2019 Consumer Confidence Report - Improvement District A (ID A)

Water Quality Data for January through December 2018

Rincon Water is proud to present the 2019 Consumer Confidence Report on Water Quality (CCR). Rincon del Diablo Municipal Water District (Rincon Water) has been serving the community for over 65 years and is pleased to announce that your tap water continues to meet and exceed all federal and state drinking water standards as set by the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board Division of Drinking Water (SWRCB DDW).

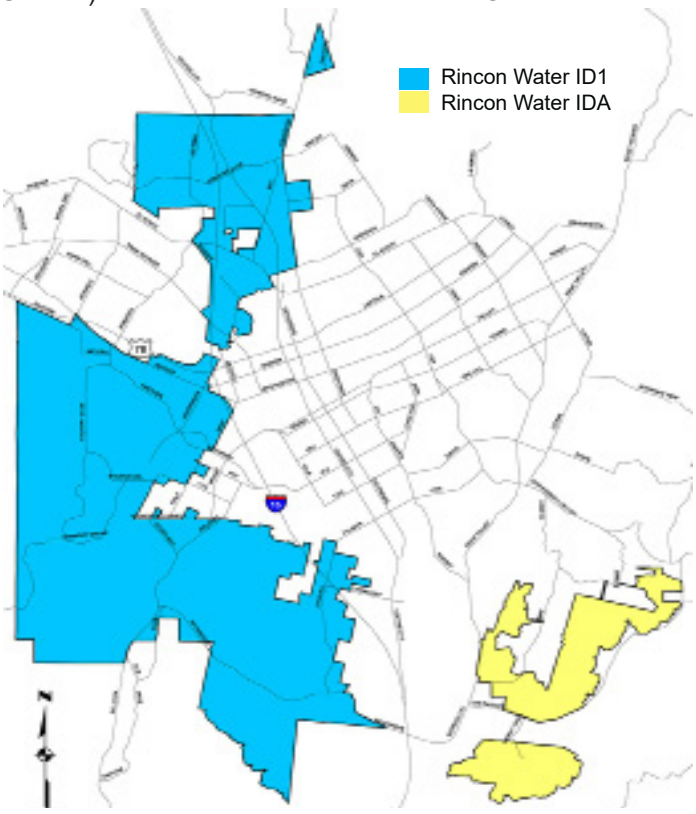

Figure 1 - Map of Rincon Water's Improvement District (ID) 1 & A.

Rincon Water has confidence in the quality of our water and we want to share that with you. This report contains important information about your water, where it comes from and its specific qualities. Rincon Water regularly tests your water to ensure compliance with federal and state guidelines. As a customer and consumer, you have the right - and should know, the consistency of your water. Please take a moment to read through this report.

As you know, California is typically challenged by drought. As such, Rincon Water plans both locally and regionally to ensure adequate water supplies for our customers while focusing on a reduced dependency on imported water. Through innovation, conservation, and education, Rincon Water is a leader of providing a safe, reliable water supply for generations to come.

We welcome your comments, questions, and participation. For more information about this report, or your water quality in general, please contact Clint Baze, Director of Engineering and Operations at (760) 745-5522. Public comments are also welcome at our monthly Board Meeting held every fourth Tuesday of the month at 6:00 pm at our District offices located at 1920 North Iris Lane, Escondido. Please visit www.rinconwater.org for more information.

1920 North Iris Lane, Escondido, CA 92026
760-745-5522 www.rinconwater.org

This report is required under the Federal Safe Drinking Water Act and provides information on:

¿Necesita Ayuda? Este informe contiene informacion muy importante sobre su agua potable. Treduzcalo o hable con alguien que lo entienda bien. Si tiene preguntas favor de llamar al numero: (760) 745-5522.

Where your Water Comes From

Improvement District A (ID A)

(Accounts beginning with: 75 - 88, 92, and 95)

Rincon water serves two geographic areas, both of which contain its own water system originating from a different source of water. These areas are known as ID 1 and ID A. In most cases, you can determine which is your geographic area by using the first two digits of your account number and/or refering to Figure 1 on Page 1.

