

# YEAR 2001 DRINKING WATER QUALITY REPORT

DEPARTMENT OF PUBLIC UTILITIES  
COUNTY OF LOS ALAMOS, NEW MEXICO

## Disinfection System Conversion

During 2001 the project to convert from gas chlorine to an on-site generated liquid disinfectant was completed. The system selected is the MIOX® process, which converts ordinary salt into a mixed oxidant disinfectant. No hazardous chemicals are transported or stored using this process, which greatly improves safety for both the workers and the general public.

## The Source of Los Alamos Drinking Water

The Los Alamos County drinking water system is supplied by groundwater pumped from 12 wells, which tap the main aquifer under the Pajarito Plateau, part of the Santa Fe Formation. The Los Alamos County system has well-head protection in place.

Sources for communities' drinking water (both tap water and bottled water) can 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 radioactive material and can pick up substances resulting from the presence of animals or from human activity.

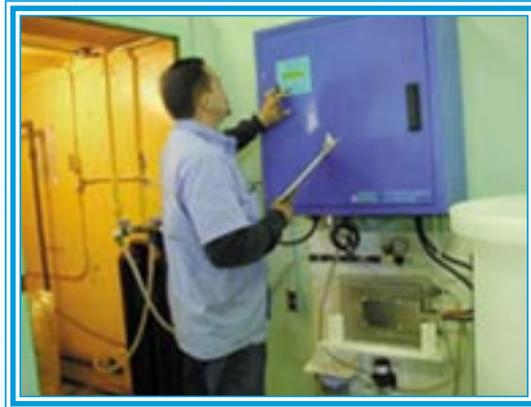
## You're Invited . .

The Los Alamos County Utilities Board encourages public interest and participation in our community's decisions affecting drinking water. Regular Utilities Board meetings are held on the third Wednesday of each month at 5:30 p.m. in the Stout Room at the Municipal Building. The public is always welcome.

## For People With Special Conditions

Some people may be more vulnerable to contaminants in drinking water than is 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.



*Rick Herrera checking chlorine process*

The EPA/CDC guidelines on appropriate means to lessen infection risk by *Cryptosporidium* are available from the Safe Drinking Water Hotline: (800-426-4791).

## EPA and AWWA Hotline Numbers

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). Information is also available on the World Wide Web at <http://www.waterdata.com>.

## Consumer Confidence Report: 2001 Drinking Water Quality Data

Detected Compounds	Units	SDWA MCL	SDWA MCLG	Range of Values Detected	System Average	Violation	Major Sources
<b>Inorganic Compounds</b>							
Arsenic	ppb	50	n/a	0.8 - 2.6	1.7	NO	Natural deposits
Chromium	ppb	100	100	5.5 - 6.7	5.9	NO	Natural deposits
Fluoride	ppm	4	4	0.29 - 0.40	0.33	NO	Natural deposits, Fluoridation by County
Nitrate & Nitrite	ppm	10	10	0.27 - 1.17	0.51	NO	Leaching from septic tanks, sewage; Natural deposits
Lead (residential taps)	ppb	15 <sup>1</sup>	0	< 5.0 - 12.0	over 90% less than detect limit of 5 ppb	NO	Corrosion of household plumbing
Copper (residential taps)	ppm	1.3 <sup>1</sup>	1.3	< 0.05 - 0.13	over 90% less than 0.09 ppm	NO	Corrosion of household plumbing
Hardness (as CaCO <sub>3</sub> )	grains/gal	-	-	1.69 - 5.58	3.4	NO	Natural deposits
<b>Organic Compounds</b>							
Total Trihalomethanes (TTHMs) <sup>2</sup>	ppb	100	0	< 0.50 - 11.2	3.84	NO	By-product of drinking water chlorination
<b>Radionuclides</b>							
Alpha emitters	pCi/L	15	0	0.00 - 2.30	0.69	NO	Decay of natural deposits
Beta/photon emitters	pCi/L	50	0	1.40 - 4.70	2.77	NO	Decay of natural, man-made deposits
<b>Microbiology</b>							
Total Coliform <sup>3</sup>	cfu per 100 mL	5%	0	max. monthly positive samples: 0 of 47 (0%) min. monthly positive samples: 0 of 45 (0%)	Total positive samples in 2001: 0 of 553	NO	Regrowth of soil bacteria in the distribution system piping

**Notes:**  
<sup>1</sup> 2000 results. The Action Level for lead/copper is exceeded if 90% of homes tested have lead levels above 15 ppb and copper levels above 1.3 ppm. No lead/copper samples exceeded action levels.  
<sup>2</sup> TTHM compliance is based on a running annual average. TTHM concentrations vary seasonally in our water.  
<sup>3</sup> The MCL for total coliforms is the presence of coliform bacteria in 5% or more of the monthly samples.

