



# 2021 ANNUAL DRINKING WATER QUALITY REPORT

PERIOD OF JANUARY 1 TO DECEMBER 31, 2021

## Our Drinking Water is Regulated

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

## Where do we get our drinking water?

The Source of drinking water used by Talty SUD is Purchased Surface Water from the City of Forney. The City of Forney purchases its water from the North Texas Municipal Water District. The NTMWD receives raw water from Lavon Lake for treatment at the Wylie Water Treatment Plants. In addition to Lavon Lake, NTMWD holds water rights in Lake Texoma, Jim Chapman Lake (Cooper Lake), Lake Tawakoni, and the East Fork Raw Water Supply Project which augments supplies. For detailed information on our water sources, treatment process and more, please visit NTMWD's website at: [www.ntmwd.com](http://www.ntmwd.com)



## Special Notice: Are you Vulnerable?

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immuno-compromised 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 and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply 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 Safe Drinking Water hotline or at <http://www.epa.gov/safewater/lead>.

## Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

## All drinking water may contain contaminants

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water hotline (800) 426-4791.

## Public Participation Opportunities

The Talty SUD Board of Directors holds a public meeting every 3<sup>rd</sup> Monday of each month at 12475 Windy Lane, Forney, TX 75126 beginning at 6pm. To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us at (972) 552-4422.

The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact Corey Trail at (972) 552-4422.

## En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (972) 552-4422. Para hablar con una persona bilingüe en español.

## WATER CONSERVATION UPDATE

NO OUTDOOR LANDSCAPE OR LAWN WATERING BETWEEN THE HOURS OF 10 AM AND 6 PM

LIMIT LANDSCAPE WATERING WITH SPRINKLERS OR IRRIGATION SYSTEMS TO NO MORE THAN TWO DAYS PER WEEK AS NEEDED PER THE FOLLOWING SCHEDULE:

ADDRESSES ENDING IN 0,2,4,6,8  
MONDAY & THURSDAY

ADDRESSES ENDING IN 1,3,5,7,9  
TUESDAY & FRIDAY

SCHOOLS, PARKS, & ROW's  
WEDNESDAY & SATURDAY



2021 Water purchased:	475,694,000 gallons
2021 Water sold:	434,174,063 gallons
2021 Water loss:	41,519,937 gallons
2021 Loss percentage:	8.72%
2021 Accounted for Loss:	2,419,000 gallons
2021 Unaccounted for Loss:	8.22%

## Definitions

**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 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 (E. coli) maximum contaminant level (MCL) violation has occurred and/or why total coliform bacteria were found on multiple occasions.

**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 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 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.

**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.

**Action Level Goal (ALG)** – The level of a contaminants in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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

**Avg** – Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**Ppm** – Milligrams per liter or parts per million – or one ounce in 7,350 gallons of water

**Ppb** – Micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

**NTU** – Nephelometric Turbidity Units

**MFL** – Million fibers per liter (a measure of asbestos)

# NTMWD Tawakoni Water Treatment Plants

## Water Quality Data for Year 2021

### 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	0.00	0	0		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

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2021	21.00	14.9 - 24	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	30.00	15.2 - 37.4	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2021	4.38	4.38 - 4.38	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 compliance testing.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2021	Levels lower than detect level	0 - 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2021	Levels lower than detect level	0 - 0	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2021	0.064	0.064 - 0.064	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2021	Levels lower than detect level	0 - 0	4	4	ppb	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
Cadmium	2021	Levels lower than detect level	0 - 0	5	5	ppb	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from steel/metal factories; Discharge from plastics and fertilizer factories.
Fluoride	2021	0.527	0.527 - 0.527	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2021	Levels lower than detect level	0 - 0	2	2	ppb	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Nitrate (measured as Nitrogen)	2021	0.166	0.166 - 0.166	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Selenium	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2021	Levels lower than detect level	0 - 0	0.5	2	ppb	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.

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.

# NTMWD Tawakoni Water Treatment Plants

## Water Quality Data for Year 2021

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2, 4, 5 - TP (Silvex)	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2021	Levels lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Aldicarb	2021	Levels lower than detect level	0 - 0	1	3	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sulfone	2021	Levels lower than detect level	0 - 0	1	2	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sulfoxide	2021	Levels lower than detect level	0 - 0	1	4	ppb	No	Runoff from agricultural pesticide.
Atrazine	2021	0.1	0.1 - 0.1	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2021	Levels lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2021	Levels lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2021	Levels lower than detect level	0 - 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2021	Levels lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2021	Levels lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2021	Levels lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2021	Levels lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2021	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2021	Levels lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2021	Levels lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2021	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Picloram	2021	Levels lower than detect level	0 - 0	500	500	ppb	No	Herbicide runoff.
Simazine	2021	Levels lower than detect level	0 - 0	4	4	ppb	No	Herbicide runoff.
Toxaphene	2021	Levels lower than detect level	0 - 0	0	3	ppb	No	Runoff / leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1, 1, 1 - Trichloroethane	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2021	Levels lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2021	Levels lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2021	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.

