



Drinking Water Report 2012



Rincon del Diablo Municipal Water District (Rincon Water) is pleased to present this year's water quality report. Rincon Water regularly tests your water to ensure compliance with federal and state guidelines. The results for 2012 demonstrate the continued success of these efforts. Of the 120 contaminants tested, all met each standard.

Water is an integral component of physiology and sound health. It makes sense that water quality is just as important as water quantity. When it comes to quantity, will there be enough to sustain us in the future? Yes, but it's more important, now than ever, to continue diversifying the sources of our water supplies. As such, through regional and local planning, we anticipate the development and use of desalinated water, groundwater, and other practical alternatives to ensure a safe and reliable supply for our future.

As in years past, we continue to see the price of potable water increase. This trend is expected to continue in order to meet the demands of San Diego County. We can minimize the financial impact on our pocketbooks by changing our water use habits. In San Diego County, most of our daily water use is for the purpose of outdoor irrigation. Clearly, this is where we must continue to focus our attention. If you have not already done so, we encourage you to take advantage of our Residential Survey Program. We have the experts to help you increase the efficiency of your outdoor water use. It saves us water and saves you money!

Rincon Water has confidence in the quality of our water and we want to share that with you. This report contains important information, and we hope you take a moment to read through it. Please contact us if you have any questions or comments.

Rincon Water

¿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.

Board of Directors

Dr. Gregory Quist
President

David Drake
Vice President

Diana Towne
Treasurer

David Draper
Director

James Murtland
Director

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

Where Your Water Comes From	2
Water Treatment	2
Water and Health	3
Water Contaminants.	4
Contaminants in the News.	5
About Our Watersheds	5
Abbreviations, Foot Notes, and Source Keys	6

If you need assistance with the information contained in this report, please call Clint Baze, Director of Operations at (760) 745-5522.

SHARE YOUR COMMENTS

Please let us know what you think about your water and/or this report:
1920 North Iris Lane, Escondido, CA 92026
760-745-5522 www.rinconwater.org

Where Your Water Comes From

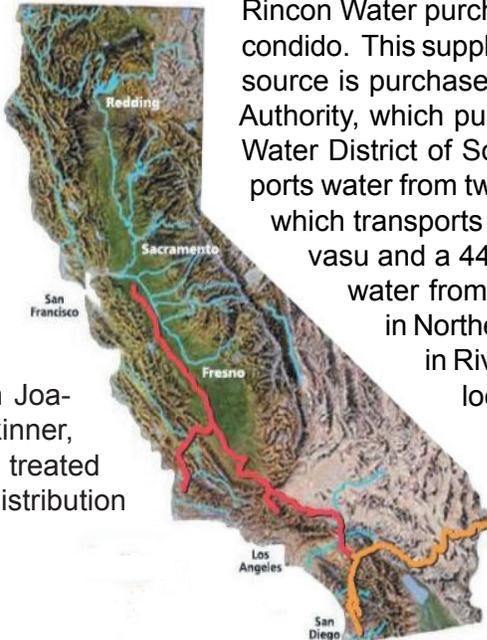
Southern California has always been subject to water shortages. Years of drought in northern California and the Colorado River watersheds, environmental issues, infrastructure challenges, and water rights continue to affect the reliability of potable water in San Diego County. With the rising cost of importing water along with the uncertainty of meeting future water demands, we are looking toward desalinated and groundwater, and increased use of recycled water in the near future in order to reduce our dependency on imported water.

Due to geographical placement, Rincon Water currently has two sources of potable water that are provided to our customers. These sources are delineated by Improvement District 1 (ID1) and Improvement District A (IDA). In most cases, you can determine which is your source water by using the first two digits of your account number.

ID 1
Accounts beginning with:
01 - 48, 94, 96, and 97

IDA
Accounts beginning with:
75 - 85, 92, and 95

As a desert, San Diego County has very few local sources of potable water. In order to meet the needs of the people within the service area, Rincon Water purchases your water from the San Diego County Water Authority, which 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 to Lake Skinner, located in Riverside County. The water is treated at Lake Skinner before delivery into our distribution system.



Rincon Water purchases your water from the City of Escondido. This supplier has two sources of water. The first source is purchased from the San Diego County Water Authority, which 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 to Lake Skinner, located in Riverside County. The second 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 Lake Wohlford.

