

In 2001, Running Springs Water District completed a source water assessment to determine the contamination vulnerabilities of Running Springs Water District's water resources. Our sources are considered vulnerable to contamination from historic dumps/landfills, sewer collection systems, high density housing, storm drain discharges, utility maintenance areas and illegal and/or unauthorized dumping. You may request a copy of the assessment by contacting the California State Water Resources Control Board, Division of Drinking Water at (909) 383-4320 or the Running Springs Water District at (909) 867-2766.

Source No.	Source ID	Most Vulnerable Activities (PCA)	Chemical Detected
8	Horizontal Well 041I	Historic waste dumps/landfills	None
9	Horizontal Well 041J	Historic waste dumps/landfills	None
11	Luring Canyon Vertical Well	Housing-high density	Arsenic
		Sewer Collection System	None
16	Sidewinder Canyon Vertical 05	Wells-Water Supply	None
17	Sidewinder Vertical Well 01A	Wells-Water Supply	None
18	Sidewinder Vertical Well 03	Wells-Water Supply	None
	Weiss Canyon Vertical	Sewer Collections Systems	None
22	Rimwood Vertical Well #2 Well	Wells-Water Supply	None
28	Horizontal Well 86-7-13H	Sewer Collections Systems	None
29	Horizontal Well 04D	Sewer Collections Systems	None
31	Owl Rock Vertical Well	Illegal activities/unauthorized dumping	None
33	Horizontal Well 96-6-16H	Sewer Collections Systems	None
		Historic waste dumps/landfills	None
34	Luring Pines Well	Housing-high density	Nitrate
		Sewer Collections Systems	Nitrate
		Storm Drain Discharge Points	None
50	Ayers Well 2	Sewer Collections System	None
101	District Complex Vertical Well	Sewer Collections Systems	None
		Utility stations-maintenance areas	None
103	Horizontal Well 98-9-17H	Wells-Water Supply	None
104	Horizontal Well 98-9-18H	Historic waste dumps/landfills	None
105	Harris Vertical Well	Sewer Collections Systems	None

- ppm - Parts per million
- ppb - Parts per billion
- mg/L - Milligrams per liter = ppm
- ug/L - Microgram per liter = ppb
- pCi/l - picoCuries per liter is a measure of the radioactivity in water.
- NTU - Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is a measure of the cloudiness of water. We monitor turbidity because it is a good indicator of water quality. High Turbidity can hinder the effectiveness of disinfectants.
- TDS - Total Dissolved Solids
- MCL - Maximum Contaminant Level is the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as economically and technologically feasible. Secondary taste and appearance of drinking water.
- MCLG - Maximum Contaminant Level Goal is 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.
- PDWS - Primary Drinking Water Standard: MCL's for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- 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.
- Range - Lowest to Highest
- N/S - No Standard
- ND - Non-Detect
- Micromos - One Millionth of OHM.

RUNNING SPRINGS WATER DISTRICT
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RUNNING SPRINGS WATER DISTRICT

2018 Annual Water Quality Report



Running Springs Water District

2018 Annual Drinking Water Consumer Confidence Report (CCR)

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien

Board of Directors – Mark Acciani, Bill Conrad, Anthony Grabow, Errol Mackzum, Michael Terry

Public Water System ID#: 3610062

In 2018, the Running Springs Water District (District) replaced all of its customer's aging water meters with new automatic meter reading (AMR) technology. The AMR project will improve water use efficiency, leak detection and eliminate the need for estimated snow billing. The District received funding for the AMR project from the State Water Resources Control Board Clean Water State Revolving Fund Green Project Reserve that includes 50% principle forgiveness which is essentially equivalent to a \$400,000 grant.

The District Customers are encouraged to continue to voluntarily limit outdoor irrigation of ornamental landscapes or turf with potable water to two or three days per week. Please visit the Running Springs Water District website at: <http://www.runningspringswaterdistrict.com/> for additional water conservation information.



We are pleased to present the District's Annual Water Quality Consumer Confidence Report (CCR) for calendar year 2018. This Report is designed to provide information regarding the quality of water we deliver to you every day. Our goal is, and always has been, to provide a safe and dependable supply of drinking water.

Your water primarily comes from groundwater wells located throughout the Running Springs Water District. Other sources include imported State Water Project water purchased from the Crestline-Lake Arrowhead Water Agency (CLAWA) and groundwater purchased from Arrowbear Park County Water District (ABPCWD).

Running Springs Water District, CLAWA and ABPCWD routinely monitor for contaminants in your drinking water according to Federal and State laws. The State allows us to monitor some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. The tables in this report illustrate the results of our monitoring from January 1 to December 31, 2018. We are presenting the water quality report data and tables from our purchased water suppliers, CLAWA and ABPCWD, in essentially the same format that they were provided to us.

If you have any questions about this report, please contact the District, Safety Compliance Operator at (909) 867-2766. We want our valued customers to be informed about their water utility. If you would like to learn more, please attend any of our regularly scheduled Board Meetings which are held on the 3rd Wednesday of each month at 9:00am in the District's Board room located at 31242 Hilltop Blvd., Running Springs, CA 92382.

