Annual Drinking Water Quality Report

Calendar Year 2004

Entranosa Water & Wastewater Association

(A Mutual Domestic Association)

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Consumer Confidence Report

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

June 2005

Annual Report on Drinking Water Quality – 2004

Entranosa Water & Wastewater Association

June 27, 2005

We are pleased to provide you with this year's Annual 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 water

Is the water safe?

In calendar year 2004, as in years past, your tap water met the primary standards set by the U.S. Environmental Protection Agency (EPA) and the drinking water health standards of the State of New Mexico. This past year, we conducted routine and random bacteriological testing, and assisted the Environment Department in obtaining water samples to test for 98 contaminants. Although some of the tests reflected the presence of a contaminant, none of them were higher then the levels authorized by the EPA. We are proud to, once again, report that our system has not violated a maximum contaminant level or any other water quality standard. Though not related to safety, the NM Environment Department (NMED) has informed us that we have violated some reporting and monitoring requirements, which we'll address 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 2004, we obtained our water from seven wells, located in two separate well fields. The principle source was from the Horton Field, with water drawn from the fractured Madera Limestone formations of the northwest 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 to reservoirs, which 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 or Sandia Mountain Ranch. 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 weak chlorine concentrate. The ozone provides an immediate bacteriological kill to the fifth decimal, and the weak 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 at different points on the system to ensure our 'defenses', and we conduct monthly bacteriological tests at different points on the system and providing those samples to the state lab for analysis.

Source water assessment and its availability.

We have received a source water assessment from the State of New Mexico, prepared under contract from the EPA. It is available for your review at our office. Should you wish to obtain your own copy, you may contact the Drinking Water Bureau (DWB) at "SWAPP@nmenv.state.nm.us"; or by calling 1-877-654-8720 (toll free). When you contact the DWB, please provide your name, address, telephone number, and email address (if applicable). The DWB may charge a nominal fee for paper copies. The report states that the Entranosa 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. ***Inorganic contaminants***, such as salts and metals, 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, 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 are supposed to provide the same protection for public health.

Monitoring and reporting of compliance data violations.

Early in 2004, the NMED determined that our initial lead and copper monitoring in 1993 (to establish compliance and baseline information) was not collected properly, resulting in a monitoring violation for lead and copper between 1993 and 2004 ... although we have 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'll conduct this summer). Additionally, NMED has determined that

we did not "prepare, distribute, or send to NMED complete and correct CCRs for 1999-2002 by July 1 deadlines. Additionally, the system did not submit the 2001 or 2002 CCR certification forms by the Oct 1 deadlines." This "Notice" serves as corrective action for these violations.

Water Quality Data Table (2004)

The table below lists all of the drinking water contaminants we detected that are applicable for 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.

Contaminants	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Inorganic Contaminants								
Arsenic (ppb)	0	50	2	ND	2	Varied	No	Erosion of natural deposits; runoff from orchards; runnoff from glass and electronics production waste
Barium (ppm)	2	2	0.2	0.1	0.2	Varied	No	Discharge of drilling wastes; discharge from refineries; erosion of natural deposits
Chromium (ppb)	100	100	2	ND	2	Varied	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	4	4	0.62	0.51	0.62	Varied	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum plants
Nitrate & Nitrite (measured as Nitrogen) (ppm)	10	10	1.8	0.97	1.8	2004	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural depostis
Radioactive Contaminants								
Radium (combined 226/228) (pCi/L)	0	5	0.99	0.49	0.99	Varied	No	Erosion of natural deposits
Uranium (ug/L)	0	30	6	4.69	6	Varied	No	Erosion of natural deposits
Alpha Emitters	0	15	5.61	3.81	5.61	Varied	No	Erosion of natural deposits

Volatile Organic Contaminants

Contaminants	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
TTHMs (total Trihalomethanes in ppb)	NA	80	2.2	ND	2.2	2003	No	By-product of drinking water disinfection

Inorganic Contaminants (lead and copper)