Rincon Water purchases ID A's water from the City of Escondido (City). This supplier has two sources of water. The first source is purchased from the San Diego County Water Authority, which primarily purchases water from the Metropolitan Water District of Southern California (MWD). MWD imports water from two sources: a 242 mile-long aqueduct which transports Colorado River water from Lake Havasu and a 444 mile-long aqueduct that transports water from the Sacramento-San Joaquin Delta in Northern California. The second City source is local water which originates from Lake Henshaw in the San Luis Rey River Watershed. Both sources of water are blended and treated at the Lake Dixon Water Treatment Plant before being delivered to you.

Water Treatment

Surface water from sources such as rivers or open reservoirs often contains dirt and other organic and inorganic matter, as well as trace amounts of certain contaminants. Upon arriving at the treatment plant, water is analyzed and treated, resulting in drinking water that is completely safe for human consumption. The most common steps in water treatment include coagulation and flocculation, sedimentation, filtration, and disinfection.

Disinfection, the final step in water treatment, deactivates and destroys pathogenic microorganisms and/or microbiological contaminants which may be present in the source water. Disinfection is accomplished primarily by the addition of chemical disinfectants to the water. All disinfectants have benefits and drawbacks. Chlorine is the most widely used disinfectant since it is readily available and relatively inexpensive. Moreover, it contributes to the reliability of drinking water produced from surface water. The EPA establishes standards for water treatment and disinfection by-products, or secondary products resulting from this disinfection action, in order to safeguard public health. Our wholesalers have identified the following disinfection byproducts, residuals, and precursors resulting from the water treatment process:

Parameter [a]	Scale	State MCL MRDL	State PHG MRDLG	DLR	*Rincon Water System* Range	*Rincon Water System* Average	Source (See Page 6 for Key)
Total Trihalomethanes [d]	ug/L	80	NA	-	28 - 52	40	1, 2
Highest LRAA						61	
Haloacetic Acids [e]	ug/L	60	NA	-	6.3 - 20.0	13.2	1, 2
Highest LRAA						23.0	
Total Chlorine Residual	mg/L	4	4	-	1.98 - 2.80	2.40	3
Testing performed at treatment plant effluent:					*Escondido* Range	*Escondido* Average	Source
Chlorite	mg/L	1	0.05	0.02	0.11 - 0.21	0.13	1
Chlorate	ug/L	NL=800	NA	2	310 - 440	380	1

Note: MRDL and MRDLG parameters appear in corresponding red print in all tables.

Water and Health

Elementary chemistry tells us that water in itself is a chemical (H_2O). But, water also needs chemistry for human use and consumption. Between natural and manmade processes potable water contains impurities. Because drinking water is essential for good health, we want our customers to be aware of how we are providing safe, reliable, and high-quality water. Federal and State regulations require that we publish our annual testing results to ensure you that we are meeting these high standards.

In reality however, all drinking water may be reasonably expected to contain small amounts of some contaminants. The presence of these contaminants does not necessarily pose a heath risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline at 1-800-426-4791**.

Drinking Water and Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons 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 from their health care providers about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium or other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Contaminants in the News

As testing becomes more precise and health implications refined, a particular contaminant may receive media attention. Those contaminants are typically identified as having potential significant impact on your health and/or the environment. Over the years, perchlorate, radionuclides, MTBE, and arsenic have been on that list. The table below shows results for contaminants that were detected. All levels of these constituents were within EPA and State limitations:

Parameter [a]	Scale	State MCL MRDL	State PHG MCLG	DLR	*Escondido* Range	*Escondido* Average	Source See Page 6 for Key
Gross Alpha Activity	pCi/L	15	0	3	ND - 7.8	3.8	5
Gross Beta Activity	pCi/L	50	0	4	ND - 6.91	ND	5
Uranium	pCi/L	20	0.43	1	2.4 - 2.4	2.4	5

Lead and Copper

One particular contaminant often featured in the news is lead. Along with copper, both metals can enter drinking water when private residential and commercial plumbing systems containing these metals begin to corrode.

As required by the State Water Resources Control Board (SWRCB) Division of Drinking Water, and as a proactive measure aimed at safety, Rincon Water provided free water testing in 2016 to detect the presence of lead for the schools within its service area. Although California's drinking water is generally at a low risk for lead contamination, lead can sometimes be found in some individual, privately owned plumbing systems, where pipes may have been joined with lead solder - before this practice was banned by the Federal Safe Water Drinking Act in 1986. (The use of copper is still applicable in current building and plumbing codes.)

