

# Socorro Water System Annual Drinking Water Quality Report 2008

## Water System NM3523728

### Spanish (Español)

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?

Last year your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards, except the new EPA Arsenic standard of 10 ppb. On November 20, 2007 routine sampling showed Socorro and Sedillo Spring entry point at 40 ppb. South Industrial Well showed 21 ppb and School of Mines Well was at 12 ppb. 2008 quarterly sampling of these three water sources have continued to show arsenic concentrations above the EPA Arsenic standard of 10ppb. City of Socorro vigilantly safeguards its water supplies and will continue to improve water quality and abide by EPA and NMED regulations concerning the safety of our water supplies.

### 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, 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 City of Socorro is presently using two springs (Socorro and Sedillo) and four wells (South Industrial, School of Mines, Eagle Picher and Evergreen). These sources of water are from the Sierra Ladron Aquifer. There are five storage tanks (Eagle Picher, N.M. Tech, Evergreen, Reservoir and Grefco) total holding capacity is 2,750,000 gallons.

### Source water assessment and its availability

The Susceptibility Analysis of the Socorro water utility reveals that the utility is well maintained and operated and the sources of drinking water are generally protected from potential sources of contamination based on well construction, hydrogeologic settings and system operations and management. The susceptibility rank of the entire water system is HIGH.

Although throughout the U.S. it is common to find potential sources of contamination located atop wellheads, continued regulatory oversight, wellhead protection plans and other planning efforts continue to be the primary methods of protecting and ensuring high quality drinking water.

Copies of the source water assessment are available from the Socorro Water System. Copies may also be requested from the Drinking Water Bureau by calling Valerio Lopez in the NMED/DWB Albuquerque Office at: (505)222-9538 or by emailing him at [valerio.lopez@state.nm.us](mailto:valerio.lopez@state.nm.us). Please include your name, address, telephone number, your e-mail address and the name of the water utility. The NMED DWB may charge a nominal fee for paper copies.

### 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, which 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 storm water 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 storm water 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 storm water runoff, and septic systems. 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?**

If you have any questions about this report or concerning your water utility, please contact Jay Santillanes, Utilities Director or Dixie Daniels, Production Superintendent, or Jordan Martinez, Water Department Superintendent at (505) 838-1606. We want our valued customers to be informed about their Water Utility. If you want to learn more, please attend any of our regularly scheduled meetings held at City Hall on the first and third Monday of each month at 6:00 P.M. City Hall is located off the Plaza at 111 School of Mines Road.

## **Conservation Tips**

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute. 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!

## **Special monitoring requirements violations**

Socorro exceeded the arsenic MCL of 10 ppb. The fourth quarter of 2008 (Oct. - Dec.) the test results showed Socorro and Sedillo Springs entry point concentration at 40ppb, South Industrial Well at 23 ppb and School of Mines Well at 34 ppb. Quarterly monitoring will continue until Socorro Water System is below the arsenic MCL of 10 ppb.

## **Results of radon monitoring**

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

## **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. The Socorro Water System 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>.

## Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. 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 change frequently.

<b>Contaminants</b>	<b>MCLG or MRDLG</b>	<b>MCL, TT, or MRDL</b>	<b>Your Water</b>	<b>Range Low High</b>		<b>Sample Date</b>	<b>Violation</b>	<b>Typical Source</b>
<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	0.29	0.1	0.7	2008	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	0.88			2008	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	4.4			2008	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Arsenic (ppb)	0	10	91	7	91	2008	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.1	0	0.1	2008	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	8	2	8	2008	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	0.95	0.34	0.95	2008	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	0.45	ND	0.45	2008	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural

deposits

**Radioactive Contaminants**

Alpha emitters (pCi/L)	0	15	5.96	ND	5.96	2008	No	Erosion of natural deposits
Uranium (ug/L)	0	30	20	2	20	2008	No	Erosion of natural deposits

**Volatile Organic Contaminants**

Trichloroethylene (ppb)	0	5	0.2	0	0.2	2008	No	Discharge from metal degreasing sites and other factories
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<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
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**Inorganic Contaminants**

Copper - action level at consumer taps (ppm)	1.3	1.3	0.10	2008	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
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**Additional Contaminants**

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

<u>Contaminants</u>	<u>State MCL</u>	<u>Your Water</u>	<u>Violation</u>	<u>Explanation and Comment</u>
2 Butanone (MEK)	NA	1.7 ppb	No	SDWA Unregulated VOC Analytes
MTBE	NA	1.3 ppb	No	SDWA Unregulated VOC Analytes
Radon	4000 pCi/L	540pCi/L	No	

<b>Unit Descriptions</b>	
<b>Term</b>	<b>Definition</b>
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)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

<b>Important Drinking Water Definitions</b>	
<b>Term</b>	<b>Definition</b>
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

## Violations and Exceedances

### Arsenic

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. January 1, 2006 EPA lowered the Arsenic MCL from 50ppb to 10ppb. On November 20, 2007 routine monitoring showed that the Socorro and Sedillo Springs Entry Point, School of Mines Well and South Industrial Well exceeded the arsenic MCL. Arsenic was monitored quarterly during 2008 at all three sources. These results continue to show Arsenic levels above the MCL of 10 ppb.

February 2006 Sandia Labs started a pilot test for arsenic removal at the City of Socorro Springs (Sedillo and Socorro). The pilot test was complete at the end of February 2007. In 2008 City of Socorro hired an engineering firm to draft a Preliminary Engineering Report (PER). The PER was complete April 2009. As of May 2009 an engineering firm is designing Arsenic removal systems for the Springs (Socorro and Sedillo) and South Industrial Well.

The City of Socorro vigilantly safeguards its water supplies and will continue to improve water quality and abide by EPA and NMED regulations concerning the safety of our water supplies.

### For more information please contact:

Dixie L. Daniels @ 575-838-1606, 575 835-0240 or ddaniels@socorronm.gov

