2024 Consumer Confidence Report for Cannon AFB

Where does my 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 six 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.

Is my water safe?
Cannon AFB drinking water is sampled by the office of Bioenvironmental Engineering to meet state compliance which is derived from Environmental Protection Agency's (EPA) Standards. Based on all sampling performed in 2024, water distributed to Cannon AFB is safe to drink for the general populous. This year's Annual Water Quality Report (Consumer Confidence Report), which is required by the Safe Drinking Water Act (SDWA), 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.

Why are there contaminants in my drinking water?

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 Safe Drinking Water Hotline (800-426-4791).

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:

- Microbial contaminants, such as viruses and bacteria, that 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 stormwater 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 stormwater 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 stormwater 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 that 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.

Do I need to take special precautions?
Some people may be more vulnerable to contaminants 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. Customers can call the Safe Water Drinking Hotline (800-426-4791) for the latest EPA/Centers for Disease Control guidelines on appropriate means to lesson the risk of infection by Cryptosporidium and other microbial contaminants.

Source water assessment and its availability
The Cannon Air Force Base Water System has approximately 7,832 year-round residents and is classified as a Community Water System, according to the New Mexico Drinking Water Regulations 20.7.10 NMAC. The water system consists of six wells, five storage tanks, one treatment plant, two booster stations and distribution lines. The wells are capable of producing a combined output of 1,200 gallons per minute (GPM). The storage tanks are constructed of steel with a combined capacity of 992,000 gallons. The treatment plants include disinfection with 12.5% sodium hypochlorite. The distribution network consists of approximately 80% PVC, 10% iron and 10% asbestos concrete piping. Source water assessments are reports that generate information about potential contaminant sources and the potential for systems to be impacted by these sources. If customers would like more information regarding the source water assessment program (SWAPP) contact the Drinking Water Bureau at 505-476-8620 or toll free at 1-877-654-8720.

How can I get involved?
For water system questions, contact Civil Engineer Squadron Customer Service at 575-784-2001.

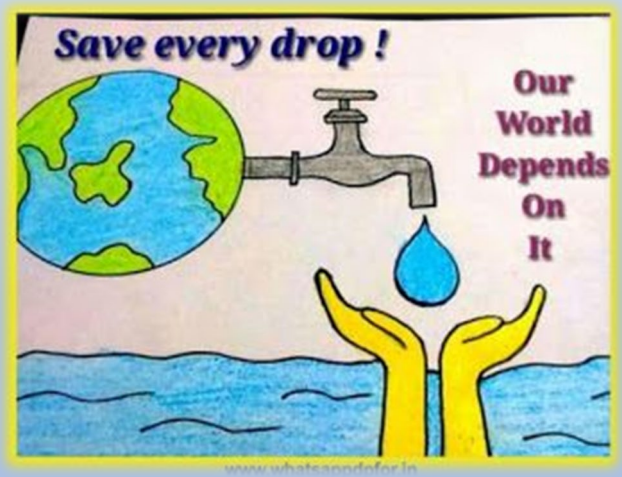
For water quality questions, contact Bioenvironmental Engineering Flight at 575-784-4063.

For Fluoride and dental health questions, contact the Dental Clinic at 575-904-4041.

CDC/ATSDR: CDC Info: https://www.cdc.gov/cdc-info/, or 800-232-4636 for PFAS information.

Water Conservation Tips
Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.



