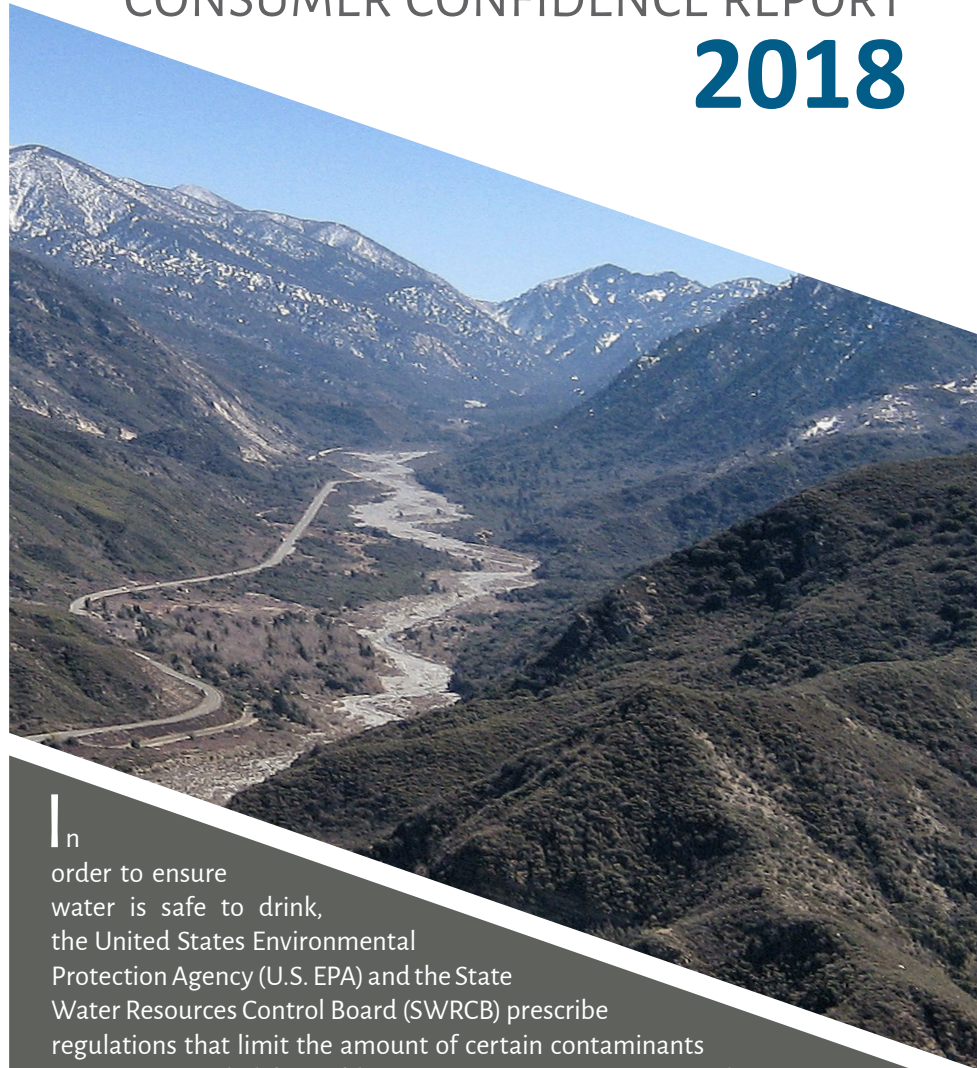


# CITY OF REDLANDS

## CONSUMER CONFIDENCE REPORT

# 2018



## WATER SOURCE PROTECTION

The City of Redlands is committed to protecting our water sources from possible contamination. Source water assessments were completed in 2002 for all of our drinking water supplies. You can view the source water assessments at our office (location listed below). The assessments help to identify the vulnerability of drinking water supplies to contamination from typical human activities. These assessments are intended to provide basic information necessary for us to develop programs to protect our drinking water supplies. Possible contaminants can originate from: agricultural drainage, urban runoff, septic systems, sewer collection systems, junk/scrap/salvage operations, crop irrigation, underground storage tanks at automobile gas stations and illegal dumping.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling:

**United States EPA  
Safe Drinking Water Hotline  
(1-800-426-4791)**

Anyone interested in receiving a copy of the source water assessment should contact:

**Bill Cane, Utility Operations Manager  
(909) 798-7698 ext. 0**

You can do your part to protect our water sources by properly disposing of household hazardous waste. To find out how to properly dispose of hazardous waste, so it does not contaminate groundwater, please call or visit:

**City of Redlands-Customer Service  
(909) 798-7529  
[cityofredlands.org/qol/recycling](http://cityofredlands.org/qol/recycling)**

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

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 may be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants, as well as more information

about contaminants and their potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791 or visit [water.epa.gov/drink/hotline](http://water.epa.gov/drink/hotline).

