



# Consumer Confidence Report for 2007

**Desert Sands Mutual Domestic Water Consumers Association**

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## Is my water safe?

Last year, we conducted tests for over 80 contaminants. We only detected 11 of those contaminants, and found only 1 at a level higher than the EPA allows. As we told you at the time, our water exceeds the new MCL for arsenic, and we have a three-year exemption ending in January 2009 allowing us additional time to meet the new standard. (For more information see the section labeled Variance & Exemptions at the end of the report.) This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. 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, 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?

Our water comes from two (soon to be 3) wells drilled into the Mesilla Valley Bolson. We have a Ground Water Protection Plan established in conjunction with NM Rural Water Association available in our office that provides more information such as potential sources of contamination. We have a Forty Year Water Plan filed with the NM Office of the State Engineer which is currently being updated and incorporated into a regional plan as part of the Lower Rio Grande MDWA. Our last Sanitary Survey performed by the NM Environment Department on February 22, 2008 notes no regulatory or sanitary deficiencies and no management recommendations. Our 2007 Audited Financial Statements have been submitted to the State Auditor and will be available in our office as soon as they are finalized. Our Open Meetings Act Resolution and Inspection of Public Records Act Policy are available in our office, as are operator and board training credits, board agendas and minutes, and other information about your water system. These documents may be inspected in our office by contacting Secretary-Treasurer Karen Nichols.

If you have any questions about this report or your water system, please contact our office at 575-882-0313 and speak with Water Operators Pete Gomez or Gabriel Gutierrez, Secretary-Treasurer Karen Nichols, or Customer Service Clerk Hilda Carrillo.

## Source water assessment and its availability

A Source Water Assessment & Protection Program Report for Desert Sands MDWCA was completed by the NM Environment Department Drinking Water Bureau (NMED-DWB) in 2003. This report may be examined in the Desert Sands MDWCA office, or copies may be requested from the NMED-DWB by email [swapp@nmenv.state.nm.us](mailto:swapp@nmenv.state.nm.us) or telephone (505-827-7536 or toll-free 877-654-8720). Please give your name, address, telephone number, email address (if applicable), and name of the water system. NMED-DWB may charge a nominal fee for paper copies. Here are the conclusions from this report

Table 7 SOURCE SUSCEPTIBILITY RANKING

SOURCE NAME	Sensitivity Rank	Vulnerability Rank	Susceptibility Rank	Operational Exceptions	FINAL RANK
WELL #2	Moderately Low	High	Moderately High	- Land Use 3 or 3+PSOC Categories in a Zone	High
WELL #3	Moderately Low	High	Moderately High	- Land Use	High

In conclusion, the Desert Sands MDWCA water system is well maintained and operated, and 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.

## 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.

## How can I get involved?

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our monthly board meetings held at 7 pm on the 3rd Tuesday of each month at our office. A member meeting is held annually in October.

## Variance and Exemptions

We currently have a three-year exemption to the new MCL for arsenic. During the exemption period, we have engaged in demonstration and pilot studies of arsenic filtration media with both US-EPA and Sandia National Laboratories, and have not found a treatment solution that will be affordable to our customers due to high operating costs. We have joined with four neighboring water associations to form a regional water association, the Lower Rio Grande Mutual Domestic Water Association. The LRGMDWA has secured funding for feasibility and preliminary engineering studies seeking a regional solution to arsenic treatment and other water quality and quantity issues and for interconnection of the system. These projects are currently under way, and we will be seeking an extension of our exemption or a voluntary compliance agreement with NMED for compliance with the new MCL.

