NORTH TEXAS MUNICIPAL WATER DISTRICT

Regional. Reliable. Everyday.

STEWARDS OF SAFE WATER

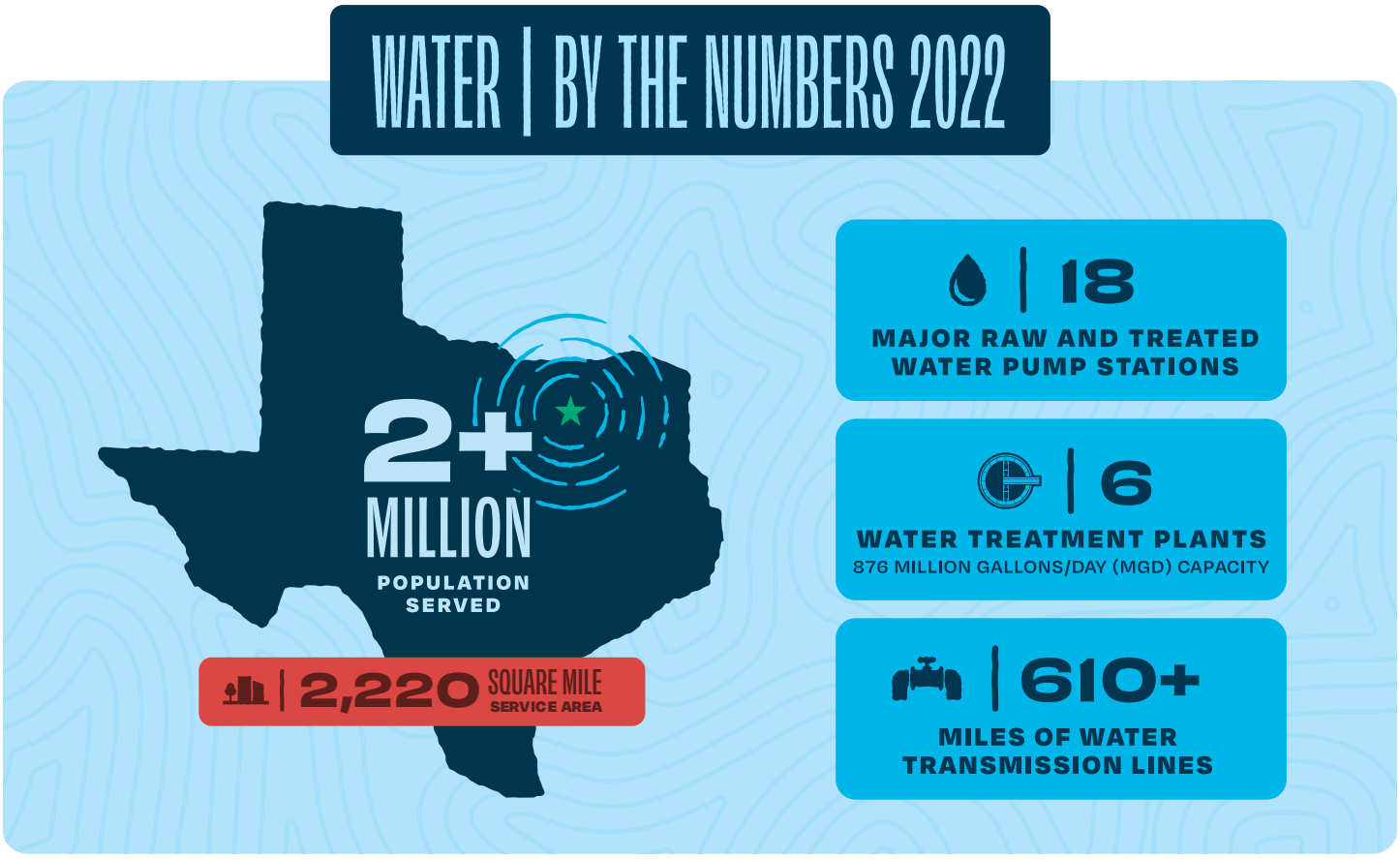
2022 WATER QUALITY REPORT

SAFE WATER IS ESSENTIAL

Public health and community well-being rely on access to safe, treated drinking water. The treatment processes used by North Texas Municipal Water District (NTMWD) are among the best and most highly effective available to protect public health and ensure over two million North Texans in our Member Cities and Customers have safe, reliable water every day year-round. NTMWD works dilligently behind the scenes through a dedicated team of essential workers who live and work in the same communities we serve to uphold the quality of life we all love. The water treated and distributed by NTMWD continues to meet or surpass Safe Drinking Water Standards established by the U.S. Environmental Protection Agency (EPA) as well as regulations set by the Texas Commission on Environmental Quality (TCEQ).

The Purpose of this Report

This Water Quality Report (also known as a Consumer Confidence Report) summarizes information on the quality of water we provided to the communities we serve. In this report, you will find information on where your water comes from, how it is treated, levels of contaminants detected and how these levels compare with drinking water rules and regulations for 2022.



This report includes important information about drinking water.

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 972-442-5405.

IMPORTANT NOTICES

Vulnerability of Some People to Drinking Water Contaminants