The District's Board of Directors and Staff strive to meet your service needs. We are always interested in your comments and suggestions and ask that all of our customers help us protect our water resources. If you have suggestions to help us improve our service or would like more information, please contact us at (909) 867-2766 or visit our website at <http://www.runningspringswd.com>.

Running Springs Water District / 2018 Water Quality Report

Contaminants	MCL	PHG (MCLG)	Average Level	Range of Detection	Sample Dates	Violation Yes/No	Typical Source of Contamination
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PRIMARY STANDARDS***

Turbidity* (NTU)	5	NS	.21	ND-0.21	2016-2018	No	Soil Runoff
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Disinfection Byproducts****

Total Trihalomethanes (TTHM) (ppb)	HAAS (ppb)	Halocetic Acids
80	60	NS
20.12	2.52	NS
17.7-25.1	1.6-2.8	2018

Inorganics

Fluoride (ppm)***	2	1	0.04	ND-1.4	2016-2018	No	Erosion of natural deposits, water additive to promote strong teeth.
Nitrate (as NO3) (ppm) Monitored Yearly	45	45	1.5	ND-1.5	2018	No	Runoff/leaching from septic tanks, sewage and fertilizer use. Leaching from runoff/leaching from erosion of natural deposits.
Arsenic (ppm)	10	4	1.06	ND-9.6	2016-2018	No	Erosion of natural deposits, runoff from orchards, glass, and electronics production waste.

RADIOLOGICAL CONTAMINANTS**

Gross Alpha Activity (pCi/L)	15	N/S	3.51	ND-13.25	2017-2018	No	Erosion of natural deposits.
Uranium (pCi/L)	20	N/S	4.14	ND-12.55	2017-2018	No	Erosion of natural deposits.

SECONDARY STANDARDS***

Chloride (ppm)	500	N/S	15.05	5.5-41.0	2016-2018	No	Runoff/leaching from natural deposits, sea water influence.
Corrosivity	Non-Corrosive	N/S	11.5	10.32-12.85	2016-2018	No	Natural/industrial-influenced balance of hydrogen, carbon, and oxygen in water affected by temperature and other factors.
Sulfate (ppm)	500	N/S	3.01	ND-6.4	2016-2018	No	Runoff/leaching from natural deposits, industrial waste.
Total Dissolved Solids (TDS)	1000	N/S	166.33	97-270	2016-2018	No	Runoff/leaching from natural deposits.
Specific Conductance (micromhos)	1600	N/S	287.8	180-430	2016-2018	No	Substances that form ions when in water, sea water influence.
Odor (Threshold)	3	N/S	1	1	2016-2018	No	Naturally occurring organic chemicals.

OTHER CONTAMINANTS***

Sodium (ppm)	Potassium (ppm)	Magnesium (ppm)	Calcium (ppm)	Total Hardness (ppm)
N/S	N/S	N/S	N/S	N/S
13.81	2.75	9.83	30.88	116.8
8.5-26	1-3.8	3.9-17	17-44	59-170

LEAD AND COPPER – Lead and Copper are required as a Treatment Technique under the Lead and Copper Rule which requires systems to take water samples at the consumer's tap every three years. Results are from 2016. No schools in 2018 have requested lead sampling.

* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can inhibit the effectiveness of disinfectants.

** Radiological Contaminants – Four (4) quarterly samples are required ever four (4) years.

*** Monitored every 2 years

**** Results are calculated on a locational running annual average.

As the tables show, we did not exceed the maximum contaminant level for any of the contaminants tested. Our drinking water exceeds Federal and State Standards. There may be terms and abbreviations you may not be familiar with so we are providing these definitions on the following page to help you better understand them. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The Presences of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline at (800) 426-4791.

Crestline-Lake Arrowhead Water Agency / 2018 Water Quality Report

Contaminant	Avg. Level Detected	Range of Levels Detected	Units	MCL	PHG	Major Sources in Drinking Water
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Primary Standards

Total Trihalomethanes*	44.2*	12.9-68.1	ug/l	80	N/A	Byproduct of drinking water disinfection
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Inorganic Chemicals

Fluoride (naturally occurring)	0	0-0	mg/l	2	N/A	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N)	.18	0-68	mg/l	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Secondary Standards

Chloride	85.44	74-110	mg/l	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate	49.00	39-60	mg/l	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	299.38	280-320	mg/l	1000	N/A	Erosion of natural deposits

Other Constituents

Sodium	68.75	59-79	mg/l	N/A	N/A	"Sodium" refers to the salt present in the water and is generally naturally occurring
Total Hardness	95.06	89-100	mg/l	N/A	N/A	"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring
Odor-Threshold	1	1-1	TON	3	N/A	Naturally occurring organic materials
Boron	144-38	0-170	ug/l	1000	N/A	Erosion of natural deposits
Vanadium	1.30	0-4.7	ug/l	50	N/A	Erosion of natural deposits
pH	8.10	7.8-8.5	Unit	6.5-8.5	N/A	

