

**2015 Annual Drinking
Water Quality Report**
(Consumer Confidence Report)
Reporting period Jan. 1 to Dec. 31, 2015

NAVAL AIR STATION FORT WORTH JOINT RESERVE BASE TX2200332

Phone Number: (817) 782-7446

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SPECIAL NOTICE

**Required language for ALL community
public water systems:**

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your physician or healthcare provider. Additional guidelines and appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

**Public Participation
Opportunities**

Date: None Scheduled

Time:

Location:

Phone Number: (817) 392-4477

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

**OUR DRINKING WATER
IS REGULATED**

This report is a summary of the quality of water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

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.

En Espanol

Este informe incluye informacion importante sobre el agua 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.

Where do we get our drinking water?

The source of drinking water used by NAVAL AIR STATION FORT WORTH JOINT RESERVE BASE is Purchased Surface Water. A Source Water Susceptibility Assessment for your drinking water is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and normal conditions. The information contained in this assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on the Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

ALL drinking water may contain contaminants

When drinking water meets federal standards, there may not be health benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain 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.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, odor, and color problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document, but they may greatly affect the appearance and taste of your drinking water.

Abbreviations

- 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
- ppt – parts per trillion, or nanograms per liter
- ppq – parts per quadrillion, or pictograms per liter

Definitions

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. MCLG's allow a margin of safety.

Maximum Contaminant Level or MCL:

The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using best available treatment technology.

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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Avg:

Regulatory compliance with some MCL's 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

na:

Not applicable

Definitions:

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

Inorganic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contamination
2015	Fluoride	0.56	0.12	0.56	4	4	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
2015	Cyanide	145	13.4	145	200	200	ppb	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
2015	Nitrate	0.671	0.666	0.676	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2015	Nitrite	0.004	0.004	0.004	1	1	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2015	Bromate	6.22	0	6.22	10	0	ppb	Byproduct of drinking water disinfection
2015	Gross Beta Emitters ¹	5.6	4	5.6	50	N/A	pCi/L	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
2015	Radium 228(2)	1	1	1	5	0	pCi/L	Erosion of natural deposits
2015	Arsenic	1.70	0.96	1.70	10	0	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
2015	Antimony	0.21	0	0.21	6	6	ppb	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder, test addition
2015	Barium	0.071	0.05	0.071	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
2015	Chromium (Total)	1	0.87	1	100	100	ppb	Discharge from steel and pulp mills, erosion of natural deposits

¹The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Maximum Residual Disinfectant Level

Year	Disinfectant	Actual Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2015	Chloramine Residual	3.47	2.20	4.80	4	4	ppm	Water additive used to control microbes

Regulated Contaminants

Disinfectant Byproducts

Year	Disinfectants and Disinfectant Byproducts	Highest Level	Range of Levels	MCL	MCLG	Units	Violation	Likely Source of Disinfectant
2015	Haloacetic Acids (HAA5)	5.0	<1 – 5.0	60	N/A	ppb	No	Byproduct of drinking water chlorination
2015	Total Trihalomethanes (TTHM)	8.50	2.06 – 8.50	80	N/A	ppb	No	Byproduct of drinking water chlorination

Turbidity

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2015	Turbidity ²	0.50	98.9	0.3	NTU	Soil runoff

² Turbidity is measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as cramps, nausea, diarrhea, and associated headaches.

Coliforms

Contaminant	Measure	MCL	2015 level	Range	MCLG	Source of Contamination
Total Coliforms (including fecal coliform & E. coli)	% Positive samples	Presence in 5% or less of monthly samples	Presence in 0.8% of monthly samples	0 to 0.8 %	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only comes from human and animal fecal waste.

Total Organic Carbon

Year	Contaminant	High Measurement	Low Measurement	Average Measurement	MCL	MCLG	Common Sources of Substance
2015	Total Organic Carbon ³	1	1	1	TT=% removal	N/A	Naturally occurring

³ Total Organic Carbon is used to determine disinfection byproduct precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection byproduct precursors.