You may be more vulnerable than the general population 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. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA Safe Drinking Water Hotline at 800-426-4791.

Testing for Cryptosporidium

Cryptosporidium is a microbial parasite that may be commonly found in surface water. During 2022, NTMWD continued testing for Cryptosporidium in our raw water supply and treated drinking water. While occasionally found in the raw water supply, Cryptosporidium has not been detected in NTMWD treated drinking water. Although treatment by filtration removes Cryptosporidium, drinking water providers cannot guarantee 100 percent removal. The testing methods used cannot determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection causing nausea, diarrhea and abdominal cramps resulting from drinking contaminated water.

Testing for Lead in Drinking Water

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. **NTMWD has no lead pipes in its regional water transmission system.** NTMWD is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsbility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry, or a load of dishes. You can also use a filter certified by American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water, you may wish to have your water tested. TCEQ offers guidelines for supplemental home testing online at **https://tceq.texas.gov./agency/qa/env_lab_accreditation.html.**

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

WHERE YOUR WATER COMES FROM

NTMWD's water supply comes from several surface water sources including:

Lavon Lake

Lake Texoma

Jim Chapman Lake (Cooper Lake)

Lake Tawakoni
(Through a contract with Sabine River Authority)

East Fork Water Reuse Project
(Wetland)

