Albuquerque Bernalillo County
Water Utility Authority

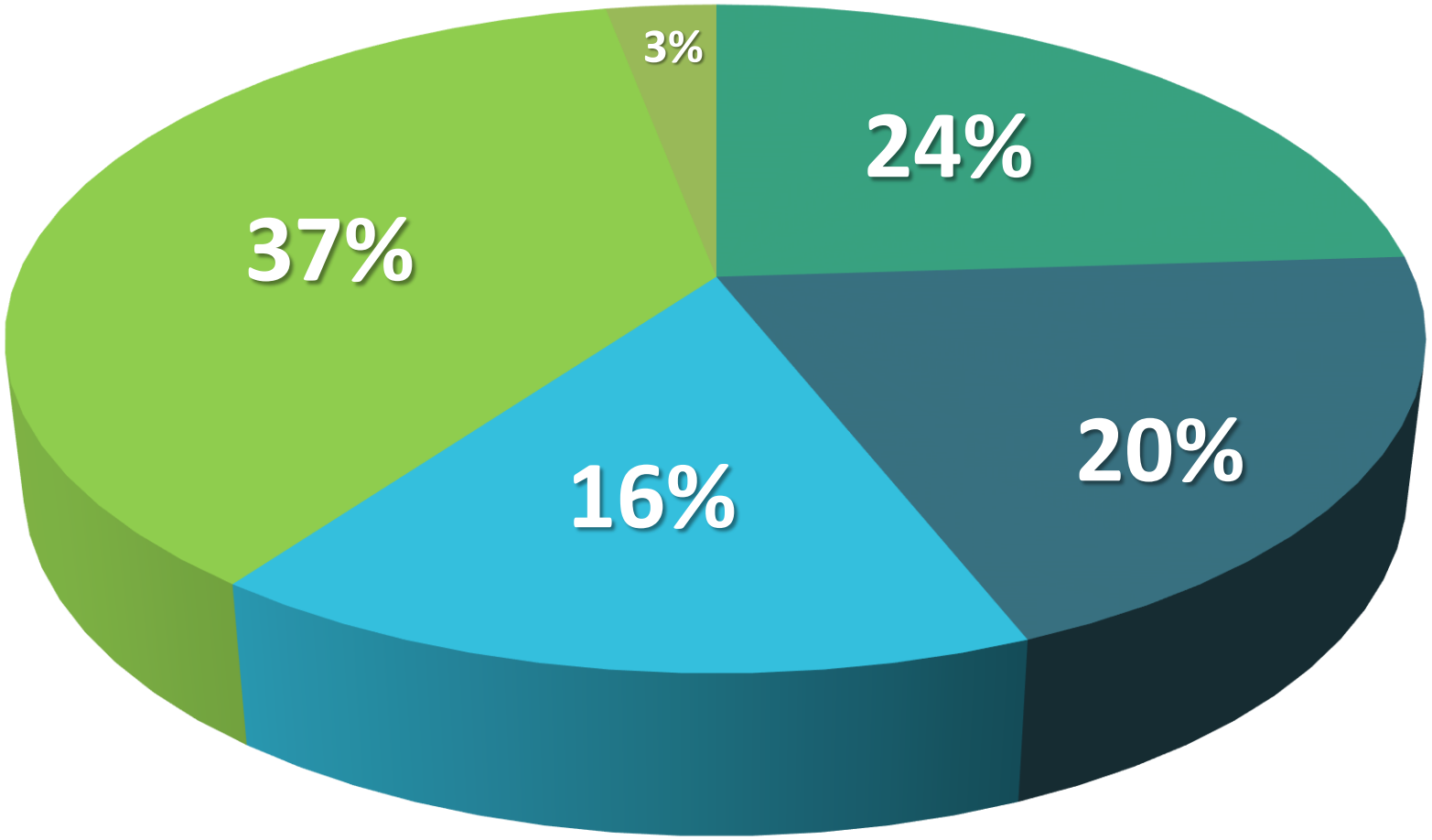
2018 Consumer Confidence Report

May 22, 2019

MARK KELLY, P.E.
COMPLIANCE DIVISION
MANAGER

Why have a Water Quality Report?

