



City of
REDLANDS "A CITY THAT WORKS"



2012
Consumer Confidence Report

Horace Hinckley Upgrades in Response to New Standards

The City of Redlands gets its water from 19 water wells and two surface water treatment plants. The U.S. Environmental Protection Agency recently lowered the standard for Total Trihalomethanes and Haloacetic Acid in drinking water which are formed when chlorine comes in contact with organics. To comply with this new standard, the City is in the process of constructing upgrades to the Horace Hinckley surface water treatment plant. Through innovative techniques and use of a variety of methods the cost for the upgrades has decreased from early estimate of 18

million dollars to 8.6 million dollars. The upgrades will be completed by March 2013 and will allow the city to meet this new standard. These upgrades will increase performance, lower costs, and remove a higher percentage of organic compounds found in surface water. Construction is being performed in stages to eliminate the need to shutdown the plant during the summer months when water usage is high. There will be no change in pressure during construction.



Tours

Groups are welcome to tour our treatment facilities to learn how drinking water is treated and delivered to our customers. For information on touring our facilities, please contact Bill Gane, water operations manager, at (909) 798-7588, extension #1.

Please contact us if you have any question regarding the information presented in this report.

City of Redlands
Municipal Utilities &
Engineering Department
PO Box 3005
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(909) 798-7698

www.cityofredlands.org/MUED/water

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.



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WATER SOURCE PROTECTION

Redlands Municipal Utilities and Engineering Department is committed to protecting our water sources from possible contamination. Source water assessments have been completed for all of our drinking water supplies. You can view the source water assessments at <http://swap.ice.ucdavis.edu/TSinfo/TSintro.asp>

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.

Anyone interested in receiving a copy of the source water assessment should contact Bill Gane, water operations manager at (909) 798-7588 ext. 1.

You can do your part to protect our precious water sources by properly disposing of household hazardous wastes.

To find out how to properly dispose of hazardous waste so that it does not contaminate groundwater, please phone our Customer Service Office at (909) 798-7529, or visit www.cityofredlands.org/qol/recycling

We welcome your comments regarding water issues in Redlands at our City Council Meetings held in the Council's Chambers at 35 Cajon Street in Redlands on the first and third Tuesdays of every month at 6:00 p.m.

TERMS USED IN THIS REPORT

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.

ND: Not detectable at testing limit.

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.

N/A: Not applicable

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

Units of Measure:

Parts per million (ppm) or milligrams per liter (mg/L).

Parts per billion (ppb) or micrograms per liter (ug/L).

Parts per trillion (ppt) or nanograms per liter (ng/L).

Picocuries per liter (pCi/L): a measure of radiation.

Umhos/cm: A measure of conductivity in water.

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

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

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

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

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

From January 1, 2011 to December 31, 2011, the City of Redlands conducted over 12,000 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. 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.

Primary Drinking Water Standards

MICROBIOLOGICAL CONSTITUENTS

CONSTITUENT	YEAR	MCL	PHG (MCLG)	REDLANDS WATER	RANGE	SOURCE
Total Coliform**	2011	5%	(0%)	ND	NA	Naturally present in the environment

** Results of all samples collected in the distribution system during any month shall be free of total coliform bacteria in 95 percent or more of the monthly samples. In 2011, there were no total coliform positive samples out of the 1376 samples taken.

