# 2023 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, 2023.

*Phone Number: (817) 782-6381, Deputy Public Works Officer*

| **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.

## En Espanol

Este informe incluye informacion importante sobre el aqua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar at tel. (817) 782-7815 para hablar con una persona bilingue en espanol.

**Inorganic Contaminants**

| Year or Range | Contaminant | Maximum Level | Range of Levels | MCLG | MCL | Unit of Measure | Violation | Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| 2023 | Fluoride | 0.57 | 0.21 – 0.57 | 4 | 4 | ppm | N | Erosion of natural products; Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories |
| 2023 | Cyanide | 137 | 0 to 137 | 200 | 200 | ppm | N | Discharge form plastic and fertilizer factories; discharge from steel and metal factories |
| 2023 | Nitrate | 0.31 | 0.30 – 0.31 | 10 | 10 | ppm | N | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| 2023 | Uranium | 1.2 | 1.2 to 1.2 | 0 | 30 | ppm | N | Erosion of natural deposits |
| 2023 | Bromate | 4 | 0 – 8.56 | 0 | 10 | ppb | N | Byproduct of drinking water disinfection |
| 2023 | Gross Beta Emitters | 6.5 | 4.6 to 6.5 | 0 | 50 | pCi/L | N | Decay of natural and man-made deposits |
| 2023 | Arsenic | 1.3 | 0 to1.3 | 0 | 10 | ppb | N | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| 2023 | Atrazine | 0.1 | 0.0 to 0.1 | 3 | 3 | ppb | N | Runoff from herbicide used on row crops |
| 2023 | Barium | 0.06 | 0.05 – 0.06 | 2 | 2 | ppm | N | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |

**Maximum Residual Disinfectant Level**

| Year | Disinfectant | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Unit of Measure | Source of Disinfectant |
|---|---|---|---|---|---|---|---|---|
| 2023 | Chloramines | 3.4 | .72 | 4.4 | 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 |
|---|---|---|---|---|---|---|---|---|
| 2023 | Haloacetic Acids (HAA5) | 14.7 | 3.7 – 14.7 | 60 | N/A | ppb | N | Byproduct of drinking water disinfection. |
| 2023 | Total Trihalomethanes (TTHM) | 17.6 | 2.75 –17.6 | 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 |
|---|---|---|---|---|---|---|
| 2023 | Turbidity | TT=1 TT=Lowest monthly % of samples <or- 0.3 NTU | 100 | .29 | 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 | 0 | | 0 | N | Naturally present in the environment |

**Total Organic Carbon**

| Year | Contaminant | High Measurement | Low Measurement | Average Measurement | MCL | MCLG | Common Sources of Substance |
|---|---|---|---|---|---|---|---|
| 2023 | 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 |
|---|---|---|---|---|---|---|---|
| 2023 | Bicarbonate | 155.3 | 88.3 | 134 | N/A | ppm | Corrosion of carbonate rocks such as limestone. |
| 2023 | Calcium | 32.25 | 23.2 | 41.3 | N/A | ppm | Abundant naturally occurring element |
| 2023 | Chloride | 30.45 | 22.2 | 38.7 | 300 | ppm | Abundant naturally occurring element; used in water purifications; byproduct of oil field activity |
| 2023 | Conductivity | 408 | 322 | 494 | N/A | umhos/cm | Measure of conductivity in water activity |
| 2023 | pH | 8.3 | 8.1 | 8.5 | >7.0 | units | Measure of corrosivity of water |
| 2023 | Magnesium | 5.45 | 3.5 | 7.4 | N/A | ppm | Abundant naturally occurring element |
| 2023 | Sodium | 27.4 | 23.2 | 31.6 | N/A | ppm | Erosion of natural deposits; byproduct of oil field activity |
| 2023 | Sulfate | 38.2 | 28.4 | 48 | N/A | ppm | Naturally occurring element; common industrial byproduct; byproduct of oil field activity |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2023 | Total Alkalinity as $CaCO_3$ | 114.65 | 88.3 | 141 | N/A | ppm | Naturally occurring soluble mineral salts |
| 2023 | Total Dissolved Solids | 229 | 184 | 274 | N/A | ppm | Total dissolved mineral constituents in water |
| 2023 | Total Hardness as $CaCO_3$ | 106.95 | 79.9 | 134 | N/A | ppm | Naturally occurring calcium |
| 2023 | Total Hardness in Grains | 6.5 | 5 | 8 | 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 |
|---|---|---|---|---|---|---|---|
| 2023 | Bromoform | <1 – 1.13 | 1.13 | ppb | Not Regulated | None | |
| | Bromodichloromethane | 1.15 – 5.9 | 5.9 | ppb | Not Regulated | None | Byproducts of drinking water disinfection; not regulated individually; included in Total Trihalomethanes |
| | Chloroform | 1.6 – 7 | 7 | ppb | Not Regulated | None | |
| | Dibromochloromethane | <1–3.3 | 3.3 | ppb | Not Regulated | None | |
| 2023 | Monochloroacetic Acid | <1 –6.8 | 6.8 | ppb | Not Regulated | None | |
| | Dichloroacetic Acid | 2.7 – 7.7 | 7.7 | ppb | Not Regulated | None | |
| | Trichloroacetic Acid | <1 | <1 | ppb | Not Regulated | None | Byproducts of drinking water disinfection; not regulated individually; included in Haloacetic Acids |
| | Monobromoacetic Acid | <1 | <1 | ppb | Not Regulated | None | |
| | Dibromoacetic Acid | <1 – 2.1 | 2.1 | ppb | Not Regulated | None | |
| | Bromochloroacetic Acid | 1.3 – 3.6 | 3.6 | ppb | Not Regulated | None | |

