

Annual Drinking Water Quality Report

Calendar Year 2005

Entranosa Water & Wastewater Association

(a mutual domestic association)

PO Box 2380
Tijeras, NM 87059

Consumer Confidence Report

As required by the Environmental Protection Agency and
the Environment Department of the State of New Mexico

June 2006

Annual Report on Drinking Water Quality – 2005

Entranosa Water & Wastewater Association

June 29, 2006

We are pleased to provide you with our report on drinking water quality, also known as the “Consumer Confidence Report (CCR)”. We provide this report every year in an effort to keep you informed about the water and services we delivered during the previous year, and it reflects our goal – to provide you with a safe and reliable supply of drinking water.

Is the water safe?

In calendar year 2005, as in years past, your tap water met the primary standards set by the U.S. Environmental Protection Agency (EPA) and the drinking water quality standards of the State of New Mexico (NMED). This past year, we conducted routine and random bacteriological testing, and assisted the NMED in obtaining water samples to test for the contaminants covered by the Safe Drinking Water Act (SDWA). Although some of the tests reflected the presence of a contaminant, none of them were higher than the levels authorized by EPA. We are proud, once again, to report that our system has not violated a maximum contaminant level of any other water quality standard. Though not related to safety, NMED has informed us last year that we’d violated some reporting and monitoring requirements – we included those in our report last year, but are doing so again this year later in this report.

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?

In 2005, we obtained our water from seven wells, located in two separate well fields. The principle source was from the Horton Well Field, with water drawn from the fractured Madera Limestone formations of the Estancia Basin. Our other source was from two wells in the north central part of the Estancia Basin, with water drawn from the graveled alluvium and fractured sandstone formations. The wells pump water to storage tanks which, in turn, serve booster stations. We disinfect the water at the booster stations and then pump it to tanks at higher elevations. From these tanks, the water flows by gravity to your home or to another booster station – such as in Magic Valley, Sandia Mountain Ranch, and Rancho Verde. We utilize an approved EPA technology called MIOX, which produces multiple, redundant, disinfection agents by means of an electro-chemical reaction using sodium chloride (table salt). Two of the disinfection agents are ozone and a chlorine concentrate. The ozone provides an immediate bacteriological kill to the fifth decimal, and the chlorine solution provides long-term protection in the water mains, serving as an inhibitor to bacteriological growth. We check the residual strength of the chlorine on a weekly basis and pull bacteriological samples on a monthly basis and provides those samples to the State Lab for analysis.

Source Water Assessment and its availability

We have received a Source Water Assessment form NMED, which was funded by a grant from the EPA. It is available for your review at our office. Should you wish to obtain your own copy, just contact Valerio Lopez in the Drinking Water Bureau (DWB) of NMED at 222-9538 (in Albuquerque), or email him at valerio.lopez@state.nm.us. Provide your name, address, phone number, and email address (if applicable). The DWB may charge a nominal fee for paper copies. The report states that the Entramosa system “...is well maintained and operated, and sources of drinking water are generally protected from potential sources of contamination based on well construction, hydrogeological settings, and system operation and management ... The susceptibility rank of the entire water system is Moderately High”. It is common throughout the United States to find potential sources of contamination located in the vicinity of wellheads, but continued regulatory oversight, wellhead protection plans and other planning efforts serve as the primary methods to protect the source water and ensure high quality drinking water.

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** 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. **Radioactive contaminants** 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.

Monitoring and reporting of compliance data violations

In 2005, we were notified by NMED that our initial lead and copper monitoring in 1993 (which established baseline compliance information) was not collected properly, resulting in a monitoring violation for lead and copper between 1993 and 2004 – although we never received a letter of violation. To come into compliance, we ran a complete baseline sampling program on lead and copper in June and October of 2004, and we are now in a reduced annual monitoring phase, which we accomplished in the summer of 2005. This was in our CCR last year, but we've chosen to include it again for Public Notice.

Water Quality Data Table (2005)

The table below lists all of the drinking contaminants we detected during the period of 2001 through 2005. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The EPA and NMED require us to monitor for certain contaminants less than once a year because the concentrations of these contaminants do not change frequently, and we show low levels of the contaminant.