INORGANIC CONSTITUENTS

CONSTITUENT	YEAR	MCL (AL)	PHG (MCLG)	REDLANDS WATER	RANGE	SOURCE
Aluminum	2011	1 ppm	0.6 ppm	0.025 ppm	ND – 0.15 ppm	Erosion of natural deposits
Barium	2011	1 ppm	2 ppm	0.015 ppm	0.013-0.017 ppm	Erosion of natural deposits
Chromium	2011	50 ppb	(100) ppb	0.27 ppb	ND – 1.6 ppb	Erosion of natural deposits
Copper	2011	1.3 ppm	0.3 ppm	0.00016 ppm	ND – 0.0024 ppm	Erosion of natural deposits; internal corrosion of household plumbing; leaching from wood preservatives
Fluoride	2011	2.0 ppm	1 ppm	0.60 ppm	ND – 1.3025 ppm	Erosion of natural deposits
Lead	2011	15 ppb	0.2 ppb	0.098 ppb	ND – 0.76 ppb	Erosion of natural deposits; internal corrosion of household plumbing; discharges from industrial manufacturers
Nitrate as NO3	2011	45 ppm	45 ppm	8.36 ppm	ND – 21.8 ppm	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite(as N)	2011	10 ppm	10 ppm	1.51 ppm	0.25 – 4.1 ppm	
Nitrate as Nitrogen	2011	10 ppm	10 ppm	1.94 ppm	ND – 4.9 ppm	
Perchlorate	2011	6 ppb	6 ppb	0.81 ppb	ND – 4.653 ppb	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.

SYNTHETIC ORGANIC CONSTITUENTS

CONSTITUENT	YEAR	MCL	PHG (MCLG)	REDLANDS WATER	RANGE	SOURCE
Dibromochloropropane (DBCP)	2011	200 ppt	1.7 ppt	ND	NA	Banned nematocide that still may be present in soils due to run-off/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit.
Simazine	2011	4 ppb	4 ppb	ND	NA	Herbicide run-off

DISINFECTION BY-PRODUCTS, DISINFECTION RESIDUALS, DISINFECTION BY-PRODUCT PRECURSORS

CONSTITUENT	YEAR	MCL (MRDL) [TT]	PHG (MRDLG)	REDLANDS WATER	RANGE	SOURCE
Total Trihalomethanes	2011	80 ppb	N/A	21.3 ppb	ND – 66 ppb	By-product of drinking water disinfection
Haloacetic Acids	2011	60 ppb	N/A	17.69 ppb	ND – 73 ppb	By-product of drinking water disinfection
Chlorine	2011	(4) ppm	(4) ppm	0.83 ppm	0.12 – 1.95 ppm	Drinking water disinfectant added for treatment
Total Organic Carbon	2011	[TT]	N/A	1.28 ppm	0.48 – 3.5 ppm	Various natural and man-made sources

RADIOACTIVE CONSTITUENTS

CONSTITUENT	YEAR	MCL	PHG (MCLG)	REDLANDS WATER	RANGE	SOURCE
Gross Alpha	2011	15 pCi/l	(0)	5.2 pCi/l	NA	Erosion of natural deposits
Gross Beta	2007	50 pCi/l	(0)	3.4 pCi/l	NA	Erosion of natural deposits and man-made deposits
Total Tritium	2007	20,000 pCi/l	400 pCi/l	188.5 pCi/l	183-194 pCi/l	Erosion of natural deposits and man-made deposits
Radium 226 + 228	2006	5 pCi/l	(0)	0.93 pCi/l	0.8 - 1.1 pCi/l	Erosion of natural deposits
Radium 226	2006	5 pCi/l	0.05 pCi/l	0.97 pCi/l	0.25 – 1.16 pCi/l	Erosion of natural deposits
Radium 228	2008	5 pCi/l	0.019 pCi/l	0.7 pCi/l	ND – 0.8 pCi/l	Erosion of natural deposits
Strontium 90	2007	8 pCi/l	0.35 pCi/l	1.7 pCi/l	N/A ***	Decay of natural and man-made deposits
Uranium	2011	20 pCi/l	0.43 pCi/l	4.7 pCi/l	3.5 - 5.9 pCi/l	Erosion of natural deposits

VOLATILE ORGANIC CONSTITUENTS

CONSTITUENT	YEAR	MCL	PHG (MCLG)	REDLANDS WATER	RANGE	SOURCE
Trichlorotrifluoroethane	2011	1.2 ppm	4 ppm	ND ppm	ND – ND ppm	Discharge from metal degreasing sites and other factories; dry-cleaning solvent; refrigerant

*** No range to report - only one sample tested.

Secondary Drinking Water Standards (Aesthetic Standards) (a)