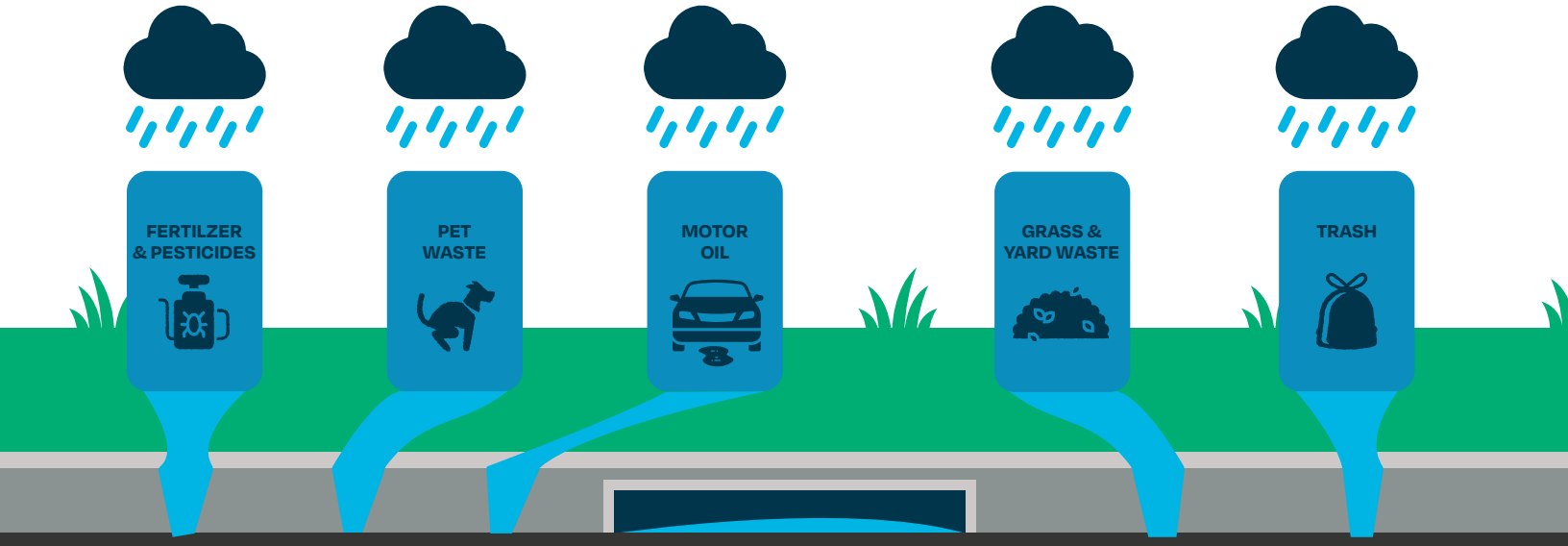
To learn more about
our water sources, visit

NTMWD.com/raw-water-supplies

ONLY RAIN DOWN THE DRAIN

When it rains, runoff carries pollutants into streams and water supplies. To keep our water clean, make sure only rain goes down storm drains.

Runoff picks up...



...and washes them down storm drains into our streams, lakes and water supples. Clean water starts with you. Learn more at NTMWD.com/Watershed.

HOW YOUR WATER IS REGULATED

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. To make sure that your tap water is safe, EPA prescribes regulations that limit the amounts of certain contaminants allowed in water after its treatment when it is delivered by public water systems. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 800-426-4791.

Contaminants in Source Water

The following may be present in the raw surface water, also known as source water, **before it is treated:**

- Microbial contaminants, such as viruses and bacteria, which may come from wastewater treatment plants, septic systems, agricultural livestock operations or wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production and mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Odor and Taste

In addition, contaminants may be found in drinking water that may cause taste, color, or odor concerns. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact NTMWD main offices at 972-442-5405. You can also learn more at **NTMWD.com/taste-odor.**

HOW YOUR WATER IS TREATED & TESTED

To make sure we provide high quality water that meets or surpasses EPA regulations and requirements, NTMWD treats water to remove or reduce sediment, bacteria and other impurities (see page 5). All of our water treatment plants use a rigorous, multi-step process to treat and disinfect the water to ensure its safety as it travels through pipes to homes and businesses. We continuously monitor and test the water before delivering it to our Member Cities and Customers. It takes a dedicated team of more than 400 employees across divisions who manage, maintain, expand and improve our reservoirs, treatment plants and hundreds of miles of water transmission pipelines.

