2017 Annual Drinking Water Quality Report

(Consumer Confidence Report)

RANDOLPH AIR FORCE BASE (PWS: TX0150115)

Phone Number: 210-652-3256

INTRODUCTION

Air Force Instruction 48-144, Drinking Water Surveillance Program, and the United States Environmental Protection Agency require all community water systems to provide their consumers an annual water quality report. This report will help you understand where your drinking water comes from and what is in it. It will also help you to make informed choices that affect your families' health and help you understand the importance of protecting our drinking water sources.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

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; those 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 provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

WATER SOURCES

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 waste water 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.

Where do we get our drinking water?

Our drinking water is obtained from GROUND water sources. It comes from the following Lake/River/Reservoir/Aquifer: EDWARDS SOUTH BFZ. The TCEQ completed an assessment of your source water and results indicated that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Bioenvironmental Engineering at 210-652-3256.

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://dww2.tceq.texas.gov/DWW/

ALL drinking water may contain contaminants

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 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 Bioenvironmental Engineering at 210-652-3256.

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

ADDITIONAL INFORMATION

For more information regarding this report contact: Bioenvironmental Engineering at 210-652-3256
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.

En Español

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono. (210-652-3256) - para hablar con una persona bilingüe en español.

DEFINITIONS

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Maximum Contaminant Level (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 (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 (MRDL): The highest level of 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 (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 contamination.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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.
MFL: million fibers per liter (a measure of asbestos)
Mrem/year: 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 (ug/L) 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.
Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.
ppt: parts per trillion, or nanograms per liter (ng/L)
ppq: parts per quadrillion, or pictograms per liter (pg/L)

About The Following Pages

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

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 Contaminant
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contaminant
Copper	2017	1.3	1.3	0.599	1	ppm	N	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2017	0	15	3.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Required Additional Health Information for Lead

"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. Randolph AFB is responsible for providing high quality drinking water, but 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."

Regulated Contaminants

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Contamination
Chlorine	2017	1.06	0.22	1.88	4.0	<4.0	ppm	Water additive used to control microbes.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	2	0 - 2.8	No goal for the total	60	ppb	N	By-products of drinking water disinfection.
Total Trihalomethanes (TTHM)	2017	10	0 - 15	No goal for the total	80	ppb	N	By-products of drinking water chlorination.

*The Value in the Highest Level or Average Detected column is the highest average of all sample results collected at a location over a year

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2017	0.143	034-0.143	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2017	4.4	0.77-8.5	4	4	ppm	Y	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2017	2	1.71 - 1.73	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2017	3.37	3.37-3.37	0	5	pCi/L	N	Erosion of natural deposits.
Gross Alpha Excluding Radon & Uranium	2017	3.7	3.4-3.7	0	15	pCi/L	N	Erosion of natural deposits.

Violations

Fluoride

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of teeth, and occurs only in developing

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	10/01/2017	12/31/2017	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated. Your water is SAFE TO DRINK. The high level of fluoride was the result of a poor sampling location. The area of concern is only at the entry point of site 3 (EP003), which is between the high school and the medical clinic. The injection point (where the fluoride was introduced) and sample site (where it was collected) were only 3 feet away from each other. This was not enough distance for adequate dilution of additives (fluoride) to the drinking water supply. Bioenvironmental Engineering (BEE) and the Water Plant operators have corrected this issue by moving the injection point 15 feet further away from the sampling point. **Current fluoride results at the sampling site have been reduced by more than half, and remain below the MCL.** In addition, BEE has taken samples at the nearest public entry point at the high school and MDG Clinic, approximately half a mile away from the EP003 site, and the results were well below the MCL. BEE also conducts monthly sampling for fluoride at the CDC and Youth Center, which have never exceeded the MCL.