# NTMWD Tawakoni Water Treatment Plants

## Water Quality Data for Year 2021

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorobenzene	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2021	Levels lower than detect level	0 - 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2021	Levels lower than detect level	0 - 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2021	Levels lower than detect level	0 - 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis - 1, 2 - Dichloroethylene	2021	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2021	Levels lower than detect level	0 - 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2021	Levels lower than detect level	0 - 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans - 1, 2 - Dichloroethylene	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from industrial chemical factories.

### Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.35 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	99.40%	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)	2021	3.76	0.79	3.88	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2021	0.03	0	0.58	0.80	0.80	ppm	Disinfectant.
Chlorite	2021	0.10	0	0.76	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 parts per million (ppm).

### Total Organic Carbon

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Source Water	2021	5.50	4.46 - 5.50	ppm	Naturally present in the environment.
Drinking Water	2021	3.36	2.17 - 3.36	ppm	Naturally present in the environment.
Removal Ratio	2021	57.7	33.2 - 57.7	% removal *	N/A

**NOTE:** Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.  
 \* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

### Cryptosporidium and Giardia

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2021	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.
Giardia	2021	0.09	0.09 - 0.09	(Oo) Cysts/L	Human and animal fecal waste.

**NOTE:** Only source water was evaluated for cryptosporidium and giardia. Levels shown are not for drinking water.

# NTMWD Tawakoni Water Treatment Plants

## Water Quality Data for Year 2021

### Lead and Copper

Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	8/14/2019	15	2.07	0	ppb	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Copper	8/14/2019	1.3	0.5481	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits.

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. Talty SUD 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2021	21.4	7.40 - 21.4	ppb	By-product of drinking water disinfection.
Bromoform	2021	1.28	<1.0 - 1.28	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2021	10.8	4.81 - 10.8	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2021	6.66	2.53 - 6.66	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	2021	0.082	0.082 - 0.082	ppm	Erosion of natural deposits.
Calcium	2021	61.5	40.4 - 61.5	ppm	Abundant naturally occurring element.
Chloride	2021	17.1	12.2 - 17.1	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2021	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2021	2.74	2.74 - 2.74	ppm	Abundant naturally occurring element.
Manganese	2021	0.033	0.0019 - 0.033	ppm	Abundant naturally occurring element.
Nickel	2021	0.0037	0.0037 - 0.0037	ppm	Erosion of natural deposits.
pH	2021	8.40	7.7 - 8.4	units	Measure of corrosivity of water.
Silver	2021	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2021	24.2	13.6 - 24.2	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2021	78.70	51.5 - 78.7	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2021	72	54 - 72	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2021	231	172 - 231	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2021	128.00	98 - 128	ppm	Naturally occurring calcium.
Zinc	2021	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

# NTMWD Wylie Water Treatment Plants

## Water Quality Data for Year 2021

### 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	0.00	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

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2021	21	14.9 - 24	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	30	15.2 - 37.4	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2021	69.2	5.27 - 69.2	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 compliance testing. 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
Antimony	2021	Levels lower than detect level	0 - 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2021	Levels lower than detect level	0 - 0	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2021	0.038	0.037 - 0.038	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2021	Levels lower than detect level	0 - 0	4	4	ppb	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
Cadmium	2021	Levels lower than detect level	0 - 0	5	5	ppb	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide	2021	86.9	86.9 - 86.9	200	200	ppb	No	Discharge from steel/metal factories; Discharge from plastics and fertilizer factories.
Fluoride	2021	0.480	0.306 - 0.480	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2021	Levels lower than detect level	0 - 0	2	2	ppb	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Nitrate (measured as Nitrogen)	2021	0.802	0.110 - 0.802	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Selenium	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2021	Levels lower than detect level	0 - 0	0.5	2	ppb	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.

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	Levels lower than detect level	0 - 0	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.



## NTMWD Wylie Water Treatment Plants Water Quality Data for Year 2021 (Cont.)

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2, 4, 5 - TP (Silvex)	2019	Levels lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2019	Levels lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Aldicarb	2019	Levels lower than detect level	0 - 0	1	3	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sulfone	2019	Levels lower than detect level	0 - 0	1	2	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sulfoxide	2019	Levels lower than detect level	0 - 0	1	4	ppb	No	Runoff from agricultural pesticide.
Atrazine	2021	0.3	0.2 - 0.3	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2019	Levels lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2019	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2021	Levels lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2021	Levels lower than detect level	0 - 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2019	Levels lower than detect level	0 - 0	0	200	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2019	Levels lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2021	Levels lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2019	Levels lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2021	Levels lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2021	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2021	Levels lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2021	Levels lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2019	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2019	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Picloram	2019	Levels lower than detect level	0 - 0	500	500	ppb	No	Herbicide runoff.
Simazine	2021	0.12	0.08 - 0.12	4	4	ppb	No	Herbicide runoff.
Toxaphene	2021	Levels lower than detect level	0 - 0	0	3	ppb	No	Runoff / leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1, 1, 1 - Trichloroethane	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2021	Levels lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2021	Levels lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2021	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.