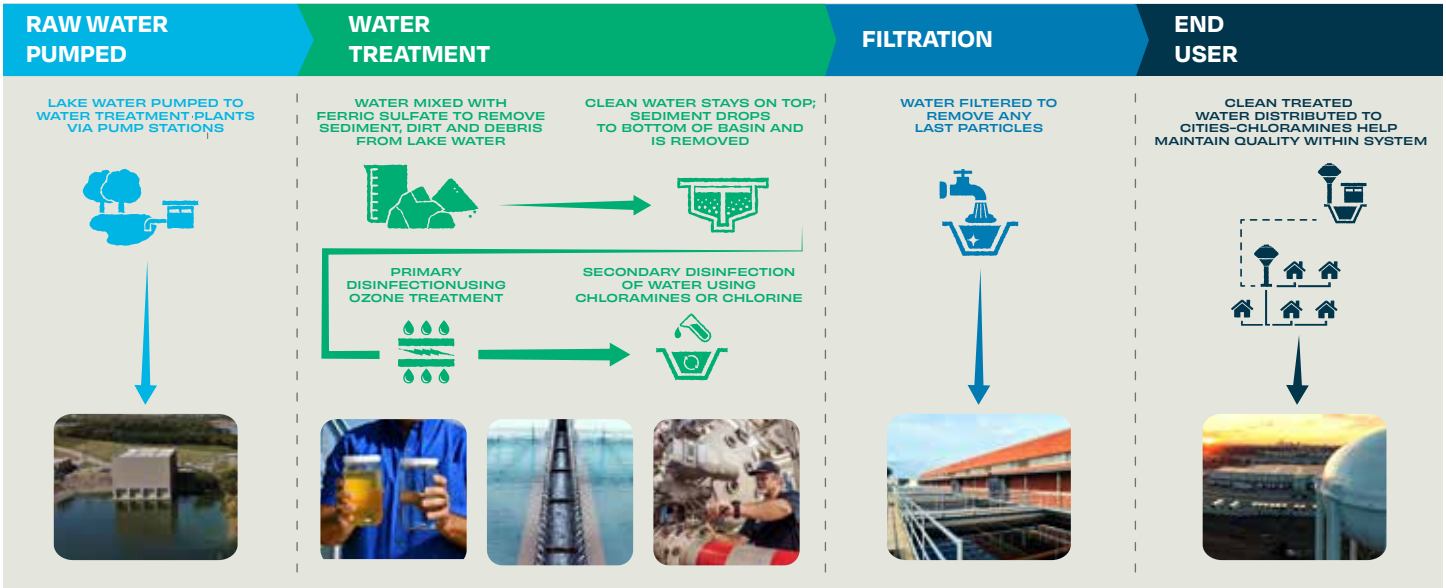
NTMWD's water treatment processes are among the best available to make sure that our water is safe. Our four water treatment plants in Wylie combined are among the largest fully-ozonated water treatment facilities in the world. Ozone disinfection is the:

- Fastest working and most powerful water disinfectant (one of the most effective against Cryptosporidium).
- Preferred process for meeting regulations and reducing disinfection byproducts.
- Primary method to improve water taste and odor.

The NTMWD Environmental Services Lab is accredited by the TCEQ through the National Environmental Laboratory Accreditation Program (NELAP) for potable and non-potable parameters and conducts nearly 140,000 tests per year.

Our Member Cities and Customers also test the water before they distribute it to their consumers. They produce their own annual Water Quality or Consumer Confidence Reports. Most of these can be accessed at each city or water utility's website. View the list of NTMWD Member Cities and Customers on our website: **NTMWD.com/our-water-system.**

Our Water Treatment Process



LONG-RANGE PLANNING & INVESTMENT PROTECT FUTURE

Everything related to safe drinking water requires extensive planning, and many details must be addressed for long-range planning efforts. Over the next 30 years, the population the NTMWD provides safe drinking water for is expected to nearly double. Every year, an estimated 55,000 people move into NTMWD's service area.

The completion of construction for Bois d'Arc Lake and the Leonard Water Treatment Plant was the culmination of more than 30 years of planning, permitting, and construction. Bois d'Arc Lake, which began providing raw water in the Spring of 2023, will help meet the needs of the District's current and future customers for decades to come.

Bois d'Arc Lake - two-mile long dam, 90 feet tall intake structure, spillway and high-service pump station.

Leonard Water Treatment Plant Phase I - 70 MGD capacity.

The new 16,641-acre (26 square miles) lake is owned and operated by NTMWD and is the first major reservoir built in Texas in over 30 years. The District started permitting and planning the reservoir in 2003, broke ground for construction in May 2018, and held a dedication ceremony in October 2022. The project required the support of the local communities, five major contractors, dozens of subcontractors to complete various components and a workforce of about 1,000 at the peak of construction.