**THIS REPORT CONTAINS IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER. TRANSLATE IT OR SPEAK WITH SOMEONE WHO UNDERSTANDS IT.**

**ESTE INFORME CONTIENE INFORMACIÓN MUY IMPORTANTE SOBRE SU AGUA POTABLE. TRADÚZCALO O HABLE CON ALGUIEN QUE LO ENTIENDA BIEN.**

## CONTACT US

CITY OF REDLANDS  
MUNICIPAL UTILITIES & ENGINEERING DEPARTMENT  
P.O. BOX 3005 • 35 CAJON STREET • SUITE 15A • REDLANDS, CA 92373  
(909)798-7698 • [CITYOFREDLANDS.ORG/MUED](http://CITYOFREDLANDS.ORG/MUED)

PRIMARY DRINKING WATER STANDARDS						
CONSTITUENT	YEAR	MCL (LEVEL I/II) [TT]	PHG (MCLG)	REDLANDS WATER	SOURCE	
<b>MICROBIOLOGICAL CONSTITUENTS</b>						
Total Coliform	2017	5%	0%	0.15%		
Revised Total Coliform Rule	2017	[TT]	N/A	0		
<b>INORGANIC CONSTITUENTS</b>						
CONSTITUENT	YEAR	MCL / CCR UNITS/ MRDL/ [TT]	PHG/MCLG/ CCR UNITS/ MRDLG	REDLANDS WATER	RANGE	SOURCE
Chromium ug/L	2017	50	100	0.4	ND - 5.9	
Fluoride mg/L	2017	2	1	0.7	.31 - .96	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Hexavalent Chromium ug/L	2017	10	0.02	1.6	.12 - 9.1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate as N mg/L	2017	10	10	1.7	ND - 5.7	Run-off and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate ug/L	2017	6	1	0.8	ND - 3.9	Environmental Contamination from historic aerospace or other industrial operations; found in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries.
<b>LEAD AND COPPER RULE</b>						
Copper mg/L	2017	AL=1.3	0.3	.15	33 Sites	No violation. Internal corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Lead ug/L*	2017	AL=15	0.2	ND	33 Sites	No violation. Internal corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
<b>DISINFECTION BY-PRODUCTS, DISINFECTION RESIDUALS, DISINFECTION BY-PRODUCT PRECURSORS</b>						
Total Trihalomethanes (ug/L)	2017	80	N/A	29	1 - 85	Byproduct of drinking water disinfection
Haloacetic Acids (ug/L)	2017	60	N/A	20	ND - 69	Byproduct of drinking water disinfection
Chlorine as Cl2 (mg/L)	2017	4	4	0.6	.14 - 2.0	Drinking water disinfectant added for treatment
Total Organic Carbon (mg/L)	2017	[TT]	N/A	0.9	.51 - 2.6	Various natural and manmade sources
<b>RADIOACTIVE CONSTITUENTS</b>						
Gross Alpha (pCi/L)	2017	15	0	4.7	ND - 12.1	Erosion of natural deposits
Gross Beta (pCi/L)	2014	50	0	3.8	N/A	Decay of natural and man-made deposits

SECONDARY DRINKING WATER STANDARDS					
CONSTITUENT	YEAR	SECONDARY MCL	REDLANDS WATER	RANGE	SOURCE
Chloride mg/L	2017	500	14	4.5 - 41	Runoff/leaching from natural deposits; seawater influence
Color (units)	2017	15	0.1	ND - 5.0	Naturally occurring organic materials
Copper (mg/L)	2017	1	0.06	ND - .24	Internal corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Iron (ug/L)	2017	300	39	ND - 250	Leaching from natural deposits; industrial wastes
Odor - Threshold (TON)	2017	3	0.5	ND - 2.5	Naturally-occurring organic materials
Specific Conductance (umhos/cm)	2017	1600	382	220 - 620	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	2017	500	28	15 - 58	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	2017	1000	229	170 - 370	Runoff/leaching from natural deposits
Turbidity, Laboratory (NTU)	2017	5	0.05	.1 - 1.0	Soil runoff
<b>SAMPLING RESULTS FOR SODIUM AND HARDNESS</b>					
CONSTITUENT	YEAR	MCL, PHG (MCLG), REDLANDS WATER	RANGE	SOURCE	
Sodium mg/L	2017	19	10 - 76	Generally naturally occurring	
Hardness mg/L	2017	155 mg/L (Equivalent to 9.1 grains per gallon)	95 - 220	Sum of polyvalent cations in the water, usually naturally occurring. 1 grain per gallon=17.1 mg/L	
<b>ADDITIONAL MONITORING FOR UCMR</b>					
CONSTITUENT	YEAR	NOTIFICATION LEVEL	RANGE	SOURCE	
Chlorate (ug/L)	2014	800	48 - 230		
Molybdenum (ug/L)	2014	N/A	ND - 7.5		
Strontium (mg/L)	2014	N/A	ND - 0.36		
Vanadium	2014	50	0.26 - 5.9	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.	

