



**2015 CITY OF RIO RANCHO  
CONSUMER CONFIDENCE REPORT**





## FROM THE MAYOR

THE CITY OF RIO RANCHO takes great pride in the quality of the drinking water provided to its citizens and businesses.

The City's Utilities Department regularly tests our drinking water to ensure that the quality is higher than the U.S. Environmental Protection Agency's requirements. In 2015 we conducted more than 7,000 tests for a variety of analyses.

This report gives the citizens of Rio Rancho valuable information about the quality of our drinking water, ideas for water conservation and efficiency, and a look into the future of our capital improvements.

Please take time to read this report, brought to you by your Utilities Department. I encourage your participation, input and feedback, and vision for a healthy water future as Rio Rancho continues to grow.

Mayor Gregg Hull

WATER  
ANALYSIS  
Location:  
Date:  
Time:



*To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulates bottled water, which must provide the same protection of public health.*

**WE ARE PLEASED TO PRESENT** this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality.

**We are committed to providing you with information because informed customers are our best allies.**

RIO RANCHO'S DRINKING WATER COMES ENTIRELY FROM THE SANTA FE GROUP AQUIFER. An aquifer is an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, or silt) from which groundwater can be extracted using a water well. This underground water source is not limitless, so conservation of this natural resource is a must. The aquifer in our area lies within volcanic rocks that naturally contain arsenic. As water flows through the rock it dissolves some of the arsenic from the rocks.

# THE FOLLOWING DEFINITIONS ARE USED IN THIS WATER QUALITY REPORT:

**AL: Action Level** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**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.

**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.

**MNR** – Monitored but not regulated.

**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.

**MRDLG: Maximum Residual Disinfectant 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.

**MRL: Minimum Reporting Levels** – The smallest measured concentration of a substance that can be reliably measured by using a given analytical method.

**N/A:** Not applicable.

**ND:** Not detected.

**pCi/L: Picocuries per liter** – A measure of radioactivity.

**ppb: Parts per billion or micrograms per liter** – Approximately equal to 3 seconds out of a century.

**ppm: Parts per million or milligrams per liter** – Approximately equal to 32 seconds out of a year.

**Range of detection:** Highest & lowest levels of substance found in treated 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.

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## DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population.

Please seek advice from your health care provider if you are:

- Immuno-compromised
- Undergoing chemotherapy
- A transplant recipient
- Living with HIV/AIDS or other immune system disorders
- Elderly or have a newborn that may be at risk from infection.

## CONTAMINANTS THAT MAY BE PRESENT IN SOURCE DRINKING WATER INCLUDE:

**INORGANIC CONTAMINANTS:** Salts and metals which can occur naturally or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**ORGANIC CHEMICAL CONTAMINANTS:** 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.

**PESTICIDES AND HERBICIDE CONTAMINANTS:** May come from a variety of sources such as agriculture, storm water runoff, and residential uses.

**RADIOACTIVE CONTAMINANTS:** Can occur naturally or be the result of oil and gas production and mining activities.

**MICROBIAL CONTAMINANTS:** Viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**CRYPTOSPORIDIUM:** The EPA Center for Disease Control guidelines on appropriate ways to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at **(800) 426-4791**.

## ARSENIC

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible

health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels 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.

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Arsenic (ppb)	10	0	7	7-7	2015	No	Erosion of natural deposits

## LEAD/COPPER

Lead and copper can come from the plumbing system in homes and businesses. The City is required to test for lead and copper every three years from homes of a certain age range.

Substance	Action Level (AL)	MCLG	Our Water	Number of Sites Exceeding AL	Sample Year	Violation	Typical Source of Contamination
Copper (ppm)	1.3	1.3	0.46 (90th percentile)	0	2014	No	Corrosion of household plumbing systems
Lead (ppb)	15	0	2 (90th percentile)	0	2014	No	Corrosion of household plumbing systems

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 Rio Rancho Utilities Department 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.