Violations

Year	Violation Type	Violation Begin	Violation End	Violation Explanation
2015	MAXIMUM CONTAMINANT LEVEL (MCL) COLIFORM VIOLATION (TCR 22)	6/23/2015	7/16/2015	We had an exceedance of a total coliform sample during the month of June. All required repeat samples were negative and we did the required public announcement within 30 days.

Secondary and Other Constituents Not Regulated

(No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2015	Bicarbonate	108.2	96.4	120	N/A	ppm	Corrosion of carbonate rocks such as limestone.
2015	Calcium	37.7	33.3	42.1	N/A	ppm	Abundant naturally occurring element
2015	Chloride	19.2	12.5	25.9	300	ppm	Abundant naturally occurring element; used in water purifications; byproduct of oil field activity
2015	Conductivity	380	333	427	N/A	umhos/cm	Measure of conductivity in water activity
2015	pH	8.1	8	8.2	>7.0	units	Measure of corrosivity of water
2015	Magnesium	5.17	3.55	6.79	N/A	ppm	Abundant naturally occurring element
2015	Sodium	20.4	12.3	28.5	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity
2015	Sulfate	24.6	20.2	29	N/A	ppm	Naturally occurring element; common industrial byproduct; byproduct of oil field activity
2015	Total Alkalinity as CaCO ₃	108.2	96.4	120	N/A	ppm	Naturally occurring soluble mineral salts
2015	Total Dissolved Solids	198.5	163	234	N/A	ppm	Total dissolved mineral constituents in water
2015	Total Hardness as CaCO ₃	117	101	133	N/A	ppm	Naturally occurring calcium
2015	Total Hardness in Grains	7	6	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 or unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the table above. For additional information and data, visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html> or call the Safe Drinking Water Hotline at (800) 426-4791.”

Year	Contaminant	2013 Range of Detects	2013 Level	Unit of Measure	MCL	MCLG	Common Sources of Substance
2015	Chloral Hydrate	0.30 – 0.67	0.67	ppb	Not Regulated	None	Byproduct of drinking water disinfection
2015	Bromoform	<1 – 1.2	1.2	ppb	Not Regulated	None	
	Bromodichloromethane	<1 – 3.03	3.03	ppb	Not Regulated	None	Byproducts of drinking water disinfection; not regulated individually;
	Chloroform	2.06 – 4.49	4.49	ppb	Not Regulated	70	included in Total Trihalomethanes
	Dibromochloromethane	<1 – 2.7	2.7	ppb	Not Regulated	60	

2015	Monochloroacetic Acid	<2 – 5.0	5.0	ppb	Not Regulated	70	
	Dichloroacetic Acid	<1 – 3.9	3.9	ppb	Not Regulated	None	
	Trichloroacetic Acid	<1	<1	ppb	Not Regulated	20	Byproducts of drinking water disinfection; not regulated individually; included in Haloacetic Acids
	Monobromoacetic Acid	<1	<1	ppb	Not Regulated	None	
	Dibromoacetic Acid	<1	<1	ppb	Not Regulated	None	

Additional Information:

Microorganism testing shows low detections in raw water for 2015

Intake Location	Cryptosporidium	Giardia Lamblia	Adenovirus	Enterovirus	Astrovirus	Rotavirus
Richland-Chambers Reservoir	Not detected	Not detected	January	Not detected	Not detected	Not detected
Cedar Creek Lake	Not detected	Not detected	January & March	Not detected	Not detected	Not detected
Lake Benbrook	Not detected	Not detected	January & March	Not detected	Not detected	Not detected
Eagle Mountain Lake	June	Not detected	January	September	Not detected	Not detected
Lake Worth	Not detected	Not detected	January & March	Not detected	Not detected	Not detected
Clearfork of Trinity River	Not detected	Not detected	January & March	Not detected	Not detected	Not detected

(1) 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 2015 sampling showed low level detections of Cryptosporidium, Giardia Lamblia and viruses that are common in surface water. The table above indicates when detections were found in each raw water source. Cryptosporidium and Giardia Lamblia monitoring is done monthly. Virus monitoring is performed four times a year in January, March, July and September. Viruses are treated through disinfection processes. Cryptosporidium and Giardia Lamblia are removed through a combination of disinfection and/or filtration.