Contaminants	MCL	AL	90th percentile	Sample Date	# Samples over AL	Exceeds	Typical Source
Copper – action level at consumer tap, in ppm	1.3	1.3	0.39	2004	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead – action level at consumer tap, in ppb	0	15	6	2004	2	No	Corrosion of household plumbing systems; erosion of natural deposits

Microbiological Contaminants

Contaminants	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Total Coliform	0	1	1	NA		2004	No	Naturally present in the environment

Disinfectants & Disinfection By-Products

Contaminants	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Chlorine (as Cl2) (ppm)	4	4	0.8	0.05	0.8	2004	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	1.3	NA		2003	No	By-product of drinking water chlorination

Additional Monitoring.

As part of an on-going evaluation program, the EPA has required us to monitor some additional contaminants and chemicals. Information collected through the monitoring of these contaminants and chemicals will help to ensure that future decisions on drinking water standards are based on sound science. Currently, we have no data to report in this category.

Explanation of Units of Measure

Term	Definition
ug/L	Micrograms – parts per billion – in one liter of water
ppm	milligrams – parts per million – in one liter of water
ppb	parts per billion – micrograms – per liter of water
pCi/L	picocuries per liter, a measure of radioactivity
NA	not applicable
ND	not detected
MCLG	Maximum Contaminant Level Goal – the level of a contaminant in drinking water below which there is no known or expected risk to health.
MCL	Maximum Contaminant Level – the highest level of a contaminant that is allowed in drinking water. MCLs are set as close the MCLG as feasible using the best available treatment technology
AL	Action Level – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	Maximum Residual Disinfection Level Goal – the level of a drinking water disinfectant below which there is no known or expected risk to health.
MRDL	Maximum Residual Disinfection 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 contamniants.

Radon

Radon is a radioactive gas that you can't see, taste, or smell. Our sampling for radon has varied results, ranging form 305 pCi/liter to 1200 pCi/liter. It is found throughout the U.S and 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 - mostly involving ventilation. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

Other information

Most of the questions we receive about the quality of the water do NOT deal with the primary contaminants and health aspects of the water, but with the secondary characteristics of the water – iron, calcium, hardness, etc – the 'esthetics'. Our water sources have different characteristics because they are derived from different 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 from month to month, depending on the time of year and our operations.

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 nonprofit community water system. Every member can participate in one way or another – to include simply asking questions about the water, the source, and what we do with it. If you are interested, call John at the office (281-8700) or call and ask for one of the members of the board to contact you. You can serve on the board, serve on a committee, help with studies, etc. Although we have a highly qualified professional staff, the strength of the Association remains with the involvement of the membership. The Board of Directors, a peer-elected and volunteer group, meets on a monthly basis, normally on the 3rd Thursday of every month – but there are exceptions based on schedule – and you are free to attend, but we ask you notify us in advance by contacting the office for information about the next meeting. The Board of Directors (Steve Hicks, Paul Gorder, Shannon McReynolds, Ron Bodo, Ted Bolan, Steven Varley and John Brault) would be pleased for you to attend. Our mailing address, telephone number, and fax number are located on the coversheet to this report. You will also find contact information on the monthly bill, and on the membership and service documentation you received.

Annual Meeting

Our annual meeting will be held on October 13th of this year. You'll receive a meeting packet in mid-September with details – but please plan to attend (and let us know so we can make proper arrangements). There will be three vacancies on the board this year – all of which will be three-year terms, and there may be some proposals to modify the bylaws. The board is examing a proposal to update the language in the bylaws to reflect the organizational change we made four years ago, from a cooperative to a mutual domestic association, and our mechanism for capital funding – the membership fee. The bylaws currently reflect a fixed value of $5,000, which has been in place for at least 10 years. The membership is our primary method to obtain capital funding, and costs have risen over the past decade. The board has received a proposal to change the bylaws such that the board will evaluate 'costs of membership' – review those items that make up the value of a membership (the capital items it is utilized to obtain) and set a realistic value every year or every other year.

CALL BEFORE YOU DIG – It IS the Law

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