Cannon Air Force Base
2019 Drinking Water Quality Report

INSIDE THIS REPORT

Where Does Your Drinking Water Come From

Testing Your Drinking Water

Sources of Contamination to Drinking Water

Who Needs to Take Special Precautions

Educational Information: Lead, Fluoride, Arsenic, PFOA/PFOS

Who to Contact

2019 Sampling Results

Definitions and Abbreviations

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 last year's water quality. We are committed to providing you with information because informed customers are our best allies. In 2019, we conducted tests for various contaminants and these results can be found on page 4 of this report. **Additionally, we have aggressively sampled for PFOA/PFOS over the last several years and the results have come back as not detected. For more details see page 3.**

Bioenvironmental Engineering Flight
27 Special Operations Operational Medical Readiness Squadron

An important part of our day-to-day operations is to provide high-quality, safe, reliable drinking water to our 27 SOW Air Commandos, their families, and our guests. In 2019, 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.

ROBERT A. MASAITIS, Col, USAF
Commander, 27 Special Operations Wing

Where does your drinking water come from?

Cannon AFB uses groundwater as the source for all potable water supplied to the base and Chavez housing areas. Water is extracted from the Ogallala Aquifer using three wells located on the base property. This water is disinfected with chlorine and delivered to the consumer through a network of underground pipes known as a distribution system. Based on the size of our system and the number of customers, the base wells are registered with the New Mexico Environment Department (NMED) as community water sources.

Testing your drinking water

The US Environmental Protection Agency (EPA) and NMED require the AF to monitor for certain contaminants in the drinking water. The table on page 4 lists all of the drinking water contaminants that were detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in our water. Testing for these contaminants is done less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Removing all contaminants in most cases, would not provide increased protection of public health. Unless otherwise noted, the data presented in the table on page 4 is from testing done in the calendar year of this report. On page 5, definitions and abbreviations are provided to better understand these terms.

Educational Information:

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. Cannon AFB 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 it 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 (800-426-4791) or at

http://www.epa.gov/safewater/lead.

Who needs to take special precautions

Some people may be more vulnerable to contaminants in drinking water than others. Immuno-compromised persons such as individuals with cancer undergoing chemotherapy, organ transplant recipients, people with HIV/AIDS, other immune system disorders, some elderly persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers, or contact the EPA, or Centers for Disease Control (CDC) on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants. More information is available from the Safe Water Drinking Hotline (800-426-4791).

Sources of contamination to drinking water

Drinking water can 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. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. At low levels, these substances are generally not harmful in drinking water. Contaminants that may be present in source water include:

(A) ***Microbial contaminants,*** such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife

(B) ***Inorganic contaminants,*** 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 ***Pesticides and herbicides,*** which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses

(C) ***Organic chemical contaminants,*** 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

(D) ***Radioactive contaminants,*** which can be naturally-occurring or be the result of oil and gas production or mining activities

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

Fluoride

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 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth called dental fluorosis. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of 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 of fluoride-containing products by young children. Older children and adults may safely drink the water. The drinking water provided by the Cannon AFB Water System had the following concentrations of fluoride:

Sample Location	Sample Date	Result (mg/L)
Well #9	06/26/2019	2.0

The AF is required to notify you when the fluoride levels in your drinking water exceed 2 mg/L because of the above described cosmetic dental problems. Drinking water containing more than 4 mg/L of fluoride (EPA's drinking water standard) can increase your risk of developing bone disease. Cannon AFB drinking water does not contain more than 4 mg/L of fluoride. Cannon AFB continues to monitor fluoride levels and will inform you if the fluoride concentration exceeds 4 mg/L. Fluoride contamination is rarely due to human activity. It occurs naturally in some areas and is found in high concentrations in our source water.

Some home water treatment units can remove fluoride from drinking water. To learn more about available home water treatment units, contact the National Science Foundation (NSF) International at 1-720-227-0640.

Additionally, Cannon AFB provides no-cost low-fluoride water (0.7 to 1.2 mg/L) at the CDCs and at the following self-service locations:

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

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

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 dorms, schools, occupational shops, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Arsenic

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.

