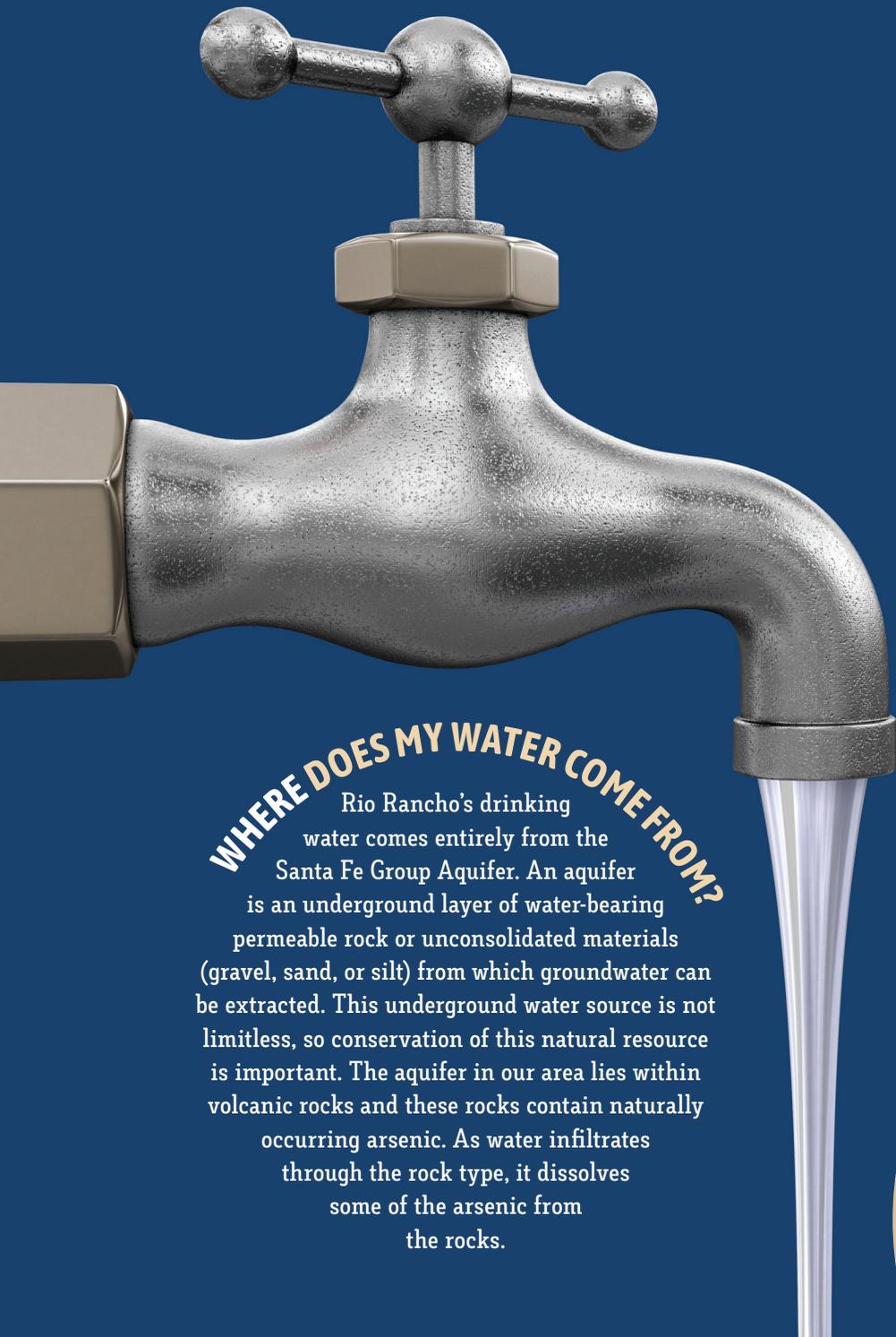




**2019 CONSUMER CONFIDENCE REPORT**





## WHERE DOES MY WATER COME FROM?

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. This underground water source is not limitless, so conservation of this natural resource is important. The aquifer in our area lies within volcanic rocks and these rocks contain naturally occurring arsenic. As water infiltrates through the rock type, it dissolves some of the arsenic from the rocks.

