

Los Alamos Department of Public Utilities
2019 Annual Drinking Water Quality Report

LOS ALAMOS
Department of Public Utilities

1000 Central Avenue, Suite 130
Los Alamos, NM 87544

2019 Annual Drinking Water Quality Report

Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo 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 persons such as persons with cancer undergoing chemotherapy, 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. 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?

The water production team with the Los Alamos Department of Public Utilities oversees the pumping of ground water from twelve wells to provide Los Alamos County with quality drinking water. The wells tap the main aquifer under the Pajarito Plateau,

part of the Santa Fe formation. A pollution prevention and wellhead protection program is in place to protect this underground water source. Pumped from depths of 1,000 feet at times, the water is treated with a disinfectant. Drinking water is routinely monitored for constituents and results are published in accordance with federal and state law. Results for the period of January 1, 2019 through December 31, 2019 are included in this brochure.

Water Rights

Total water rights available to the County amount to 5,541.3 acre-feet per year as determined by the New Mexico Office of the State Engineer. In addition, the County has a contract with the U.S. Bureau of Reclamation for another 1,200 acre-feet of water per year from the San Juan/Chama transmountain diversion project.

Source water assessment and its availability

The Los Alamos Department of Public Utilities protects drinking water from contamination based on well construction, hydrogeologic settings, and system operations and management. A Source Water Assessment and Protection (SWAP) analysis was performed in 2003 by the New Mexico Environment Department (NMED) to identify any possible sources of contamination. NMED ranked the susceptibility of Los Alamos entire water system as "moderately high." To discuss findings please contact Jack Richardson, Deputy Utilities Manager at 505 662 8333.

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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, 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; 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.

Description of Water Treatment Process

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Sanitary Survey of Drinking Water

The NMED Department of Drinking Water performs a Sanitary Survey of drinking water systems every three years. The 2018 Sanitary Survey Report stated that Los Alamos Municipal Water System found there were no significant nor minor deficiencies identified.

Hardness

Los Alamos Department of Public Utilities drinking water is moderately hard, at 91 mg/L or 5.3 grains of calcium carbonate per gallon. Moderately hard water helps build a protective layer of calcium carbonate on the inside of pipes to protect you from any lead plumbing that may be present in your home. Water hardness is measured as calcium carbonate. Usually when hardness is lower than 60 mg/L the water is "soft." When hardness is higher than 180 mg/L the water is "hard." Additionally, Los Alamos drinking water has high levels of silica, a naturally occurring mineral due to the volcanic formations in the aquifer. These levels give our water its unique flavor, however, also increases the hardness of our water.

Additional Information for Chromium

In 2005 the Los Alamos National Laboratory (LANL) detected hexavalent chromium in a regional aquifer monitoring well at elevated levels. This contamination is a result of legacy waste from past LANL operations. In response, LANL and DPU began increased monitoring of Los Alamos' drinking water supply wells for both total and hexavalent [Cr(VI)] chromium. To date, only naturally occurring chromium, at safe levels, is detected in DPU drinking water

wells, and is unrelated to the LANL chromium contamination. Detections in the drinking water wells range from 4 ppb to 5 ppb and are well below EPA's drinking water standard of 100 ppb and New Mexico's established ground water standard of 50 ppb.

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. Los Alamos Department of Public Utilities 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.

How Do I Get Involved?

The Board of Public Utilities governs the county-owned Department of Public Utilities. Comprising five county residents appointed by the County Council, the Board approves rules and regulations to ensure the provision of safe, reliable, utility services.

Board members are Kathleen Taylor, Chair; Carrie Walker, Vice Chair; Jeff

Johnson; Stephen McLin; and Steve Tobin. More information can be found at <http://ladpu.com/BPU>.

Join us! The board meets every third Wednesday of each month at 5:30 p.m. in Council Chambers, 1000 Central Avenue, Los Alamos. Download agendas or watch the meetings at <http://www.ladpu.com/BPU-AgendasMeetings>.

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 shower head. 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.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection exists at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We will assist you to identify

cross-connection controls, ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included);
- Underground lawn sprinkler system;
- Pool or hot tub (whirlpool tubs not included);
- Additional source(s) of water on the property;
- Decorative pond; and
- Watering trough.

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 ac-

tually 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			
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	0.3	0.3	0.3	2019	No	Water additive used to control microbes
Haloacetic Acids (HAA5)* (ppb)	NA	60	1	0	1.2	2019	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]* (ppb)	NA	80	6	2.6	8	2019	No	By-product of drinking water disinfection
* The "Range" for Haloacetic Acids (HAA5) and TTHMs (Total Trihalomethanes) are the lowest and highest test sample. The "Detect In Your Water" is the highest Locational Running Annual Average (LRAA).								
Inorganic Contaminants								
Arsenic (ppb)	0	10	4	1	4	2017	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Chromium (ppb)	100	100	5	4	5	2017	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	0.32	0.31	0.32	2017	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	1	1	0.48	0.33	0.48	2019	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	1.2	0	1.2	2019	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	4	1.3	4	2019	No	Decay of natural and man-made deposits
Radium (combined 226/228) (pCi/L)	0	5	0.24	0.02	0.24	2019	No	Erosion of natural deposits
Uranium (ug/L)	0	30	2	0	2	2019	No	Erosion of natural deposits

Contaminants	MCLG	AL	Your Water (90 th Percentile)	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.047	2018	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	1	2018	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Unit Descriptions	
Term	Definition
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)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
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.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique 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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