## Microorganism testing shows low detections in raw water for 2023

Tarrant Regional Water District monitors the raw water at all intake sites for Crytosporidium, Giardia Lamblia, and viruses. The source is human and animal fecal waste in the watershed. The 2023 sampling showed occasional low level detections of Cryptosporidium and Giardia Lamblia. 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. Corrosion control does not remove lead pipes, but it reduces the risk of lead breaking off or dissolving into drinking water.

## Testing for Unregulated Contaminants

The Safe Drinking Water Act requires that once every five years EPA issue a list of unregulated contaminants to be monitored by public water systems. EPA fulfills this requirement through the Unregulated Contaminant Monitoring Rule (UCMR).

Unregulated contaminants are those for which 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 is warranted.

UCMR testing provides scientifically valid data on the occurrence of these contaminants in drinking water. Health research is necessary to know whether these contaminants pose a health risk.

Water systems across the country are collecting samples for the Fifth Unregulated Contaminant Rule (UCMR5) during for consecutive quarters between January 2023 and December 2025. All water systems serving more than 3,300 people are required to participate in the data collection. In addition, 800 systems nationwide serving less than 3,300 people will participate.

Fort Worth conducted its required testing in January, April, July and October. Those results are displayed in the following charts.

Because the North Holy Water Treatment Plant was out of service in January 2023, additional sampling was done in January 2024. That data is not found in the following charts since this report pertains to 2023 water quality. The additional results can be found at website www.fortworthtexas.gov/departments/water/drinking-water/ucmr.

For the UCMR5, EPA selected 29 per- and polyfluoroalkyl substances (PFAS) and one metal/pharmaceutical – lithium.

PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications. These include: non-stick cookware, water-repellant clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water and oil.

PFAS are found in the blood of people and animals and in water, air, fish and soil at locations across the United States and the world.

Fort Worth detected seven different PFAS compounds, but not all seven in the finished water from all facilities.

Lithium and 22 PFAS compounds were not detected.

EPA is proposing to regulate six PFAS compounds. Fort Worth is in the process of conducting a treatability study to determine what type of additional treatment is required to meet the new proposed limits.

# *Compounds not detected in Fort Worth's water*

- 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
- 1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)
- 1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)
- 1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)
- 4, 8-dioxa-3H-perfluorononanoic acid (ADONA)
- 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
- hexafluoropropylene oxide dimer acid (HFPO-DA)(GenX)*
- nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
- perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
- perfluoro-3-methoxypropanoic acid (PFMPA)
- perfluoro-4-methoxybutanoic acid (PFMBA)
- perfluorodecanoic acid (PFDA)
- perfluorododecanoic acid (PFDoA)
- perfluoroheptanesulfonic acid (PFHpS)
- perfluoroheptanoic acid (PFHpA)
- perfluorononanoic acid (PFNA)*
- perfluoropentanesulfonic acid (PFPeS)
- perfluoroundecanoic acid (PFUnA)
- N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)
- N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
- perfluorotetradecanoic acid (PFTA)
- perfluorotridecanoic acid (PFTrDA)
- lithium