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.

## HOW IS MY WATER TREATED?

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

**U.S. Environmental  
Protection Agency (EPA)  
Safe Drinking Water Hotline:  
800.426.4791**

**Rio Rancho  
Environmental Programs:  
505.896.8737**

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 your drinking water to ensure that the quality is better than the U.S. Environmental Protection Agency’s requirements.

This report gives you valuable information about the quality of our drinking water, ideas for water conservation and efficiency, and a look at our 2019 water use.

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

Mayor Gregg Hull

GET INVOLVED IN CITY WATER MATTERS

The City encourages you to get involved in water matters. For more information, please call 505.896.8715 or visit [www.rrnm.gov](http://www.rrnm.gov)

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# Your Dollars at Work

Here's a breakdown of the major projects in 2019 funded by water and wastewater rate payers:

Project	Cost for Utility Work
Southern Blvd. Water and Wastewater Lines	\$2,446,372
Water Service Line Replacement	\$916,801
Booster 8 to Well 9 Connection	\$379,157
Lincoln Ave. Water and Wastewater Lines	\$757,578
Rockaway Blvd. Water Line	\$919,276
Sundt Road Water Line	\$545,007
Abrazo Rd (Unser Blvd. to Gemini Rd.) Water/ Wastewater Lines	\$398,932
Meadowlark Lane Water Line	\$1,472,396

# SUSCEPTIBILITY ANALYSIS

The Susceptibility Analysis of the Rio Rancho Water Utilities 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, which is a good rating.

Call New Mexico Environment Department at 877.654.8720 if you have questions.

## 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 at 800.426.4791.

**In order 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) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.**





## 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.

Contaminants that may be present in source water before treatment include:

- Microbial contaminants, such as viruses and bacteria, which may come from wildlife, septic systems, sewage treatment plants, and agricultural livestock operations.
- 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 & herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.
- 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, which are naturally occurring or can be the result of oil and gas production and mining activities.



## DEFINITIONS 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.

**LRAA: Locational Running Annual Average** – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

**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.

**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 adding ONE drop of water from an eyedropper to a 10,000-gallon swimming pool.

**ppm: Parts per Million or Milligrams per Liter** – Approximately equal to adding ONE drop of water from an eyedropper in 10 gallons of water (It takes one million individual drops to fill a 10-gallon aquarium using an eyedropper.).

**RAA: Running Annual Average** – The level detected is the highest running annual average, computed quarterly, of monthly averages of all samples collected.

**Range of Detection** – Highest and lowest levels of a substance found in treated drinking water.

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Alpha emitters (pCi/L)	15	0	3.9	N/A	2018	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	50	0	5.7	N/A	2018	No	Decay of natural and man-made deposits. (The EPA considers 50 pCi/L to be the level of concern for Beta particles)
Radium (combined 226/228) (pCi/L)	5	0	0.33	N/A	2018	No	Erosion of natural deposits
Uranium (ppb)	30	0	5	N/A	2018	No	Erosion of natural deposits

Substance	MCL or MRDL	MCLG or MRDLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	0.72 (RAA)	0.03-1.6	2019	No	Water additive used to control microbes
HAA5* (ppb)	60	N/A	2.45 (LRAA)	ND-4.5	2019	No	By-product of drinking water chlorination
TTHMs* (ppb)	80	N/A	9.5 (LRAA)	ND-13	2019	No	By-product of drinking water disinfection

Substance	MRL	Range of Detection	Sample Year
HAA5 (ppb)	0.44	ND-0.8	2019
HAA6Br (ppb)	0.65	ND-1.3	2019
HAA9 (ppb)	0.65	ND-1.3	2019
Germanium (ppb)	0.67	ND-1.6	2019
Manganese (ppb)	0.56	ND-2.2	2019

## ADDITIONAL MONITORING

As part of an ongoing evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science. HAA5 was included in this monitoring and this result is a “snapshot” in time and not an LRRA.

\*HAA5: Haloacetic acids  
TTHMs: Total Trihalomethanes

## LEAD/COPPER

Every three years, the City is required to test for lead and copper from the tap in homes of a certain age range.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with metal 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 using water for drinking or cooking.