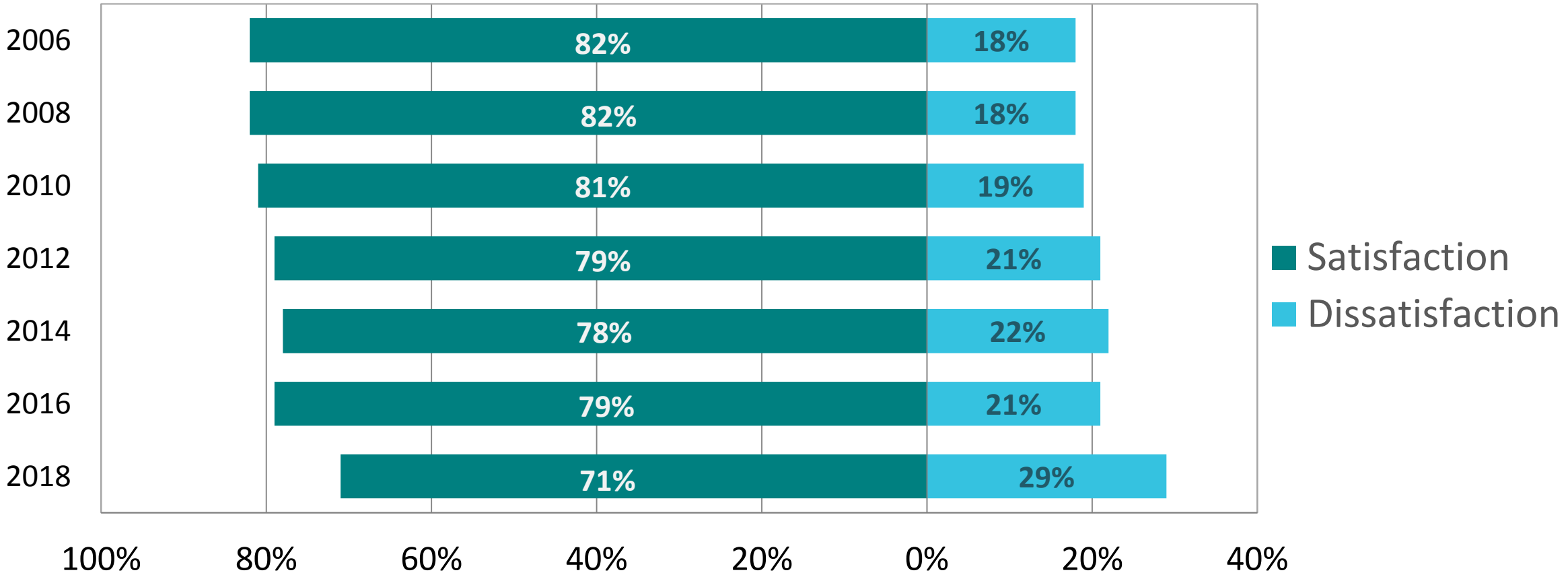
- Required by Federal Safe Drinking Water Act (SDWA)
- Public notice of what was detected during required monitoring of regulated contaminants
- How does our drinking water quality compare to the standards in the SDWA?



Annual Water Quality Report Readership

What can we do to increase number of customers who read the report?

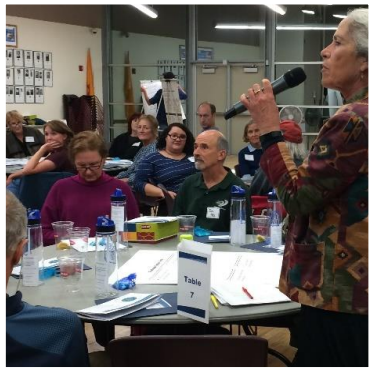
Source: Research & Polling Customer Opinion Survey (2018)



Residential Customer Satisfaction with Quality of Drinking Water

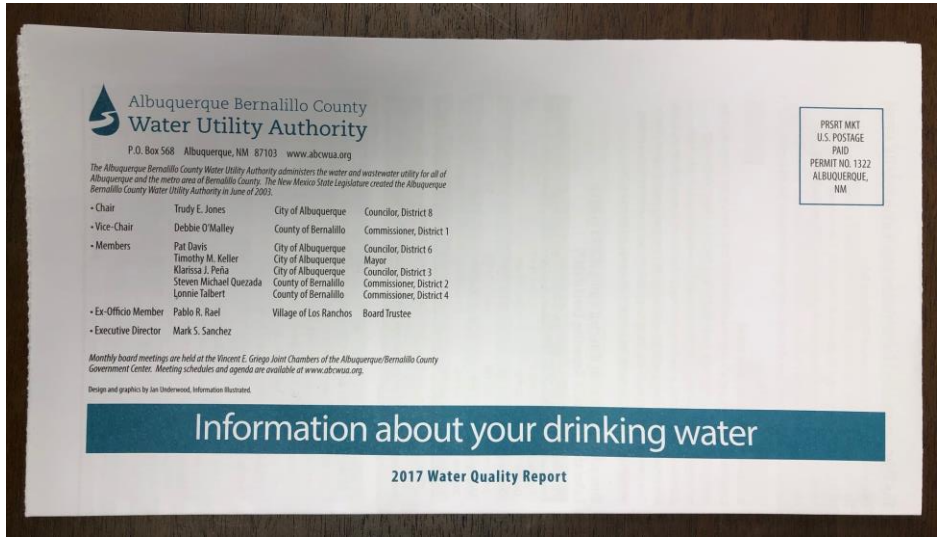
What can we do to improve customer satisfaction?