Perfluorooctanoic acid (PFOA)/ Perfluorooctane sulfonates (PFOS)

These fluorinated organic chemicals are a part of a larger group of chemicals referred to as Perfluoroalkyl and Polyfluoroalkyl substances (PFAS). Although some types of PFAS are no longer used, some products may still contain them: food packaging materials, nonstick cookware, stain resistant carpet treatments, water-resistant clothing, cleaning products, paints, varnishes and sealants, some cosmetics, and firefighting foam at air-fields.

Should your drinking water contain PFOA/PFOS above the EPA Lifetime Health Advisory of 70 ppt, you would be instructed to use an alternative or treated water source for any activity in which you might swallow water i.e., drinking food preparation, cooking, brushing teeth, and preparing infant formula. Cannon AFB sampled for PFOA/ PFOS in the drinking water in 2016 and again in 2018. In addition, the NMED sampled Cannon's drinking water in 2018 and 2019. **PFOA/PFOS were not detected in your drinking water.**

Who to Contact

- For water system questions, contact Civil Engineer Squadron Customer Service at 575-784-2001.
- For water quality questions, contact Bioenvironmental Engineering Flight at 575-784-4063.
- For Fluoride and dental health questions, contact the Dental Clinic at 575-904-4142.
- CDC/ATSDR: CDC Info: https://www.cdc.gov/cdc-info/, or (800) 232-4636 for PFAS information.

2019 Sampling Results

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Low Range	High Range	Sample Date	Violation	Typical Source
Disinfectants & Disinfection By-Products								
Haloacetic Acids (ppb)	NA	60	ND	NA	NA	2019	No	By-product of drinking water chlorination
Total Trihalomethanes (ppb)	NA	80	25.3	NA	NA	2019	No	By-product of drinking water disinfection
Chlorine (mg/L)	4	4	0.40	0.05	3.4	2019	No	Water additive used to control microbes *Compliance based on annual average
Inorganic Contaminants [* denotes contaminants are sampled on a 3 Year Cycle]								
Arsenic (ppb)	0	10	4.1	3	4.1	2017 *	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	.03	.027	.03	2017 *	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	1.2	1.2	1.2	2017 *	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	2.0	2.0	2.0	2019	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate + Nitrate (ppm)	10	10	3.6	1.5	3.6	2019	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	8.2	6.4	8.2	2017 *	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Lead - Action Level at Consumer Taps (ppb)	0	AL=15	ND	NA	NA	2019 *	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper - Action Level at Consumer Taps (ppm)	1.3	AL=1.3	0.208	NA	NA	2019 *	No	Corrosion of household plumbing systems; Erosion of natural deposits
Microbiological Contaminants								
Fecal coliform/E. coli	NA	TT	Absent	NA	NA	2019	No	Human and animal fecal waste

Contaminants listed below were monitored for, but not detected in your water

1,1,1-Trichloroethane	Benzene	Ethylbenzene	Simazine
1,1,2-Trichloroethane	BHC-Gamma	Endrin	Styrene
1,1-Dichloroethylene	Carbon Tetrachloride	Heptachlor	Tetrachloroethylene
1,2,4-Trichlorobenzene	Chlorobenzene	Heptachlor Epoxide	Toluene
1,2-Dichloroethane	Chlordane	Methoxychlor	Toxaphene
1,2-Dichloropropane	CIS-1,2-Dicholorethylene	O-Dichlorobenzene	Trans-1,2-dichloroethylene
2,4,5-TP (Silvex)	Dalapon	P-Dichlorobenzene	Trichloroethylene
2,4-D	Dichloromethane	Pentachlorophenol	Vinyl Chloride
Atrazine	Dinoseb	Picloram	Xylenes, Total

Definitions and Abbreviations

Term	Definition	Term	Definition
ug/L	Number of micrograms of substance in one liter of water	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
ppm	parts per million, or milligrams per liter (mg/L)	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
ppb	parts per billion, or micrograms per liter (µg/L)	TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water
ppt	parts per trillion, or nanograms per liter	AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
pCi/L	picocuries per liter (a measure of radioactivity)	Variances & Exemptions	State or EPA permission not to meet an MCL or a treatment technique under certain conditions
% positive samples/month	Percent of samples taken monthly that were positive	MRDLG	Maximum residual disinfection level goal. 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
NA	Not Applicable	MRDL	Maximum residual disinfectant level. 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
ND	Not Detected	MNR	Monitored Not Regulated
NR	Monitoring not required, but recommended	MPL	State Assigned Maximum Permissible Level