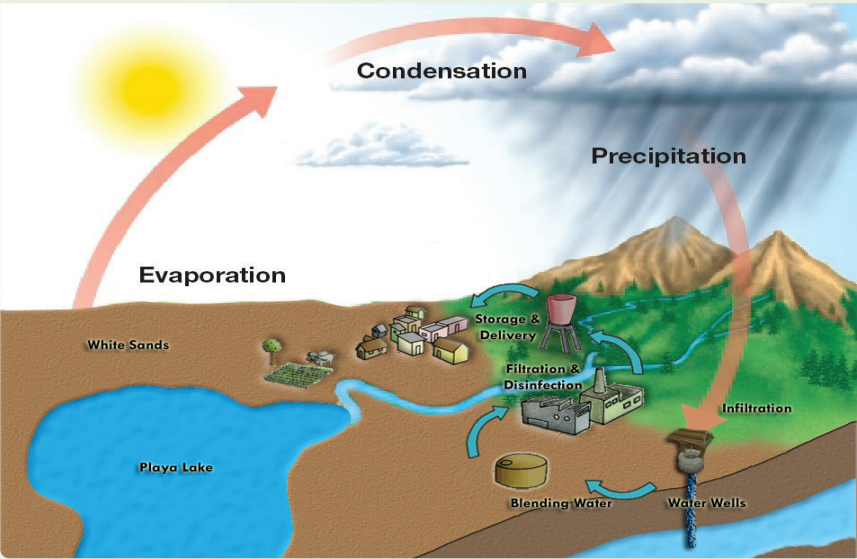


Did You Know?

- Water provided to the HELSTF, SMR, and SRC facilities is chlorinated to disinfect and remove bacteria.
- Groundwater at the SRC is brackish, or salty, so the water is first processed through a reverse osmosis (RO) plant before it is distributed to customers. The RO plant is similar to home RO systems but is much larger to allow the plant to meet the demands of the SRC.
- 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. WSMR 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: (800) 426-4791 or at the EPA information website: <https://www.epa.gov/ground-water-and-drinking-water>
- Nitrate in drinking water at levels above 10 parts per million (ppm) is a health risk for infants younger than six months of age. High nitrate levels in drinking water can cause blue baby syndrome (a disorder caused by the inability of blood to carry oxygen). Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. Nitrate levels in WSMR water consistently meet EPA requirements.
- In order to ensure you are receiving the best quality water, WSMR must flush the system periodically. Flushing the water system is done by opening hydrant valves or allowing the wells to discharge the water somewhere other than the water distribution pipes. Flushing can cause the water to run out onto the street or out into the desert. Even though it may appear that this water is being wasted, it is helping to clean contaminants from the pipes. The water is still part of the hydrologic cycle and will either evaporate or infiltrate. Both evaporation and infiltration eventually lead to the water becoming part of the water supply.



IMPORTANT
Notice to Users of Infrequently Used Facilities

Some of our facilities have low and infrequent water use. After a facility has been unused for five or more continuous days, it is recommended that you let the water run for at least 30 minutes before using the water. This will help maintain proper chlorination. If you have questions about infrequently used facilities, please call the Directorate of Public Works, Operations and Maintenance Division, Utilities Section at (575) 678-1917.

The Hydrologic Cycle

The water at WSMR comes from underground aquifers and is made up of water that began as rainwater and then became groundwater after filtering through the ground. The hydrologic cycle, or water cycle, is how water moves around on our Earth. First, water evaporates from the ocean and becomes water vapor, which then cools and condenses into clouds.

The clouds drop the water back to the ground in the form of precipitation, and then either the water evaporates back into the atmosphere or it seeps into the ground to become groundwater by a process known as infiltration.

Your drinking water is filtered, treated, and then delivered to your tap as clean, fresh water.

Department of the Army
U.S. Army Garrison White Sands
Attn: IMWS-PWE-EC (163 Springfield)
WSMR, NM 88002-5008

Drinking Water Compliance
Program Manager
Telephone: (575) 678-7082
Envir. Division: (575) 678-2225
Fax: (575) 678-4028

- High Energy Laser Test Facility
- Small Missile Range
- Stallion Range Center

Drinking Water Quality Report
UP RANGE
White Sands Missile Range



2021

What is This Water Quality Report?

The Safe Drinking Water Act ensures public drinking water systems meet national standards for the protection of your health. This report provides details about where your water comes from, what it contains, and how it compares to standards set by the Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED). White Sands Missile Range (WSMR) tap water meets all EPA and NMED drinking water standards.