## ARSENIC

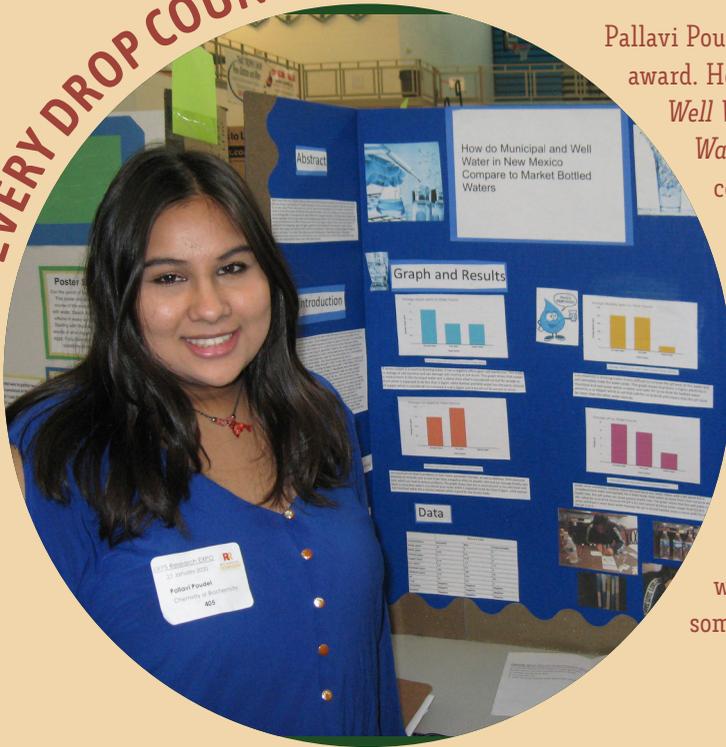
While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels 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	Action Level (AL)	MCLG	Our Water	Number of Sites Exceeding AL	Sample Year	Violation	Typical Source of Contamination
Copper - AL at consumer taps (ppm)	1.3	1.3	0.19	0	2017	No	Corrosion of household plumbing systems
Lead - AL at consumer taps (ppb)	15	0	1	0	2017	No	Corrosion of household plumbing systems

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 at 800.426.4791, or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Year	Violation	Typical Source of Contamination
Arsenic (ppb)	10	0	7	N/A	2018	No	Erosion of natural deposits
Barium (ppm)	2	2	0.05	N/A	2018	No	Erosion of natural deposits
Chromium (ppb)	100	100	6	N/A	2018	No	Erosion of natural deposits
Fluoride (ppm)	4	4	1.1	N/A	2018	No	Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	4.1	ND-4.1	2019	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

## EVERY DROP COUNTS



Pallavi Poudel is the 2020 winner of the Every Drop Counts award. Her science expo project, *How Do Municipal and Well Water From New Mexico Compare to Market Bottled Waters?*, was an investigation and experiment comparing municipal water from Rio Rancho High School with well water from Española and bottled water she purchased.

Pallavi tested all three samples for Chlorine, Iron, Hardness, Pesticides, Bacteria, pH, Alkalinity, Copper, Nitrate/Nitrite, and Lead. Pallavi hypothesized that the bottled water would contain the least amount of contaminants of the three samples. She was surprised that she was incorrect as the bottled water contained the highest concentrations of some the contaminants she tested.

We will reschedule the public meetings intended to gather citizen input to update our Water Resources Management Plan.

Victoria Garcia, Water Conservation Specialist, performs conservation audits at customers' homes. She discovered that most homeowners are unaware of their day-to-day plumbing.

"I was called out to a property and walked into the customer's home. First stop was the guest bathroom, which was located at the front of the home. As soon as I walked in, I could hear the toilet running. The customer said that his toilet has always made that noise, so he thought it was normal. I gave him a brochure from the Office of the State Engineer that explained how to find and fix leaks. He was able to repair both toilets."

Just a reminder...once the toilet tank fills up after flushing, you should not hear any sounds. Toilets should be silent. If you do hear what sounds like running water for any length of time, you should check for leaks.