<u>Contaminants</u>	MCLG or MRDL G	MCL, TT, or MRDL	<u>Your Water</u>	<u>Range</u>		<u>Sam Date</u>	<u>Vi ola tio n</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
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	0.45	0.29	0.61	2005	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	1.3			2003	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	2.2			2003	No	By-product of drinking water disinfection
Inorganic Contaminants								
Arsenic (ppb)	0	50	3	1	3	2005	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.2	0.1	0.2	2005	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.67	0.51	0.67	2005	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate & Nitrite [measured as Nitrogen] (ppm)	10	10	1.8	0.99	1.8	2005	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Microbiological Contaminants								
Total Coliform (positive samples/month)	0	1	1	NA		2005	No	Naturally present in the environment
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	5.24	0.49	5.24	2005	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	1.26	0.55	1.26	2005	No	Erosion of natural deposits
Uranium (ug/L)	0	30	6.84	3	6.84	2005	No	Erosion of natural deposits

<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>90th Percentile</u>	<u>Sample Date</u>	<u># Samples over AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.44	2005	1	None	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	8	2005	0	None	Corrosion of household plumbing systems; Erosion of natural deposits

Unit Descriptions	
<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)
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.

Important Drinking Water Definitions	
<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.
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

Radon

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. Studies indicate that up to two percent of airborne Radon in the home is sourced from aeration of water. If you are concerned about radon in your home, test the air in your home. The New Mexico Environment Department has a Radon Outreach Program and you may be able to obtain a free test kit by calling Michael Taylor at (505) 827-1093. Authorities recommend that you fix your home if the level of radon in your air is 4 picocuries per liter (pCi/L) of air or higher. There are simple ways to fix a radon problem that aren't too costly, which include ventilating the home. For additional information, call NMED at (505)827-1093 or call EPA's Radon Hotline (800-SOS-RADON).

Other Information

Most of the questions we receive about the quality of water do NOT deal with the main contents of this report nor the primary contaminants and health aspects of water, but with the secondary characteristics of the water - iron, calcium, hardness, etc. - the 'esthetics'. Our water sources (well fields) have different characteristics because they are derived from different geologic formations. The table that follows is intended to help answer the common queries, divided by source. Note that the 'mix' of the water will vary throughout the year, from month to month, due to maintenance, weather conditions, and demand.

Table of Other Information

Characteristics	Horton Field	Pine Canyon
Iron	< 0.1 mg/L	< 0.1 mg/L
Manganese	< 0.05 mg/L	< 0.05 mg/L
Sodium	32.2 mg/L	15.8 mg/L
Hardness (Ca & Mg)	578 mg/L	197 mg/L
Calcium	173 mg/L	45.2 mg/L
Magnesium	34.6 mg/L	20.3 mg/L
Chloride	15 mg/L	< 10 mg/L

How can I get involved?

Entranosa is a mutual domestic association organized under the Sanitary Projects Act with a mission to provide quality drinking water services to the community and the membership of the Association. Every member can participate in one way or another – to include simply asking questions and providing us information. Should you wish to actively participate with the Association, call John at the office (281-8700) or call and ask for one of the board members to contact you – there may be room on a committee, or a special project in which we could utilize your talents. You may choose to attend Board Meetings – normally held on a monthly basis on the third Thursday of each month – but we request you contact us prior to the meeting so we can make appropriate arrangements for seating, and to confirm the meeting date and time. The Board of Directors (Steve Hicks, Steve Varley, Ron Bodo, Shannon McReynolds, Paul Gorder, John Brault, and Steve Beffort) would welcome your participation. Our contact information is located on the coversheet to this report, and it also appears on our billing statements. The next board meeting will be July 20th at 6:15 pm.

Annual Meeting

Our annual meeting will be held on October 5th of this year. You'll receive a meeting packet in September with an agenda, details of the meeting, and the financial results of our audit this past year but don't wait - please plan, now, to attend. There will be two vacancies on the Board this year and during the meeting we'll present information about the activities of the Association and have a discussion of how we are organized. If you are interested and have some time to commit, please consider running for the Board of Directors – nominations are due in the Entranosa office by close of business on August 7th. A nomination can consist of a note that says "I would like to run for the board of directors".

Drought and Conservation

We remain in a severe drought condition. Our monthly newsletters typically contain drought information, and we've offered many suggestions on your water use – which always comes down to "Use what you need, not more." Our wells are generally deep, but we'll need to reequip a couple of them over the next several years (larger pumps) and install additional pumps in our booster stations. We have 'conservation' materials at the office and there are dozens of web sites that address conservation and household use. You might consider examining how to use grey water to get more out of the water you consume in the house – and consider the purchase of a rain barrel(s) and creating a water harvesting system off of your roof. In our planning process, we allocate 1/3 of an acre foot of water for each dwelling – about 108,000 gallons per year. If you restrict your usage and conserve water, it does not create 'more water' for us to use on development – our development policy requires that new services fund their connection to the system, which includes bringing funding for additional water rights. Having said that – while our conservation plan has, traditionally, been effective – the region needs a regional plan. Without conservation in agriculture in the Estancia Basin – our efforts do not mean much. As a reminder – we use less than 2% of the water pumped from the Estancia Basin, which is the equivalent of four or five crop circles of corn – and we feed over 2700 families with that resource.

Call Before You Dig – it IS the Law

260-1990

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