Status of Water In New Mexico and Call for Conservation

Water is New Mexico's most precious natural resource. New Mexico has experienced several consecutive years of drought and meteorologists predict that it will continue. Water conservation is especially important during times of drought. Additionally, and arguably more critical, most aquifers in the state are being depleted. Decreasing water levels in aquifers and surface sources can increase the concentration of minerals and contaminants in the drinking water supply.

We at WSMR are committed to providing a safe and consistent supply of water and we ask for your help. There are a lot of simple ways to reduce the amount of water used both inside and outside the home. Please conserve water whenever possible by taking the following steps:

1. Know your water supply provider and follow existing water restrictions.
2. Stop leaks. Toilets are the largest water user inside the home. Over time, toilet flappers can decay or minerals can build up on them. It's usually best to replace the whole rubber flapper—a relatively easy, inexpensive do-it-yourself project that pays for itself quickly. You can get instructions for testing for leaks with dye tabs for free (with free tabs) from the Office of the State Engineer's District Offices or call 1-800-WATERNM.
3. Check outdoor fixtures (swamp coolers, irrigation systems, etc.) for leaks and repair any leaks found.
4. Consider turning the swamp cooler off when away from home.
5. Minimize evaporation by watering during the early morning hours, when temperatures are cooler and winds are lighter. Make sure irrigation systems are working properly (and you are not watering the house, sidewalk or street) and use only the minimum amount of water needed by plants.
6. Run water only when using it. Turn water off while brushing teeth, shaving, and washing dishes.
7. Wash only full loads of laundry. Install a water efficient clothes washer (and save 16 gallons per load).
8. Take 5 minute showers.
9. Flush toilets only when necessary.
10. When upgrading or replacing household fixtures, install low-flow toilets, showerheads, washing machines, and faucets.

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


Why Are There Contaminants in My Drinking Water?

According to the SDWA, anything in water that is not H₂O is considered a contaminant regardless of whether it is harmful or not.


Therefore, drinking water (including bottled water) may reasonably be expected to contain at least small amounts of some contaminants. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at **800-426-4791**.

The presence of contaminants does not necessarily indicate that water poses a health risk. The sources of drinking water (both tap water and bottled water) may 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, can dissolve radioactive material. It can also pick up substances resulting from the presence of animals or human activity.


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 (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.




Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.




Inorganic contaminants such as salts and metals can be naturally-occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.



Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.



Organic chemical contaminants, including synthetic and volatile organic chemicals, may come from gas stations, urban stormwater runoff, and septic systems.



Radioactive contaminants can be naturally-occurring or can be the result of oil and gas production and mining activities.

Where Does My Water Come From?

Drinking water provided to the personnel at HELSTF, SMR, and SRC is comprised entirely of groundwater. Water is pumped from an underground aquifer, which is similar to a natural storage tank made of water, rocks, sand, and other material. The water in the aquifer comes primarily from rainwater that filters through the ground.

A system of water wells is used to bring the groundwater to the surface where it is treated, blended, and distributed to the various areas.



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 people, and infants may be at particular risk for infections.

These people should seek advice from their health care providers about drinking water. The EPA and the Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or at <https://epa.gov/ground-water-and-drinking-water>

Sanitary Survey and Source Water Assessment

As required by the SDWA, NMED has performed sanitary surveys (inspections of our water systems) and analyzed the groundwater sources used to supply water for HELSTF, SMR, and SRC. The Sanitary Survey and Source Water Assessments are available upon request from the WSMR DPW Environmental Division Office at: **(575) 678-7082**

The table below lists the results of the most recent drinking water tests. The contaminants detected in your water are shown under the column headings "HELSTF," "SMR," or "SRC." The two columns labeled "Maximum Contaminant Level (MCL)" and "Maximum Contaminant Level Goal (MCLG)" show the EPA limits for safe drinking water. WSMR conducted tests for volatile organic chemicals (VOCs), synthetic organic chemicals (SOCs), heavy metals, and many other contaminants. If a contaminant is not listed in this table, then it was not detected in your drinking water. Some of these contaminants are monitored less often than once per year because the concentrations of these contaminants do not change frequently.

All contaminants were detected at low levels which are generally not harmful in drinking water. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. SMR, HELSTF, and SRC were all sampled for 18 per/polyfluoroalkyl Substances (PFAS) chemicals with no detections. Total xylenes and ethylbenzene are being sampled annually after they were detected in 2017 in at least one sample.

Per state rules, if one of these contaminants is detected at a level exceeding 0.0005 mg/L in any sample, the system must first monitor quarterly. The state may decrease monitoring requirements provided it has determined the system is reliably and consistently below the MCL (which has occurred).

