

# Annual Drinking Water Quality Report

*Calendar Year 2017*

Public Water System #NM35-246-26

## **Entranosa Water & Wastewater Association**

(a cooperative association)

1330 State Highway 333  
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## **Consumer Confidence Report**

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

March 30, 2018

# ***Annual Report on Drinking Water Quality – 2017***

Entranosa Water & Wastewater Association

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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, pursuant to federal law, in an effort to keep you informed about the water and services we delivered during the previous year. This report shows that we are achieving our goal - to provide you with a safe and reliable supply of drinking water.

## **Is the water safe?**

In calendar year 2017 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). While some of the tests reflected the presence of a contaminant - that is ‘normal’ (discussed on page 2) and those aren’t harmful. None of the tests results violated the programmatic levels authorized by EPA. Your water was safe in 2017, and remains so.

## **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 those 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) ... although *Cryptosporidium* is not normally associated with groundwater sources.

## **Where Does The Water Come From?**

In 2017, we obtained our water from seven wells, located in three separate well fields. Our original, and traditional, source is the Horton Well Field from which we draw water in the fractured Madera Limestone formations of the Estancia Basin. Our second source is in the Pine Canyon region of the Estancia Valley, from which we draw out of alluvial (gravel) and sandstone formations. Our third source is new, and the water is sourced from alluvial formations. We utilize an approved EPA disinfection technology called MIOX, which produces multiple, redundant, disinfection agents created by means of an electro-chemical reaction using sodium chloride (table salt) which produces hydrogen peroxide and a weak chlorine solution. We check the residual strength of the chlorine in various parts of the system on a weekly basis, and we obtain bacteriological samples every two weeks from various parts of the systems - these are analyzed at labs that have been certified by the State of NM and the results are reported to NMED.

## **Source Water Assessment and its availability**

A “Susceptibility Analysis” of our system was conducted by NMED several years ago and it reports our facilities are well maintained and operated, and the sources of drinking water are generally protected from potential sources of contamination based on well construction, hydrogeologic characteristics, and system operations and management. The susceptibility rank of the entire water system is MODERATELY HIGH.

Although it is common to find potential sources of contamination, throughout the United States, located atop wellheads, persistent regulatory oversight, wellhead protection plans and other planning efforts, approved construction techniques and disinfection processes that are monitored serve as the primary methods of protecting and ensuring high quality drinking water.

Copies of the NMED analysis, also called a ‘source water assessment’ are available from us at the Entranosa office. In addition, copies may be requested from the Drinking Water Bureau (DWB) of NMED at (877) 654-8720 or (505) 467-8623 and ask for Jill Turner (program coordinator). Please provide your name, address, phone number, your email address (if applicable), and the name of Entranosa. The 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 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) across the Nation include rivers, lakes, streams, ponds, reservoirs, springs, and wells (all of our water is sourced from deep wells). As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and (and in some cases, radioactive material), and can pick up substances resulting from the presence of animals or from human activity. Contaminants are categorized as: **Microbial contaminants**, such as viruses and bacteria, and 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** 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** 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.

### **Lead & copper.**

We conducted routine tests in 2015 and the results met the threshold requirements set by EPA at which lead and copper are considered safe with regard to health. Elevated levels of lead, **if present**, can lead to health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and household plumbing (i.e. lead based solder and flux, while prohibited from use in household plumbing systems, has been found in homes). We are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

If you have a concern, and your water has been sitting for several hours, you can minimize the potential for exposure to Lead 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 might have your water tested, individually. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## Water Quality Data Table (2017)