CONSTITUENT	YEAR	SECONDARY MCL	REDLANDS WATER	RANGE	SOURCE
Aluminum	2011	200 ppb	25 ppb	ND – 150 ppb	Erosion of natural deposits; residual from some surface water treatment processes
Chloride	2011	500 ppm	14.23 ppm	ND – 40.88 ppm	Run-off; erosion of natural deposits; seawater influence
Color	2011	15 Units	0.037 Unit	ND – 3 Units	Naturally occurring organic materials.
Copper	2011	1.0 ppm	0.0082 ppm	ND – 0.097 ppm	Erosion of natural deposits; internal corrosion of household plumbing; leaching from wood preservatives
Iron	2011	300 ppb	0.021ppb	ND – 0.08 ppb	Leaching from natural deposits; industrial wastes
Manganese	2011	50 ppb	0.85 ppb	ND – 5.1 ppb	Leaching from natural deposits.
MBAS (Foaming Agents)	2009	500 ppb	0.0028 ppb	ND – 0.03 ppb	Municipal and industrial waste discharges
Odor - Threshold	2011	3 Units	0.6 Units	ND – 2 Units	Naturally-occurring organic materials
Specific Conductance	2011	1,600 umhos/cm	325 umhos/cm	250 – 370 umhos/cm	Substances that form ions when in water; seawater influence
Sulfate	2011	500 ppm	30.05 ppm	12 – 61.86 ppm	Run-off/leaching from natural deposits; industrial wastes
Total Dissolved Solids	2011	1,000 ppm	175.6 ppm	103.5 – 230 ppm	Run-off/leaching from natural deposits

(a) There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.

Sampling Results For Sodium and Hardness

CONSTITUENT	YEAR	MCL	PHG (MCLG)	REDLANDS WATER	RANGE	SOURCE
Sodium	2011	N/A	N/A	11.2 ppm	9.1 – 16 ppm	Generally found in ground and surface water
Hardness	2011	N/A	N/A	142 ppm	83 - 160 ppm	Generally found in ground and surface water

Additional Monitoring (State Regulated & Unregulated Constituents with no MCLs)

CONSTITUENT	YEAR	NOTIFICATION LEVEL	REDLANDS WATER	RANGE
Alkalinity	2011	N/A	93 ppm	42 - 140 ppm
Bicarbonate	2011	N/A	155 ppm	110 – 170 ppm
Boron	2008	1,000 ppb	10 ppb	ND – 57 ppb
Bromide	2011	N/A	ND ppb	ND – ND ppb
Calcium	2011	N/A	43 ppm	25 - 49 ppm
Hexavalent Chromium	2008	N/A	0.26 ppb	0.14 – 0.38 ppb
Langelier Index at 25C	2011	N/A	0.15	-0.36 – 0.46
Magnesium	2011	N/A	8.4 ppm	5 – 9.6 ppm
pH	2011	N/A	7.8	7.6 – 8.0
Potassium	2011	N/A	2.65 ppm	1.5 – 3.2 ppm
Radon	2007	N/A	748 pCi/L	682 – 793 pCi/L
Silica	2005	N/A	17 ppm	15 – 23 ppm
Vanadium	2005	50 ppb	4 ppb	ND – 12 ppb

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).

* The State allows monitoring for some contaminants less than once per year because these contaminants do not change frequently. Some of these data, though representative, are more than one year old.

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 water 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 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, agricultural application, and septic systems.
 - Radioactive contaminants, which can be naturally occurring or the result of oil and gas production, and mining activities.
- In order to ensure water is safe to drink, the United States Environmental Protection Agency (US EPA) and the California Department of Public Health (DPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DPH regulations also establish limits for contaminants in bottled water to provide the same protection for public health.

Additional Information About Drinking Water

All 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 the US EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people 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 from infections. For these people, advice should be sought about drinking water from their health care providers. US EPA/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).

Air Bubbles in the Water

Tap water that appears cloudy could simply have air (bubbles) in the water. Some well sources produce water with dissolved air that remains pressurized in the distribution pipelines until reaching the consumer. When the water flows from the faucet, the air is released and may form tiny air bubbles. After filling a glass, these bubbles will slowly rise and disappear.

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.