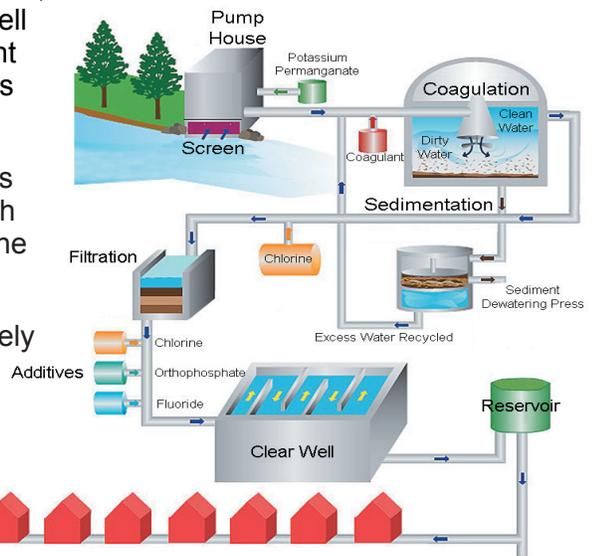
■ California Aqueduct
■ Colorado River Aqueduct

Water Treatment

When our water suppliers take untreated water from a river or open reservoir, it often contains dirt, tiny pieces of leaves, and other organic matter, as well as trace amounts of certain contaminants. When it gets to the treatment plant, the water is analyzed and treated, resulting in drinking water that is safe for human consumption.

This process includes disinfection which deactivates and destroys pathogenic microorganisms and/or microbiological contaminants which may be present in the source water. Disinfection is accomplished 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, such as the Colorado River, the Sacramento Bay Delta, and Lake Henshaw.



Disinfection Byproducts, Residuals, and Precursors

The EPA establishes standards for water treatment and disinfection by-products in order to safeguard public health. As such, the following constituents were identified in your drinking water resulting from the water treatment process:

Parameter ^(a)	Scale	State			ID 1		ID A		Source
		MCL MRDL	PHG MCLG	DLR	Range	Average	Range	Average	
Total Trihalomethanes ^(d)	ug/L	80	NA	1	7.6-70.0	35	40.0-51.0	46.0	1, 2
Running Annual Average					10.6-22.0	16.3	43.0-45.0	44.0	
Highest Running Average						15.8		44.0	
Haloacetic Acids ^(e)				1	1.3-23	16.0	14.0-29.0	20.0	1, 2
Running Annual Average	ug/L	60	NA		2.3-6.7	4.5	14.0-15.0	14.5	
Highest Running Average						4.8		14.5	
Total Chlorine Residual	mg/L	4	4	NA	0.91-2.35	1.63	0.1-3.2	2.5	
Running Annual Average					1.17-1.49	1.33	2.4-2.5	2.4	
Highest Running Average						1.30		2.5	
Bromate	ug/L	10	0.1	1	1.2-11.0	6.5	ND	ND	
Chlorite	mg/L	1	0.8	-	ND	ND	0.34-0.71	0.54	1
Chlorate	ug/L	NL=800	ND	20	50-50	50	110-320	190	1

All levels of these constituents were within the EPA and State limitations.

Water and Health

In elementary school, we learned that each molecule of water is made up of two hydrogen atoms and one oxygen atom. After reading this report, you will know that potable water is about much more than three atoms. 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 governments require that we publish our annual testing results to ensure you that we are meeting 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 health 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.

Pharmaceuticals in the Water

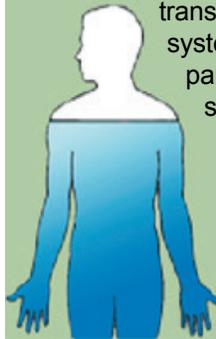
During the mid 1980s, the alarm was sounded on pharmaceuticals found in source water. Aspirin, caffeine, nicotine, by-products of soaps, shampoos and other personal care products, hormones, and medications were showing up in rivers downstream from waste water treatment plants.

With the use of highly sophisticated equipment, these contaminants were detected at very low levels (parts per trillion). These levels were well below prescription dosages. Drinking water treatment plants can remove many of these chemicals, but the technologies to effectively monitor and treat them are not common.

Prevention is simply the best strategy for minimizing contamination. The overuse or misuse of drugs is a threat to our water. Please return unused medications to pharmacies, instead of dumping them down the drain. As we develop new treatments to protect our water, your actions today will ultimately protect you and your family tomorrow.

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



Water Contaminants

A contaminant is any impurity found in source water. The sources of these contaminants range from being naturally present in the environment to those introduced by land users and/or industrial waste discharges. There are five 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 are contaminants which have no established parameters at this time.

The water treatment process removes contaminants from your water and can be quite costly when specific contaminants are present. It is much less expensive to protect water at the source, which is why Rincon Water supports improved watershed protection programs. The following contaminants were identified in your drinking water:

Parameter ^(a)	Scale	State			ID 1		ID A		Source
		MCL MRDL	PHG MCLG	DLR	Range	Average	Range	Average	
Clarity ^(b)									
Turbidity	NTU	5	NA	0.1	ND-0.1	ND	0.08-0.16	0.11	15
Microbiological ^{(c) (d)}									
Total Coliform Bacteria	%	5	0	-	ND-0.5	0.1	0.0-1.60	.34	4
Primary Inorganic									
Fluoride	mg/L	2	1	0.1	0.7-0.9	0.8	0.58-0.84	0.76	5, 6
Secondary Inorganic									
Chloride	mg/L	500	NS	NS	75-77	76	45-70	60	5, 9
Color	units	14	NS	NS	1-1	1	1-2	1	5, 10
Corrosivity	sl		NS	-	Non-corrosive	Non-Corrosive	-0.7-0.96	0.36	
Foaming Agents (MBAS)	ug/L	500	NS	-	ND	ND	ND-60	ND	6
pH	units	6.5-8.5	NS	NA	8.1-8.5	8.3	7.9-8.2	8.1	
Specific Conductance	umho/cm	1600	NS	NA	440-780	640	530-730	645	9, 11
Sulfate	mg/L	500	NS	0.5	96-120	110	76-120	101	5, 6
Total Dissolved Solids	mg/L	1000	NS	NS	360-400	380	290-380	345	5, 9
Unregulated									
Bicarbonate	mg/L	NS	NS	-	ND	ND	100-130	116	5
Boron	mg/L	NL=1	NS	100	130-130	130	110-120	120	5, 9
Calcium	mg/L	NS	NS	NS	34-41	38	34-42	37	5
Hardness	mg/L	NS	NS	NS	120-220	170	130-170	148	5
HPC	ug/L	TT	NS	NS	ND-1	ND	<1-1	0.04	
Magnesium	mg/L	NS	NS	NS	15-17	16	12-16	14	5
N- Nitrosodimethylamine	ug/L	NS	NS	.002	ND-2.8	1.4	ND	ND	
Odor Threshold	TON	3	NS	1	1-2	2	ND	ND	4
Potassium	mg/L	NS	NS	NS	3.4-3.6	3.5	3.3-3.9	3.5	5
Silica	mg/L	NS	NS	-	ND	ND	7.3-9.4	8.1	
Sodium	mg/L	NS	NS	NS	65-66	66	56-74	63	5
Total Alkalinity	mg/L	NS	NS	NS	75-110	93	84-100	94	5
Total Organic Carbon	mg/L	TT	NS	0.3	1.8-2.3	2.1	1.9-3.7	2.6	12

All levels of these constituents were within the EPA and State limitations.

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, lead, copper, radionuclides, MTBE, and arsenic were on that list. For your assurance, those contaminants are listed below.

Parameter ^(a)	Scale	State			ID 1		ID A		Source
		MCL MRDL	PHG MCLG	DLR	Range	Average	Range	Average	
Arsenic	ug/L	10	.004	1	ND	ND	ND	ND	
MTBE	ug/L	5	13	3	ND	ND	ND	ND	
Perchlorate	ug/L	6	6	4	ND	ND	ND	ND	13
Gross Alpha Activity	pCi/L	15	0	3	ND-3.0	ND	ND	ND	6
Gross Beta Activity	pCi/L	50	0	4	ND-5.0	ND	ND	ND	5
Combined Radium ^(h)	pCi/L	5	0	-	ND	ND	ND	ND	14
Uranium	pCi/L	20	0.43	1	ND-2.0	1.0	ND	ND	5
					99 th Percentile of 34 Samples	# of Sites > AL	99 th Percentile of 66 Samples	# of Sites > AL	
Copper ^{(f)(g)}	mg/L	AL=1.3	0.17	0.05	0.3-0.67	0	.31	0	5, 10
Lead ^(f)	ug/L	AL=15	2	5	<5	0	<5	0	5, 10

All levels of these constituents were within the EPA and State limitations.

About Our Watersheds

A watershed is an area of land that water flows through as it moves toward a common body of water, such as a stream, river, lake, or coast. Although San Diego County contains twelve, these watersheds provide very little drinking water for the people that live here.

Within a watershed, there are fish, birds, reptiles, mammals, and people that are dependant upon the water flow. As such, a “drought” can be a combination of climatic, ecological, economical, and judicial issues that can occur at any given time.

ID 1 - In 2012, the Metropolitan Water District of Southern California updated its source water assessment of its Colorado River and State Water Project supplies. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater while water supplies from northern California are most vulnerable to contamination due to urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater impacts.

ID A - In 2011, the City of Escondido updated their *Sanitary Survey* of the local watershed. While the survey identifies a number of activities that have the potential to adversely affect the water quality, including residential septic facilities, urban runoff, and agricultural and recreational activities, no contaminants from these activities were detected in the local water supply.

A copy of either source water assesement is avaiable by calling Julia Escamilla at Rincon Water at 760-745-5522 X503.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 about its detection level for purposes of reporting.
DSYS	Distribution System
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.
NL	Notification Level
NS	No Standard
MRDL	Maximum Residual Disinfectant Limit: The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
MRDLG	Maximum Residual Disinfectant 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)
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 an Olympic size swimming pool.
umho/cm	Micromhos Per Centimeter: A measure of a substance's ability to convey electricity.
WTP	Water Treatment Plant

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



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. These MCLs were not violated in 2012. (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 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 (MWD) has tested for crypto in its treated water supplies for years. In 2010, this organism was not detected in MWD's source water.