Table Explanation	
NA	Not applicable
ND	Not detected
pCi/L	Picocuries per liter
ppb	Parts per billion or micrograms per liter (µg/L)
ppm	Parts per million or milligrams per liter (mg/L)

Contaminants	MCLG	MCL	HELSTF	SMR	SRC	Year	Violation	Typical Source
Inorganic Chemicals								
Arsenic (ppm)	0	10	0.341	0.369	0.673	2020	No	Erosion of natural deposits.
Barium (ppm)	2	2	0.036	0.034	0.0115	2020	No	Erosion of natural deposits.
Selenium (ppb)	50	50	1.56	2	5.13	2020	No	Erosion of natural deposits, discharge from mines.
Fluoride (ppm)	4	4	0.263	0.912	0.339	2020	No	Erosion of natural deposits, water additive which promotes strong teeth.
Nitrate + Nitrite (ppm)	10	10	1.81	1.36	1.09	2021	No	Runoff from fertilizer use, leaching from septic tank, sewage, erosion of natural deposits.
Organic Contaminants								
Ethylbenzene (ppb)	0.7	0.7	0.316 ^a	–	ND ^a	2021	No	Discharge of petroleum products, as a solvent, and is found in paints, inks and adhesives.
Total Xylenes (ppm)	10	10	0.00293 ^a	–	0.00128 ^a	2021	No	Discharge of petroleum products and as a solvent.
Radiological Contaminants								
Gross Alpha (pCi/L)	0	15	5.05	10	0.135	2020	No	Erosion of natural deposits.
Gross Beta (pCi/L)	0	50	10.5	3.41	1.65	2020	No	Decay of natural and man-made deposits.
Uranium (ppb)	0	30	2.79	7.62	3.95	2020	No	Erosion of natural deposits.
Radium 226/228 (pCi/L)	0	5	0.53 –1.032 ^d	1.714	0.308	2020/ 2021	No	Erosion of natural deposits.
Disinfectants and Disinfection By-Products								
Chlorine (ppm)	4	4	0.90	–	1.70	2021	No	Water additive used to control microbes.
Haloacetic Acids – HAA5 (ppb)	NA	60	8.07 ^{bc}	–	32	2021	No	By-product of the chlorination of drinking water for disinfection.
Total Trihalomethanes – TTHM (ppb)	NA	80	32.5 ^{bc}	–	58	2021	No	By-product of the chlorination of drinking water for disinfection.

^a - Ethylbenzene and total xylenes are being monitored annually because these contaminants were detected above 0.0005 mg/L in 2017.
^b - HELSTF and SMR are supplied by different wells but are considered one water system. Some samples were taken at HELSTF as only one compliance sample is required per water system.
^c - HAA5 and TTHM are being monitored annually because TTHM was detected above the 80 ppb MCL in 2018.
^d - Radium 226/228 is monitored quarterly at HELSTF beginning July 2021 due to an exceedance in July 2020. HELSTF results are a range of results collected in 2021. SMR and SRC samples were collected in 2020.

Lead and Copper	MCLG	AL	HELSTF (2020)	SMR (2020)	SRC (2020)	# of Samples Exceeding AL	Typical Source
Lead (ppb)	0	15	0.859–2.6 ^e	0.859	ND–9.39	0	Corrosion of household plumbing systems, erosion of natural deposits.
90th Percentile Detected ^f			2.46	–	7.18	–	
Copper (ppm)	1.3	1.3	0.072–0.111 ^e	0.103	0.005–0.101	0	Corrosion of household plumbing systems, erosion of natural deposits.
90th Percentile Detected ^f			0.107	–	0.063	–	

^e - Four samples were taken at HELSTF and the range of results is presented.
^f - The 90th percentiles for lead and copper are derived from analytical results from both HELSTF and SMR, which are considered one system.

Water Quality Data Table

Terms and Definitions	
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Contaminant	Any physical, chemical, biological, or radiological substance in water.
EPA	Environmental Protection Agency
FDA	Food and Drug Administration
HELSTF	High Energy Laser Test Facility
IOC	Inorganic Chemical
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.
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.
NMED	New Mexico Environment Department, the state drinking water regulatory agency.
PFAS	Per/polyfluoroalkyl substances
SDWA	Safe Drinking Water Act
SMR	Small Missile Range
SRC	Stallion Range Center
SOC	Synthetic Organic Chemical
VOC	Volatile Organic Chemical
WSMR	White Sands Missile Range