2020

Drinking Water Quality Report

MAIN POST

White Sands Missile Range

OPSEC Reviewed 6/8/21.
Approved For Public Release, Distribution Is Unlimited.

What Is This Water Quality Report?

This Annual Drinking Water Quality Report, or the Consumer Confidence Report, is required by the Safe Drinking Water Act (SDWA). The SDWA 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. 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**.
2. Know your water supply provider and follow existing water restrictions.
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.

Why Are There Contaminants in My Drinking Water?

According to the SDWA, anything in water that is not H_2O 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.

Where Does My Water Come From?

Drinking water produced by our Main Post system is comprised entirely of groundwater. Water is pumped from an underground aquifer, which is similar to a natural storage tank made of 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 various areas of the Main Post.

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

Where Do Contaminants Come From?

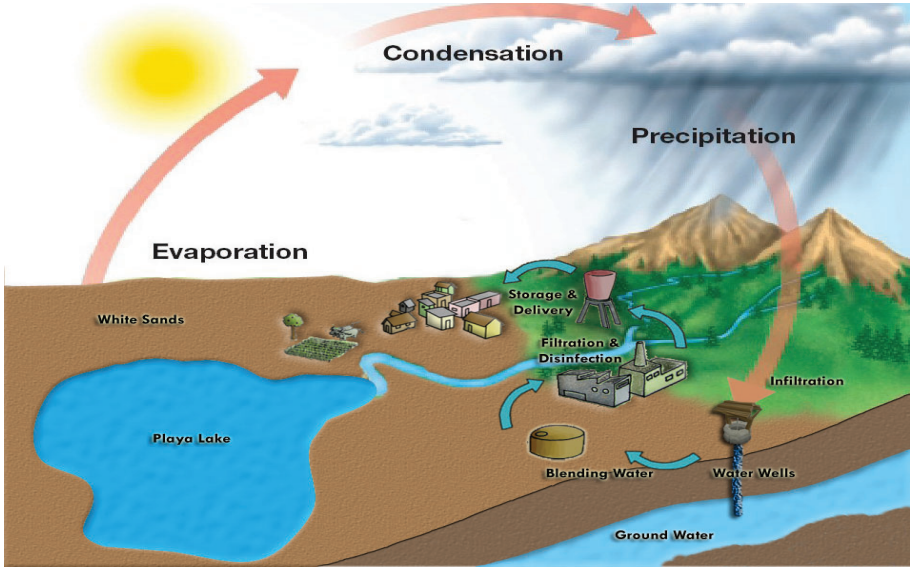
Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.

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

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.

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

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



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.

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

Sanitary Survey and Source Water Assessment

As required by the SDWA, NMED has performed a sanitary survey (inspection of our water system) and analyzed the groundwater sources used to supply water for the Main Post area. The Sanitary Survey and Source Water Assessment are available upon request from the WSMR DPW Environmental Division Office at:

(575) 678-7082

Water Quality Data Table

The table below lists the results of the most recent drinking water tests conducted at Main Post. 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 contaminants are monitored less often than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative, are more than one year old.

All contaminants detected were 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.

Table Explanation

mrem/yr	Millirem per year
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)
ppt	Parts per trillion
WSMR	White Sands Missile Range

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
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.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in your drinking water.
MRDLG	Maximum Residual Disinfectant Goal: If this value is below the value in 'Your Water' there is no known health risk.
NMED	New Mexico Environment Department, the state drinking water regulatory agency
SDWA	Safe Drinking Water Act
SOC	Synthetic Organic Chemical
VOC	Volatile Organic Chemical

Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Year	Violation	Typical Source
Inorganic Compounds							
Arsenic (ppb)	10	10	0.599	NA	2020	No	Erosion of natural deposits.
Barium (ppm)	2	2	0.059	NA	2020	No	Erosion of natural deposits.
Fluoride (ppm)	4	4	0.361	NA	2020	No	Erosion of natural deposits, water additive which promotes strong teeth.
Nitrate + Nitrite (ppm)	10	10	2.14	NA	2020	No	Runoff from fertilizer use, leaching from septic tank, sewage, erosion of natural deposits.
Selenium (ppm)	50	50	0.875	NA	2020	No	Discharge from petroleum and metal refineries, erosion of natural deposits, discharge from mines.

Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Year	Violation	Typical Source
Radiological Contaminants							
Combined Radium, 226 and 228 (pCi/L)	0	5	1.36	NA	2020	No	Erosion of natural deposits.
Combined Uranium (ppb)	0	30	3.75	NA	2020	No	Erosion of natural deposits.
Gross Alpha, excl. Radon and Uranium (pCi/L)	0	15	0	NA	2020	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Highest Avg. Detected	Range of Levels Detected	Year	Violation	Typical Source
Disinfectants and Disinfection By-Products							
Chlorine (ppm)	4	4	0.86	0.12 – 1.88	2020	No	Water additive used to control microbes.
Total Trihalomethanes – TTHM (ppb)	NA	80	90.1[a]	18.6 – 90.1[a]	2020	Yes	By-product of the chlorination of drinking water for disinfection.
Total Haloacetic Acids – HAA5 (ppb)	NA	60	6.93[b]	2.57 – 6.93[b]	2020	No	By-product of the chlorination of drinking water for disinfection.

