



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 7TH BOMB WING (AFGSC)
DYESS AIR FORCE BASE TEXAS



26 June 2017

MEMORANDUM FOR ALL DYESS PERSONNEL

FROM: 7 BW/CC

SUBJECT: Dyess Air Force Base Drinking Water Consumer Confidence Report

1. The attached report is a Consumer Confidence Report that provides data about measured levels of wanted and unwanted substances in our drinking water and what those levels mean.
2. The 7th Civil Engineer Squadron Water/Fuels Maintenance Element ensures that our water at Dyess is of the highest quality. Their efforts ensure the proper amounts of chlorine and fluoride are in our drinking water. This provides water that is free of harmful bacteria and promotes the development of strong and healthy teeth in our children. Further, the routine quality assurance checks by the 7th Aerospace Medicine Squadron Bioenvironmental Engineering Flight ensures our water is safe for consumption.
3. You can be assured that the water you drink at Dyess is safe and free from health hazards.
4. If you have any questions or concerns, my point of contact is Capt Patrick Morris of the Bioenvironmental Engineering Flight and he can be reached at 696-2325.

DAVID M. BENSON, Col, USAF
Commander

Attachment:

2016 Dyess AFB Drinking Water Consumer Confidence Report

Annual Drinking Water Quality Report

TX2210013

DYESS AIR FORCE BASE

Annual Water Quality Report for the period of January 1 to December 31, 2016

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.

DYESS AIR FORCE BASE is Purchased Surface Water

Sources 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.

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.

For more information regarding this report contact:

Bioenvironmental Engineering Flight

Phone: 325-696-2325

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (325) 696-2325.

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. Dyess AFB is 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 two 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>.

Information about Source Water Assessments

The Texas Commission on Environmental Quality (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(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact Bioenvironmental Engineering at 325-696-2325.

Our drinking water is obtained from the following surface water sources: Lake O.H. Ivie, Lake Fort Phantom Hill, and Hubbard Creek Lake.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://www.tceq.texas.gov/gis/swaview>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location	
SW FROM CITY OF ABILENE	CC FROM TX2210001 CITY OF	SW	Active	Taylor County

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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)
na:	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.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

Lead and Copper

Definitions:

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.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper ²	2016	1.3	1.3	0.94	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead ²	2016	0	15	3	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

¹ City of Abilene Data² Dyess AFB Data

Note: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Bacteriological

Type of Contaminant	Year of Range	Total # of Positive Samples	MCL	MCLG	Violation (Y/N)	Source of Contaminant
Total Coliform ²	2016	1	1	0	N	Naturally present in environment. Animal or human waste.

¹ City of Abilene Data² Dyess AFB Data**Disinfectant Residual**

Disinfectant	Year of Range	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source of Contaminant
Chloramine Residual ²	2016	2.06	0.01	4.9	4	4	ppm	N	Water additive used to control microbes.

¹ City of Abilene Data² Dyess AFB Data

Regulated Contaminants

Type of Contaminant	Year of Range	Contaminant (unit of measure)	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Source of Contaminant
Inorganic Contaminants	2016	Arsenic ¹ (ppb)	0	0	10	0	N	Erosion of natural deposits
	2016	Barium ¹ (ppm)	0.120	0.103-0.120	2	2	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
	2016	Cyanide ¹ (ppb)	220	100-220	200	200	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
	2016	Fluoride ² (ppm)	2.6	0.0-2.6	4	4.0	N	Erosion of natural deposits; water additive for strong teeth; discharge from fertilizer and aluminum factories.
	2016	Nitrate ² (ppm)	0.24	0.21-0.24	10	10	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks or sewage.
	2015	Nitrite ² (ppm)	0.05	0.04-0.05	1	1	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks or sewage.
	2016	Selenium ¹ (ppb)	3.5	<3.0-3.5	50.0	50	N	Erosion from natural deposits; discharge from petroleum refineries.
Radioactive Contaminants	2014	Beta/proton Emitters ¹ (pCi/L)	11.5	11.5-11.5	0	50	N	Erosion of natural deposits; decay of natural and man-made deposits.
	2011	Combined Radium ¹ 226/228	3.2	1-3.2	0	5	N	Naturally present in environment.
Disinfection Byproducts	2016	Total Haloacetic Acids ² (ppb)	21.1	10.3-21.1	No goal for the total	60	N	Byproduct of drinking water disinfection.
	2016	Total Trihalomethanes ² (ppb)	58.7	15-58.7	No goal for the total	80	N	Byproduct of drinking water disinfection.
	2016	Chlorite ¹ (ppm)	1	0.2-1.0	0.8	1	N	Byproduct of drinking water disinfection.