Source: Research & Polling Customer Opinion Survey (2018)



Customer Conversations

Here’s what we learned from our customers…

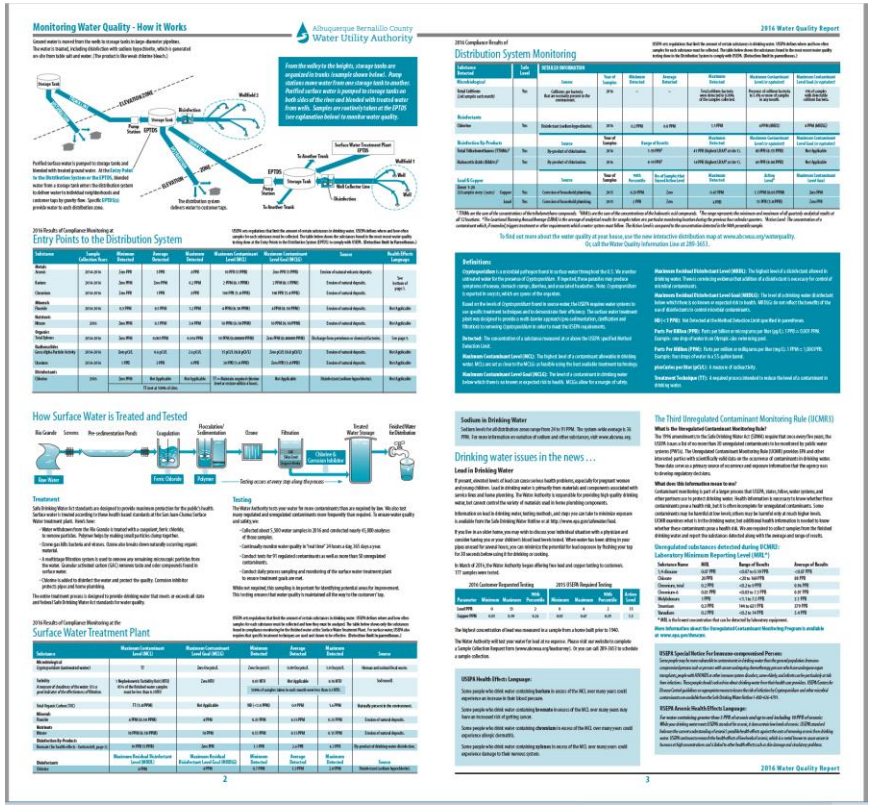


Make the report stand out in my mailbox

Customers are more likely to read the report if the cover draws them in

Use More Infographics

Customers want to be able to read the report quickly



Monitoring Water Quality - How it Works

Albuquerque Bernalillo County Water Utility Authority

2016 Water Quality Report

From the valley to the heights, storage tanks are organized in tranks (example shown below). Pump stations move water from one storage tank to another. Purified surface water is pumped to storage tanks on both sides of the river and blended with treated water from wells. Samples are routinely taken at the EPTDS (see explanation below) to monitor water quality.

2016 Results of Compliance Monitoring at

Entry Points to the Distribution System

2016 Compliance Results of

Distribution System Monitoring

Definitions

Sodium in Drinking Water

Drinking water issues in the news . . .