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants that are not harmful to the public health at low levels. Removing all contaminants would be extraordinarily, would not provide increased protection to the public, and would alter the taste. 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 vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Coliform Bacteria								
Sample Date	MCLG	Total Coliform Allowed	Highest positive	Fecal or Ecoli allowed	Fecal or Ecoli positive collected	Violation	Likely Source of Contamination	
Monthly in 2017	0	1	1	0	0	No	Naturally present in the environment	
Disinfectants & Disinfectant By-Products								
Contaminant	Collect Date	Highest level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source
Chlorine	2017	0.6	0.5 - 0.6	MRDLG = 4	MRDL = 4	Ppm	No	Water additive used to control microbes
Haloacidic Acids (HAA5)	2017	2	1.6 – 2.1	No goal	60	Ppb	No	By-product of drinking water disinfection
Trihalomethene (TTHMs)	2017	3	2.2 – 3.8	No goal	80	Ppb	No	By-product of drinking water disinfection
Inorganic Contaminants								
Contaminant	Collect Date	Highest level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source
Arsenic	2017	3	0 – 3	0	10	Ppb	No	Erosion of natural deposits
Barium	2017	0.3	0.1 – 0.3	2	2	Ppm	No	Erosion of natural deposits
Fluoride	2017	0.58	0.35 – 0.58	4	4	Ppm	No	Erosion of natural deposits
Nitrate (measured as Nitrogen)	2017	2	1.16 – 1.76	10	10	Ppm	No	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
Radioactive Contaminants								
Contaminant	Collect Date	Highest level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source
Beta/photon emitters	2014	7.4	2.7 – 7.4	0	4	mrem/yr	No	Decay of natural and manmade deposits

Contaminant	Collect Date	Highest Level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium (226/228)	2014	1.12	0.13 – 1.12	0	5	pCi/L	No	Erosion of natural deposits
Gross Alpha, excluding radon and uranium	2014	11.9	2.9 – 11.9	0	15	pCi/L	No	Erosion of natural deposits
Uranium	2014	7	3 – 7	0	10	ug/L	No	Erosion of natural deposits
<b>Synthetic Organic contaminants, including pesticides and herbicides</b>								
	Collect date	Highest Level	Range of Levels	MCLG	MCL	Units	Violations	Likely Source of Contamination
Heptachlor	2017	41	0 - 41	0	400	ppt	No	Residue of banned pesticide
Hexachloro-benzene	2017	0.021	0 - 0.021	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories
Hexachloro-cyclopentadiene	2017	0.062	0 – 0.062	50	50	ppb	No	Discharge from chemical factories
Lindane	2017	21	0 - 21	200	200	ppt	No	Runoff/leaching from insecticide used on cattle, lumber, gardens
<b>Lead &amp; Copper</b>								
	Collect date	MCLG	Action Level (AL)	90 <sup>th</sup> percentile	# sites over AL	Units	Violations	Likely Source of Contamination
Lead	2015	1.3	1.3	0.45	0	ppm	No	Erosion of natural deposits; leaching from wood preservative; corrosion of household plumbing
Copper	2015	0	15	8	1	ppb	No	Erosion of natural deposits; corrosion of household plumbing

**Important Drinking Water Definitions**

<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.
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
90 <sup>th</sup> percentile	The stratified value of the sample at the 90 <sup>th</sup> percentile – the third from the highest value, in our case
Average (ave)	Regulatory compliance with some MCLs are based on running annual average of monthly samples
Ppm	Milligrams per liter or parts per million – or one ounce in 7,350 gallons of water
Ppb	Micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water
Ppt	Nanograms per liter or parts per trillion

## Radon

We did some random radon testing in 2009, and the highest recorded level was 325 pCi/L, which is considered acceptable. Radon is a radioactive gas that you can't see, taste, or smell and it is found throughout the United States. 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. Radon entering your home through tap water, compared to radon entering the home through soil, is a very small percentage of radon in indoor air (estimated to be about 2%).

Radon is known as a human carcinogen, and breathing air with radon can lead to lung cancer. Water containing radon may contribute to increased radon levels in indoor air. 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 by aeration of water. If you are concerned about radon in your home, you can test for it. Although the New Mexico Environment Department no longer provides test kits as part of their Radon Outreach Program, you may call program manager Michael Taylor at (505) 827-8608 with questions. By whatever means, if you determine that you have an airborne radon level of 4 picocuries per liter (pCi/L) of air or higher, authorities recommend that you take steps to remedy the problem. There are simple ways to fix a radon problem that aren't too costly, which includes ventilating the home. For additional information, call NMED at (505) 827-1093 or call EPA's Radon Hotline (800-SOS-RADON). You can purchase a radon test kit at [www.drhomeair.com](http://www.drhomeair.com) and get a discount by clicking on 'state programs', which is located in the middle of the banner. Then click on either "New Mexico" or "NM Bernalillo County".