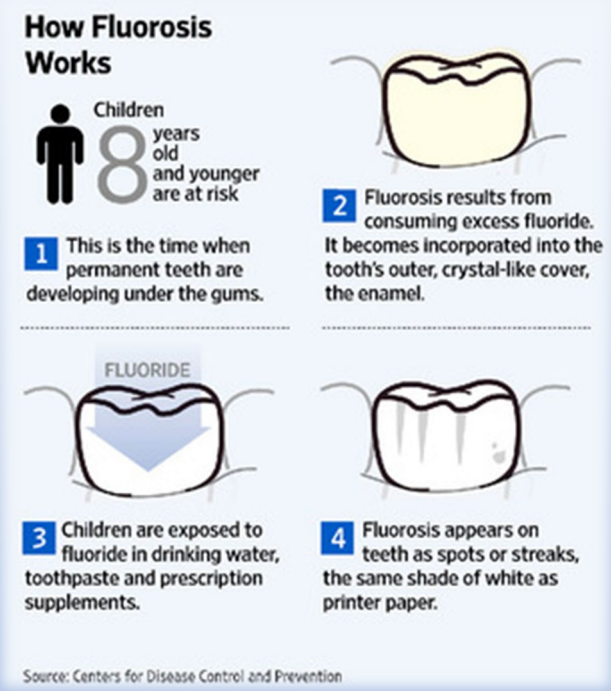
Source Water Protection Tips
Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Additional Information for Fluoride
While your drinking water meets EPA's maximum contaminant standard of 4 mg/L for fluoride [drinking water containing more than 4 milligrams per liter (mg/L) of fluoride can increase your risk of developing bone disease], it does not meet the secondary limit of 2 mg/L. At low levels, fluoride can help prevent cavities, however it is important to be aware that drinking water containing more than 2 mg/L of fluoride may develop cosmetic discoloration of children's (under the age of nine) permanent teeth called dental fluorosis.

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. 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. 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.

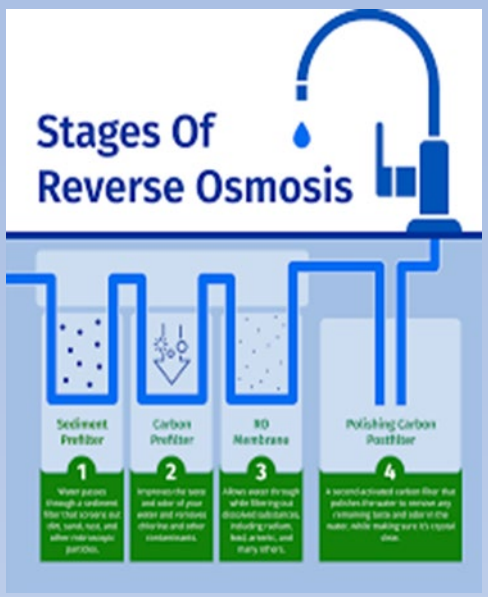
The AF is required to notify you when the fluoride levels in your drinking water exceed 2 mg/L because of the above-described cosmetic dental problems. Cannon AFB drinking water does not contain more than 4 mg/L of fluoride. Cannon AFB continues to monitor fluoride levels and will inform you if the fluoride 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 4 locations and at the CDCs. The self-service locations are as follows:

- The Water Plant (Bldg. 336)
- Doc Stewart Community Center/Currently down for repairs (Bldg. 9982)
- Airman's Attic/Library (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.



What Is Cannon AFB Doing About This?
Cannon AFB is working on multiple different projects and researching types of filtration units that are compatible with our current drinking water infrastructure that will bring our levels down to the target level of 0.7-1.2 mg/L.

For members living on base that would like to purchase their own home units, please remember to coordinate with the Housing Management Office. There is a process that requires an alteration request. Once this is approved, housing maintenance will do the installation for you.

EPA Approved Filtration
The EPA has identified reverse osmosis, anion exchange resins and activated alumina as effective ways to remove fluoride from drinking water.

Be mindful when purchasing pitchers with filters as most filters do not filter out fluoride. They may filter out total dissolved solids (TDS), this does not mean it will also filter fluoride.

Fluoride Resources and References

Resources: Water Quality for Cannon AFB and Surrounding Communities

Clovis Water Quality Report
https://www.epcor.com/us/en/nm/safety/water-quality/water-quality-reports.html?ops=clovis

Portales Water Quality Report
https://rcwc.myruralwater.com/water-quality-report

References:

Reverse Osmosis/ Activated Alumina
https://19january2021snapshot.epa.gov/sites/static/files/2014-12/documents/815r03004.pdf
Pages 8-10

Anion Exchange
https://www.epa.gov/sdwa/overview-drinking-water-treatment-technologies#:~:text=What%20is%20anion%20exchange%3F,chloride%2C%20on%20the%20resin's%20surface.

