

# 2018 Annual Drinking Water Quality Report for Holloman AFB Public Water System ID: NM3562719

## Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua para beber. Tradúzcalo o hable con alguien que lo entienda bien.

## Is my water safe?

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.

## Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as a person with cancer undergoing chemotherapy, someone who has had an organ transplant, HIV/AIDS or other immune system disorders, some elderly, and infants may 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 microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## Where does my water come from?

Holloman AFB (HAFB) normally relies on surface water (40 percent) and groundwater (60 percent) for potable water, but due to the 2012 Little Bear Forest fire the surface water source is expected to be unavailable until 2020. Holloman AFB will be relying on various wells located 12 to 35 miles southeast of the base near the foothills of the Sacramento Mountains for the next year.

Groundwater is drawn from a total of 15 wells with an average depth of 450 to 550 feet. There are five well fields in operation: Douglas, Boles, Escondido, San Andres, and Frenchy. Groundwater extracted from the well fields is transported via pipeline to two ground level storage tanks located in Boles and San Andres well fields, with a total capacity of 0.9 MG.

These water storage tanks are constantly being filled to prevent water deficits from occurring on-base. Ten years ago, average daily water demand on-base was approximately 2.1 million gallons per day (MGD) (6.4 acre-feet) or 766.5 MG per year. The average for 2018 was 0.998 MGD or 364.5 MG per year. This very significant reduction in water consumption is the result of converting the Golf Course to irrigation with treated effluent, an aggressive campaign to find/fix leaks and replacement of 5 miles of old cast iron water mains. The replacement of old leaky water lines is continuing, thus the Base water consumption is continuing to drop.

Water is treated at the Civil Engineering Water Treatment Plant and is stored in two main storage tanks (1.0 million gallons (MG) and 1.5 MG). The water is then distributed out to the water system to include two elevated tanks (Eagle Tower with a capacity of 0.3 MG (0.9 acre-feet) and North Area Tower with a capacity of 0.25 MG (0.8 acre-feet), having a total capacity of 0.55 MG (1.7 acre-feet). These tanks also serve to keep pressure in pipelines serving the base and are constantly filled.

### **Source water assessment and its availability**

Our water system is routinely inspected by the Civil Engineering Water and Fuels System Maintenance Shop and Bioenvironmental Engineering (BE). Civil Engineering Water and Fuels System Maintenance inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, our water system is operated by state certified operators who oversee the routine operations of our system. All improvements forthcoming will be addressed by the appropriate personnel.

If consumers would like to know more about the source water assessment done by the New Mexico Environment Department they can contact David Torres at 505-841-5306 or [david.torres@state.nm.us](mailto:david.torres@state.nm.us).

### **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 Environmental Protection Agency's (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. It 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. It can also pick up 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. Additional contaminants may include 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; and 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.

### **How can I get involved?**

The information contained in the Consumer Confidence Report may not answer all the questions you may have about the quality of the Holloman AFB's drinking water. You are welcome to contact the Bioenvironmental Engineering Flight at (575) 572-7938. Your concerns will be addressed in the monthly Water Working Group meeting.

### **Description of Water Treatment Process**

Your water is treated by disinfection which involves the addition of chlorine or other disinfectants to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

### **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, it will save up to 500 gallons a month.
- Use a water-efficient showerhead: They're inexpensive, easy to install, and can save 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](http://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.

### **Additional 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. Holloman AFB (PWSID: NM3562719) 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 want 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>.

## 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 of the drinking water contaminants that we detected during the calendar year 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 actually 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 below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	3.3	NA	3.3	2016	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	1	0	1.82	2018	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	11	0	17.6	2018	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Barium (ppm)	2	2	.024	NA	NA	2018	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cyanide (ppb)	200	200	ND	NA	NA	2018	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Fluoride (ppm)	4	4	.28	NA	NA	2018	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as	10	10	.83	.83	.83	2018	No	Runoff from fertilizer use;

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Nitrogen] (ppm)								Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	1.9	NA	NA	2018	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium (optional) (ppm)	NA		54	NA	NA	2018	No	Erosion of natural deposits; Leaching
<b>Radioactive Contaminants</b>								
Alpha emitters (pCi/L)	0	15	6.17	4	6.17	2017	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	3.19	NA	NA	2017	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	ND	NA	NA	2017	No	Erosion of natural deposits
Uranium (ug/L)	0	30	2.7	NA	NA	2017	No	Erosion of natural deposits
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
<b>Inorganic Contaminants</b>								
Copper - action level at consumer taps (ppm)	1.3	1.3	.15	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
<b>Inorganic Contaminants</b>								
Lead - action level at consumer taps (ppb)	0	15	1.5	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

## Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
1,1,1-Trichloroethane (ppb)	200	200	ND	No	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	3	5	ND	No	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	7	7	ND	No	Discharge from industrial chemical factories
1,2,4-Trichlorobenzene (ppb)	70	70	ND	No	Discharge from textile-finishing factories
1,2-Dichloroethane (ppb)	0	5	ND	No	Discharge from industrial chemical factories
1,2-Dichloropropane (ppb)	0	5	ND	No	Discharge from industrial chemical factories
2,4,5-TP (Silvex) (ppb)	50	50	ND	No	Residue of banned herbicide
2,4-D (ppb)	70	70	ND	No	Runoff from herbicide used on row crops
Alachlor (ppb)	NA		ND	No	Alachlor is used as an herbicide for control of annual grasses and broadleaf weeds in crops, primarily on corn, sorghum, and soybeans.
Antimony (ppb)	6	6	ND	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppb)	0	10	ND	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Asbestos (MFL)	7	7	ND	No	Decay of asbestos cement water mains; Erosion of natural deposits
Atrazine (ppb)	3	3	ND	No	Runoff from herbicide used on row crops
Benzene (ppb)	0	5	ND	No	Discharge from factories; Leaching from gas storage tanks and landfills
Benzo(a)pyrene (ppt)	0	200	ND	No	Leaching from linings of water storage tanks and distribution lines
Beryllium (ppb)	4	4	ND	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	5	5	ND	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
					paints
Carbofuran (ppb)	40	40	ND	No	Leaching of soil fumigant used on rice and alfalfa
Carbon Tetrachloride (ppb)	0	5	ND	No	Discharge from chemical plants and other industrial activities
Chlordane (ppb)	0	2	ND	No	Residue of banned termiticide
Chlorobenzene (monochlorobenzene) (ppb)	100	100	ND	No	Discharge from chemical and agricultural chemical factories
Chromium (ppb)	100	100	ND	No	Discharge from steel and pulp mills; Erosion of natural deposits
Dalapon (ppb)	200	200	ND	No	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	400	400	ND	No	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	0	6	ND	No	Discharge from rubber and chemical factories
Dibromochloropropane (DBCP) (ppt)	0	200	ND	No	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dichloromethane (ppb)	0	5	ND	No	Discharge from pharmaceutical and chemical factories
Dinoseb (ppb)	7	7	ND	No	Runoff from herbicide used on soybeans and vegetables
Dioxin (2,3,7,8-TCDD) (ppq)	0	30	ND	No	Emissions from waste incineration and other combustion; Discharge from chemical factories
Diquat (ppb)	20	20	ND	No	Runoff from herbicide use
Endothall (ppb)	100	100	ND	No	Runoff from herbicide use
Endrin (ppb)	2	2	ND	No	Residue of banned insecticide
Ethylbenzene (ppb)	700	700	ND	No	Discharge from petroleum refineries
Ethylene dibromide (ppt)	0	50	ND	No	Discharge from petroleum refineries
Glyphosate (ppb)	700	700	ND	No	Runoff from herbicide use
Heptachlor (ppt)	0	400	ND	No	Residue of banned pesticide
Heptachlor epoxide (ppt)	0	200	ND	No	Breakdown of heptachlor
Hexachlorobenzene (ppb)	0	1	ND	No	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)	50	50	ND	No	Discharge from chemical factories
Lindane (ppt)	200	200	ND	No	Runoff/leaching from insecticide used on cattle, lumber, gardens
Mercury [Inorganic] (ppb)	2	2	ND	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland



Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
Methoxychlor (ppb)	40	40	ND	No	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Nitrite [measured as Nitrogen] (ppm)	1	1	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Oxamyl [Vydate] (ppb)	200	200	ND	No	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Pentachlorophenol (ppb)	0	1	ND	No	Discharge from wood preserving factories
Picloram (ppb)	500	500	ND	No	Herbicide runoff
Simazine (ppb)	4	4	ND	No	Herbicide runoff
Styrene (ppb)	100	100	ND	No	Discharge from rubber and plastic factories; Leaching from landfills
Tetrachloroethylene (ppb)	0	5	ND	No	Discharge from factories and dry cleaners
Thallium (ppb)	.5	2	ND	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories
Toluene (ppm)	1	1	ND	No	Discharge from petroleum factories
Toxaphene (ppb)	0	3	ND	No	Runoff/leaching from insecticide used on cotton and cattle
Trichloroethylene (ppb)	0	5	ND	No	Discharge from metal degreasing sites and other factories
Vinyl Chloride (ppb)	0	2	ND	No	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10	10	ND	No	Discharge from petroleum factories; Discharge from chemical factories
cis-1,2-Dichloroethylene (ppb)	70	70	ND	No	Discharge from industrial chemical factories
o-Dichlorobenzene (ppb)	600	600	ND	No	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	75	75	ND	No	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	100	100	ND	No	Discharge from industrial chemical factories

In an effort to provide supplemental information on unregulated contaminants of concern, Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) samples were voluntarily collected in March 2019. Results are provided in advance of its required reporting period (July 2020) in the table below.

Contaminants	LHA	Your Water	Violation	Explanation and Comment
Perfluorooctanesulfonic Acid (PFOS)*	70 ppt	ND	No	Sample taken from water system point of entry. Used for firefighting at airfields as part of aqueous film forming foam (AFFF) fire extinguishing agent and in a number of industrial processes

Contaminants	LHA	Your Water	Violation	Explanation and Comment
Perfluorooctanoic Acid (PFOA)*	70 ppt	ND	No	Sample taken from water system point of entry. Used for firefighting at airfields as part of aqueous film forming foam (AFFF) fire extinguishing agent and in a number of industrial processes

\* Combined concentrations not to exceed 70 ppt

Unit Descriptions	
Term	Definition
ug/L	ug/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)
ppt	ppt: parts per trillion, or nanograms per liter
ppq	ppq: parts per quadrillion, or picograms per liter
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
LHA	Lifetime Health Advisory
MFL	MFL: million fibers per liter, used to measure asbestos concentration
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	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	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variations and	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique

**Important Drinking Water Definitions**

Exemptions	under certain conditions.
MRDLG	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	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	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

**For more information please contact:**

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