Lead in Drinking Water

The Third Unregulated Contaminant Monitoring Rule (UCMR3)

Unregulated substances detected during UCMR3:

Laboratory Minimum Reporting Level (MRL)*

USEPA Health Effects Language:

USEPA Special Notice For Immune-compromised Persons:

USEPA Arsenic Health Effects Language:

How Surface Water is Treated and Tested

Treatment

Testing

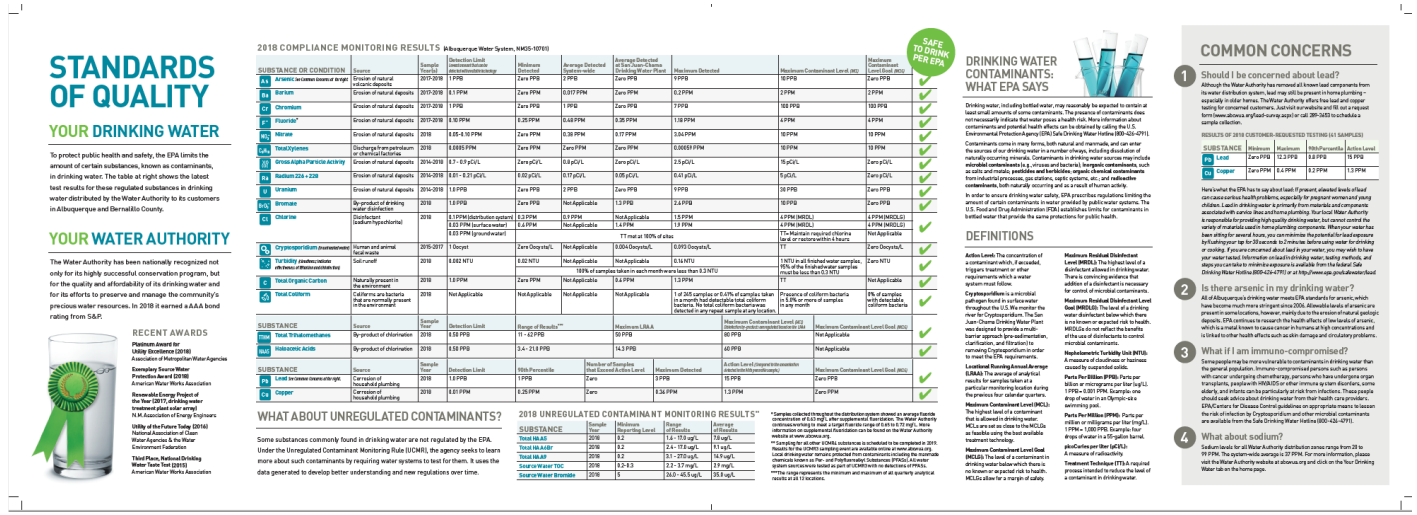
2016 Results of Compliance Monitoring at the

Surface Water Treatment Plant

2016 Water Quality Report

2

3



STANDARDS OF QUALITY

YOUR DRINKING WATER

To protect public health and safety, the EPA limits the amount of certain substances, known as contaminants, in drinking water. The table at right shows the latest test results for these regulated substances in drinking water distributed by the Water Authority to its customers in Albuquerque and Bernalillo County.

YOUR WATER AUTHORITY

The Water Authority has been nationally recognized not only for its highly successful conservation program, but for the quality and affordability of its drinking water and for its efforts to preserve and manage the community's precious water resources. In 2018 it earned a AAA bond rating from S&P.

RECENT AWARDS

Platinum Award for Utility Excellence (2018) Association of Metropolitan Water Agencies

Exemplary Source Water Protection Award (2018) American Water Works Association

Renewable Energy Project of the Year (2017), drinking water treatment plant solar array) N.M. Association of Energy Engineers

Utility of the Future Today (2016) National Association of Clean Water Agencies & the Water Environment Federation

Third Place, National Drinking Water Taste Test (2015) American Water Works Association

2018 COMPLIANCE MONITORING RESULTS (Albuquerque Water System, NM05-10701)

SAFE TO DRINK PER EPA

DRINKING WATER CONTAMINANTS: WHAT EPA SAYS

DEFINITIONS

COMMON CONCERNS

1 Should I be concerned about lead?

2 Is there arsenic in my drinking water?

3 What if I am immuno-compromised?

4 What about sodium?

WHAT ABOUT UNREGULATED CONTAMINANTS?

2018 UNREGULATED CONTAMINANT MONITORING RESULTS**

Less is More

Customers felt overwhelmed by the amount of information

Brag a Little!

Knowing the Water Authority is award-winning increases confidence in water quality

RECENT AWARDS

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Association of Metropolitan Water Agencies

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Third Place, National Drinking Water Taste Test (2015)
American Water Works Association

GET INVOLVED!

Want to do more to help protect local drinking water supplies? You can start by staying informed! Links to up-to-date information about watershed and source-water protection can be found at **www.NMSourceWaterProtection.com**

Other opportunities for involvement include attendance at one of our monthly board meetings, where issues concerning water quality are discussed. Meetings are open to the public and held in the Vincent E. Griego Council Chambers in the basement of the City/County Government Center at One Civic Plaza. Meeting schedules and agendas are available at **www.abcwua.org** You'll also find meeting schedules for the community's Water Protection Advisory Board.