Treatment Processes
Drinking Water Treatability Database

Home Treatment Methods
2011_fluoride_questionsanswers.pdf Page 9 Section 22

Significant Deficiencies: On June 5, 2024, the New Mexico Environment Department Drinking Water Bureau (DWB) conducted a sanitary survey site visit at the Cannon Air Force Base Water System. Three (3) significant deficiencies were identified:

1. Well #3 lacked a well vent.
2. Well #8 lacked a well vent.
3. Well #5 had a leaking flush line valve

All deficiencies were corrected on 6 June 2024, and we have returned to compliance.

Additional Information for Lead
Cannon AFB was required by the EPA to submit a lead line inventory to NMED - Drinking Water Bureau in September 2024. 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 WS 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.

Additional Information for 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.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all the drinking water contaminants that we detected during the calendar year (2024) of this report. Although many more contaminants were tested, only those substances listed below were found in your water.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may improve the taste of drinking water and have nutritional value at low levels.

Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants 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. As such, some of our data, though representative, may be more than one year old.

In this 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 on page 6.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detected in Your Water	Range		Sample Date	Violation	Typical Sources
				Min	Max			
Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants								
Chlorine (as Cl_2) (ppm)	4	4	0.8	0.4	0.8	2024	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	N/A	60	2.85	2.85	2.85	2024	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	N/A	80	6.3	6.3	6.3	2024	No	By-product of drinking water disinfection
Inorganic Contaminant								
Arsenic (ppb)	0	10	1.6	1	1.6	2023	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.036	0.031	0.036	2023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	2.6	2	2.6	2024	No	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	3.8	2.8	3.8	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	14	13	14	2023	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium (optional) (ppm)	N/A	N/A	65	63	65	2023	No	Erosion of natural deposits; Leaching
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	2	1	2	2023	No	Erosion of natural deposits
Beta/photon emitters (mrem/yr)	0	4	8.82	6.26	8.82	2023	No	Erosion of natural deposits
Uranium (ug/L)	0	30	6.9	6.1	6.9	2023	No	Erosion of natural deposits
Synthetic Organic Compounds								
Atrazine (mg/L)	0	0.003	0.0000577	0	0.0000577	2024	No	Runoff from herbicide used on row crops

Water Quality Data Table Cont.

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.11	2023	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	0.06	2023	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Additional Monitoring

In 2023, Cannon AFB was selected by the EPA to participate in the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5). Information collected through the monitoring of contaminants/chemicals was used to help ensure that future decisions on drinking water standards are based on sound science. Per- and Polyfluoroalkyl (PFAS) substances was part of this sampling project.

EPA issued interim Health Advisories for PFOS and PFOA in 2022. EPA announced a proposed regulation on PFAS drinking water standards for public comment on March 14, 2023 and went into effect in April of 2024. The Department of Defense (DoD) supports EPA taking regulatory actions to address PFAS, including a drinking water standard for PFAS that will apply to all drinking water suppliers once final. DoD respects and values the public comment process on this proposed nationwide drinking water rule and looks forward to implementing the clarified regulatory drinking water standard for PFAS released in 2024. DoD has been evaluating its efforts to address PFAS in drinking water, and what actions we can take to be prepared to incorporate this standard, such as reviewing our current data and collecting additional sampling where necessary. DoD remains committed to communicating and engaging with our communities throughout this process.

