

City of Redlands

Consumer Confidence Report For 2001

Safe, Clean Drinking Water - Yesterday, Today, and Tomorrow

The City of Redlands' Water Division has been providing water service to the Redlands and Mentone area for more than 90 years. The City's water production and distribution systems have grown from an untreated river supply and a few thousand feet of pipeline to the modern and complex operation of today which includes two water filtration plants, 36 wells, 39 booster pumps, 38 water transfer stations, 15 reservoirs with 51 million gallons of storage capacity, 340 miles of pipeline, 3,000 fire hydrants, and over 19,000 metered services.

We believe that the best way to assure you that your drinking water is safe and reliable is to provide you with accurate facts. This Consumer Confidence Report has been prepared to explain where your water comes from and the overall quality of your water. We believe this information will assist you, the consumer, in making informed choices that could

affect the health of you and your family.. Further, we hope you will better appreciate the challenges of delivering safe drinking water not only today, but for tomorrow as well.

All information provided in this report has been collected and reported in accordance with the water quality standards established by the United States Environmental Protection Agency (USEPA) and the State of California Department of Health Services (DoHS).

The State of California recently passed legislation that established drinking water Public Health Goals (PHGs). These PHGs are goals for water quality and have not been established as regulatory requirements for safe drinking water. However, we have included them in this report for your information.

The test results in this report represent the period of January 1, 2001 through December 31, 2001.

Weathering the storms, or lack thereof

The average rainfall for Redlands is about 15 inches annually. With the recorded rainfall for the past year at only about 5 inches, almost 70% less than average, we urge you to use water wisely this summer.



Kayla Borell of Redlands looking for that much needed rain.

In addition to the lack of rain in the valley, the watershed surrounding Big Bear Lake recorded record low snowfall this past winter. This watershed supplies one of the City's main surface water sources, the Santa Ana River, which recorded its second lowest flow in recorded history last year.

After several years of drought conditions, with last winter the driest in recorded history, increasing your water conservation efforts becomes even more important. Water conservation is one of the avenues which the City uses

to manage this precious natural resource. Conservation measures include new development requirements, water audits, meter replacements, and education programs. Also, as a last resort, in drought situations the City has the authority to convert voluntary programs to mandatory ones.

Inside this report you will find helpful tips on how you can easily reduce your water use, or you can contact the Municipal Utilities Department at 909-798-7698 for more water conservation ideas.

DEFINITIONS and NOTES

From January 1, 2001 through December 31, 2001 the City of Redlands conducted over 26,000 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. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

- **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 odor, taste, and appearance characteristics 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 U.S. Environmental Protection Agency.
- **Primary Drinking Water Standards:** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **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.
- **Redlands Water:** Water system weighted average for water supplied to customers.
- **Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect health at the MCL levels.
- **n/a:** not applicable, **ppm:** parts per million or milligrams per liter (mg/L), **ppb:** parts per billion or micrograms per liter (ug/L), **ppt:** parts per trillion or nanograms per liter (ng/L), **pCi/L:** picocuries per liter (a measure of radiation), **TT:** Treatment Technique; a required process intended to reduce the level of a contaminant in drinking water, **AL:** Action Level; the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

PRIMARY DRINKING WATER STANDARDS (Mandatory Health Related Standards)

PRIMARY DRINKING WATER STANDARDS	STATE MCL	PHG (MCLG)	REDLANDS WATER	RANGE OF DETECTION	TYPICAL SOURCE OF CONTAMINANT
ORGANIC CONTAMINANTS					
Dibromochloropropane (ppt)	200	1.7	1.5	0 – 56	Banned nematocide in soils due to leaching from former use on citrus trees
Total Trihalomethanes (TTHMs) (ppb)	100	n/a	27.3	0 - 75.5	By-product of drinking water chlorination
INORGANIC CONTAMINANTS					
Arsenic (ppb)	50	n/a	0.32	0 - 3.7	Erosion of natural deposits
Chromium (ppb)	50	(100)	0.79	0 - 13	Erosion of natural deposits
Fluoride (ppm)	2	1	0.60	0.39 - 0.99	Erosion of natural deposits
Nitrate as nitrate (ppm)	45	45	5.01	0 - 29	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage
Nitrate as nitrogen (ppm)	10	10	0.72	0 - 8.1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage
RADIOACTIVE CONTAMINANTS					
Radon (pCi/L)	n/a	n/a	331	0 - 1600	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	15	n/a	4.93	0 - 8.3	Erosion of natural deposits
Uranium (pCi/L)	20	0.5	4.51	0 - 8.6	Erosion of natural deposits
MICROBIOLOGICAL CONTAMINANTS					
Turbidity (NTU)	TT = 5		.17	n/a	Soil runoff
	TT = percentage of samples		100%	n/a	<i>Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.</i>

SECONDARY DRINKING WATER STANDARDS (Aesthetic Standards)