The actions and investments we take now will develop decades of reliable, safe drinking water for generations of North Texans who call this region home for their families and businesses. NTMWD remains wholly committed to upholding our vision of ***regional service through unity: meeting our region's needs today and tomorrow.***

NTMWD WATER TREATMENT PLANT SERVICE AREAS

Our Member Cities and Customers (except the City of Bonham) were served by the Wylie Water Treatment Plant. See the full list at **NTMWD.com/our-water-system.**
In addition, the following areas also receive water from the **Tawakoni Water Treatment Plant:**

- City of Terrell
- City of Kaufman
- College Mound SUD
- Gastonia-Scurry SUD
- Rose Hill SUD

During times of higher demand, the following areas may also receive water from the **Tawakoni Water Treatment Plant:**

- City of Crandall
- City of Forney
- City of Mesquite (south portions)
- Forney Lake WSC
- Kaufman Four-One
- Town of Sunnyvale

The City of Bonham is currently the only area serviced by the **Bonham Water Treatment Plant**. View those reports at **NTMWD.com/water-quality-reports.**

Source Water Assessments

The NTMWD Wylie Water Treatment Plants have met all of the requirements for participation in the TCEQ Source Water Protection Program (SWPP). This is a voluntary program that helps public water systems like NTMWD protect our drinking water sources and ensure its continued reliability. Participating in the SWPP helps us identify, assess and manage potential sources of contamination to Lavon Lake and strengthens our commitment to protecting the quality of our source waters against potential pollutants.

For more inforamtion on source water assessments and protection efforts at the Wylie and Tawakoni Water Treatment Plan systems, visit **NTMWD.com/watershed** for more information.

For more about the sources of your water, please refer to the Source Water Assessment Viewer available at **tceq.texas.gov/gis/swaview.** Further details about sources and source-water assessments are also available via Drinking Water Watch at **dww2.tceq.texas.gov/DWW.**

2022 WATER QUALITY RESULTS

The following tables show the amounts of various contaminants found in our treated drinking water, based on rigorous testing.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. For this reason, the following tables provide both the amounts of any contaminants present as well as their Action Level (or the concentration which, if exceeded, triggers more treatment or other requirements).

To ensure quality water for the communities we serve, our nationally accredited laboratory conducts and processes hundreds of samples every day. We report findings to ensure drinking water meets or surpasses regulatory standards set by the TCEQ, the EPA, and the Safe Drinking Water Act.

TERMS TO KNOW

The following tables in this report use scientific terms and measures to label/clarify the amounts of different compounds. Below is some explanation of these terms and measures.

Definitions

Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Level I Assessment	A Level 1 Assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria were found.
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 Escherichia coli MCL violation has occurred and/or why total coliform bacteria were found on multiple occasions.
Maximum Contaminant Level Goal (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 Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum 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 contaminants.
Maximum Residual Disinfectant Level (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.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations

Avg	Regulatory compliance with some MCLs are based on running annual average of monthly samples
MFL	Million fibers per liter (a measure of asbestos)
mrem	Millirems per year (a measure of radiation absorbed by the body)
NTU	MilliremsNephelometric Turbidity Units (a measure of turbidity)
pCi/L	Picocuries per liter (a measure of radioactivity)
ppb	Micrograms per liter (ug/L) or parts per billion - or one ounce in 7,500,000 gallons of water
ppm	Milligrams per liter (mg/L) or parts per million – or one ounce in 7,500 gallons of water
ppt	Nanograms per liter (ng/L) or parts per trillion - or one ounce in 7,500,000,000 gallons of water
ppq	Picograms per liter (pg/L) or parts per quadrillion - or one ounce in 7,500,000,000,000 gallons of water

NTMWD Wylie Water Treatment Plants—Water Quality Data for Year 2022

COLIFORM BACTERIA

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	0	0	0	No	Naturally present in the environment.

NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

REGULATED CONTAMINANTS

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2022	28.2	19.3 - 28.2	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	37.0	36.2 - 37.0	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2022	4.9	4.9 - 4.9	5	10	ppb	No	By-product of drinking water ozonation.

NOTE: Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future. As a wholesale water provider with less than 500 direct customers, TCEQ only requires one sample annually for Disinfection By Products (DBPs) compliance testing. In addition to TCEQ required testing on the NTMWD regional system, over 300 samples of water initially treated by NTMWD are tested for DBPs each year within the city/local water systems to comply with TCEQ regulations. For Bromate, compliance is based on the running annual average.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.061	0.060 - 0.061	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	2022	0.688	0.278 - 0.688	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2022	0.439	0.158 -0.439	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.

NITRATE ADVISORY: 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 Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2022	4.7	4.7 -4.7	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2022	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2022	Levels lower than detect level	0 - 0	0	5	pCi/L	No	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Atrazine	2022	0.12	0.10 -0.12	3	3	ppb	No	Runoff from herbicide used on row crops.

TURBIDITY

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.4 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	99.50%	No	Soil runoff.

NOTE: 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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL

Disinfectant Type	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2022	3.16	1.34	4.07	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2022	0.00	0	0.27	0.80	0.80	ppm	Disinfectant.
Chlorite	2022	0.145	0	0.72	1.00	N/A	ppm	Disinfectant.

NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level between 0.5 ppm and 4 ppm.

TOTAL ORGANIC CARBON

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.

CRYPTOSPORIDIUM AND GIARDIA

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2022	Levels lower than detect level	0 - 0	(Oo) Cysts/L	Human and animal fecal waste. Naturally present in the environment.
Giardia	2022	0.09	0 - 0.09	(Oo) Cysts/L	Human and animal fecal waste. Naturally present in the environment.

NOTE: Levels detected are for source water, not for drinking water. No cryptosporidium or giardia were found in drinking water.

NTMWD Wylie Water Treatment Plants—Water Quality Data for Year 2022 (continued)

LEAD AND COPPER

Contaminants	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	2020	15	1.64	0	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	2020	1.3	0.514	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

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 plumbing materials containing lead and copper.

ADDITIONAL HEALTH INFORMATION FOR 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. NTMWD is responsible for providing high 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline or at epa.gov/safewater/lead.

UNREGULATED CONTAMINANTS

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2022	11.8	6.74 - 11.8	ppb	By-product of drinking water disinfection.
Bromoform	2022	3.91	1.89 - 3.91	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2022	14.1	10.3 - 14.1	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2022	12.9	7.91-12.9	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution. These contaminents are included in the Disinfection By-Products TTHM compliance data (pg. 11).

SECONDARY AND OTHER CONSTITUENTS NOT REGULATED

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Calcium	2022	69.8	32.2 - 69.8	ppm	Abundant naturally occurring element.
Chloride	2022	107	30.0 - 107	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2022	9.70	9.61 - 9.70	ppm	Abundant naturally occurring element.
Manganese	2022	0.159	0.004 - 0.159	ppm	Abundant naturally occurring element.
Nickel	2022	0.0098	0.0069 - 0.0098	ppm	Erosion of natural deposits.
pH	2022	9.2	7.0 - 9.2	units	Measure of corrosivity of water.
Silver	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2022	95.4	26.5 -95.4	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2022	171	84.2 - 171	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2022	139	69 -139	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2022	492	269 - 492	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2022	194	90 -194	ppm	Naturally occurring calcium.
Zinc	2022	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

CONTAMINANT LEVELS LOWER THAN DETECT LEVEL

NTMWD is monitored for regulatory compliance at established frequencies. NTMWD water was analyzed for the following parameters and the most recent analytical result was found to be "non-detectable." "Non-detectable" means if a contaminant is present in the sample, the concentration (amount) is below the reporting limit (or the concentration of the parameter that can be measured accurately within a stated confidence) as established by the testing laboratory.