This report has been re-designed for easier readability with input from customers like you! The Water Authority wishes to thank everyone who got involved and contributed suggestions via the Customer Conversations process.

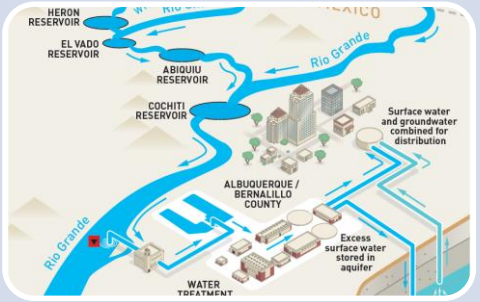
Tell us what we can do to help!

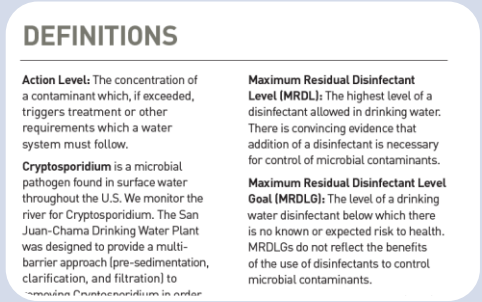
We have AWESOME customers


QUALITY REPORT

Albuquerque Bernalillo County Water Utility Authority

The Water Authority is the largest water and sewer utility in the state of New Mexico and is governed by a board of elected officials. Board members for 2019: Debbie O'Malley, Bernalillo County Commissioner, Chair; Klarissa Peña, Albuquerque City Councilor, Vice Chair; Maggie Hart Stebbins, Bernalillo County Commissioner; Trudy E. Jones, Albuquerque City Councilor; Timothy M. Keller, Mayor of Albuquerque; Steven Michael Quezada, Bernalillo County Commissioner; Ken Sanchez, Albuquerque City Councilor. Pablo Rael serves as a non-voting member from the Village of Los Ranchos. Executive Director: Mark S. Sanchez.




DEFINITIONS

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

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. We monitor the river for Cryptosporidium. The San Juan-Chama Drinking Water Plant was designed to provide a multi-barrier approach (pre-sedimentation, clarification, and filtration) to

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Water System Information

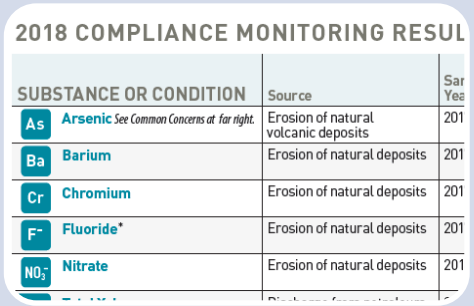
- Contact Information

Sources of Water

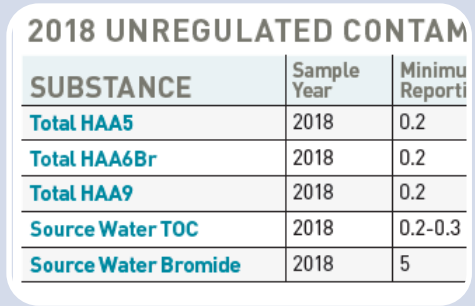
- Ground Water
- Surface Water

Definitions

CCR Required Information


2018 COMPLIANCE MONITORING RESUL

SUBSTANCE OR CONDITION	Source	Sar Yea
As Arsenic *See Common Concerns at far right.*	Erosion of natural volcanic deposits	201
Ba Barium	Erosion of natural deposits	201
Cr Chromium	Erosion of natural deposits	201
F⁻ Fluoride*	Erosion of natural deposits	201
NO_3^- Nitrate	Erosion of natural deposits	201


2018 UNREGULATED CONTAM

SUBSTANCE	Sample Year	Minimu Reporti
Total HAA5	2018	0.2
Total HAA6Br	2018	0.2
Total HAA9	2018	0.2
Source Water TOC	2018	0.2-0.3
Source Water Bromide	2018	5

Detected Contaminants

- Entry Points
- Distribution
- Surface Water Plant

Compliance With Other Drinking Water Regulations

- UCMR4

Educational Information

CCR Required Information

Definitions

DEFINITIONS

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

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. We monitor the river for Cryptosporidium. The San Juan-Chama Drinking Water Plant was designed to provide a multi-barrier approach (pre-sedimentation, clarification, and filtration) to removing Cryptosporidium in order to meet the EPA requirements.