This report is only for data that applies to the 2022 EPA Interim Health Advisory (Health advisories are non-regulatory and reflect EPA's assessment of the best available peer-reviewed science). **PFOS, GenX, and PFOA were not detected in our water during the UCMR 5 sampling event.**

Prior to the release of the EPA drinking water regulation and to account for emerging science that shows potential health effects of:

- PFOS at levels lower than 0.00002 ppb
- PFOA at levels lower than 0.000004 ppb
- GenX at levels lower than 0.01 ppb
- PFBS at levels lower than 2 ppb

Name	State MCL	Health Advisory Level	Reported Level	Range	
				Low	High
perfluorobutanesulfonic acid (PFBS) (ppb)	N/A	2000	0.015	0.0042	0.015
perfluoroheptanoic acid (PFHpA) (ppb)	N/A	N/A	0.006	0	0.006
perfluorohexanesulfonic acid (PFHxS) (ppb)	N/A	N/A	0.013	0.0032	0.013
Lithium (ppb)	N/A	N/A	111	73.6	111
Perfluorobutanoic acid (PFBA) (ppb)	N/A	N/A	0.012	0.005	0.02
Perfluorohexanoic acid (PFHxA) (ppb)	N/A	N/A	0.0221	0.0043	0.028
Perfluoropentane sulfonic acid (PFPeS) (ppb)	N/A	N/A	0.0061	0.0057	0.0061
perfluoropentanoic acid (PFPeA) (ppb)	N/A	N/A	0.042	0.0089	0.042

Important Terms

Term	Definition
Unit Description	
µg/L	µg/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
N/A	N/A: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended.
Drinking Water Terms	
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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
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.
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.
MNR	Monitored Not Regulated
MPL	State Assigned Maximum Permissible Level
SOC	Synthetic Organic Compounds

Monitoring and reporting of compliance data violations

- *On 7/30/2024 we received a notice of Exceedance for Fluoride. We are looking into ways to regulate fluoride in the drinking water system and currently recommend utilizing the fill stations located on Cannon AFB and Chavez Housing.*
- *On 8/20/2024 we received a violation for failing to meet lead and copper sampling requirements during the 2020-2022 compliance period. We have returned to compliance regarding this violation.*
- *On 12/12/2024 we received a violation for failure to submit the required number of microbiological samples in accordance with an approved Revised Total Coliform Rule (RTCR) sampling plan for the month of October 2024. We have returned to compliance regarding this violation.*

Please see attachment for the full New Mexico Environmental Department (NMED) NOV

Contact Name: SrA Daniel Migliore
Address: 224 West D.L. Ingram Ave, Cannon AFB, NM 88103
Phone: 575-904-3868

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Date: 2025.06.26 09:59:29 -06'00'

MILES L. CHEN, Maj, USAF, BSC
Flight Commander, Bioenvironmental Engineering

Attachment:
Notice of Violation – Monitoring Requirements for Lead and Copper in Tap Water
Notice of Exceedance – Secondary Maximum Contaminant Level for Fluoride

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for the Cannon Air Force Base Water System

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2020-2022 monitoring period we did not monitor or did not complete all monitoring requirements for lead and copper in tap water and, therefore, cannot be sure of the quality of your drinking water during that time.

What should you do?
There is nothing you need to do at this time.

What happened? What is being done?
The samples we collected however one of the samples had an issue at the lab and was rejected. 19 of the 20 samples were collected and the rule has a 90 percentile requirement which confused the previous program manager. All samples were collected and the water system was brought back into compliance. Training has been modified to prevent this mistake/confusion from happening again

For more information, please contact:
SrA Daniel Migliore at 575-784-4063, or at:
Cannon Air Force Base Water System, NM3567905
224 West D.L. Ingram Ave, Bldg 1408
Cannon, NM 88103

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Elevated Fluoride Levels Detected in Cannon Air Force Base 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 milligrams per liter (mg/l) 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 mg/L
Entry Point #4	6-24-2024	2.6

Dental fluorosis, in its moderate or severe forms, may result in 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 mg/l 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 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceeded 2 mg/l because of this cosmetic dental problem.

*For more information, please call SrA Daniel Migliore 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**

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 mg/l.

We currently do not have an anticipated date for correction. Cannon AFB already provides fluoride treated water at the four fill stations listed in the CCR.