SECONDARY DRINKING WATER STANDARDS	STATE MCL	PHG (MCLG)	REDLANDS WATER	RANGE OF DETECTION	TYPICAL SOURCE OF CONTAMINANT
Chloride (ppm)	500	n/a	9.63	5.4 - 31	Runoff/leaching from natural deposits
Iron (ppm)	300	n/a	6.65	0 - 220	Leaching from natural deposits; industrial wastes
Manganese (ppm)	50	n/a	6.29	1.8 - 15	Leaching from natural deposits
Odor—Threshold (units)	3	n/a	1	1	Naturally occurring organic materials
Sulfate (ppm)	500	n/a	25.6	4.5 - 46	Leaching from natural deposits; industrial wastes
Total dissolved solids (ppm)	1000	n/a	196.1	170 - 320	Runoff/leaching from natural deposits
Turbidity (NTU)	5	n/a	0.17	0.1 - 1.8	Soil Runoff

ADDITIONAL MONITORING

The following table includes measurements of other water quality constituents that might be of interest to our consumers. Unregulated contaminant monitoring helps the EPA and the California Department of Health Services to determine where certain contaminants occur and whether the contaminants need to be regulated.

UNREGULATED CONTAMINANTS	REDLANDS WATER	RANGE OF DETECTION	TYPICAL SOURCE OF CONTAMINANT
Calcium (ppm)	44.6	37 - 61	
Hardness (ppm)	138.9	110 - 230	
Potassium (ppm)	2.12	1.5 - 4.3	
Sodium (ppm)	17.1	1.12 - 60	
Perchlorate (ppb) <i>There is no State or Federal standard at this time. However, the State has set a provisional action level (AL) of 18 ppb. However, the AL was reduced to 4 ppb effective January 2002. See below for additional information.</i>	0.46	0 - 5.2	Used in the manufacturing of solid rocket motors and other explosives.

In March of 2002 the City notified all water consumers that several wells had been found to contain the chemical perchlorate at levels that exceed the new action level of 4 ppb which became effective in January, 2002. The State of California Department of Health Services (DoHS) does not recommend removing a well source from service until the perchlorate level exceeds 40 ppb.

As your water supplier, the City of Redlands takes seriously its obligation to supply the best quality product to our customers. Accordingly, we are aggressively pursuing several projects to meet the new action level for perchlorate in a timely manner. They include developing new well supplies not impacted by perchlorate, increasing capacity in the City's surface water treatment plants whose water supplies do not contain perchlorate, and developing plans for submission to the Department of Health Services to allow water from wells with perchlorate to blend with other sources before delivery to our customers. We anticipate completing Phase I of the above projects by the summer of 2002 to minimize the water produced from the affected wells.

Perchlorate interferes with the uptake of iodine by the thyroid gland. Iodine is needed for the production of thyroid hormones which are required for normal prenatal and postnatal growth and development. Therefore, fetuses, infants and children who are growing and developing are at risk if their thyroid glands cannot function normally. In adults, thyroid hormones are needed for normal body metabolism.

A fact sheet regarding perchlorate in groundwater has been compiled and is available by contacting the Water Division or it may be obtained by visiting the City's website at www.ci.redlands.ca.us. The DHS website at www.dhs.ca.gov/ps/ddwem/chemicals/perchl/perchlindex.htm also contains additional information.

The Facts About Radon

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the United States.

Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities.

Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. However, radon is a known human carcinogen and breathing air containing radon can lead to lung cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should take remedial action if your indoor air level of radon is 4 picocuries per liter of air (pCi/L) or higher.

Drinking water containing radon may also cause increased risk of stomach cancer.

There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call the EPA's Radon Hotline (800-SOS-RADON).

"If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy"

Special Requirements

The Safe Water Drinking Act requires additional health information on contaminants found at certain levels be disclosed to our water consumers.

Nitrate:

Nitrate in drinking water at levels above 45 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin.

High nitrate levels may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. Nitrate levels in drinking water may rise quickly for short periods of time because of rainfall or agricultural activity.

If you are caring for an infant, you should ask for advice from your health care provider or choose to use bottled water for mixing formula and juice for your baby. If you are pregnant, you may consider drinking bottled water.

Efficient Water Use Tips

Water conservation not only conserves our water supply, but can save you money. Remember, you are paying for the water you use, so use it wisely.

- 💧 Make sure your automatic dishwasher is full before running.
- 💧 Don't leave the water running when you brush your teeth or shave.
- 💧 When doing laundry, always wait until you have a full load.
- 💧 Water your lawn, gardens and flower beds early in the morning, or use drip irrigation. Water sprinkled during the hot daytime hours evaporates before it has time to soak into plant roots.
- 💧 Every time you flush a toilet, you use about 3 gallons of water. Don't use your toilet as a trash can, flushing unnecessarily.

Protecting Our Water Supply

The most important factor in water quality is its source; the purer the source, the better the water. As a resident or business water consumer, you can help do your part to keep the water supply clean. Preventing contamination is the best strategy to preserve water resources for future generations.

