

CITY OF PLANO

WATER QUALITY REPORT

For Calendar Year 2020



plano.gov/waterquality2020

2020 ANNUAL DRINKING WATER QUALITY REPORT

This is your water quality report for January 1 to December 31, 2020.

City of Plano TX0430007 972-769-4160

This report is available at plano.gov/waterquality2020.

En español: Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 972-769-5130 para hablar con una persona bilingüe en español.

SAFE, HIGH-QUALITY DRINKING WATER

The City of Plano wants its water customers to know that they receive safe, high-quality drinking water that is regulated to the highest standards. Plano's water system has a "Superior" rating with the Texas Commission on Environmental Quality (TCEQ), and it exceeds all state and federal drinking water standards. We recognize the North Texas Municipal Water District (NTMWD) for producing high-quality drinking water.

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. It summarizes the quality of the water we provide to our customers. In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The City of Plano's analysis was done using data from the most recent EPA required tests and is presented in the pages that follow. We hope this information helps you become more knowledgeable about what is in your drinking water. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

WHERE DOES OUR DRINKING WATER COME FROM?

The City of Plano provides purchased surface water from the North Texas Municipal Water District (NTMWD). NTMWD serves more than 1.8 million people across many communities in 10 counties. NTMWD gets raw water from Lavon Lake and treats it at the Wylie Water Treatment Plant. In addition to Lavon Lake, located in Collin County, NTMWD also obtains raw water from Lake Texoma on the Texas-Oklahoma border and the East Fork Water Reuse Project, located along the East Fork of the Trinity River. NTMWD also has water rights to, and obtains raw water from, Jim Chapman Lake (originally named Cooper Lake) on the South Sulphur River in Delta and Hopkins counties and Lake Tawakoni on the Sabine River in Rains and Van Zandt counties. NTMWD owns and operates six water treatment plants, more than 610 miles of water transmission pipelines, 18 pump stations and has water rights in five major water supply sources to meet the existing water needs of its service area. To meet future water demands, NTMWD is constructing Bois d'Arc Lake in Fannin County, which will eventually provide 120,000 acre-feet of water per year to residents in North Texas. Please visit NTMWD's website at ntmwd.com or call NTMWD at 972-442-5405 for detailed information on our water sources, treatment processes and more.

The TCEQ completed an assessment of the NTMWD Wylie Water Treatment Plant source water from Lavon Lake.

This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The sampling requirements for the NTMWD Wylie Water Treatment Plant Water System are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts in NTMWD's system, contact the Watershed Manager at 972-442-5405 or by e-mail at watersystem.info@ntmwd.com. For more information about your sources of 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 available in Drinking Water Watch at dww2.tceq.texas.gov/DWW/.