## KNOW YOUR PLUMBING!



# Is your Toilet Leaking? Give it the Dye Test

You might think your toilet isn't leaking, but there is one sure-fire way to find out. Lift the lid off the toilet tank and put 10-15 drops of dark-colored food dye into the tank. If you don't have food dye, you can pick up toilet dye tablets at City Hall (second floor). After fifteen minutes, check the water in the toilet bowl. If there is any sign of dye, your toilet is leaking.

If the tank's water level looks fine but the dye test shows that the toilet leaks, the two most common culprits are the valve seat, which may need to be cleaned, and the flapper (or tank ball), which may need to be adjusted, cleaned, or replaced.

## ADJUST THE FLAPPER (TANK BALL)

- Ensure the flapper fits properly on the valve seat.
- Turn off the water at the shutoff valve (just underneath the toilet tank) by turning the valve clockwise until it stops. Then flush the toilet to drain the tank. See if the flapper falls straight onto the flush valve opening.
- Adjust the flapper: loosen the thumbscrew that fastens the guide arm to the overflow pipe.
- Reposition the arm and the lift wire so that the tank ball is right above the flush valve (or adjust the flapper so that it will fall directly onto the valve seat).

## CLEAN THE FLAPPER (TANK BALL) AND VALVE SEAT

If the flapper (or tank ball) is sitting correctly in the valve seat but water is still leaking into the bowl, the problem may be a build-up

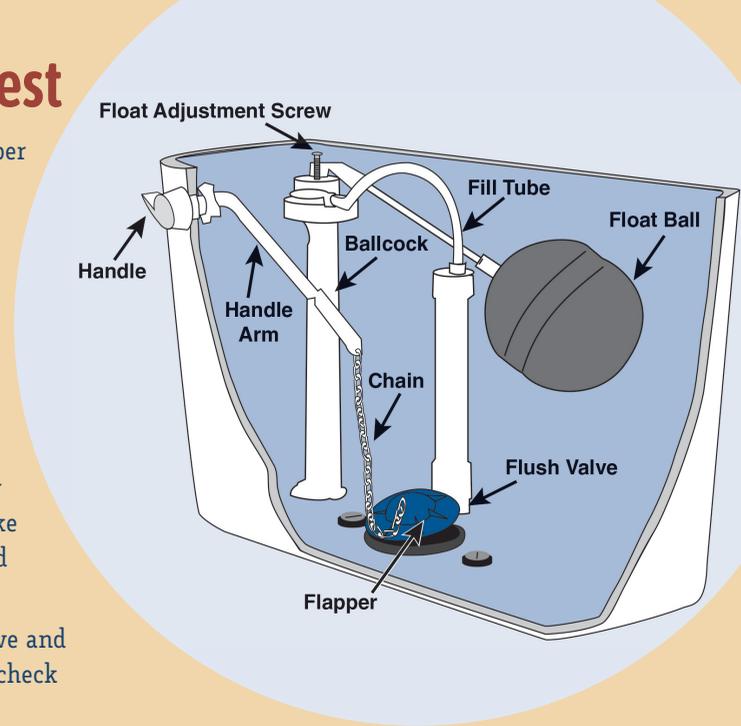
of mineral deposits on the flapper and/or valve seat.

- Turn off the water at the shutoff valve located just underneath the toilet tank (turn the valve clockwise until it stops). Then flush the toilet to drain the tank.
- Clean the valve seat and the flapper with fine steel wool or a plastic cleansing pad to make sure they are both smooth and free of mineral deposits.
- Turn on the water shutoff valve and conduct the dye test again to check for leaks.

## REPLACE THE FLAPPER (TANK BALL)

If you've checked to make sure the flapper is correctly positioned in the valve seat and both parts are clean but you still have a leak, the flapper is probably worn out and won't seal properly. To replace the flapper:

- Turn off the water at the shutoff valve located just underneath the toilet tank (turn the valve clockwise until it stops). Then flush the toilet to drain the tank.
- Remove your old flapper and take it with you to the hardware or plumbing store so you can buy a replacement.
- Before installing the new flapper, clean the valve seat with fine steel wool or a plastic cleansing pad to make sure it is smooth.
- Install the new flapper. Then run the dye test again to make sure you have fixed the leak.



