



2016 ANNUAL DRINKING WATER QUALITY REPORT

PERIOD OF JANUARY 1 TO DECEMBER 31, 2016

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



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 3rd Monday of each month at 12475 Windy Lane, Forney, TX 75126 beginning at 7pm. 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



2016 Water purchased:	304,565,000 gallons
2016 Water sold:	256,266,069 gallons
2016 Water loss:	48,295,931 gallons
2016 Loss percentage:	15.86%
2016 Accounted for Loss:	18,550,000 gallons
2016 Unaccounted for Loss:	9.77%



Definitions

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)

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 picograms per liter

Coliform Bacteria

MCLG	Total Coliform MCL	Highest No. of Positive	Fecal Coliform or E. Coli MCL	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	1	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.

Cryptosporidium And Giardia

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2016	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.
Giardia	2016	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.

NOTE: Taken on treated water samples.

Lead and Copper

Contaminants	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	2016	0	15	3.18	1	ppb	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Copper	2016	1.3	1.3	0.6225	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits.

Maximum Residual Disinfectant Level

Disinfectant Type	Year	Average Level	Lowest Result	Highest Result	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2016	2.98	0.02	3.83	4.0	< 4.0	ppm	Disinfect used to control microbes.
Chlorine Dioxide	2016	0	0	0	0.8	0.8	ppm	Disinfectant
Chlorite	2016	0	0	0.115	1.0	N/A	ppm	Disinfectant

Secondary and Other Constituents Not Regulated

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Calcium	2016	85.2	30.7 – 85.2	ppm	Abundant naturally occurring element.
Chloride	2016	70.3	15.2 – 70.3	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Hardness as Ca/Ma	2016	238	159 – 238	ppm	Naturally occurring calcium and magnesium.
Iron	2016	0.02	0.00 – 0.02	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2016	6.65	5.85 – 6.65	ppm	Abundant naturally occurring element.
Manganese	2016	0.017	0.0005 – 0.017	ppm	Abundant naturally occurring element.
Nickel	2016	0.0041	0.0025 – 0.0041	ppm	Erosion of natural deposits.
pH	2016	9.00	7.1 – 9.0	units	Measure of corrosivity of water.
Sodium	2016	77.4	26.8 – 77.4	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2016	144	69 – 144	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2016	117	60 – 117	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2016	556	194 – 556	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2016	268	80 – 268	ppm	Naturally occurring calcium.
Zinc	2016	0.013	0.000 – 0.013	ppm	Moderately abundant naturally occurring element used in the metal industry.

Total Organic Carbon

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Source Water	2016	4.23	3.14 – 4.23	ppm	Naturally present in the environment.
Drinking Water	2016	2.80	1.37 – 2.80	ppm	Naturally present in the environment.
Removal Ratio	2016	63.9%	25.7 – 63.9	% 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.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.78 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	96.20%	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.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Date Sampled	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2016	23.7	13.3 – 23.7	No Goal	60	ppb	No	By-product of disinfection.
Total Trihalomethanes (TTHM)	2016	36.1	15.4 – 36.1	No Goal	80	ppb	No	By-product of disinfection.
Bromate	2016	6	0.0 – 6.0	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.

Inorganic Contaminants	Date Sampled	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2016	Levels lower than detect level	0 – 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; and electronics. Erosion of natural deposits; runoff from orchards; glass; and electronics production. Discharge of drilling wastes; metal refineries; erosion of natural deposits. Discharge from metal refineries; coal-burning factories; electrical, aerospace, and defense industries. Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints. Discharge from steel and pulp mills; erosion of natural deposits. Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland. Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits. Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines. Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.
Arsenic	2016	0.9	0.00 – 0.9	0	10	ppb	No	
Barium	2016	0.061	0.042 – 0.061	2	2	ppm	No	
Beryllium	2016	Levels lower than detect level	0 – 0	4	4	ppb	No	
Cadmium	2016	Levels lower than detect level	0 – 0	5	5	ppb	No	
Chromium	2016	1.2	0.52 – 1.20	100	100	ppb	No	
Fluoride	2016	0.93	0.13 – 0.93	4	4	ppm	No	
Mercury	2016	Levels lower than detect level	0 – 0	2	2	ppb	No	
Nitrate (measured as Nitrogen)	2016	0.358	0.275 – 0.358	10	10	ppm	No	
Selenium	2016	3.4	1.4 – 3.4	50	50	ppb	No	
Thallium	2016	Levels lower than detect level	0 – 0	0.5	2	ppb	No	