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Chromium (ppb)	100	100	11	0.001-11	2014	No	Erosion of natural deposits
Fluoride (ppm)	4	4	1.07	0.38-1.07	2014	No	Erosion of natural deposits
Nitrate as Nitrogen (ppm)	10	10	3.74	0.14-3.74	2015	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**If you are concerned about lead in your drinking 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 (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)**



*Utilities Department laboratory manager Billy Jaquez conducts sampling, analyses and tests.*

Substance	MCL	MCLG	Highest Monthly Percentage in Our Water	Sample Year	Violation	Typical Source of Contamination
Total Coliform Bacteria	5 <sup>†</sup>	0	0	2015	No	Naturally present in the environment

<sup>†</sup>5% of monthly samples are positive

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Alpha emitters (pCi/L)	15	0	8.4	0.3-8.4	2014	No	Erosion of natural deposits
Radium combined 226/228 (pCi/L)	5	0	0.2	ND-0.2	2014	No	Decay of natural and man-made deposits
Beta/ photon emitters (pCi/L)	50	0	8.7	2.5-8.7	2014	No	Erosion of natural deposits
Uranium (ppb)	30	0	7	ND-7	2014	No	Erosion of natural deposits

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
TTHMs (ppb)	80	N/A	15	0.39-17	2015	No	By-product of drinking water disinfection
HAA5 (ppb)	60	N/A	2.55	0.28-3.3	2015	No	By-product of drinking water disinfection
Chlorine (ppm)	4	4	0.7	0.4-0.7	2015	No	Water additive used to control microbes



Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Xylenes (ppm)	10	10	0.00069	ND-0.00069	2014	No	Discharge from petroleum or chemical factories
Ethylbenzene (ppb)	700	700	0.13	ND-0.13	2014	No	Discharge from petroleum refineries
2-Butanone (MEK) (ppb)	N/A	N/A	2.8	N/A	2011	No	Discharge from solvents used for coatings, resins and adhesives
Tetrahydrofuran (ppb)	N/A	N/A	0.8	N/A	2011	No	Discharge from manufacturing of protective coatings, adhesives, magnetic strips, printing inks

Substance	MRL	Average Amount Detected	Sample Year
Chromium-6 (hexavalent chromium) (ppb)	0.03	1.02	2015
Chromium (total chromium) (ppb)	0.2	1.6	2015
Molybdenum (ppb)	1	3.8	2015
Strontium (ppb)	0.3	622.4	2015
Vanadium (ppb)	0.2	7.8	2015

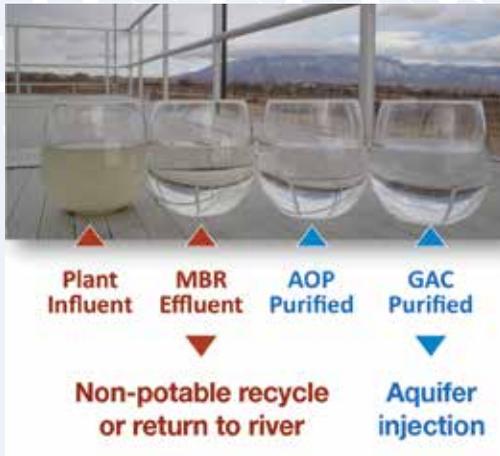
**UNREGULATED CONTAMINANTS:** Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. A maximum contaminant level (MCL) for these substances has not been established by either state or federal regulations, nor has mandatory health effects language.

# WATER RESOURCES MANAGEMENT

## Aquifer Injection Project Update

In 2001 the City of Rio Rancho's City Council signed a resolution of support to keep the water pumped from the aquifer in Rio Rancho for its use, including the wastewater generated from the use of that water by residents and businesses in our city. The intent of the resolution was to use and manage all of the water resources in a sustainable and resilient way.

As part of our ongoing water resources management, the City of Rio Rancho began an Aquifer Injection Project to clean the wastewater and place it back into the aquifer. That project is now in its final stage, with the advanced equipment needed to treat



*"A Park Above" receives recycled water to irrigate the landscape in and around the park.*

and purify water being installed. The City anticipates beginning to inject purified water into the aquifer in winter 2016/2017 at a rate of 800,000 to 1 million gallons per day. This water will recharge the aquifer to maintain it as a drinking water source now and for future generations.