Working with the school districts, Rincon Water tested the water in 2016 for lead at four Escondido school campuses which included North Broadway, Miller, and Bernardo elementary schools, as well as the Calvin Christian Schools, over the course of a month. The water was tested at five points within each site, including drinking fountains and food service fixtures. The tests, paid for by Rincon Water, covered the costs of collecting samples, conducting analysis, and reporting the results to the State of California as well as to the schools. No lead was detected at the school sites. In addition, the table below shows 2016 test results for water samples collected from 11 residenital plumbing systems located on Rincon Water's ID A distribution system.

Parameter [a]	Scale	State MCL MRDL	State PHG MRDLG	DLR	*Rincon Water System (2016)* 90th Percentile of 11 Samples	*Rincon Water System (2016)* # of Sites > AL	Source See Page 6 for Key
Lead [f]	ug/L	AL=15	0.20	5	14	1	5, 10
Copper [f] [g]	mg/L	AL=1.3	0.30	0.05	.32	0	5, 10

Other Water Contaminants

A contaminant is any impurity found in source water. These impurities may be physical, chemical, biological or radiological substances or matter. Drinking water may reasonably be expected to contain small amounts of some contaminants. Some contaminants pose no heath risks while others may be harmful if consumed above certain levels. The sources of contaminants range from being naturally present in the environment to those introduced by land users and/or industrial waste discharges into our water supply system. There are five primary categories of contaminants listed in the chart below.

- **Clarity,** or the lack thereof, does not necessarily represent contaminants with direct health risks. There is however, a relationship between clarity and the ability of chlorine to work effectively during the disinfection process. Water with poor clarity can hide or mask those contaminants which can be harmful to your health.
- **Microbiological** contaminants, when ingested at certain levels, may cause gastrointestinal health-related problems.
- **Primary Inorganic** contaminants, when present at excessive levels, may have adverse effect on human health.
- **Secondary Inorganic** contaminants can make the taste or appearance of water less appealing.
- **Unregulated** contaminants have no established parameters at this time.

Water treatment processes remove contaminants from your water and can be quite costly to operate when specific contaminants are present. It is less expensive to protect water at the source, which is why Rincon Water supports watershed protection programs. The following contaminants were identified in your drinking water and were within EPA and State limitations:

Parameter [a]	Scale	State MCL MRDL	State PHG MRDLG	DLR	*Escondido* Range	*Escondido* Average	Source See Page 6 for Key
Clarity [b]							
Turbidity	NTU	TT=1	NA	-	0.04 - 0.12	0.06	4,15
	%	95%(<0.3)			Highest NTU = 0.12 %(<0.3NTU) = 100%		
Microbiological [c,d]							
Total Coliform Bacteria [1] Effluent	%	5	0	-	0.00 - 2.96	0.84	4
Total Coliform Bacteria [1] Testing performed in Rincon Water system					0.00 - 0.00	0.00	
Primary Inorganic							
Fluoride	mg/L	2	1	0.1	0.69 - 0.83	0.76	5, 17
Secondary Inorganic							
Chloride	mg/L	500	NA	-	66- 97	87	5, 9
Color	units	15	NA	-	1 - 1	1	5, 10
Odor	units	3	NA	-	ND -1	ND	4
Specific Conductance	umho/cm	1600	NA	-	571 - 969	803	5, 6
Sulfate	mg/L	500	NA	0.5	94 - 190	159	4, 5
Total Dissolved Solids	mg/L	1000	NA	-	310 - 700	494	5
Unregulated							
Bicarbonate	mg/L	NA	NA	-	100 - 140	125	5
Boron	mg/L	NL=1	NA	0.1	0.11 - 0.13	0.13	5, 6
Bromochloromethane	ug/L	NA	NA	0.06	ND - 0.06	0.06	20, 21
Calcium	mg/L	NA	NA	-	33 - 63	50	5
Corrovosity	SL	non-corrosive	NA	-	0.22 - 0.44	0.21	5, 6
Hardness	mg/L	NA	NA	-	140 - 250	203	5
HPC	CFU/ml	NA	NA	-	<1 - 99	0.22	4
Magnesium	mg/L	NA	NA	-	13 - 22	19	5
Molylodenum	ug/L	NA	NA	1	2.7 - 4.1	3.5	21
pH	units	NA	NA	-	7.8 - 8.0	7.9	9, 11
Potassium	mg/L	NA	NA	-	3.1 - 4.5	4.0	5
Silica	mg/L	NA	NA	-	7.2 - 8.8	7.8	5
Sodium	mg/L	NA	NA	-	56 - 86	76	5
Strontium	ug/L	NA	NA	0.3	440 - 830	708	21
Total Alkalinity	mg/L	NA	NA	-	83 - 120	106	5
Total Organic Carbon	mg/L	TT	NA	0.3	1.7 - 2.3	2.0	12
Vanadium	ug/L	NL=50	NA	0.2	ND - 0.29	ND	21