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

Maximum Contaminant Level (MCL): 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.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Nephelometric Turbidity Unit (NTU): A measure of cloudiness or haziness caused by suspended solids.

Parts Per Billion (PPB): Parts per billion or micrograms per liter (ug/L). 1 PPB = 0.001 PPM. Example: one drop of water in an Olympic-size swimming pool.

Parts Per Million (PPM): Parts per million or milligrams per liter (mg/L). 1 PPM = 1,000 PPB. Example: four drops of water in a 55-gallon barrel.

picoCuries per liter (pCi/L): A measure of radioactivity.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

2018 COMPLIANCE MONITORING RESULTS (Albuquerque Water System, NM35-10701)

SAFE TO DRINK PER EPA

SUBSTANCE OR CONDITION	Source	Sample Year(s)	Detection Limit *Lowest amount that can be detected with available technology*	Minimum Detected	Average Detected System-wide	Average Detected at San Juan-Chama Drinking Water Plant	Maximum Detected	Maximum Contaminant Level *(MCL)*	Maximum Contaminant Level Goal *(MCLG)*	
As **Arsenic** *See Common Concerns at far right.*	Erosion of natural volcanic deposits	2017-2018	1 PPB	Zero PPB	2 PPB	Zero PPB	9 PPB	10 PPB	Zero PPB	✔
Ba **Barium**	Erosion of natural deposits	2017-2018	0.1 PPM	Zero PPM	0.017 PPM	Zero PPM	0.2 PPM	2 PPM	2 PPM	✔
Cr **Chromium**	Erosion of natural deposits	2017-2018	1 PPB	Zero PPB	1 PPB	Zero PPB	7 PPB	100 PPB	100 PPB	✔
F^- **Fluoride***	Erosion of natural deposits	2017-2018	0.10 PPM	0.25 PPM	0.48 PPM	0.35 PPM	1.18 PPM	4 PPM	4 PPM	✔
NO_3 **Nitrate**	Erosion of natural deposits	2018	0.05-0.10 PPM	Zero PPM	0.38 PPM	0.17 PPM	3.04 PPM	10 PPM	10 PPM	✔
C_8H_{10} **Total Xylenes**	Discharge from petroleum or chemical factories	2018	0.0005 PPM	Zero PPM	Zero PPM	Zero PPM	0.00059 PPM	10 PPM	10 PPM	✔
Gross Alpha Particle Activity	Erosion of natural deposits	2014-2018	0.7 - 0.9 pCi/L	Zero pCi/L	0.8 pCi/L	Zero pCi/L	2.5 pCi/L	15 pCi/L	Zero pCi/L	✔
Ra **Radium 226 + 228**	Erosion of natural deposits	2014-2018	0.01 - 0.21 pCi/L	0.02 pCi/L	0.17 pCi/L	0.05 pCi/L	0.41 pCi/L	5 pCi/L	Zero pCi/L	✔
U **Uranium**	Erosion of natural deposits	2014-2018	1.0 PPB	Zero PPB	2 PPB	Zero PPB	9 PPB	30 PPB	Zero PPB	✔
BrO_3^- **Bromate**	By-product of drinking water disinfection	2018	1.0 PPB	Zero PPB	Not Applicable	1.3 PPB	2.6 PPB	10 PPB	Zero PPB	✔
Cl **Chlorine**	Disinfectant (sodium hypochlorite)	2018	0.1 PPM (distribution system)	0.3 PPM	0.9 PPM	Not Applicable	1.5 PPM	4 PPM (MRDL)	4 PPM (MRDLG)	
			0.03 PPM (surface water)	0.6 PPM	Not Applicable	1.4 PPM	1.9 PPM	4 PPM (MRDL)	4 PPM (MRDLG)	✔
			0.03 PPM (ground water)	TT met at 100% of sites				TT= Maintain required chlorine level or restore within 4 hours	Not Applicable	
Cryptosporidium *(in untreated water)*	Human and animal fecal waste	2015-2017	1 Oocyst	Zero Oocysts/L	Not Applicable	0.004 Oocysts/L	0.093 Oocysts/L	TT	Zero Oocysts/L	✔
Turbidity *(cloudiness; indicates effectiveness of filtration and disinfection)*	Soil runoff	2018	0.002 NTU	0.02 NTU	Not Applicable	Not Applicable	0.16 NTU	1 NTU in all finished water samples, 95% of the finished water samples must be less than 0.3 NTU	Zero NTU	✔
				100% of samples taken in each month were less than 0.3 NTU						✔
C **Total Organic Carbon**	Naturally present in the environment	2018	1.0 PPM	Zero PPM	Not Applicable	0.6 PPM	1.3 PPM	TT	Not Applicable	✔
Total Coliform	Coliforms are bacteria that are normally present in the environment	2018	Not Applicable	Not Applicable	Not Applicable	Not Applicable	1 of 245 samples or 0.41% of samples taken in a month had detectable total coliform bacteria. No total coliform bacteria was detected in any repeat sample at any location.	Presence of coliform bacteria in 5.0% or more of samples in any month	0% of samples with detectable coliform bacteria	✔