In 2015 the water resources management program also began delivering recycled water for irrigation of city parks and medians, such as A Park Above in the Cabezon subdivision.

One of the plants that treats wastewater, located on Sara near NM 528, is more than 45 years old. It is dilapidated and in need of replacement. The operators work very hard to make maintain the plant and make what repairs they can to ensure the cleaned water is of sufficient quality to comply with U.S. Environmental Protection Agency regulations. Currently, most of the water cleaned at this plant makes it to the Rio Grande for use downstream. Some is sold as recycled water for irrigation. The final water produced from this plant cannot be used for aquifer injection because it is not clean enough for that use.



*Contrast the corroded and exposed aeration basin at the more than 45-year-old wastewater treatment plant on Sara Road (top) with the clean enclosed one at the Cabezon purification plant (bottom).*

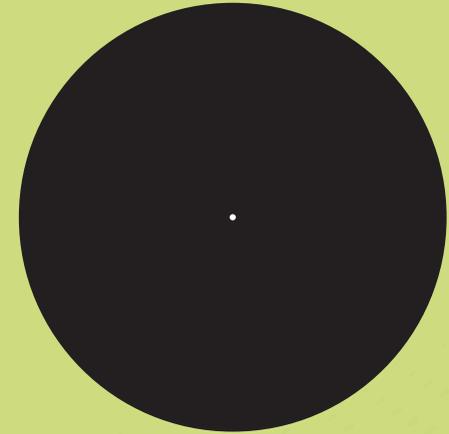
In contrast, the newest water purification plant, located in the Cabezon subdivision, uses newer technologies to clean the water. This membrane bioreactor (MBR) plant cleans the particles and bacteria out of the water by using membranes with holes one micron in size. One micron is one-millionth of a meter. As a comparison, a human hair is about 50 to 100 microns wide.

Plans are in the works to build a new water purification plant at the current location on Sara and NM 528. The City will install the much cleaner MBR technology at the new

*The MBR membrane uses holes 1 micron in diameter to filter and purify water.*



*Top and right: Photos of the new water purification plant at Cabezon show a clean, enclosed facility with a footprint substantially smaller than that of the older plant on Sara Rd. At more than 45 years old, parts of the facility are either completely out of commission (lower right) or operating at 50% of original capacity (lower left).*



*If the black circle above represents the diameter of a human hair, the small white dot in the center is the approximate diameter of one of the 1-micron holes used in a membrane bioreactor (MBR) plant to purify water enough to inject it back into the aquifer for future use.*

plant so that this purified water is kept within Rio Rancho instead of depositing it into the river.

It is crucial that we continue to create a better and more sustainable “water picture” by recycling our wastewater not only for irrigation, but also for injection into the aquifer we depend on.



LET'S TALK

# TURF

Are you planning to install a lawn for kids or pets? Or just to relax? Different grasses have different traffic tolerance, mowing frequency, and water requirements.

In Rio Rancho, warm-season grasses are the best to use to conserve our precious water resources. The traffic tolerance differs for each variety—pets and children need a grass that tolerates foot (and paw) traffic. Some varieties are more “meadow-like” while others are more “lawn-like.” Warm-season grasses, such as Buffalo, African Dogtooth, and Blue Grama, generally need between 15 and 30 inches of water per year. Kentucky Bluegrass, one of the cool season turf

grasses, is associated with the lush lawns of our childhood. It belongs in states like Kentucky because of the high water demand that it needs to grow. Kentucky Bluegrass needs 48 to 60 inches of water per year. Remember, Rio Rancho's high-desert environment only gets about 8 inches of precipitation annually. Other common cool-season grasses include fescues that take 30 to 40 inches of water. Planting cool-season grasses is a violation of Rio Rancho's landscape ordinance because of their high water use. For more information about Rio Rancho's landscape ordinances visit the City's website at [www.rrnm.gov](http://www.rrnm.gov)

# Every Drop Counts



EACH YEAR Rio Rancho students participate in the middle school and high school science fairs or expos. The City of Rio Rancho's Environmental Programs Section supports the scientific endeavors of the students and funds the "Every Drop Counts" award, which recognizes the best display of water conservation, water efficiency, or water quality. "Water education for children makes for a smarter water future for Rio Rancho," said Marian Wrage, manager of the City's Environmental Programs Section.