[a] - Two quarterly TTHM samples were collected in 2020. The number reported is the highest locational running annual average.
[b] - Two quarterly HAA5 samples were collected in 2020. The number reported is the highest locational running annual average.

Contaminants	MCLG	Action Level	90th Percentile Detected	Range of Levels Detected	Year	# Sites Above AL	Violation	Typical Source
Lead and Copper								
Lead (ppb)	0	15	0.782	U – 3.32	2020	0	No	Corrosion of household plumbing systems, erosion of natural deposits.
Copper (ppm)	1.3	1.3	0.156	0.005 – 0.192	2020	0	No	Corrosion of household plumbing systems, erosion of natural deposits.

Undetected Contaminants

The table below lists the contaminants that your drinking water was tested for, but which were not detected (ND).

Contaminants	Units	MCLG or MRDLG	MCL or MRDL	Your Water	Violation	Typical Source
1,1,1-Trichloroethane	ppb	200	200	ND	No	Discharge from metal de-greasing sites and other factories
1,1,2-Trichloroethane	ppb	3	5	ND	No	Discharge from industrial chemical factories
1,1-Dichloroethene	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-Dibromo-3-chloropropane	ppt	0	200	ND	No	Runoff/leaching from soil fumigant used on soybeans, cotton, and orchards
1,2-Dibromoethane	ppt	0	50	ND	No	Discharge from petroleum refineries
1,2-Dichlorobenzene	ppb	600	600	ND	No	Discharge from industrial chemical 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
1,4-Dichlorobenzene	ppb	75	75	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	0	2.0	ND	No	Runoff from herbicide used on row crops
Antimony	ppm	0.006	0.006	ND	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
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 tanks and landfills
Benzo(a)pyrene	ppt	0	200	ND	No	Leaching from linings of water storage tanks and distribution lines
Beryllium	ppm	0.004	0.004	ND	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	ppm	0.005	0.005	ND	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and 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	2.0	ND	No	Residue of banned termiticide
Chlorobenzene	ppb	100	100	ND	No	Discharge from chemical and agricultural chemical factories
Chromium	ppm	0.10	0.10	ND	No	Discharge from steel and pulp mills; erosion of natural deposits
cis-1,2-Dichloroethene	ppb	70	70	ND	No	Discharge from industrial chemical factories
Cyanide	ppm	0.20	0.20	ND	No	Discharge from plastic and fertilizer factories; discharge from steel/metal factories
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	6.0	ND	No	Discharge from rubber and chemical factories
Dinoseb	ppb	7	7	ND	No	Runoff from herbicide used on soybeans and vegetables
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
gamma-BHC	ppb	0.20	0.20	ND	No	Runoff/leaching from insecticide used on cattle, lumber, gardens
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	1.0	ND	No	Discharge from metal refineries and agricultural chemical factories
Di(2-ethylhexyl)-phthalate	ppb	50	50	ND	No	Discharge from chemical factories
Mercury	ppm	0.002	0.002	ND	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Methoxychlor	ppb	40	40	ND	No	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Methylene chloride	ppb	0	5	ND	No	Discharge from pharmaceutical and chemical factories
Nickel	ppm	0.10	0.10	ND	No	Leaching from metals, such as pipes and fittings
Oxamyl	ppb	200	200	ND	No	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Pentachlorophenol	ppb	0	1.0	ND	No	Discharge from wood-preserving factories
Picloram	ppb	500	500	ND	No	Herbicide runoff
Polychlorinated Biphenyls	ppt	0	500	ND	No	Runoff from landfills; discharge of waste chemicals
Simazine	ppb	4	4	ND	No	Herbicide runoff
Styrene	ppb	100	100	ND	No	Discharge from rubber/plastic factories; leaching from landfills
Tetrachloroethene	ppb	0	5	ND	No	Discharge from factories and dry cleaners
Thallium	ppb	0.5	2	ND	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories
Toluene	ppb	1,000	1,000	ND	No	Discharge from petroleum factories
Total Xylenes	ppb	10,000	10,000	ND	No	Discharge from petroleum and chemical factories
Toxaphene	ppb	0	3.0	ND	No	Runoff/leaching from insecticide used on cotton and cattle
trans-1,2-Dichloroethene	ppb	100	100	ND	No	Discharge from industrial chemical factories
Trichloroethene	ppb	0	5	ND	No	Discharge from metal de-greasing sites and other factories
Vinyl chloride	ppb	0	2	ND	No	Leaching from PVC piping; discharge from plastics factories

Did You Know?

- WSMR uses a water treatment plant that filters the water and adds chlorine to disinfect and remove bacteria.
- 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.

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

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) 678-6433
(Envir. Division):	(575) 678-7082
Fax:	(575) 678-4028