SUBSTANCE	Source	Sample Year	Detection Limit	Range of Results***	Maximum LRAA	Maximum Contaminant Level *(MCL)* *Disinfection by-products are regulated based on the LRAA*	Maximum Contaminant Level Goal *(MCLG)*	
TTHM **Total Trihalomethanes**	By-product of chlorination	2018	0.50 PPB	11 - 62 PPB	50 PPB	80 PPB	Not Applicable	✔
HAA5 **Haloacetic Acids**	By-product of chlorination	2018	0.50 PPB	3.4 - 21.0 PPB	14.3 PPB	60 PPB	Not Applicable	✔

SUBSTANCE	Source	Sample Year	Detection Limit	90th Percentile	Number of Samples that Exceed Action Level	Maximum Detected	Action Level *(Compared to the concentration detected in the 90th percentile sample.)*	Maximum Contaminant Level Goal *(MCLG)*	
Pb **Lead** *See Common Concerns at far right.*	Corrosion of household plumbing	2018	1.0 PPB	1 PPB	Zero	3 PPB	15 PPB	Zero PPB	✔
Cu **Copper**	Corrosion of household plumbing	2018	0.01 PPM	0.25 PPM	Zero	0.36 PPM	1.3 PPM	Zero PPM	✔

Detected Contaminants

2018 COMPLIANCE MONITORING RESULTS (Albuquerque Water System, NM35-10701)

SUBSTANCE OR CONDITION	Source	Sample Year(s)	Detection Limit *Lowest amount that can be detected with available technology*	Minimum Detected	Average Detected System-wide	Average Detected at San Juan-Chama Drinking Water Plant	Maximum Detected	Maximum Contaminant Level *(MCL)*	Maximum Contaminant Level Goal *(MCLG)*	
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			0.03 PPM (surface water)	0.6 PPM	Not Applicable	1.4 PPM	1.9 PPM	4 PPM (MRDL)	4 PPM (MRDLG)	✔
			0.03 PPM (ground water)	TT met at 100% of sites				TT= Maintain required chlorine level or restore within 4 hours	Not Applicable	
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Cu **Copper**	Corrosion of household plumbing	2018	0.01 PPM	0.25 PPM	Zero	0.36 PPM	1.3 PPM	Zero PPM	✔

SAFE TO DRINK PER EPA

Detected Contaminants

2018 UNREGULATED CONTAMINANT MONITORING RESULTS**

SUBSTANCE	Sample Year	Minimum Reporting Level	Range of Results	Average of Results
Total HAA5	2018	0.2	1.6 - 17.0 ug/L	7.8 ug/L
Total HAA6Br	2018	0.2	2.4 - 17.0 ug/L	9.1 ug/L
Total HAA9	2018	0.2	3.1 - 27.0 ug/L	14.9 ug/L
Source Water TOC	2018	0.2-0.3	2.2 - 3.7 mg/L	2.9 mg/L
Source Water Bromide	2018	5	26.0 - 45.5 ug/L	35.0 ug/L

Compliance With Other Drinking Water Regulations

2 Is there arsenic in my drinking water?

All of Albuquerque's drinking water meets EPA standards for arsenic, which have become much more stringent since 2006. Allowable levels of arsenic are present in some locations, however, mainly due to the erosion of natural geologic deposits. EPA continues to research the health effects of low levels of arsenic, which is a metal known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

3 What if I am immuno-compromised?

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 guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

4 What about sodium?

Sodium levels for all Water Authority distribution zones range from 20 to 99 PPM. The system-wide average is 37 PPM. For more information, please visit the Water Authority website at abcwua.org and click on the Your Drinking Water tab on the home page.