CONSUMER CONFIDENCE REPORT
From January 1, 2017 to December 31, 2017, the City of Redlands conducted 16,127 water quality tests from samples taken at various locations throughout the water system in accordance with state and federal laws. The following tables list only those contaminants that were detected. It is important to note, that the presence of these contaminants, as detected in the water does not necessarily indicate that the water poses a health risk.

**SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES**

Turbidity is a measure of the cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. Turbidity results, which meet performance standards, are considered to be in compliance with filtration requirements.

Turbidity Performance Standard No. 1 (TPS No. 1): The turbidity level of the combined filter effluent shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU for more than one hour. Additionally, the turbidity level of the combined filter effluent shall not exceed 1.0 NTU for more than eight consecutive hours while the plant is operating.

Treatment Technique: Conventional Filtration  
Lowest Monthly % of Samples Meeting TPS No. 1: 100%  
Highest single turbidity measurement during 2017: 0.18 NTU  
Number of Violations to Any Surface Water Treatment Regulations: 0

\*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. The City of Redlands 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 (1-800-426-4791) or at <https://www.epa.gov/safewater>

Sampling for lead on schools campuses was optional in 2017. Number of schools request lead sampling (0)

ADDITIONAL MONITORED CONSTITUENTS WITH NO MCLS				
CONSTITUENT	YEAR	NOTIFICATION LEVEL	REDLANDS WATER	RANGE
Alkalinity (mg/L)	2017	N/A	136	97-170
Bicarbonate (mg/L)	2017	N/A	143	97-190
Calcium (mg/L)	2017	N/A	46	28-67
Langelier Index at 25 C	2014	N/A	0.37	-0.13-0.7
Magnesium (mg/L)	2017	N/A	9.4	6.1-13
pH	2017	N/A	7.9	7.3-8.5
Potassium (mg/L)	2017	N/A	2.8	ND-5.1

**INFORMATION ABOUT RADON**

Radon is a naturally occurring gas formed from the normal radioactive decay of uranium. In 2007 testing, radon was detected in our finished water supply. There are no regulatory limits prescribed for radon levels in drinking water – the pathway to radon exposure occurs primarily through its presence in the air. Exposure over a long period of time to air containing radon may cause adverse health effects. If you are concerned about radon in your home, testing is inexpensive and easy. For more information, call your State radon program (1-800-745-7236), the National Safe Council's Radon Hotline (1-800-SOS-RADON), or the EPA Safe Drinking Water Act Hotline (1-800-426-4791).



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JOHN E. JAMES, COUNCIL MEMBER

N. ENRIQUE MARTINEZ, CITY MANAGER  
PAUL TOOR, MUED DIRECTOR

## Important Facts from the US EPA about Drinking Water

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 untreated source may include:  
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 such as agriculture, urban storm water 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 storm water runoff, agricultural application and septic systems.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production, and mining activities.

## TERMS USED IN THIS REPORT

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**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 are set by the US Environmental Protection Agency (US EPA).

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

N/A: Not applicable

ND: Not detectable at testing limit.

**Notification Level (NL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Public Health Goal (PHG):** 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.

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health, along with their monitoring, reporting and water treatment requirements.

**Range of Detection:** The range (lowest to highest) of detected constituents.

**Redlands Water:** Water source site average for water supplied to customers.

**Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that water system must follow.

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

**Units of Measure:** Parts per million (ppm) or milligrams per liter (mg/L). Parts per billion (ppb) or nanograms per liter (ng/L). Picocuries per liter (pCi/L): a measure of radiation. Umhos/cm: A measure of conductivity in water.