POSSIBLE CONTAMINANTS IN DRINKING WATER SOURCES

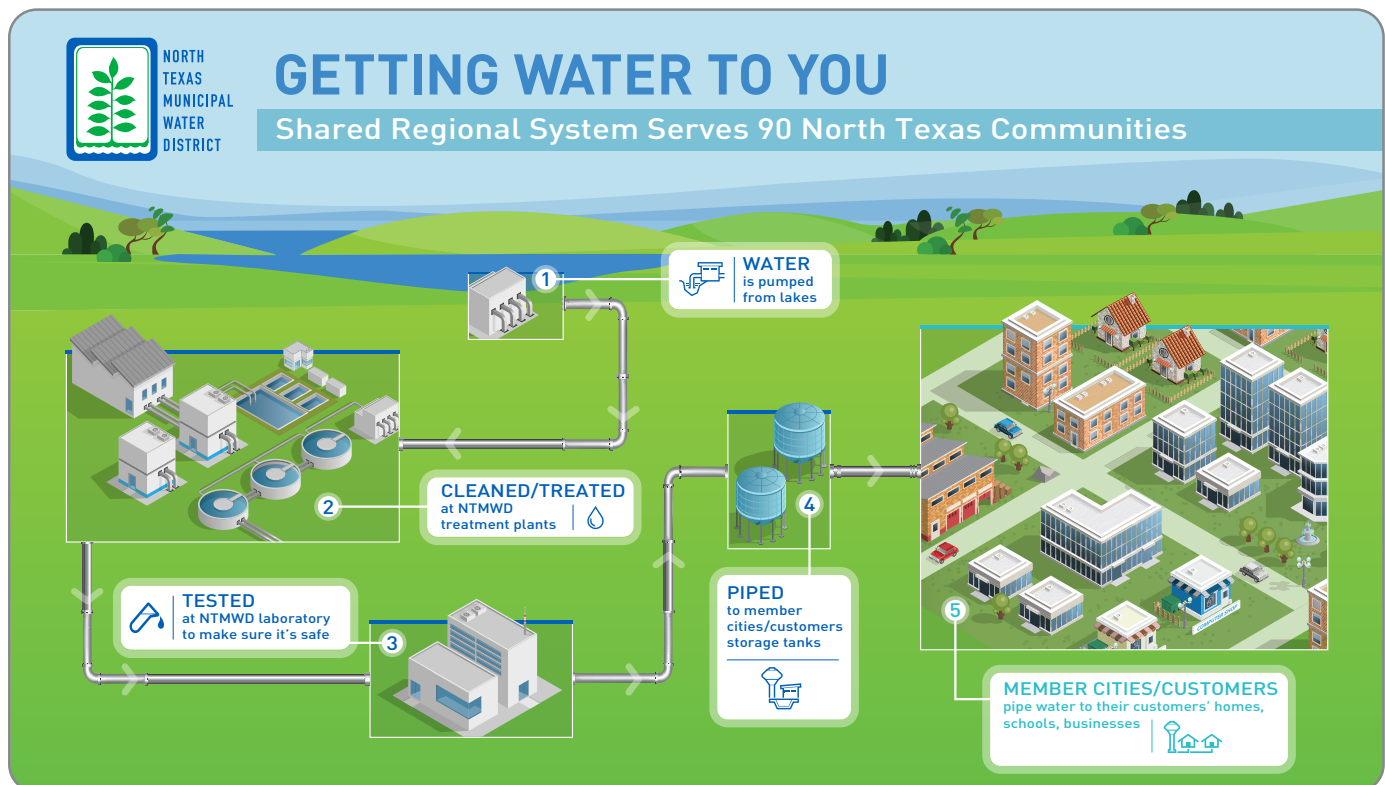
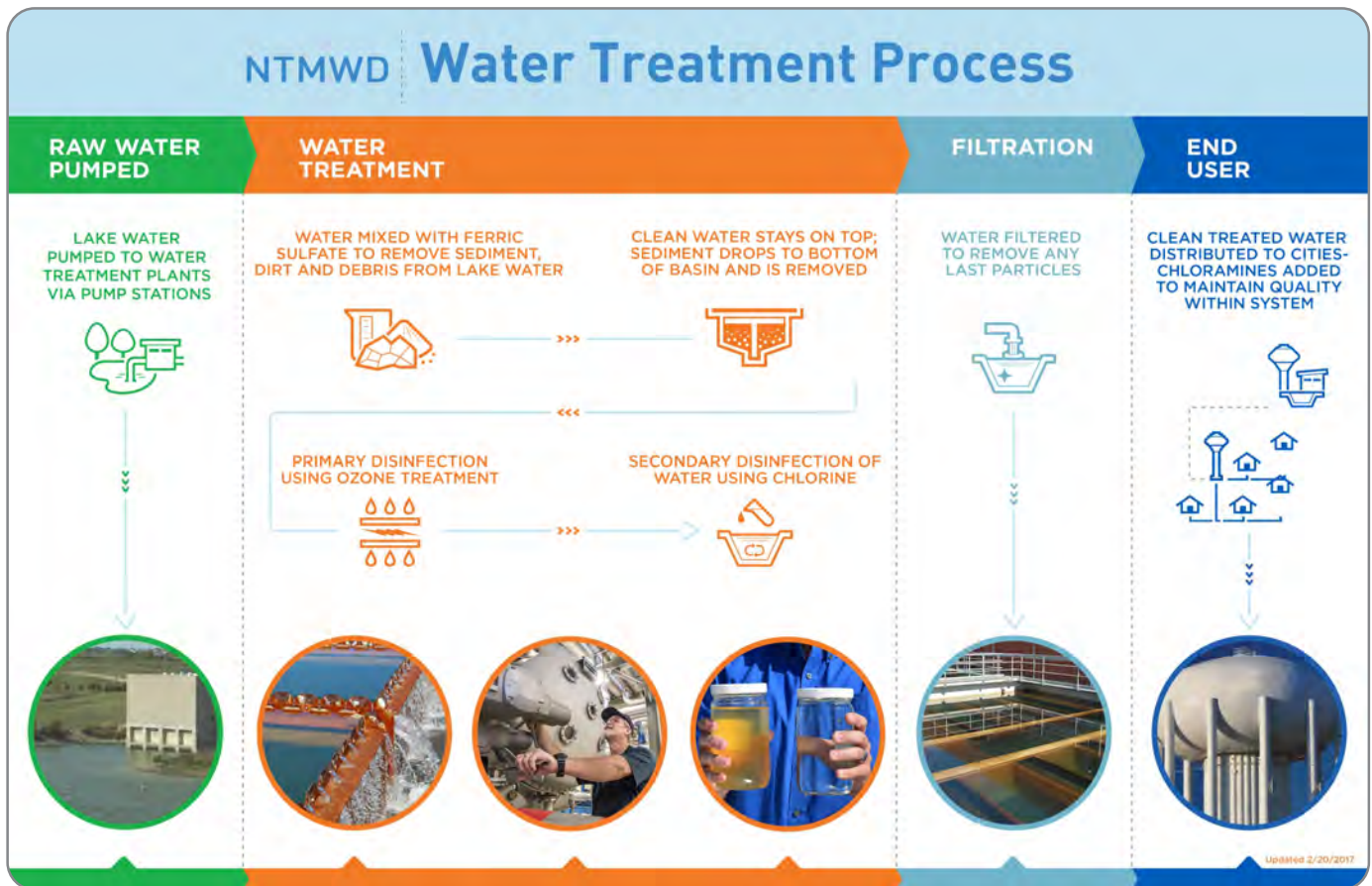
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick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

