



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



10 May 2022

MEMORANDUM FOR ALL DYESS PERSONNEL

FROM: 7 BW/CC

SUBJECT: Dyess Air Force Base Drinking Water Consumer Confidence Report

1. Attached is the Dyess AFB Consumer Confidence Report for the 2021 calendar year. All of the data from the City of Abilene, as well as Dyess AFB, is provided in this report on the measured levels of wanted and unwanted substances in our drinking water. This report is our way of communicating information about our water and the possible contaminate sources.
2. The highest quality of water is provided to Dyess AFB through the efforts of 7th Civil Engineer Squadron Water/Fuels Maintenance Element and 7th Operational Medical Readiness Squadron Bioenvironmental Engineering Flight. Our drinking water is continuously tested to ensure the proper amounts of chlorine and fluoride are present. A majority of constituents are tested annually; however, some constituents, such as asbestos, are tested at varying frequencies due to past sampling and direction of the Texas Commission on Environmental Quality (TCEQ). The result is water that is free of harmful bacteria, within the TCEQ regulatory limits for all constituents tested, and promotes the development of strong and healthy teeth in our children. The routine quality assurance checks by these entities ensure our water is safe for consumption.
3. Dyess AFB was issued a Notice of Violation (NOV) by TCEQ during the fourth quarter of 2021. We failed to submit a disinfectant level quarterly operating report for the second quarter of 2021 by the 10th day of the month following the end of the quarter. Because of this administrative error, we failed to follow rule 30 TAC §290.110(e)(4)(A), §290.110(f)(3). This discrepancy has since been resolved.
4. If you have any questions or concerns, my point of contact is Capt Jose Pagan of the Bioenvironmental Engineering Flight and he can be reached at 325-696-2325.

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JOSEPH K. KRAMER, Colonel, USAF
Commander

2021 Consumer Confidence Report for Public Water System DYESS AIR FORCE BASE

This is your water quality report for January 1 to December 31, 2021

For more information regarding this report contact:

DYESS AIR FORCE BASE (TX2210013) provides Purchased Surface Water from City of Abilene treated and filtered surface water located in Taylor County.

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.

Definitions and Abbreviations

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 which a water system must follow.

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)

ug/L

micrograms per liter.

mg/L

milligrams per liter

mrem:

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

na:

not applicable.

ND

Not Detected

NTU

nephelometric turbidity units (a measure of turbidity)

pCi/L

picocuries per liter (a measure of radioactivity)

Definitions and Abbreviations

ppb:	micrograms per liter or parts per billion
cpm	counts per minute
ppm:	milligrams per liter or parts per million
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 EPAs 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>.

Information about Source Water

DYESS AIR FORCE BASE purchases water from CITY OF ABILENE. CITY OF ABILENE provides purchase surface water from WEST CENTRAL TEXAS MWD located in Stephens County.

TCEQ completed a Source Water Susceptibility for all drinking water systems that own their sources. 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 systems 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 325-696-2325.

2021 Water Quality Test Results

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	September 2021	1.3	1.3	0.71	0	mg/L	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	September 2021	0	0.015	0.0024	0	mg/L	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite¹	2021	0.68	<0.01-0.68	0.8	1	ppm	N	By-product of drinking water disinfection.

¹City of Abilene Data

Haloacetic Acids (HAA5)*	2021	25.1	9.4 – 25.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
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*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

Total Trihalomethanes (TTHM)*	2021	57.3	17.1-57.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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*The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2021	< 1	0.106-0.540	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	2021	0.012	0.006-0.012	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Chromium ¹	2021	ND	ND	100	100	ppb	N	Discharge from the steel and pulp mills; erosion of natural deposits.
Arsenic ¹	2021	<1	<1	10	0	ppb	N	Erosion of natural deposits.
Barium ¹	2021	0.13	0.11-0.15	2	2	ppm	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Cyanide ¹	2021	123	35.8-123	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride ¹	2021	0.81	0.70-0.81	4	4	ppm	N	Erosion of natural deposits; water additive for strong teeth; discharge from fertilizer and aluminum factories.
Selenium ¹	2021	<5	<5	50	50	ppb	N	Erosion from natural deposits; discharge from petroleum refineries.

¹City of Abilene Data

Perfluorooctanesulfonic Acid (PFOS)/Perfluorooctanoic Acid (PFOA)	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
PFAS/PFOA	2021	0.89	0.54-0.89	No goal for the total	70	ppt	N	Runoff from sites where they are made, used, disposed of, or spilled.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon Emitters ¹	2020	6.6	6.6 – 6.6	0	50	pCi/L	N	Erosion of natural deposits; Decay of natural and man-made deposits.
Uranium ¹	2020	<0.0010	<0.0010	0	0.03	ug/L	N	Erosion of natural deposits; Decay of natural and man-made deposits.
Gross Alpha ¹	2020	<3.0	<3.0	0	15	cpm	N	Erosion of natural deposits; Decay of natural and man-made deposits.
Gross Beta ¹	2020	6.6	6.6	na	na	cpm	N	Erosion of natural deposits; Decay of natural and man-made deposits.
Radium 228 ¹	2020	<1.0	<1.0	0	5	pCi/L	N	Erosion of natural deposits; Decay of natural and man-made deposits.

Contaminant	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Asbestos ¹	May 2021	ND	ND	7	7	MFL	N	Construction materials; Naturally present in environment.

¹City of Abilene Data

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramine Residual	2021	1.90	0.29-3.08	4	4	ppm	N	Water additive used to control microbes.

Synthetic Organic Contaminants Including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation (Y/N)	Likely Source of Contamination
Atrazine ¹	2021	0.1	0 - 0.1	3	3	ppb	N	Runoff from herbicide used on row crops.

¹City of Abilene Data

Violations

Chlorine			
Some people who use water containing chlorine well in excess of the maximum residual disinfectant level could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the maximum residual disinfectant level could experience stomach discomfort.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Disinfectant Level Quarterly Operating Report (DLQOR).	04/01/2021	06/30/2021	Dyess AFB failed to submit the disinfectant level quarterly operating report for the second quarter of 2021 by the 10th day of the month following the end of the quarter. Because of this administrative error, we failed to follow rule 30 TAC §290.110(e)(4)(A), §290.110(f)(3). This discrepancy has since been resolved.