## Other Information

Most of the questions we receive about the quality of water we provide 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, taste, 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. These results were obtained from tests that were conducted in April of 2007. 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 for Source Water

Characteristics	Horton Field	Pine Canyon
Iron	0.1 mg/L	< 0.1 mg/L
Manganese	< 0.005 mg/L	< 0.001 mg/L
Silica	9.14 mg/L	9.56 mg/L
Sodium	32.2 mg/L	15.8 mg/L
Sulfate	27.9 mg/L	33 mg/L
Hardness (Ca & Mg)	578 mg/L	197 mg/L
Calcium	180.8 mg/L	45.2 mg/L
Magnesium	34.4 mg/L	20.3 mg/L
Chloride	16.3 mg/L	< 10 mg/L
Aluminum	0.03 mg/L	0.14 mg/L

**Reporting Violation.** Last year, Entranosa had a reporting violation associated with our not meeting the deadline to provide a copy of our calendar year 2016 to a water hauler that qualifies as a public water system. The deadline for providing the information was 1 April 2017, and we provided the required information on 4 May 2017, which corrected the violation. The violation hampered the ability of the other public water system to meet their reporting deadline of 30 June 2017. The violation was administrative in nature and posed no risk to the public health.

### How can I get involved?

Entranosa is a cooperative association organized under the Cooperative 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 or providing us information. Should you wish to actively participate with the Association, call Jack 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 time or talents. You may choose to attend Board Meetings, which are normally held on the next to last 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 (Lee Liggett, Paul Gorder, Dennis Hodges, Rob Baracker, Skip Mead, Rik Thompson and Linda Barbour) would welcome your participation. Our contact information is located on the coversheet of this report, and also appears on our billing statements. The next three board meetings are scheduled for April 19<sup>th</sup>, May 24<sup>th</sup> and June 21<sup>st</sup> at 11:30 a.m. – but please call ahead so we can make proper arrangements and we can let you know if the schedule changes.

### Annual Meeting

Our annual meeting has not yet been scheduled, but will be between September 15<sup>th</sup> and October 15<sup>th</sup>, nominally held between the State Fair and the start of the Balloon Fiesta. You'll receive a meeting packet in late August containing the agenda, details of the meeting, and the summary results of our recently completed audit - but please plan, **NOW**, to attend. You will be electing, or reelecting, members to the Board this year, and during the meeting we'll present information about the activities of the Association. If you are interested and have some time to commit, please consider running for the Board of Directors – deadlines will be promulgated over the next couple of months. A nomination can consist of a note that says “I would like to run for the board of directors”, with your name and contact information, or you can send us an email or letter. If you nominate a neighbor or friend – please make sure they know about it!

## **Drought and Conservation**

While our local drought condition fluctuates, we are currently in a “severe” drought condition. We DO live in the arid southwest and we are ALWAYS in one stage of drought or another. Our monthly newsletters contain drought information, and we’ve offered many suggestions in the past concerning conservation practices in water use – and it always comes down to “Use what you need - no more, no less.” Our wells vary in depth from 560’ to 1080’ and are resilient to the affects of drought. We have ‘conservation’ materials at the office, and useful links on our website. There are dozens of web sites that address conservation and household use. You may wish to consider how to use grey water to get more out of the water you bring into your home – and consider the purchase of a rain barrel(s) or cisterns to help create a water harvesting system off of your roof (when it rains ...). In our planning process, we allocate 1/3 of an acre foot of water for each residential property – about 108,000 gallons per year – and Bernalillo County requires that we commit 0.6 acre feet per year (195,510 gallons) per residence in new subdivisions in the County, which automatically creates a water rights ‘reserve’ because all of that water will not be consumed. Our Conservation Plan was completed in 1998 and it has, traditionally, been effective. Our drought management plan was updated five years ago – we’ve had several newsletter articles about those. As we go through the summer, think ‘drought’ – regardless of rain fall - and try to not use more water than you’ve used traditionally. Given all the environmental conditions, it is not unreasonable to anticipate there will be power and water outages from time to time (and those can go hand-in-hand). If we have equipment failures or a power outage, they may impair our ability to deliver, temporarily, your residential needs. Sometimes we can’t anticipate those failures but we will notify you as best we can.

# ***Annual Report on Drinking Water Quality***

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1330 State Highway 333  
Tijeras, NM 87059

281-8700 (office) 604-5935 (off hours / emergency)

As required by the Environmental Protection Agency (EPA)  
and the New Mexico Environment Department (NMED)

***Call Before You Dig – it IS the Law***  
***811***

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