# NTMWD Wylie Water Treatment Plants

## Water Quality Data for Year 2021 (Cont.)

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorobenzene	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2021	Levels lower than detect level	0 - 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2021	Levels lower than detect level	0 - 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2021	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2021	Levels lower than detect level	0 - 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis - 1, 2 - Dichloroethylene	2021	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2021	Levels lower than detect level	0 - 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2021	Levels lower than detect level	0 - 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans - 1, 2 - Dichloroethylene	2021	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from industrial chemical factories.

### Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.39 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	98.80%	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)	2021	3.76	0.79	3.88	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2021	0	0	0	0.80	0.80	ppm	Disinfectant.
Chlorite	2021	0.105	0	0.97	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 parts per million (ppm).

### Total Organic Carbon

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Source Water	2021	4.66	3.69 - 4.66	ppm	Naturally present in the environment.
Drinking Water	2021	4.01	2.01 - 4.01	ppm	Naturally present in the environment.
Removal Ratio	2021	46.0	1.9 - 46.0	% removal *	N/A

**NOTE:** Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.  
\* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

### Cryptosporidium and Giardia

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2021	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.
Giardia	2021	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.



# NTMWD Wylie Water Treatment Plants

## Water Quality Data for Year 2021 (Cont.)

### Lead and Copper

Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	8/14/2019	15	2.07	0	ppb		Corrosion of household plumbing systems; erosion of natural deposits.
Copper	8/14/2019	1.30	0.5481	0	ppm		Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

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. Talty SUD 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2021	21.4	7.40 - 21.4	ppb	By-product of drinking water disinfection.
Bromoform	2021	1.28	<1.0 - 1.28	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2021	10.8	4.81 - 10.8	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2021	6.66	2.53 - 6.66	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	2021	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Calcium	2021	77.5	34.5 - 77.5	ppm	Abundant naturally occurring element.
Chloride	2021	73.5	4.78 - 73.5	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2021	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2021	4.43	3.40 - 4.43	ppm	Abundant naturally occurring element.
Manganese	2021	0.038	0 - 0.038	ppm	Abundant naturally occurring element.
Nickel	2021	0.0060	0.004 - 0.006	ppm	Erosion of natural deposits.
pH	2021	9.12	7.56 - 9.12	units	Measure of corrosivity of water.
Silver	2021	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2021	81.1	33.0 - 81.1	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2021	153	22.4 - 153	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2021	128	65 - 128	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2021	444	186 - 444	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2021	192	96 - 192	ppm	Naturally occurring calcium.
Zinc	2021	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

### Violations Table

Violation Type	Violation Begin	Violation End	Violation Explanation
CHEMICAL MONITORING, ROUTINE MAJOR	Dec-21	Dec-21	<p><b>What Happened:</b> On December 5 and 26 of 2021, as a result of staff oversight in routine daily monitoring for chlorine dioxide/chlorite was not collected two out of the thirty-one days required in the month. Although this situation did not pose a safety risk and does not require you take any action, NTMWD is required to notify customers of the monitoring violation. All samples that were collected within the transmission system and those collected in-plant during December 2021 remained below regulatory requirements and have remained below these limits ever since this monitoring requirement was implemented over a decade ago.</p> <p><b>What should I do?</b> There is nothing you need to do at this time and no alternate water supply is needed.</p> <p><b>What is being done?</b> District personnel have revised our sample validation procedures and sampling protocols to twice per day to ensure these samples are collected, above what is required by regulation.</p> <p>Mandatory Language for Monitoring/Reporting Violation - Chemical Sampling - CHEMICAL MONITORING, ROUTINE MAJOR</p> <p>The NORTH TEXAS MWD WYLIE WTP water system PWS ID TX0430044 has violated the monitoring/reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Public water systems are required to collect and submit chemical samples of water provided to their customers, and report the results of the monitoring to the TCEQ on a regular basis. We failed to monitor/report the following constituents: Chlorine Dioxide/ Chlorite This/These violation(s) occurred in the monitoring period(s) December 5 &amp; 26, 2021</p> <p>Results of regular monitoring are an indicator of whether your drinking water is safe from chemical contamination. We did not complete all monitoring/reporting for chemical constituents, and therefore TCEQ cannot be sure of the safety of your drinking water during that time. Potential health effects from long-term exposure above the MCL - Anemia; infants and young children: nervous system effects Please share this information with all other people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.</p> <p>If you have questions regarding this matter, you may contact Zeke Campbell, Assistant Director Water Treatment and Conveyance at 972-442-5405. North Texas Municipal Water District</p>