

**2021 Consumer Confidence Report (CCR) for Public Water System TX2200332 - NAVAL AIR STATION
JOINT RESERVE BASE FORT WORTH. This is your water quality report for January 1 to December 31, 2021.**
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Definitions and Abbreviations

The following tables contain scientific terms and measures, some of which may require explanation:

Action Level:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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 or 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 or MCLG:	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum residual disinfectant level or MRDL:	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum residual disinfectant level goal or 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)
na:	not applicable
NTU:	nephelometric turbidity units (a measure of turbidity)
pCi/L:	picocuries per liter (a measure of radioactivity)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water
ppm:	milligrams per liter or parts per million - 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 or TT:	A required process intended to reduce the level of a contaminant in drinking water

Information about your Drinking Water

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

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

Contaminants that may be present in source water include:

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

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons 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 Safe Drinking Water Hotline (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. We are responsible for providing high quality drinking water, but we 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>.

Where do we get our drinking water?

The source of drinking water used by NAVAL AIR STATION JOINT RESERVE BASE FORT WORTH is purchased water from the City of Fort Worth. The City of Fort Worth provides water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River. Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by the Tarrant Regional Water District.

Inorganic Contaminants

Year or Range	Contaminant	Maximum Level	Range of Levels	MCLG	MCL	Unit of Measure	Violation	Source of Contamination
2021	Fluoride	0.68	0.18 – 0.68	4	4	ppm	N	Erosion of natural products; Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
2021	Cyanide	197	66.2 to 197	200	200	ppm	N	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
2021	Nitrate	0.134	0.132 – 0.134	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2021	Uranium	1.1	1.1 to 1.1	0	30	ppm	N	Erosion of natural deposits
2021	Bromate	4.23	0 – 13.6	0	10	ppb	N	Byproduct of drinking water disinfection
2021	Gross Beta Emitters	7	7 to 7	0	50	pCi/L	N	Decay of natural and man-made deposits
2021	Arsenic	1.5	0 to 1.5	0	10	ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
2021	Atrazine	0.2	0.0 to 0.2	3	3	ppb	N	Runoff from herbicide used on row crops
2021	Barium	0.07	0.05 – 0.07	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
2021	Chromium	1.8	0 to 1.8	100	100	ppb	N	Erosion of natural deposits

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2021	Chloramines	3.4	0.6	4.6	4	4	ppm	Water additive used to control microbes

Disinfectant Byproducts

Year	Disinfectant Byproducts	Highest Level	Range of Levels	MCL	MCLG	Units	Violation	Likely Source of Disinfectant
2021	Haloacetic Acids (HAA5)	6.9	3.2 – 6.9	60	N/A	ppb	N	Byproduct of drinking water disinfection.
2021	Total Trihalomethanes (TTHM)	6.21	<1 – 6.21	80	N/A	ppb	N	Byproduct of drinking water disinfection.

Turbidity

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2021	Turbidity	TT=1 TT=Lowest monthly % of samples <or- 0.3 NTU	99.3	0.7	NTU	Soil runoff (Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.)

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	2		0	N	Naturally present in the environment

Total Organic Carbon

Year	Contaminant	High Measurement	Low Measurement	Average Measurement	MCL	MCLG	Common Sources of Substance
2021	Total Organic Carbon ¹	1	1	1	TT=% removal	N/A	Naturally occurring

¹ It is used to determine disinfection byproduct precursors. Fort Worth is in compliance with all monitoring and treatment technique requirements for disinfection byproduct precursors. A removal ratio of 1 in Specific Ultra Violet Absorbance calculations is considered passing.

Secondary and Other Constituents Not Regulated

(These items do not relate to public health but rather to the aesthetic effects. These items are often important to industry.)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2021	Bicarbonate	118.95	99.9	138	N/A	ppm	Corrosion of carbonate rocks such as limestone.
2021	Calcium	48.15	37.8	58.8	N/A	ppm	Abundant naturally occurring element
2021	Chloride	25.2	13.7	36.7	300	ppm	Abundant naturally occurring element; used in water purifications; byproduct of oil field activity
2021	Conductivity	383	296	470	N/A	umhos/cm	Measure of conductivity in water activity
2021	pH	8.05	7.8	8.3	>7.0	units	Measure of corrosivity of water
2021	Magnesium	6.005	2.91	9.10	N/A	ppm	Abundant naturally occurring element
2021	Sodium	22.45	15	29.9	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity
2021	Sulfate	31.7	22.6	40.8	N/A	ppm	Naturally occurring element; common industrial byproduct; byproduct of oil field activity

2021	Total Alkalinity as CaCO ₃	120.95	99.9	142	N/A	ppm	Naturally occurring soluble mineral salts
2021	Total Dissolved Solids	199	149	249	N/A	ppm	Total dissolved mineral constituents in water
2021	Total Hardness as CaCO ₃	145	107	183	N/A	ppm	Naturally occurring calcium
2021	Total Hardness in Grains	8.5	6	11	N/A	grains/gallon	Naturally occurring elements

Unregulated Contaminants

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

Year	Contaminant	Range of Detects	Highest Level	Unit of Measure	MCL	MCLG	Common Sources of Substance
2021	Bromoform	<1	<1	ppb	Not Regulated	None	Byproducts of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
	Bromodichloromethane	<1 – 2.48	2.48	ppb	Not Regulated	None	
	Chloroform	<1 – 4.1	4.1	ppb	Not Regulated	None	
	Dibromochloromethane	<1–1.64	1.64	ppb	Not Regulated	None	
2021	Monochloroacetic Acid	<1 –2.6	2.6	ppb	Not Regulated	None	Byproducts of drinking water disinfection; not regulated individually; included in Haloacetic Acids
	Dichloroacetic Acid	2.1 – 5.2	5.2	ppb	Not Regulated	None	
	Trichloroacetic Acid	<1	<1	ppb	Not Regulated	None	
	Monobromoacetic Acid	<1	<1	ppb	Not Regulated	None	
	Dibromoacetic Acid	<1 – 1.3	1.3	ppb	Not Regulated	None	
	Bromochloroacetic Acid	1.6 – 3.1	3.1	ppb	Not Regulated	None	

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/24/2021	1.3	1.3	0.829	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/24/2021	0	15	0.0033	0	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Microorganism testing shows low detections in raw water for 2021

Tarrant Regional Water District monitors the raw water at all intake sites for Cryptosporidium, Giardia Lamblia, and viruses. The source is human and animal fecal waste in the watershed. The 2021 sampling showed occasional low level detections of Cryptosporidium and Giardia Lamblia and viruses in some but not all of the water supply sources. These are either deactivated or removed through disinfection and/or filtration.

TCEQ assesses raw water supplies for susceptibility

Fort Worth uses surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River. Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is the responsible for Benbrook Lake. The other four lakes are owned and operated by the Tarrant Regional Water District. The Texas Commission on Environmental Quality completed an assessment of the Fort Worth's source waters. TCEQ classified the risk to our source waters as high for most contaminants. High susceptibility means activities near the source water or watershed make it very likely that chemical constituents may come into contact with the source water. It does not mean that there are any health risks present. Tarrant Regional Water District, from which Fort Worth purchases its water, received the assessment reports. For more information on source water assessments and protection efforts at our system, contact Stacy Walters at 817-392-8203. Further details about the source-water assessments are available in the Texas Commission on Environmental Quality's Drinking Water Watch database at <http://dww.tceq.state.tx.us/DWW/>.

Corrosion Control

To meet the requirements of the Lead and Cooper Rule, Fort Worth achieves corrosion control through pH adjustment.