifer in Collingsworth County

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.093	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Lead	2023	0	15	2.61	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Haloacetic Acids (HAA5)	2023	1	1.2 - 1.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	5	5.24-5.24	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 and TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Arsenic	2021	2	2 - 2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2021	0.056	0.056 - 0.056	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2021	2.4	2.4 - 2.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2023	0.251	0.251 - 0.251	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]	2023	10	9.16-9.72	10	10	ppm	Y	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

*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.

Selenium	2021	5.6	5.6 - 5.6	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2018	6.7	6.7 - 6.7	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Gross alpha excluding radon and uranium	2018	6	6 - 6	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2018	11.5	11.5 - 11.5	0	30	ug/l	N	Erosion of natural deposits.

Violations

E. coli			
Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.			
Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
MONITOR GWR Triggered/Additional, Major	09/21/2012	01/12/2023	We failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

City of Wichita Falls Water System TX2430001

Surface Water Source: Arrowhead Lake in Clay County

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.0521	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Lead	2023	0	15	2.53	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Chlorite	2023	0.67	0.53-0.67	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2023	18	1-25.3	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	31	9.76-42.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level Detected column is the highest average of all HAA5 or TTHM sample results collected at a location over a year

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Arsenic	2023	1	0 - 1.2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2023	0.04	0.036 - 0.04	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2023	46	0.-46	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2023	0.6	0.546-0.638	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]	2023	0.158	0.0791-0.158	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	2022	0.14	0.14 - 0.14	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2023	12.3	12.3-12.3	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Combined Radium 226/228	2023	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.

Turbidity	Level Detected	Limit	Violation	Likely Source of Contamination
Highest single measurement	0.29 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	N	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.

Potential Health Effects of Contaminants

Microbiological Contaminants

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

Escherichia (E. coli) are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.

Total organic carbon. Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these by-products in excess of the maximum contaminant level (MCL) may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants

Beta/photon emitters. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Uranium. Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Inorganic Contaminants

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Chloramines. Some people who use water containing chloramines well in excess of the maximum residual disinfectant level (MRDL) could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.

Chlorine. Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Chromium. Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Cyanide. Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

RRA Ringgold Water System Fluoride Information:

*This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system, RRA Ringgold Water System, has a fluoride concentration of **2.74 mg/l**. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water. Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem. For more information, please call Fabian Heaney of RRA's Ringgold Water System at 940-723-8697. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1–877–8–NSF–HELP."*

Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Nitrite. Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Selenium. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

Synthetic Organic Contaminants Including Pesticides and Herbicides

Atrazine. Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

Di (2-ethylhexyl) phthalate. Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.

Picloram. Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.

Volatile Organic Contaminants

Haloacetic acids (HAAs or HAA5). Some people who drink water containing HAAs in excess of the MCL over many years may have an increased risk of getting cancer.

TTHMs (Total Trihalomethanes). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.