*Note: Make sure the replacement flapper matches the model and water-use requirements of the existing flapper. Not all generic flappers work equally well. Some toilets rely on a specific flapper to create the low-flow flush.*

## IF THE TOILET STILL LEAKS

If you still have a leak, or the toilet is making a high whine or whistle sound when the tank is filling up, consider replacing the ball cock, the mechanism that controls the flow of water into the toilet tank. Replacement ball cocks are sold at hardware, plumbing, and home improvement stores.

<<Information from "Don't Waste a Drop" published by the NM Office of the State Engineer.>>

# ENHANCING THE WATER LOSS CONTROL PROGRAM

The City recently contracted with a company named Fracta to assist the Utilities Department to better target leak detection, primarily before the water reaches the street surface.

Fracta uses cutting-edge Artificial Intelligence (AI), specifically Machine Learning, to assess the condition and risk of drinking water distribution mains. By shifting asset operation and management from reaction to prevention, the company helps avoid disruptive water main breaks, and better targets leak detection and water valve maintenance efforts.

This new way of looking at water main data for an entire water distribution system enables water engineers, financial planners and executive management to make fast, accurate, and affordable asset management decisions about their buried water main infrastructure.

The City provided Fracta with a large number of data points for analysis including: GIS information, leak locations over the most recent five-year period, water pipe size and material type, etc. Once imported into their system, the data was compared to over 1,000 geographical and environmental variables that potentially impact the condition of a water main. Fracta “trains” and validates their Machine Learning algorithm that then calculates the correlation between the parameters and historical failures and builds a model of the system. The output of the Machine Learning analysis is an accurate prediction for Likelihood of Failure (LOF) for all water main segments in the distribution system. Once LOF is determined, Fracta calculates the Consequence of Failure (COF) value using parameters and values derived from basic water main segment data, as well as environmental variables. The values calculated for each water main segment are then categorized and transformed into dollar amounts based on Rio Rancho Utilities cost structures.

This information will allow Rio Rancho Utilities to plan for repair or replacement of segments of water main pipes.



## WINTER QUARTER AVERAGE 2020

The class average usage per residential household will remain at 4,000 gallons.

For 2020, it is 3.81 gallons (for 2019, it was 3.88 gallons). This shows that households are using a little bit less than they did the prior year - we round up/down to get our average.

Additionally, multi-family class average will drop from 17,000 to 16,000 gallons for 2020.



- Baby Wipes
- Disinfectant Wipes
- Sanitary Pads
- Tampons
- Condoms
- Contact Lenses
- Bandages
- Cotton Balls
- Makeup Pads
- Cotton Swabs
- Diapers

These materials **WILL NOT** disintegrate like toilet tissue. They can cause clogs, and can back up pipes – in your home, and in your neighborhood!



2019 SYSTEM GPCD

GALLONS PER CAPITA PER DAY

2018



105.85  
GPCD

6.75%



2019



98.70  
GPCD

2019 RESIDENTIAL GPCD



## GREAT JOB, RIO RANCHO!!

The City's annual gallons per day per person calculations are completed and we have dropped to a whopping 98.7 gallons of water per person (gpcd) per day for the entire water system. This is a **6.75% decrease** from 2018 (105.85 gpcd in 2018).

Single family residential water use has also dropped from 63.14 to 62.53.



# *Rio Rancho* **PURE**

New Mexico's **FIRST**  
Water Purification and  
Aquifer Storage Project  
*has injected*

**88,840,031**  
**GALLONS**

Back Into the Aquifer  
from July 2017  
through December 2019  
for Future Use

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

PRESORTED STD  
U.S. POSTAGE  
PAID  
ALBUQUERQUE, NM  
Permit No. 1104

## Important Info

All phone numbers have a  
(505) area code.

- Engineering..... 891.5016
- Environmental Programs ..... 896.8737
- Line Spots, NM811.....811
- Report Leaks..... 891.5019  
..... waterleaks@rrnm.gov
- Utilities Administration..... 896.8715
- Utilities Billing ..... 891.5020
- Water Conservation ..... 896.8715
- Waste Management..... 892.1200
- Water Waste ..... 896.8715

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

\*\*\*\*\* ECRWSS \*\*\*\*\*

## POSTAL CUSTOMER RIO RANCHO, NEW MEXICO

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducir la información.