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	Date Sampled	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/positron emitters	5/2/2016	5.6	5.6 – 5.6	0	50	pCi/L	No	Decay of natural and man-made deposits. Erosion of natural deposits.
Gross alpha excluding radon and uranium	5/2/2016	Levels lower than detect level	0 – 0	0	15	pCi/L	No	
Radium	5/2/2016	Levels lower than detect level	0 – 0	0	5	pCi/L	No	

Synthetic organic contaminants including pesticides and herbicides	Date Sampled	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2, 4, 5 – TP (Silvex)	2016	Levels lower than detect level	0 – 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 – D	2016	Levels lower than detect level	0 – 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2016	Levels lower than detect level	0 – 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Atrazine	2016	0.61	0.31 – 0.61	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2016	Levels lower than detect level	0 – 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2016	Levels lower than detect level	0 – 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2016	Levels lower than detect level	0 – 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2016	Levels lower than detect level	0 – 0	200	200	ppb	No	Runoff from herbicide used on rights of ways.
Di (2-ethylhexyl) adipate	2016	Levels lower than detect level	0 – 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2016	Levels lower than detect level	0 – 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2016	Levels lower than detect level	0 – 0	0	0	ppt	No	Runoff / leaching fro soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2016	Levels lower than detect level	0 – 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2016	Levels lower than detect level	0 – 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2016	Levels lower than detect level	0 – 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2016	Levels lower than detect level	0 – 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2016	Levels lower than detect level	0 – 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2016	Levels lower than detect level	0 – 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2016	Levels lower than detect level	0 – 0	50	50	ppb	No	Discharge fro chemical factories.
Lindane	2016	Levels lower than detect level	0 – 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2016	Levels lower than detect level	0 – 0	40	40	ppb	No	Runoff / leaching fro insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2016	Levels lower than detect level	0 – 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2016	Levels lower than detect level	0 – 0	0	1	ppb	No	Discharge from wood preserving factories.
Simazine	2016	Levels lower than detect level	0 – 0	4	4	ppb	No	Herbicide runoff.
Toxaphene	2016	Levels lower than detect level	0 – 0	0	3	ppb	No	Runoff /leaching from insecticide used on cotton and cattle.

Volatile Organic Contaminants	Date Sampled	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1, 1, 1 – Trichloroethane	2016	Levels lower than detect level	0 – 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 – Trichloroethane	2016	Levels lower than detect level	0 – 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 – Dichloroethylene	2016	Levels lower than detect level	0 – 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2016	Levels lower than detect level	0 – 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 – Dichloropropane	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.
Chlorobenzene	2016	Levels lower than detect level	0 – 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.

Volatile Organic Contaminants	Date Sampled	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Ethylbenzene	2016	Levels lower than detect level	0 – 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2016	Levels lower than detect level	0 – 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2016	Levels lower than detect level	0 – 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2016	Levels lower than detect level	0 – 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2016	Levels lower than detect level	0 – 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2016	Levels lower than detect level	0 – 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis – 1, 2 - Dichloroethylene	2016	Levels lower than detect level	0 – 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2016	Levels lower than detect level	0 – 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2016	Levels lower than detect level	0 – 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans – 1, 2 - Dichloroethylene	2016	Levels lower than detect level	0 – 0	100	100	ppb	No	Discharge from industrial chemical factories.

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2016	22.1	7.89 – 22.1	ppb	By-product of drinking water disinfection.
Bromoform	2016	<1.00	<1.00	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2016	10.0	4.56 – 10.0	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2016	4.31	2.33 – 4.31	ppb	By-product of drinking water disinfection.

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

Violations

Violation Type	Violation Begin	Violation End	Violation Explanation
Disinfectant Level Quarterly Operating Report (DLQOR)	4/01/2016	6/30/2016	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. <i>All testing was completed; the report was not submitted on time.</i>

For more information regarding this report contact: Corey Trail at (972) 552-4422. Further details about sources and source-water assessments are available at the following URL: <http://www.tceq.texas.gov/gis/swaview> and in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW/>



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