***This report is produced in both English and Spanish, and is also available at <http://www.zianet.com/dsmdwca>***

# 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.

<u>Contaminants</u>	<u>MCLG</u> or <u>MRDLG</u>	<u>MCL,</u> <u>TT, or</u> <u>MRDL</u>	<u>Your</u> <u>Water</u>	<u>Range</u>		<u>Sample</u> <u>Date</u>	<u>Violation</u>	<u>Typical Source</u>
		<u>Low</u>	<u>High</u>					
<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
Haloacetic Acids (HAA5) (ppb)	NA	60	5.1		5.1	2006	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	5.7	5.1	5.7	2006	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Arsenic (ppb)	0	10	23	15	23	2007	NO*	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.069	0.046	0.069	2007	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	9.57	8.28	9.57	2007	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	0.63	0.57	0.63	2006	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Radioactive Contaminants</b>								
Alpha emitters (pCi/L)	0	15	1.73		1.73	2005	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	26	7.91	26	2005	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Uranium (ug/L)	0	30	9.5	7	9.5	2005	No	Erosion of natural deposits

<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your</u> <u>Water</u>	<u>Sample</u> <u>Date</u>	<u># Samples</u> <u>Exceeding AL</u>	<u>Exceeds</u> <u>AL</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.048	2005	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	2	2005	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

<b>Unit Descriptions</b>	
<u>Term</u>	<u>Definition</u>
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)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

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

Variations and Exemptions	Variations 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. Arsenic levels in Desert Sands wells do not exceed the previous MCL of 50 ppb. The MCL was reduced from 50 to 10 ppb effective 1/22/06. Desert Sands has a three-year exemption in place granted by the NM Environment Department in November 2005, and therefore this is not a violation at this time. Desert Sands MDWCA took part in a US-EPA Arsenic Removal Demonstration Project and hosted extensive pilot studies of adsorptive media filtration for arsenic by Sandia National Laboratories. Installation of arsenic removal equipment was identified in our 7/18/03 Preliminary Engineering Report as part of Phase III of a three-phase recommended project. Project funding was secured through USDA Rural Development, but USDA-RD declined to fund the arsenic treatment equipment because a rate study by Rural Community Assistance Corporation based on vendor quotes for filtration media show that operating costs would drive our water rates beyond affordability for our low-income colonias community.

Desert Sands MDWCA along with four neighboring mutual domestic water associations is one of the incorporators of the Lower Rio Grande Mutual Domestic Water Association which is a regional collaboration to improve the economies of scales of its member associations and address water supply, contaminant and treatment, distribution, storage, operations, management and administration issues. Desert Sands is pursuing affordable compliance with the new arsenic MCL in conjunction with its partners in the LRGMDA. The LRGMDWCA has been successful in securing funding for feasibility and planning studies, preliminary engineering, and construction of emergency interconnects for back up water supplies and fire protection, has hired consultants and begun work on the preliminary studies.

Because addressing arsenic compliance will take longer than the three year exemption allows, Desert Sands will seek an extension of the exemption or a voluntary compliance agreement with NMED.

### For more information please contact:

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**Desert Sands MDWCA has filed a Sampling Site Plan** with the NM Environment Department, and we sample twice per month for microbiological contaminants. Microbiological contaminants include Total Coliform Bacteria (naturally present in the environment), Fecal Coliform Bacteria, E.coli Bacteria (from human or animal fecal waste), and Turbidity (from soil runoff, not a problem in our groundwater). Samples are taken on a rotating basis from eight sites throughout our system, and a copy of the plan may be examined in our office.

**Desert Sands MDWCA has filed a Sampling Plan for Residual Disinfectant Measurement and Disinfection Byproducts Sampling** with the New Mexico Environment Department. The disinfectant used by Desert Sands MDWCA is sodium hypochlorite 12.5%, and residual levels are monitored closely by our water operators. We have been granted **a 40/30 Certification Waiver under Stage 2 Disinfection Byproducts rule. We will continue to monitor for Total Trihalomethanes and Haloacetic Acids as required.**

**\*\*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. While your drinking water meets EPA's standard for arsenic as of 12/31/05, it does contain levels of arsenic in excess of the new standard that went into effect in January 2006 of 10 ppb. Desert Sands MDWCA has received a three-year exemption to the new standard. 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 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.