### Key to Table

MCL = Maximum Contaminant Level  
MCLG = Maximum Contaminant Level Goal  
pCi/L = picocuries per liter (a measure of radioactivity)  
ppm = parts per million, or milligrams per liter  
ppb = parts per billion, or micrograms per liter  
cfu = colony forming units

### How to Read the Table Above

Our water is tested to assure that it is safe and healthy. The results of tests performed in 2001 are presented in the table.  
The column marked **SDWA MCLG** shows the Maximum Contaminant Level Goal (MCLG). This is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allows for a margin of safety.

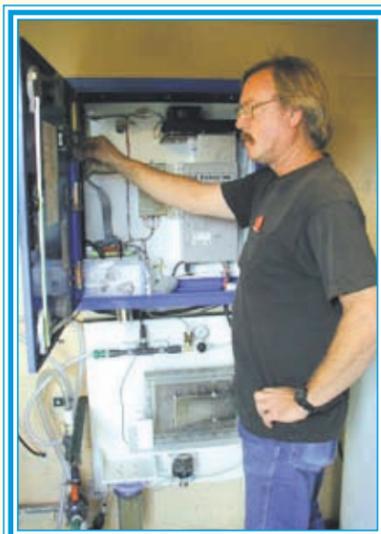
The column marked **SDWA MCL** is the Maximum Contaminant Level (MCL). This is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.  
The column marked **Range of Values Detected** shows minimum to maximum results observed in our water in 2001.  
**Major Sources** provides an explanation of typical or man-made origins of contaminant.

### New Arsenic Standard

In October 2001 the U.S. Environmental Protection Agency affirmed its intent to lower the standard for arsenic in drinking water from 50 ppb to 10 ppb. Deadline for compliance with this new standard is February 2006. Arsenic is a naturally occurring element that, when ingested in large amounts over a long period, has been linked to certain cancers. While common at very high levels in other parts of the Jemez Mountains, levels of arsenic in the Los Alamos water supply range from 0.8 ppb to 2.6 ppb, which is lower than even the new standard of 10 ppb.

### Special Water Quality Monitoring

In coordination with Los Alamos National Laboratory environmental surveillance activities, Los Alamos drinking water supply wells are routinely monitored for Perchlorate,



Wayne Witten, adjusting the control panel

Strontium 90, Tritium and High Explosive compounds. These tests are in addition to the normal series of tests required for compliance with the Safe Drinking Water Act. During 2001, none of these compounds were detected at or near levels of public health concern.

### Cryptosporidium

Cryptosporidium, found in rivers and streams, is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. Los Alamos water comes from wells, not rivers, and, as expected, cryptosporidium has not been detected in our water supply.

### Radon

Radon is a naturally-occurring radioactive element, whose decay products have been linked to cancer in humans. EPA is currently considering regulation of radon in drinking water, but no MCL has been established. Radon 222 levels in Los Alamos water supply are (in pCi/L): Our water testing results showed a level of 235 to 685 pCi/L, with an average of 408 pCi/L.

The State of New Mexico is working on a source water assessment, scheduled to be completed in 2004.

**Department of Public Utilities**

**County of Los Alamos  
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Los Alamos, New Mexico 87544**

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*As mandated by the Safe Drinking Water Act (SDWA),  
this Consumer Confidence Report details our water sources, the results of our water tests, and other information.*

El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.

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**Los Alamos Reservoir**

In conjunction with other rebuilding efforts in the aftermath of the Cerro Grande Fire Disaster, several water system projects were completed in 2001.



*Los Alamos Reservoir Dredging*

Approximately 45,000 cubic yards of material were removed from the reservoir in a project funded by the Department of Energy. With the sediment load calculated to be migrating down the canyon, it is anticipated that an equal amount of material will have to be removed at least two more times over the next several years.

**Cerro Grande Fire Reconstruction**

Severe flooding in Los Alamos Canyon completely filled in the Los Alamos Reservoir with ash and sediment.

**Water Line on Arizona**

In preparation for the relocation of a 7.75 million-gallon water tank, the water transmission lines in Arizona Avenue were replaced. The previous transmission lines located on burned properties were replaced with a single large line in the street. A transmission line in the Western Area was also relocated from the center of a burned property over to the side to facilitate reconstruction of the home.

In the summer of 2001, a project to protect the Guaje Canyon water



*Water Line Tie-in along Arizona Street*

transmission line from flood damage was also completed.