

Cannon Air Force Base

Drinking Water Quality Report

2017

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We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of 2017's water quality and is provided as public notification according to local procedures and other guidance. In an effort to provide open, transparent communications, the base is providing you with this information as informed customers. In 2017, we conducted tests for over 70 constituents. (For more information see "2017 Sampling Results" at the end of this report.)

Bioenvironmental Engineering Flight
27th Special Operations Aerospace Medicine Squadron

An important part of our day-to-day operations is to provide high-quality, safe, reliable drinking water to our Air Commandos, their families, and our guests. In 2017, the water that Cannon AFB provided met or surpassed all federal and state primary drinking water regulations. We take pride in ensuring that we take care of you and your water supply. This report summarizes the results of our base engineers in Civil and Bioenvironmental Engineering, and is our way of showing you the results of these efforts.



STEWART A. HAMMONS, Colonel, USAF
Commander, 27th Special Operations Wing

CAFB Source Water

Testing your drinking water

The Environmental Protection Agency (EPA) or the State requires us to monitor for certain substances less than once per year because the concentrations of these substances do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. The table on page 3 lists all of the drinking water substances that we detected during the calendar year of this report. Although many more constituents were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring constituents. At low levels, these substances are generally not harmful in drinking water. Removing all substances would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in table on page 3 is from testing done in the calendar year of the report. In the table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions.

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

What are sources of contamination to drinking water?

Drinking water can reasonably be expected to contain at least small amounts of some substances. The presence of these constituents do not necessarily indicate that water poses a health risk.

Constituents that may be present in source water include:

- (A) **Microbiological substances**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- (B) **Inorganic substances**, such as salts and metals, which can be naturally occurring or results from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- (C) **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- (D) **Organic chemical substances**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems;
- (E) **Radioactive substances**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Who needs to take special precautions?

Some people may be more vulnerable to constituents in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological constituents are available from the Safe Water Drinking Hotline (800-426-4791).

Lead Educational Information

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. Cannon AFB Public Water System 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>.

Elevated Fluoride Levels Detected in CAFB Water System

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 parts per million (ppm) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by the CANNON AIR FORCE BASE WATER SYSTEM had the following concentrations of fluoride:

Sample Location	Sample Date	Result (ppm)
Entry Point #4	7/17/2017	2.5
Entry Point #4	11/15/2017	2.6

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use

by young children of fluoride-containing products. Older children and adults may safely drink the water. Drinking water containing more than 4 ppm of fluoride (the US Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 ppm of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceeds 2 ppm because of this cosmetic dental problem. For more information, please call TSgt Maria Holt of the Cannon Air Force Base Water System at 575-784-4063. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Please share this information with all the 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 businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. Fluoride contamination is rarely due to human activity. Fluoride occurs naturally in some areas and is found in high concentrations in our source water. We are continuing to monitor fluoride levels. We will inform you if they exceed the level of 4 ppm. Cannon AFB provides no-cost low-fluoride water (0.7 to 1.2 ppm) at the CDCs and at the following self-service locations:

- Water Plant (Bldg. 336)
- Doc Stewart Community Center in Chavez (Bldg. 9982)
- Airman's Attic (Bldg. 76)
- Shoppette on the southeast side of base (Bldg. 4623)

To reduce fluoride intake, use water from these locations to drink and where water is integral to the food.

Arsenic Educational Information

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Who to Contact

- For water quality questions, contact Bioenvironmental Engineering Flight at 575-784-4063
- For water system questions, contact Civil Engineer Squadron Customer Service at 575-784-2001
- For Fluoride and dental health questions, contact the Dental Clinic at 575-904-4142

Abbreviations & Definitions Used:

- **MCLG:** Maximum Contaminant Level Goal: 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.
- **MCL:** Maximum Contaminant Level: 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.
- **AL:** Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **mg/L:** Number of micrograms of substance in one liter of water
- **ppm:** parts per million, or milligrams per liter (mg/L)
- **ppb:** parts per billion, or micrograms per liter (µg/L)
- **pCi/L:** picocuries per liter (a measure of radioactivity)
- **ND:** Not detected

Contaminants	Unit of Measure	MCLG	MCL	Year Sampled	Your Water	Possible sources of contamination
Inorganic Contaminants						
Antimony	ppb	6	6	2017	ND	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
Arsenic	ppb	0	10	2017	4.1	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	2017	0.03	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium	ppb	4	4	2017	ND	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium	ppb	5	5	2017	ND	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium	ppb	100	100	2017	1.2	Discharge from steel and pulp mills; Erosion of natural deposits
Selenium	ppb	50	50	2017	6.4 - 8.2	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Copper	ppm	1.3	AL=1.3	2017	0.77	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	ppb	15	AL=15	2017	ND	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate+Nitrite	ppm	10	10	2017	1.4 - 2.9	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion from natural deposits
Mercury	ppb	2	2	2017	ND	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Fluoride	ppm	4	4	2017	2.5 - 2.6	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Thallium	ppb	0.5	2	2017	ND	Discharge from electronics, glass; Leaching from ore-processing sites; Drug factories
Disinfectants and Disinfection By-Products						
Chlorine*	ppm	4	4	2017	1.05	Water additive used to control microbes
TTHMs (Total Trihalomethanes)	ppb	N/A	80	2017	17	By-product of drinking water chlorination
HAA5s (Total Haloacetic Acids)	ppb	N/A	60	2017	2.8	By-product of drinking water chlorination
Microbiological Contaminants						
Fecal coliform/E. coli - in the distribution system	Presence	0	0	2017	0	Human and animal fecal waste
Radioactive Contaminants						
Alpha emitters	(pCi/L)	0	15	2017	0.3 - 7.1	Erosion of natural deposits
Uranium	(ug/L)	0	30	2017	4.6 - 5	Erosion of natural deposits
Radium (combined 226/228)	(pCi/L)	0	5	2017	0.65 - 1.1	Erosion of natural deposits
Volatile Organic Chemicals						
Trichloroethylene	(ppb)	0	5	2017	ND	Discharge from metal degreasing sites and other factories

* Reported yearly average measured by the Civil Engineer Squadron