Winners of the "Every Drop Counts" award for the 2015-2016 school year are Camaren Ly and Kinsey Warnock, both from Rio Rancho High School, with their project titled "Pollution Problems Pertaining



Camaren Ly (left) and Kinsey Warnock from Rio Rancho High School with their project on Pharmaceuticals and Personal Care Products.

to Pharmaceuticals and Personal Care Products."

If you are a student, or know a student who needs mentoring for science expos; please contact us for assistance and guidance at (505) 896-8737.

## Adios to a Familiar Face

Longtime Water Utility staff member Ruben Archuleta, the familiar face of water audits, leak detection, and water waste—and the local "Water Wizard," has retired. He will be missed by staff and citizens alike. Ruben could be seen driving the water conservation van throughout the City on his way to help locate a hidden leak—or hot on the trail of a water waste violation. Please join us in wishing Ruben the best of luck in his retirement.



# SPOTLIGHT ON:

## PAT GALLEGOS

Water Operations Supervisor



Gulf War veteran Pat Gallegos joined the Water Utility in 2001. He obtained the highest drinking water certification in 2004, in the shortest time possible, a testament to his ability and focus. This focus has enabled him to master the water system for a city of more than 90,000 in a short period of time. The system includes:

18 deep water wells, 18 storage tanks,

8 booster stations, and over 50 active pressure-reducing valves. Among his responsibilities as Water Operations Supervisor are production, compliance sampling, disinfection, and maintenance of the systems which ensure the continuous flow of safe drinking water to the citizens of Rio Rancho.

*"A continuous flow of safe drinking water is the first line of defense in a crisis."*

As Supervisor, Pat directs a team in the operation of the wells and arsenic-removal facilities and works in conjunction with maintenance personnel to provide seamless operation of all water facilities.

Trained in CPR and first aid as well as being a part of the FEMA Homeland Emergency Response Team for the City of Rio Rancho, Pat was the 2011 recipient of the Ralph M. Leidholdt Plant Operator Award, given in recognition of an outstanding water treatment plant operator for exceptional performance, dedication, and teamwork.

# ARKANSAS TOURS NEW MEXICO

SIX CHEMICAL ENGINEERING students from the University of Arkansas drove almost 1,000 miles to tour several of the City's water facilities, including the Cabezon Water Purification Facility, the Aquifer Injection Site, and the Arsenic Treatment Facility at Well 10's Water Complex.

The students were participating in a grant challenge hosted by NM State University to design a direct potable reuse system for a community in New Mexico.

One of the students' professors suggested they visit the Rio Rancho facilities because he believed it was one of the best examples of potable reuse in New Mexico.

*Clockwise from top right: Environmental Programs Manager Marian Wrage offers an overview of the Cabezon treatment facility before tour begins; student takes notes as Operator Robert Crites explains the reuse process; Water Operations Supervisor Pat Gallegos shows students the Arsenic Treatment Facility at Well 10; the students pose for a final photo before leaving.*