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

Contaminants that may be present in source water include:

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

THE GRAPHICS ON THIS PAGE ILLUSTRATE NTMWD'S WATER TREATMENT PROCESS AND HOW TREATED WATER MAKES ITS WAY TO THE CITY OF PLANO'S CUSTOMERS. PLEASE VISIT NTMWD.COM FOR ADDITIONAL GRAPHICS AND DETAILED INFORMATION.



IMPLICATIONS OF SECONDARY CONSTITUENTS

Secondary constituents, such as calcium, sodium or iron, which are often found in drinking water, can cause taste, color or odor problems. These secondary constituents are regulated by the State of Texas, not the EPA. These types of problems are not necessarily causes for health concerns. For more information on taste, odor or color of drinking water, please call City of Plano Public Works at 972-769-4160.

CRYPTOSPORIDIUM

NTMWD has tested lake water and treated water for the presence of Cryptosporidium for several years. It has been absent in all samples tested. Cryptosporidium is a protozoan that affects the digestive tracts of humans and animals. It is found in bodies of water that are contaminated with sewage or animal waste. At this time, there is no specific drug therapy proven to be effective, but people with healthy immune systems will usually recover from a Cryptosporidium infection within two weeks. NTMWD continues to diligently test both lake water and treated water for the presence of Cryptosporidium.

Special Notice: Weakened Immune Systems

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 providers. 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.

OZONATION

NTMWD completed implementation of ozone for primary disinfection at the Wylie Water Treatment Plants in 2014 for compliance with the Disinfection By-Products 2 Rule (DBP2). The DBP2 Rule changed the compliance criteria for trihalomethanes and haloacetic acids which are created when chlorine is used as the primary disinfectant. Ozone is also effective in treating taste and odor compounds associated with NTMWD's surface water sources. Accordingly, consumers should notice an improved taste and odor of their water.

CHLORAMINES

NTMWD uses chloramines for disinfection purposes. The benefit of using chloramines is to reduce the levels of disinfection byproducts in the system, while still providing protection from waterborne disease. The use of chloramines can cause problems to persons dependent on dialysis

machines. A condition known as hemolytic anemia can occur if the disinfectant is not completely removed from the water that is used for the dialysate. Consequently, the pretreatment scheme used for the dialysis units must include some means, such as a charcoal filter, for removing the chloramines from the water used. Medical facilities should also determine if additional precautions are required for other medical equipment. In addition, chloraminated water may be toxic to fish. If you have a fish tank, please make sure that the chemicals or filters that you are using are designed for use in water that has been treated with chloramines. You may also need to change the type of filter that you use for fish tanks.

WATER LOSS AUDIT FINDINGS

In the water loss audit submitted to the Texas Water Development Board (TWDB) for the time period of January 1 – December 31, 2020, our system lost an estimated 3,056,016,950 gallons of water. This includes 118,062,456 gallons of apparent losses and 2,937,954,494 gallons of real losses.