Unregulated Contaminants

Conventional Treatment with multimedia pressure filters	Turbidity of the filtered water must:	1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 5.0 NTU at any time.
Treatment Technique (a)	(Type of approved filtration technology used)	
Turbidity Performance Standards (b)	(that must be met through the water treatment process)	
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1		100%
Highest single turbidity measurement during the year		0.5 NTU
Number of violations of any surface water treatment requirements		0

Sampling Results Showing Treatment of Surface Water Sources

Calcium*	Magnesium*	Sodium*	Bicarbonate (HCO3)	Total Hardness*
N	N	N	N	N
37.8	2.3	15.8	160	102.2
33-42	2.0-2.5	14-17	140-180	91-110

Conventional Treatment with multimedia pressure filters

Erosion of natural deposits.	N/S	1.3-8	2016-2018	No	Erosion of natural deposits.
Erosion of natural deposits.	N/S	1-3.8	2016-2018	No	Erosion of natural deposits.
Erosion of natural deposits.	N/S	3.9-17	2016-2018	No	Erosion of natural deposits.
Erosion of natural deposits.	N/S	30.88	2016-2018	No	Erosion of natural deposits.
Erosion of natural deposits.	N/S	116.8	2016-2018	No	Erosion of natural deposits.

LEAD AND COPPER – Lead and Copper are required as a Treatment Technique under the Lead and Copper Rule which requires systems to take water samples at the consumer's tap every three years. Results are from 2016. No schools in 2018 have requested lead sampling.

* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can also hinder the effectiveness of disinfectants.

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*** Monitored every 2 years

**** Results are calculated on a locational running annual average.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. USEPA/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 Drinking Water Hotline (800) 426-4791.

The sources of drinking water (both tap water and bottled) 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 presented in source water include:

Micro 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.

Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

Arrowbear Park County Water District / 2018 Water Quality Report

Microbiological Contaminants	Highest No. of Violations	MCL	No. of Months in Violation	No Microbiological Contaminants (Total Coliform Bacteria or Fecal Coliform or E. Coli) were detected during weekly routine sampling. 1 positive monthly sample.	PHG (MCLG)	Typical Source of Bacteria
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Radioactive Contaminants

Alpha Activity, Gross	N	ND	ND-4.3	pc/l	15	NONE	Erosion of Natural Deposits.
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Inorganic Chemical Contaminants

Fluoride* (N)	N	ND	None	mg/l	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Nitrate as N (NO3)	N	ND	None	mg/l	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Disinfection Byproducts (Trihalomethanes/Halocetic Acids)	Total Trihalomethanes	N	ND	ug/l	80	80	Byproduct of drinking water disinfection.
	Total Haloacetic Acids	N	ND	ug/l	60	60	Byproduct of drinking water disinfection.

Secondary Standards

Chloride*	N	3.32	1.5 - 3.9	mg/l	500	NONE	Runoff/leaching from natural deposits; seawater influence.
Sulfate*	N	2.08	1.6 – 2.4	mg/l	500	NONE	Runoff/leaching from natural deposits; industrial wastes
Specific Conductance*	N	258	240 – 280	us/cm	1600	NONE	Substances that form ions when in water; seawater influence.
Odor Threshold	N	1.0	1.0 – 1.0	TON	3	NONE	Naturally-occurring organic materials.
Total Dissolved Solids*	N	160	150-190	mg/l	1000	NONE	Runoff/leaching from natural deposits.
Turbidity*	N	0.1	ND-0.2	NTU	5	NONE	Soil runoff.

Other Constituents

Calcium*	N	37.8	33-42	mg/l	NONE	NONE	Erosion of natural deposits.
Magnesium*	N	2.3	2.0-2.5	mg/l	NONE	NONE	Erosion of natural deposits.
Sodium*	N	15.8	14-17	mg/l	NONE	NONE	Naturally occurring salts.
Bicarbonate (HCO3)	N	160	140-180	mg/l	NONE	NONE	Erosion of natural deposits.
Total Hardness*	N	102.2	91-110	mg/l	NONE	NONE	Sum of polyvalent cations present.

Testing/Sampling required once every three years. Data present in the table is from testing/sampling done in 2017 in accordance with the regulations. Next testing/sampling for these constituents is due in 2020.

** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can also hinder the effectiveness of disinfectants.

*** Monitored every 2 years

**** Results are calculated on a locational running annual average.

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT

Violation	Explanation	Duration	Actions taken to Correct the Violation	Health Effects Language
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No violations occurred in 2018

Lead: 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. Running Springs Water District 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/lead>.

Arsenic: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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.

Radon: Radon is a naturally occurring radioactive gas that can be found in some wells and in some public water supplies. Radon in water can contribute to the total radon exposure from all sources. Radon in water can also contribute to the total radon exposure from all sources. Radon in water can also contribute to the total radon exposure from all sources.