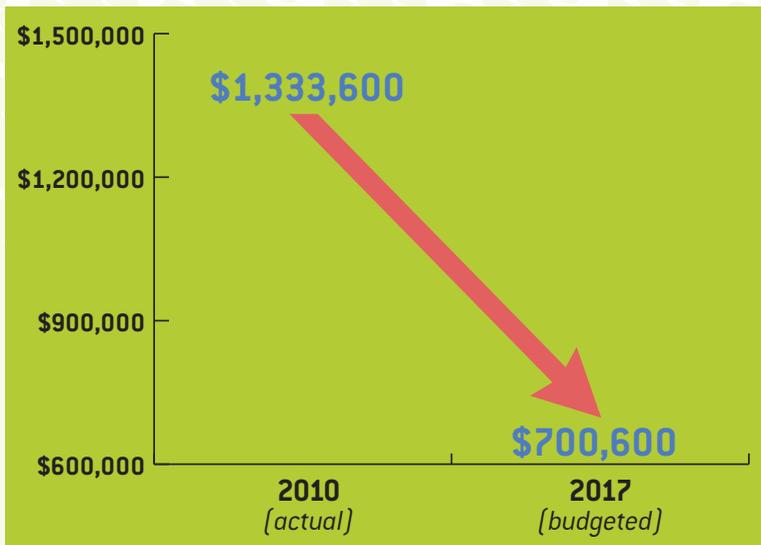


# ARSENIC TREATMENT

THEN ...  
AND NOW



ARSENIC OCCURS NATURALLY from the volcanic rocks through which the aquifer, the source of Rio Rancho's drinking water, flows. In fiscal year 2010, the City began removing arsenic from the drinking water. During that year, the City spent \$1,333,600 to purchase chemicals used to remove arsenic. Since then, the Utilities Department has monitored and controlled the system by tightening the parameters for the removal process. This stewardship and oversight has resulted in a reduction of cost for the chemicals necessary for arsenic removal. \$700,000 is budgeted for fiscal year 2017, which begins on 7/1/16 and ends on 6/30/17.



# ANOTHER YEAR OF EFFICIENT WATER USE!

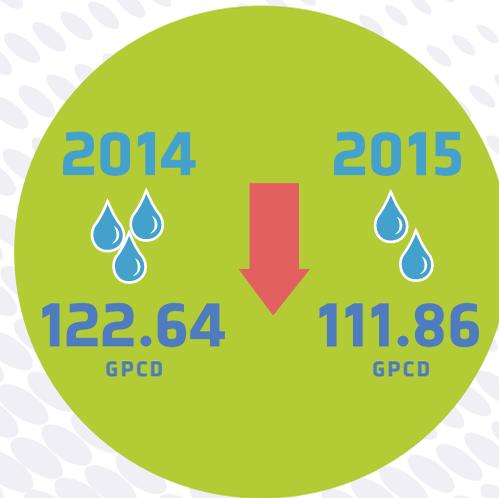
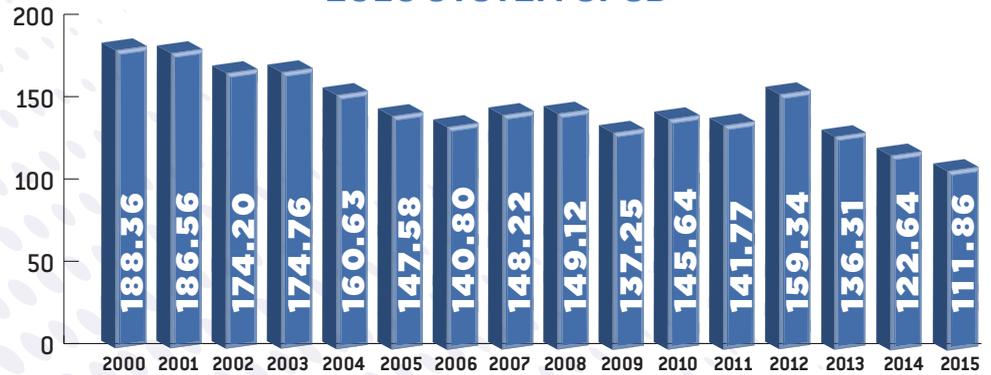
KUDOS TO RIO RANCHO citizens and businesses for continuing to use water efficiently! In 2015, the system-wide water use dropped again to a new low of 111.86 gallons per person per day. This is an astonishing 76 gallons per person per day drop since 2000. Some of the water savings is a direct result of switching to newer, high-efficiency toilets and clothes washers, but most of the savings is from customers' awareness of the finite availability of water and the willingness to efficiently use this precious resource both inside and outside their homes and businesses.