DON'T ALLOW POLLUTANTS TO WASH INTO OUR WATER SUPPLY

- 💧 Keep pesticides away from rivers and streams.
- 💧 Keep your yard free of debris and pet waste to help prevent rain water runoff from washing pollutants into storm drains.
- 💧 Never pour used motor oil, paint, or other pollutants into storm drains or onto the ground.
- 💧 Use non-toxic alternatives to fertilizers and pesticides.

💧 ***It's up to all of us to protect our water supply.*** 💧

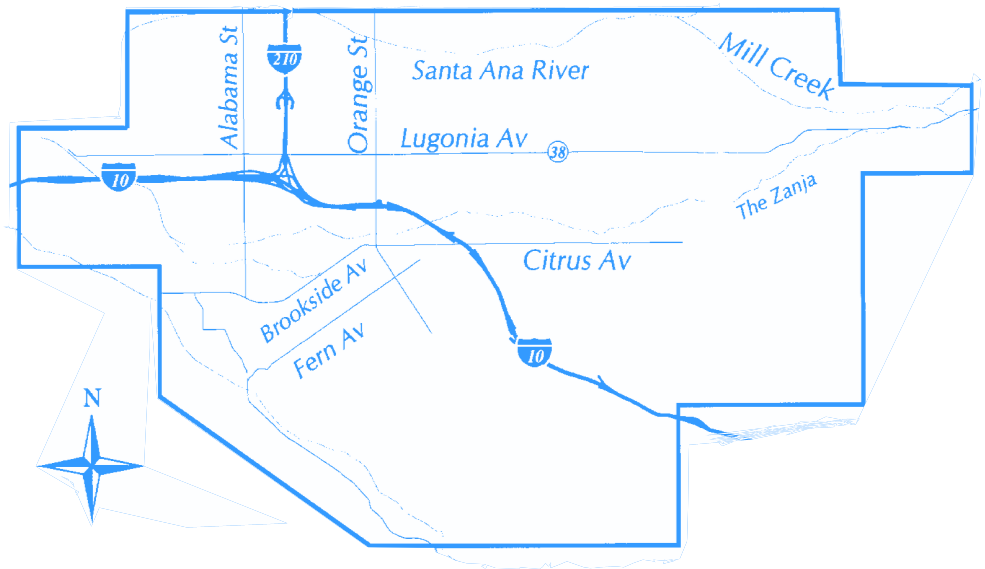
City of Redlands Water Service Area

The City of Redlands delivers water to an area of approximately 46 square miles. The population served is over 75,000 residents in Redlands, Mentone, part of the Crafton Hills and San Timoteo Canyon, and a small portion of San Bernardino.

The City supplies a blend of local groundwater, local surface water, and imported water from the State Water Project.

Local groundwater is pumped from wells in Redlands, Mentone, Yucaipa and Mill Creek. Surface water is diverted from Mill Creek and the Santa Ana River. Imported water is delivered from Northern California through facilities owned by the local State Water Project Contractor.

During 2001 the City delivered just over 9,000,000,000 gallons of water that met or exceeded all State and Federal drinking water standards.



Let's Be Clear

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to certain 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 persons, and infants can be particularly at risk. 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 (1-800-426-4791).

The 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 source water before treatment 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 storm water 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, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the State Department of Health Services (DoHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems like the City of Redlands. DoHS regulations also establish limits for contaminants in bottled water that must provide similar protection for public health.

"Some people may be more vulnerable to certain contaminants in drinking water than the general population."

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Postal Customer

2002 Sampling - Are you interested in participating in a Lead and Copper Tap Water Analysis at your residence?

Lead and copper have not been detected in Redlands water sources. However, when water comes into contact with plumbing materials in your home, it may be detectable. Because domestic plumbing is the primary source of these metals, a representative number of homes are required for tap water testing every three years. The City of Redlands Water Division is looking for 30 residents interested in participating in a free Lead and Copper Tap Water Analysis.

The water sample collection process simply consists of filling a bottle with water from your tap first thing in the morning one time. The sample will then be picked up by City water quality staff.

Residents will be provided with a sample packet and complete instructions.

The sampling collection period will take place from August 1, 2002 through September 1, 2002.

If your home was built between 1982 and 1988, lead levels in your home could be higher than in other homes in the community as a result of the plumbing materials used during this period. If you are interested in participating, please contact Dave Commons, Water Operations Manager at 909-798-7698 or John Morales, Water Quality Control Officer at 909-798-7502 to sign-up.

All participants will receive a copy of the final analysis when the study is completed as well as a complimentary Water Awareness and Conservation gift package.



Was your home built between 1982 and 1988?

If you have questions about this report, please contact one of the following:

**Gary Phelps, Municipal Utilities Director
Douglas Headrick, Chief of Water Resources
Dave Commons, Water Operations Manager
John Morales, Water Quality Control Officer**

You are invited to participate in public forums so you can be more informed about your water. City Council meetings are held the first and third Tuesday of every month in the City Council Chamber at 35 Cajon St., Redlands.

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que to entienda bien.