¹ City of Abilene Data

² Dyess AFB Data

Unregulated Contaminants

Type of Contaminant	Year of Range	Contaminant (unit of measure)	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Source of Contaminant
Unregulated Contaminants	2016	Chloroform ² (ppb)	3.1	1.1-3.1	na	na	na	Byproduct of drinking water disinfection.
	2016	Bromoform ² (ppb)	33	2.5-33	na	na	na	Byproduct of drinking water disinfection.
	2016	Bromodichloromethane ² (ppb)	6.5	4-6.5	na	na	na	Byproduct of drinking water disinfection.
	2016	Dibromochloromethane ² (ppb)	19.1	4.5-19.1	na	na	na	Byproduct of drinking water disinfection.
	2016	Bromochloroacetic Acid ²	8.2	5.4-8.2	na	na	na	Byproduct of drinking water disinfection.
	2016	Dibromoacetic Acid ²	16.9	6-16.9	na	na	na	Byproduct of drinking water disinfection.
	2016	Dichloroacetic Acid ²	6.0	2.4-6.0	na	na	na	Byproduct of drinking water disinfection.
	2016	Bromodichloroacetic acid ¹ (ppb)	18.2	4.2-18.2	na	na	na	Byproduct of drinking water disinfection.

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² Dyess AFB Data

Note: 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.

Secondary and Other Constituents Not Regulated

Type of Contaminant	Year of Range	Contaminant (unit of measure)	Average Level	Minimum Level	Maximum Level	Secondary Limit	Source of Contaminant
Secondary and Other Constituents Not Regulated	2016	Aluminum ¹ (ppm)	0.022	<0.02	0.043	0.05	Naturally present in environment.
	2016	Bicarbonate ¹ (ppm)	144	116	167	na	Corrosion of carbonate rocks such as limestone.
	2016	Calcium ¹ (ppm)	56.2	47	65.5	na	Naturally present in environment.
	2016	Chloride ¹ (ppm)	102	79	146	300	Naturally present in environment.
	2016	Copper ¹ (ppm)	<0.002	<0.002	0.002	1.0	Corrosion of household plumbing, erosion from natural deposits; leaching from wood preservatives.
	2016	Magnesium ¹ (ppm)	18	10.9	25.1	na	Naturally present in environment.

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² Dyess AFB Data

Secondary and Other Constituents Not Regulated cont'd

Type of Contaminant	Year of Range	Contaminant (unit of measure)	Average Level	Minimum Level	Maximum Level	Secondary Limit	Source of Contaminant
Secondary and Other Constituents Not Regulated	2016	Manganese ¹ (ppm)	0.024	0.0191	0.03	0.05	Naturally present in environment.
	2016	Nickel ¹ (ppm)	0.0047	0.0036	0.0054	na	Erosion of natural deposits.
	2016	pH ² (units)	8.16	7.5	8.69	>7.7	Measure of corrosivity of water. Influences disinfection process.
	2016	Sodium ¹ (ppm)	71.2	63.8	78.6	na	Erosion of natural deposits; byproduct of oil field activity.
	2016	Sulfate ¹ (ppm)	97	74	142	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
	2016	Total Alkalinity as CaCO ₃ ¹ (ppm)	119	95	139	na	Naturally occurring soluble mineral salts.
	2016	Total Dissolved Solids ¹ (ppm)	437	367	569	1000	Total dissolved mineral constituents in water. Naturally present in environment.
	2016	Total Hardness as CaCO ₃ ¹ (ppm)	214	162	267	na	Naturally occurring soluble mineral salts.
	2016	Conductivity ¹ (umhos/cm)	831	707	1070	na	Physical property of water.
	2016	Potassium ¹ (mg/L)	7.25	6.26	8.24	na	Naturally present in environment.
	2016	Zinc ¹ (mg/L)	<0.005	<0.005	<0.005	na	Naturally present in environment.

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Asbestos

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MFL	Source of Contaminant
2012	Asbestos ²	ND	ND	ND	7	Construction materials. Naturally present in environment.

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Turbidity

Year	Highest Single Level Detected	Lowest Monthly % of Samples Meeting Limits	Limit (Treatment Technique)	Lowest Monthly % meeting limit	Violation (Y/N)	Source of Contaminant
2016	0.28 ¹	100.00%	1	0.3	N	Soil runoff.

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² Dyess AFB Data

Violations Table

Revised Total Coliform Rule (RTCR)			
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.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE, MINOR (RTCR)	07/01/2016	07/31/2016	We failed to collect some of the required routine samples of 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.
MONITORING, ROUTINE, MINOR (RTCR)	12/01/2016	12/31/2016	We failed to collect some of the required routine samples of 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.



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 7TH BOMB WING (AFGSC)
DYESS AIR FORCE BASE TEXAS**



IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER:

Reporting Requirement Not Met for Dyess AFB.

We are required to report the results of monitoring of your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During July 2016 and December 2016 we did not report the sample results for all sample locations for the monitoring of coliform bacteria.

Our system failed to notify the state drinking water program as required by July 30, 2016, and December 31, 2016. Although public health was not impacted, as our customers, you have a right to know what happened and what we did to correct the situation.

What should I do?

There is nothing you need to do at this time. You do not need to boil your water or take other actions.

What is being done?

While we did not notify the state as quickly as we should have, we have informed and coordinated with the state to identify alternate sample locations as of January 2017 and all issues have been rectified as we continue to monitor the water system. We are no longer in violation.

For more information, please contact Bioenvironmental Engineering at (325) 696-2325.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and business). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Dyess AFB. State Water System ID# 2210013

Date Distributed: 29 June 2017

DEATH FROM ABOVE