(1) This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2017. All water systems are required to comply with the state Total Coliform Rule. Beginning April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The US EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurences are required to conduct an assessment to determine if any sanitary defect exists. If found, these must be corrected by the water system.

Unregulated Contaminant Monitoring Rule 3

The Unregulated Contaminant Monitoring Rule 3, an amendment to the 1996 Safe Drinking Water Act, requires that once every five years, the Environmental Protection Agency issues a new list of no more than 30 unregulated contaminants to be monitored by public water systems. This monitoring is to serve as a basis for future potential regulatory actions to protect public health.

In compliance with Monitoring Rule 3, sampling is conducted on a quarterly basis within a single year, during the five year cycle established by the EPA. The EPA requires that Monitoring Rule 3 contaminants, at or above the Detection Limit Reporting level (DLR), be listed in a table for reporting purposes. The DLRs in this table are not indicative of any known health concerns. The results for the current five year cycle for ID A are displayed in the table below.

	Scale	DLR	Quarter 1	Quarter 2	Quarter 3	Quarter 4
ID A - Sample Point: EP001			3/12/14	6/11/14	9/17/14 - 11/19/14	12/8/14
Chlorate	ug/L	20.0	39.0	192.0	64.7	58.2
Hexavalent Chromium	ug/L	0.030	0.036	0.030	0.057	ND
Molybdenum	ug/L	1.0	3.40	3.72	3.46	4.16
Strantium	ug/L	.30	770	833	717	1100
Vanadium	ug/L	0.20	ND	0.224	0.247	ND
ID A - Sample Point: MR001						
Chlorate	ug/L	20.0	31.0	210.0	257.0	53.8
Hexavalent Chromium	ug/L	0.030	0.038	0.033	0.054	ND
Molybdenum	ug/L	1.0	3.60	3.71	3.38	4.31
Strantium	ug/L	.30	790	831	711	1140
Vanadium	ug/L	0.20	ND	0.210	0.254	ND

Protecting Water Quality at the Source

Source water protection is an important issue for all of California. Large water utilities are required by the State Water Resources Control Board - Division of Drinking Water, to conduct an initial source water assessment, which is then updated through watershed sanitary surveys every five years. Watershed sanitary surveys examine possible sources of drinking water contamination and recommend actions to better protect these source waters. The most recent surveys for Metropolitan's source waters are the Colorado River Watershed Sanitary Survey – 2015 Update and the State Water Project Watershed Sanitary Survey – 2011 Update. The City of Escondido's Sanitary Survey was updated in 2012.

Source waters supplied by Metropolitan — the Colorado River and State Water Project — each have different water quality challenges. Both are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires, and other watershed-related factors that could affect water quality. Treatment to remove specific contaminants can be more expensive than measures to protect water at the source, which is why Metropolitan and other water agencies invest resources to support improved watershed protection programs. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwaterrunoff, increased urbanization in the watershed, and wastewater. Water supplies from Northern California are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

A copy of the **California State Water Watershed Sanitary Survey** can be accessed by calling the **Water Resources Control Board - Division of Drinking Water at 1-619-525-4159.** A copy of the **Colorado River Sanitary Survey** can be accessed by calling the **Metropolitan Water District of Southern California's Water Hotline at 1-800-354-4420**.