* Proposed for regulation

## UCMR 5- Overall

| Compound | Measure | Average | Range of Detects | Common Sources of Substance |
|---|---|---|---|---|
| perfluorooctanoic acid (PFOA)* | ppt | 2.08 | 0 to 8.3 | |
| perfluorooctanesulfonic acid (PFOS)* | ppt | 2.05 | 0 to 7.3 | |
| perfluorobutanesulfonic acid (PFBS)* | ppt | 1.95 | 0 to 4.9 | |
| perfluorohexanesulfonic acid (PFHxS)* | ppt | 5.28 | 0 to 25.8 | |
| perfluorobutanoic acid (PFBA) | ppt | 7.57 | 5.5 to 10 | |
| perfluoropentanoic acid (PFPeA) | ppt | 4.10 | 0 to 6.2 | |
| perfluorohexanoic acid (PFHxA) | ppt | 4.46 | 0 to 10.6 | |

## UCMR 5- North Holly Water Treatment Plant

| Compound | Measure | Average | Range of Detects | Common Sources of Substance |
|---|---|---|---|---|
| perfluorooctanoic acid (PFOA)* | ppt | 5.8 | 5 to 7.9 | |
| perfluorooctanesulfonic acid (PFOS)* | ppt | 5.9 | 5 to 7.3 | |
| perfluorobutanesulfonic acid (PFBS)* | ppt | 0.8 | 0 to 3.3 | |
| perfluorohexanesulfonic acid (PFHxS)* | ppt | 15.1 | 8.1 to 24.9 | |
| perfluorobutanoic acid (PFBA) | ppt | 9.1 | 8.2 to 10 | |
| perfluoropentanoic acid (PFPeA) | ppt | 5.3 | 4.8 to 6 | |
| perfluorohexanoic acid (PFHxA) | ppt | 7.6 | 6.8 to 10 | |

## UCMR 5- South Holly Water Treatment Plant

| Compound | Measure | Average | Range of Detects | Common Sources of Substance |
|---|---|---|---|---|
| perfluorooctanoic acid (PFOA)* | ppt | 5.5 | 4.2 to 8.3 | |
| perfluorooctanesulfonic acid (PFOS)* | ppt | 5.3 | 4 to 7 | |
| perfluorobutanesulfonic acid (PFBS)* | ppt | 4.4 | 3.5 to 4.9 | |
| perfluorohexanesulfonic acid (PFHxS)* | ppt | 13.8 | 7.9 to 25.8 | |
| perfluorobutanoic acid (PFBA) | ppt | 8.5 | 6.8 to 9.7 | |
| perfluoropentanoic acid (PFPeA) | ppt | 5.2 | 4.3 to 6.2 | |
| perfluorohexanoic acid (PFHxA) | ppt | 7.2 | 5.7 to 10.6 | |

## UCMR 5- Eagle Mountain Water Treatment Plant

| Compound | Measure | Average | Range of Detects | Common Sources of Substance |
|---|---|---|---|---|
| perfluorobutanoic acid (PFBA) | ppt | 7.2 | 5.5 to 8.3 | |
| perfluoropentanoic acid (PFPeA) | ppt | 2.8 | 0 to 3.9 | |
| perfluorohexanoic acid (PFHxA) | ppt | 2.4 | 0 to 3.5 | |

## UCMR 5- Rolling Hills Water Treatment Plant

| Compound | Measure | Average | Range of Detects | Common Sources of Substance |
|---|---|---|---|---|
| perfluorobutanesulfonic acid (PFBS)* | ppt | 0.8 | 0 to 3.3 | |
| perfluorobutanoic acid (PFBA) | ppt | 7.0 | 6.3 to 7 .4 | |
| perfluoropentanoic acid (PFPeA) | ppt | 3.8 | 3.3 to 4.7 | |
| perfluorohexanoic acid (PFHxA) | ppt | 2.5 | 0 to 3.7 | |

## UCMR 5- Westside Water Treatment Plant

| Compound | Measure | Average | Range of Detects | Common Sources of Substance |
|---|---|---|---|---|
| perfluorobutanesulfonic acid (PFBS)* | ppt | 0.8 | 0 to 3.2 | |
| perfluorobutanoic acid (PFBA) | ppt | 6.4 | 5.5 to 7 .2 | |
| perfluoropentanoic acid (PFPeA) | ppt | 3.7 | 3.2 to 4.2 | |
| perfluorohexanoic acid (PFHxA) | ppt | 3.4 | 2.9 to 3.9 | |