Apparent water loss includes the non-physical losses that occur in utility operations due to customer meter inaccuracies, systematic data handling errors in customer billing systems and unauthorized consumption; this is water that is consumed but not properly measured, accounted or billed.

Real water loss includes the physical losses of water from the distribution system, including leakage. This is water that has been treated, yet never reaches beneficial use.

PUBLIC PARTICIPATION OPPORTUNITIES

NTMWD Board of Directors' meetings are held on the fourth Thursday of each month with adjustments made for holidays or other conflicts. Visit ntmwd.com or call 972-442-5405 for a schedule of NTMWD Board of Directors' meetings.

City of Plano council meetings are held on the second and fourth Monday of each month with adjustments made for holidays or other conflicts. Visit plano.gov to learn more about future public meetings concerning your drinking water. For information on how to protect and conserve our water supplies, including information about seasonal watering guidelines, educational opportunities and rebates, visit plano.gov/water or LiveGreenInPlano.com

Please share this information with all 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 by distributing copies by hand or mail.

If you have questions regarding this report, you may contact Gerald Cosgrove at 972-769-4276.

This report was posted/delivered on June 1, 2021.

ABBREVIATIONS AND DEFINITIONS

The following table contains scientific terms and measures, some of which may require explanation.

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

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

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions

Maximum Contaminant Level (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

MFL: million fibers per liter (a measure of asbestos)

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

N/A: Not applicable

NTU: nephelometric turbidity units (a measure of turbidity)

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

ppb: parts per billion or micrograms per liter ($\mu\text{g/L}$)—or one ounce in 7,350,000 gallons of water

ppm: parts per million or milligrams per liter (mg/L)—or one ounce in 7,350 gallons of water

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

ppt: parts per trillion or nanograms per liter (ng/L)

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

Turbidity: A measure of water's clarity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Water with lower turbidity is clearer than water with higher turbidity

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	3	0	0	No	Naturally present in the environment.

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. If coliforms are found, this indicates the need to look for potential problems in water treatment or distribution. When this occurs, systems are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. A Level 1 assessment must be conducted when a PWS exceeds one or more of the Level 1 treatment technique triggers specified previously. Under the rule, this self-assessment consists of a basic examination of the source water, treatment, distribution system and relevant operational practices. The PWS should look at conditions that could have occurred prior to and caused the total coliform-positive sample. Example conditions include treatment process interruptions, loss of pressure, maintenance and operation activities, recent operational changes, etc. In addition, the PWS should check the conditions of the following elements: sample sites, distribution system, storage tanks, source water, etc. If the number of positive samples is below the required action level, then no assessment is performed. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. When E. coli bacteria are found, this indicates the need to look for potential problems in water treatment or distribution. When this occurs, systems are required to conduct Level 2 assessment(s) to identify problems and to correct any problems that were found during these assessments.

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)	2020	29.9	12.1 - 29.9	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2020	41	11.0 - 41.0	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2020	8.91	8.91 - 8.91	5	10	ppb	No	By-product of drinking water ozonation.

NOTE: Range of Levels Detected includes the quarterly samples collected by TCEQ. Special samples were collected during the month of March in 2020 during the chlorine maintenance period and therefore are not included in the table above. The results for TTHMs ranged from 41 to 93 mg/L and HAA5 from 19 to 35 mg/L.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2020	Lower than detect level	0 - 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2020	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	2020	0.061	0.058 - 0.061	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2020	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	2020	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	2020	Lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	2020	0.225	0.218 - 0.225	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2020	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)	2020	0.182	0.163 - 0.182	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Selenium	2020	Lower than detect level	0 - 0	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2020	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.

Regulated Contaminants (continued)

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2018	8.0	8.0 - 8.0	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2018	Lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2018	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
2, 4, 5 - TP (Silvex)	2019	Lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2019	Lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2020	Lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Aldicarb	2019	Lower than detect level	0 - 0	0	3	ppb	No	Runoff from pesticide used on row crops.
Aldicarb Sulfone	2019	Lower than detect level	0 - 0	0	2	ppb	No	Runoff from pesticide used on row crops.
Aldicarb Sulfoxide	2019	Lower than detect level	0 - 0	3	4	ppb	No	Runoff from pesticide used on row crops.
Atrazine	2020	0.2	0.2 - 0.2	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2020	Lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2019	Lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2020	Lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2019	Lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2020	Lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2020	0.6	0.6 - 0.6	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2019	Lower than detect level	0 - 0	0	200	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2019	Lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2020	Lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2019	Lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2020	Lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2020	Lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2020	Lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachloro-cyclopentadiene	2020	Lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2020	Lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2020	Lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl (Vydate)	2019	Lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2019	Lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Picloram	2019	Lower than detect level	0 - 0	4	500	ppb	No	Herbicide runoff.
Simazine	2020	0.08	0.07 - 0.08	4	4	ppb	No	Herbicide runoff.
Toxaphene	2020	Lower than detect level	0 - 0	0	3	ppb	No	Runoff / leaching from insecticide used on cotton and cattle.