The City of Escondido's Sanitary Survey idenitifies a number of activities that have the potential to adversely affect the water quality within its watersheds including residential septic facilities, urban runoff, and agricultural and recreational activities, however no contaminants from these activities were detected in the local water supply. A copy of the City of Escondido's Sanitary Survey can be accessed at **https://www.escondido.org/Data/Sites/1/media/PDFs/Utilities/WatershedSanitarySurveyUpdate.pdf.**

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Abbreviations Key

AL	**Regulatory Action Level:** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
CFU	**Colony-Forming Units**
DLR	**Detection Limit for Reporting:** A detected contaminant is any contaminant detected at or above its detection level for purposes of reporting.
DSYS	**Distribution System**
LRAA	**Locational Running Annual Average**
MCL	**Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to PHGs, MRDLGs, and maximum contaminant level goals as economically or technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
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 are set by the United States Environmental Protection Agency (USEPA).
mg/L	**Milligrams Per Liter:** Parts per million (ppm). This is equivalent to one packet of artificial sweetener added to 250 gallons of iced tea.
NA	**Not Applicable**
ND	**None Detected:** Parameters for detection limits available upon request.
ng/L	**Nanograms Per Liter:** Parts per trillion (ppt). This is eqivalent to one drop of water in 500,000 barrels of water.
NL	**Notification Level**
NS	**No Standard**
MRDL	**Maximum Residual Disinfectant Level:** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
MRDLG	**Maximum Residual Disinfectant Level Goal:** The level of a disinfectant added for water treatment below which there is not known or expected risk to health. MRDLs are set by the USEPA.
NTU	**Nephelometric Turbidity Units:** A measure of the cloudiness in water. It is a good indicator of effectiveness of the WTP and DSYS.
pCi/L	**PicoCuries Per Liter:** A measure of radioactivity.
PHG	Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
SI	**Saturation Index** (langelier)
SS	**Single Sample**
TON	**Threshold Odor Number**
TT	**Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.
ug/L	**Micrograms Per Liter:** Parts per billion (ppb). This is equivalent to one packet of artificial sweetener added to

Source Key

1. By-product of drinking water chlorination **2.** Sampled quarterly **3.** Addition of chlorine & ammonia as combined disinfectant, chloramine **4.** Naturally present in the environment **5.** Erosion/ leaching of natural deposits **6.** Industrial waste discharge **7.** Runoff/leaching from fertilizer use **8.** Septic tank and sewage **9.** Seawater influence **10.** Corrosion of household plumbing systems **11.** Substances that form ions when in water **12.** Various natural and man-made sources **13.** Gasoline discharge from boats **14.** Decay of natural and man-made deposits **15.** Soil runoff **16.** By- product of drinking water ozonation **17.** Water additive that promotes strong teeth **18.** Discharge from pharmaceutical and chemical factories **19**. Used as a gasoline additive **20.** Volatile organic compound **21**. List 1 contaminant sampled in 2013.

Foot Notes

(a) Data shown are annual averages and ranges. **(b) Tests are performed on drinking water turbidity** (clarity) at the Water Treatment Plant and in the distribution system. The turbidity tests are done continuously at the WTP. In addition, samples are taken each week at various points in the distribution system. This table reflects the clarity or turbidity produced at the WTP and in the distribution system. **(c) Total coliform MCLs -** No more than 5% of the monthly samples may be total coliform positive. **(d) Calculated** from the average of quarterly samples. **(e) Calculated** from the average of quarterly samples. **(f) This table shows the levels of copper and lead** found in the homes of selected customers. 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. Rincon Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in private 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. If you are concerned about lead in your 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 or at **http://www.epa.gov/safewater/lead**. **(g) The Federal and State standards** for lead and copper are treatment techniques requiring agencies to optimize corrosion control treatment. Average of the highest value is the 90th percentile value. **(h) Standards** are for Radium-226 and Radium-228 combined.

NOTICE

Sources of drinking water (both tap 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 human activity. The following contaminants may be present in source water:

Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
Inorganic contaminants, such as salts and metals that 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, which may come from a variety of sources like agriculture, urban stormwater runoff, and residential uses.
Organic chemical contaminants, including synthetic and volatile organic chemicals, that 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 can be naturally occurring or the result of oil and gas production and mining activities.

About Cryptosporidium

Cryptosporidium ("crypto") is a microscopic organism found in rivers and streams and comes from animal waste in the watershed. When ingested by humans, it may result in a variety of gastrointestinal symptoms including diarrhea, nausea, and fever. The Metropolitan Water District of Southern California and the City of Escondido have tested for crypto in their treated water supplies for years. In 2017, this organism was not detected in either source water.