Antimony	Arsenic	Beryllium	Cadmium	Chromium
Mercury	Selenium	Thallium	Cryptosporidium	Cyanide
2,4,5-TP (Silvex)	2,4-D	Alachlor	Aldicarb	Aldicarb Sulfone
Aldicarb Sulfoxide	Benzo (a) pyrene	Carbofuran	Chlordane	Dalapon
Di (2-ethylhexyl) adipate	Di (2-ethylhexyl) phthalate	Dibromochloropropane	Dinoseb	Endrin
Ethylene dibromide	Heptachlor	Heptachlor epoxide	Hexachlorobenzen	Hexachlorocyclopentadiene
Lindane	Methoxychlor	Oxamyl [Vydate]	Pentachlorophenol	Picloram
Toxaphene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethylene	1,2,4-Trichlorobenzene
1,2-Dichloroethane	1,2-Dichloropropane	Benzene	Carbon Tetrachloride	Chlorobenzene
Dichloromethane	Ethylbenzene	Styrene	Tetrachloroethylene	Toluene
Trichloroethylene	Vinyl Chloride	Xylenes	cis-1,2-Dichloroethylene	o - Dichlorobenzene
p - Dichlorobenzene	trans-1,2-Dicholoroethylene	Simazine		

NTMWD Tawakoni Water Treatment Plant—Water Quality Data for Year 2022

COLIFORM BACTERIA

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	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	0	0	0	No	Naturally present in the environment.

NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

REGULATED CONTAMINANTS

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2022	17.1	17.1 - 17.1	No goal for the total	60	ppb	No	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM)	2022	42.9	42.9 - 42.9	No goal for the total	80	ppb	No	By-product of drinking water chlorination.
Bromate	2022	4.23	4.23 - 4.23	5	10	ppb	No	By-product of drinking water ozonation.

NOTE: Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future. TCEQ only requires one sample annually for Disinfection By Products (DBPs) compliance testing.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.062	0.062 - 0.062	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	2022	0.197	0.197 - 0.197	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2022	0.289	0.289 - 0.289	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.

Nitrate Advisory: 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 Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2021	4.8	4.8 - 4.8	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2021	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2021	Levels lower than detect level	0 - 0	0	5	pCi/L	No	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Atrazine	2021	0.1	0.1 - 0.1	3	3	ppb	No	Runoff from herbicide used on row crops.

TURBIDITY

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.16 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	100%	No	Soil runoff.

NOTE: 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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL

Disinfectant Type	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2022	3.73	3.33	4.40	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2022	0.01	0	0.32	0.80	0.8	ppm	Disinfectant.
Chlorite	2022	0.15	0	0.72	1.00	N/A	ppm	Disinfectant.

NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level of between 0.5 ppm and 4 ppm.

TOTAL ORGANIC CARBON

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.

CRYPTOSPORIDIUM AND GIARDIA

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2022	Levels lower than detect level	0 - 0	(Oo) Cysts/L	Human and animal fecal waste. Naturally present in the environment.
Giardia	2022	Levels lower than detect level	0 - 0	(Oo) Cysts/L	Human and animal fecal waste. Naturally present in the environment.

NOTE: Only source water was evaluated for Cryptosporidium and Giardia. Levels shown are not for drinking water.

NTMWD Tawakoni Water Treatment Plant—Water Quality Data for Year 2022 (continued)

LEAD AND COPPER

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Likely Source of Contamination
Lead	2022	Levels lower than detect level	0 - 0	15	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	2022	0.008	0.008 - 0.008	1.3	1.3	ppm	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

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 plumbing materials containing lead and copper.

ADDITIONAL HEALTH INFORMATION FOR 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. NTMWD is responsible for providing high 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline or at epa.gov/safewater/lead.