## Common ways to conserve water are:

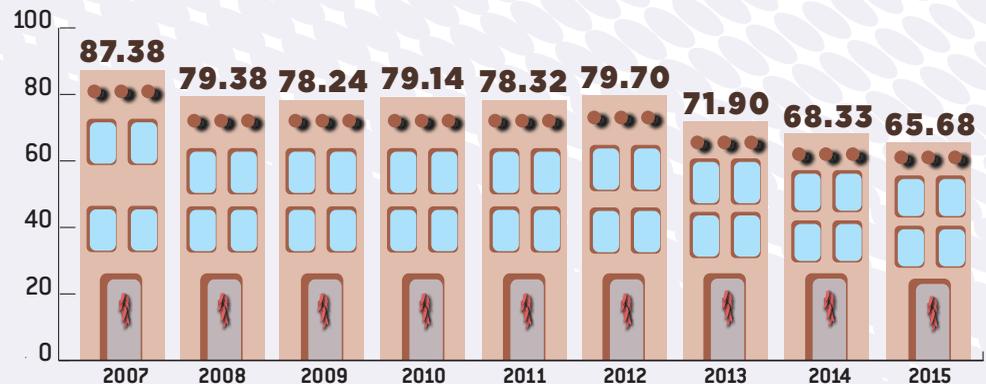
- Take shorter showers
- Turn off water while brushing teeth and shaving
- Use a water-efficient shower head (free at City Hall)
- Replace toilets manufactured prior to 1994 for a \$100 rebate\*
- Exchange your old clothes washer for a high-efficiency clothes washer for a \$100 rebate\*

\* Restrictions apply. Visit [www.riorebate.org](http://www.riorebate.org) or call 505-896-8715 for an application or to have questions answered.

## 2015 SYSTEM GPCD



## 2015 RESIDENTIAL GPCD



## GET INVOLVED IN CITY WATER MATTERS

The Utilities Commission is a group of seven individuals appointed by the mayor and city council; one person per council district plus an at-large position. The Commission reviews and gives recommendations to the mayor and city council. The group meets the third Tuesday of every month at 6:00 p.m. at City Hall, 3200 Civic Center Circle NE. These are open meetings, so come and learn.

For more information about the Utilities Commission please call **(505) 896-8715** or visit [www.rrnm.gov](http://www.rrnm.gov).

*BELOW: Utility Commissioners are selected by a committee based upon their qualifications, knowledge, and experience related to the operation of water and wastewater facilities and the effect of such on the community. Left to right, (seated) Lee Robinson, Stephan vanHorn, Rebecca Torres, and (left to right, standing) Bruce Redd, Moses Winston and Robert Bajek.*



## IMPORTANT INFO

*All phone numbers have a (505) area code.*

Utilities Administration: **896-8715**

Utilities Billing: **891-5020**

Report Leaks: **891-5020**

Water/Wastewater Emergency (After Hours): **975-1581**

Line Spots, NM811: **811**

Water Conservation: **896-8715**

Engineering: **891-5016**

Environmental Programs: **896-8737**

Water Waste Hotline: **896-8299**

[www.rrnm.gov](http://www.rrnm.gov)

U.S. ENVIRONMENTAL  
PROTECTION AGENCY (EPA)  
SAFE DRINKING WATER HOTLINE:

**(800) 426-4791**

RIO RANCHO WATER  
PRODUCTION:

**(505) 896-8813**

## SUSCEPTIBILITY ANALYSIS

The Susceptibility Analysis of the Rio Rancho 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. The susceptibility rank of the entire water system is MODERATELY LOW, a good rating. Call New Mexico Environment Department at (877) 654-8720 for questions.

City of Rio Rancho  
Utilities Department  
3200 Civic Center Circle NE  
Rio Rancho, NM 87144

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City of Rio Rancho  
Water Conservation Office  
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\*\*\*\*\* ECRWSS \*\*\*\*\*

Postal Customer  
Rio Rancho, New Mexico

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