Regulated Contaminants (continued)

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1, 1, 1 - Trichloroethane	2020	Lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2020	Lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2020	Lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2020	Lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.
Chlorobenzene	2020	Lower than detect level	0 - 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2020	Lower than detect level	0 - 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2020	Lower than detect level	0 - 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2020	Lower than detect level	0 - 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2020	Lower than detect level	0 - 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2020	Lower than detect level	0 - 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2020	Lower than detect level	0 - 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis - 1, 2 - Dichloroethylene	2020	Lower than detect level	0 - 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2020	Lower than detect level	0 - 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2020	Lower than detect level	0 - 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans - 1, 2 - Dichloroethylene	2020	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	0.31 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	100.00%	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 NTMWD's 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)	2020	2.71	0.04	4.00	4.00	< 4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2020	0	0	0	0.80	0.80	ppm	Disinfectant
Chlorite	2020	0.0475	0	0.483	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	2020	5.16	3.95 - 5.16	ppm	Naturally present in the environment.
Drinking Water	2020	3.14	2.13 - 3.14	ppm	Naturally present in the environment.
Removal Ratio	2020	53.9	28.4 - 53.9	% 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.

Cryptosporidium and Giardia

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Cryptosporidium	2020	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.
Giardia	2020	0	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.

Lead and Copper

Lead and Copper	Date Sampled	Action Level (AL)	MCLG	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	2019	15	0	1.49	2	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	2019	1.3	1.3	0.5969	0	ppm	No	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. The City of Plano 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 epa.gov/safewater/lead.

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2020	14.40	5.48 - 14.40	ppb	By-product of drinking water disinfection.
Bromoform	2020	4.39	1.23 - 4.39	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2020	14.90	6.22 - 14.90	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2020	10.90	5.45 - 10.90	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.

Secondary and Other Constituents Not Regulated No associated adverse health effects

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2020	Lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Calcium	2020	62.4	58.3 - 62.4	ppm	Abundant naturally occurring element.
Chloride	2020	78.9	23.2 - 78.9	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2020	Lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2020	9.40	8.83 - 9.40	ppm	Abundant naturally occurring element.
Manganese	2020	0.017	0.012 - 0.017	ppm	Abundant naturally occurring element.
Nickel	2020	0.0068	0.0066 - 0.0068	ppm	Erosion of natural deposits.
pH	2020	8.60	8.04 - 8.60	units	Measure of corrosivity of water.
Silver	2020	Lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2020	68.5	62.7 - 68.5	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2020	158	42.0 - 158	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2020	107	72.0 - 107	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2020	504	265 - 504	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2020	207	106 - 207	ppm	Naturally occurring calcium.
Zinc	2020	Lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

Want to see up-to-date water quality data? Visit plano.gov/water, and click on "Water Quality." The portal contains regularly-updated water quality data and user-friendly information.

WAYS YOU CAN HELP PROTECT & CONSERVE OUR WATER

Please protect our water and environment by picking up and trashing pet waste. Not only is it cool, but it's the law. In doing so, you help stop the spread of dangerous pathogens and keep our neighborhoods, parks and trails enjoyable for all.



Interested in learning about gardening and composting? Water quality and conservation? Air quality and energy? Litter abatement? Volunteerism? Let Live Green in Plano help! We offer fun, engaging sustainable lifestyle education and more for all ages.

LEARN WITH LIVE GREEN IN PLANO



learn more at
LiveGreenInPlano.com

PROTECT YOUR PIPES FROM WIPES

Visit DefendYourDrainsNorthTexas.com for more tips on proper waste disposal.

Think that wipe is "flushable?"
Think again! Many manufacturers claim wipes can be flushed, but they certainly don't break down like toilet paper. Flushed wipes congeal with fats, oils and grease (FOG), creating "fatbergs" that notoriously build up in sewers and cause clogs. Save a pipe – trash your wipe!

★ ★ ★ ★ ★
**DEFEND
YOUR
DRAINS**

Questions? Call 972-769-4216

Visit plano.gov/water for more information.