UNREGULATED CONTAMINANTS

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2022	24.2	21.5 - 24.2	ppb	By-product of drinking water disinfection.
Bromoform	2022	Levels lower than detect level	0 - 0	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2022	12.7	11.4 -12.7	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2022	6.01	5.44 - 6.01	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

SECONDARY AND OTHER CONSTITUENTS NOT REGULATED

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2022	0.022	0.022 - 0.022	ppm	Erosion of natural deposits.
Calcium	2022	53.1	38.3 - 53.1	ppm	Abundant naturally occurring element.
Chloride	2022	24.0	11.1 - 24.0	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2022	3.26	3.26 - 3.26	ppm	Abundant naturally occurring element.
Manganese	2022	0.0024	0.0018 - 0.0024	ppm	Abundant naturally occurring element.
Nickel	2022	0.0032	0.0032 - 0.0032	ppm	Erosion of natural deposits.
pH	2022	8.3	7.1 - 8.3	units	Measure of corrosivity of water.
Silver	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2022	21.3	13.5 - 21.3	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2022	73.2	48.4 - 73.2	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2022	82	62 - 82	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2022	243	173 - 243	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2022	128	98 - 128	ppm	Naturally occurring calcium.
Zinc	2022	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

CONTAMINANT LEVELS LOWER THAN DETECT LEVEL

NTMWD is monitored for regulatory compliance at established frequencies. NTMWD water was analyzed for the following parameters and the most recent analytical result was found to be "non-detectable." "Non-detectable" means if a contaminant is present in the sample, the concentration (amount) is below the reporting limit (or the concentration of the parameter that can be measured accurately within a stated confidence) as established by the testing laboratory.

Antimony	Arsenic	Beryllium	Cadmium	Chromium
Mercury	Selenium	Thallium	Cryptosporidium	Cyanide
2,4,5-TP (Silvex)	2,4-D	Alachlor	Giardia	Aldicarb Sulfone
Aldicarb Sulfoxide	Benzo (a) pyrene	Carbofuran	Aldicarb	Dalapon
Di (2-ethylhexyl) adipate	Di (2-ethylhexyl) phthalate	Dibromochloropropane	Chlordane	Endrin
Ethylene dibromide	Heptachlor	Heptachlor epoxide	Dinoseb	Hexachlorocyclopentadiene
Lindane	Methoxychlor	Oxamyl [Vydate]	Hexachlorobenzene	Picloram
Simazine	Toxaphene	1,1,1-Trichloroethane	Pentachlorophenol	1,1-Dichloroethylene
1,2,4-Trichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	Carbon Tetrachloride
Chlorobenzene	Dichloromethane	Ethylbenzene	Benzene	Tetrachloroethylene
Toluene	Trichloroethylene	Vinyl Chloride	Styrene	cis-1,2-Dichloroethylene
o - Dichlorobenzene	p - Dichlorobenzene	trans-1,2-Dicholoroethylene	Xylenes	

IT'S WATER-SAVING SEASON Y'ALL

Did you know more than half of landscape water is wasted due to overwatering and inefficient watering schedules?
Learn how to train your lawn to prevent water waste and help you better manage your monthly bill.

ntmwd.com/SaveWater

ADDITIONAL QUESTIONS?

For more information about your local drinking water quality, standards, source water protection and other questions, please call:

EPA Safe Drinking Water Hotline
800-426-4791

If you have questions regarding this report, please contact:

NTMWD Water Operations
972-442-5405
NTMWD.com/our-water-system

NTMWD Board of Directors

NTMWD is governed by a Board of Directors whose members are appointed by each of the District's 13 Member Cities. NTMWD Board of Directors Meetings are open to the public and held on the fourth Thursday of the month (unless otherwise posted), in the Board Room at 501 E. Brown Street, Wylie, Texas.

For more information, visit **NTMWD.com.**

NORTH TEXAS MUNICIPAL WATER DISTRICT

Regional. Reliable. Everyday.