DRINKING WATER CONTAMINANTS: WHAT EPA SAYS

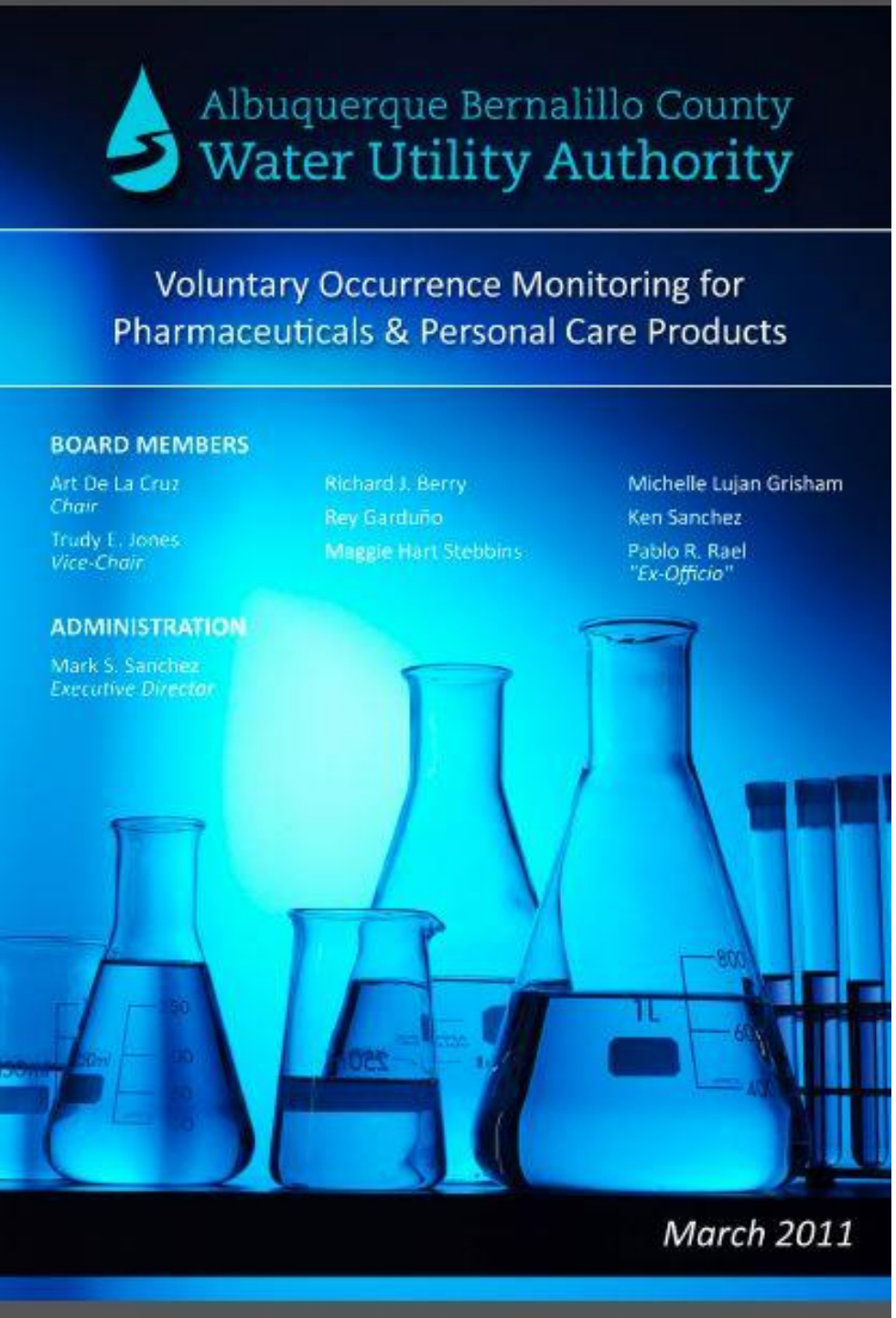
Required Educational Language

Optional Information

RESULTS OF 2018 CUSTOMER-REQUESTED TESTING (41 SAMPLES)

SUBSTANCE	Minimum	Maximum	90th Percentile	Action Level
Pb Lead	Zero PPB	12.3 PPB	0.8 PPB	15 PPB
Cu Copper	Zero PPM	0.4 PPM	0.2 PPM	1.3 PPM

Voluntary Lead Sampling Program Results



Pharmaceuticals and Personal Care Products (PPCPs)

- 2011 Report
  - Sampling 2009 – 2011
  - 113 PPCPs Tested
  - 5 Locations
  - Very Low Level Detections
    - Ibuprofen
    - Testosterone
    - Naproxen
    - Cholesterol