Treatment Technique	Conventional Filtration	Turbidity Performance Standard No. 1 (TPS No. 1):
Lowest Monthly % of Samples Meeting TPS No. 1	100%	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.
Highest single turbidity measurement during 2011	0.23	
Number of Violations to Any Surface Water Treatment Regulations	None	

Lead and Copper Analysis Results

The Municipal Utilities and Engineering Department performs an analysis of lead and copper in the water of residential homes in our service area every three years. The last round of testing was conducted in August of 2011. When water comes into contact with residential plumbing containing lead and/or copper, they can leach into the household water system. Of a random sampling of 36 residences tested, none exceeded the Regulatory Action Level (AL) for lead or copper. The 90th percentile value for lead in the water samples was 5.4 parts per billion as compared to an AL of 15 parts per billion for lead, while the 90th percentile for the copper samples was 0.36 parts per million, as compared to an AL of 1.3 parts per million for copper.

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 can not 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 the 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 <http://www.epa.gov/safewater/lead>.

Water Friendly Demonstration Garden

In 2011, in an effort to comply with recent legislation that requires a 20% reduction in water usage, the City of Redlands replaced the landscaping at City Hall to drought tolerant landscaping. The goal was to not only reduce water consumption, but create a water friendly demonstration garden that would encourage and educate residents with ways they could reduce their own consumption. The plants selected for the 14 planters at City Hall were chosen based on their low watering and shade requirements and their consistency with the arid climate of Redlands. To further reduce water consumption, a drip system and

costs, the City partnered with The Home Depot and The Scotts Miracle-Gro Company and was provided with over 200 drought tolerant plants of 30 different species as well as 8 pallets



of top soil and mulch. The City also partnered with The Toro Company, who provided a 1000' drip system, 200 micro sprinklers, and a weather based irrigation timer. With these generous donations, the City has been able to beautify the Civic Center landscape while using minimal water.

weather based irrigation timer were included in the replacements. Ramie Allard, of Blue Door Garden Design Inc., created and donated landscaping plans to the City. To further reduce

For more information on these plants, please stop by City Hall, located at 35 Cajon Street and visit the plant information kiosk located near the City Council Chambers. For further information on how to reduce water consumption stop by Suite 15A and speak with the Water Conservation Coordinator or call 909-798-7527.



California Poppy
(*Eschscholzia californica*)



Baja Fairy Duster
(*Calliandra californica*)



Blue Pickle
(*Senecio mandraliscae*)

Master Studies Project

Non-Motorized Connectivity Master Plan: Staff began development of a comprehensive plan to integrate all aspects of non-motorized transportation within the City. The purpose of this plan is to guide staff in identification of areas of highest priority for reducing people's reliance on automobiles. By integrating all aspects of non-motorized transportation, Redlands will become a city connected by a network of sidewalks, trails, and bicycle paths. This plan will be used as a tool to most effectively allocate funding available to the City in the construction of non-motorized connectivity improvements.

Programs Implemented:

Pavement Management Program: In conjunction with the department of Innovative Technologies, the Municipal Utilities and Engineering Department (MUED) has developed a citywide 2012 Pavement Management Program (PMP). In developing this program, the physical condition of City Street surfaces were evaluated, rated, and the projected life cycle determined. The PMP further identifies a schedule for maintenance and reconstruction of City streets at the appropriate time in order to extend their overall life-expectancy in the most efficient and economical manner. In addition, the PMP established a comprehensive process to prioritize rehabilitation of the City's roadway system and will be used as a powerful tool in the decision-making process in order to best utilize the City's available financial resources. Other advantages of this program include:

1. Improving the quality of the City's streets in a fiscally responsible manner;
2. Implementing a plan that considers both immediate and long-term needs;
3. Promoting transparency by educating the public on the decision-making process involving selection and utilization of street improvement funds throughout the City.

Traffic Calming Program: In 2011, Staff began implementation of the traffic calming program that was developed in 2010. Brookside Avenue between Grant Street and San Mateo Street and Olive Avenue between Cajon Street and Center Street were restriped to include a bike lane. This restriping has resulted in a decrease in the average speed of vehicles traveling on these roads.

Projects Completed:

Smiley Reservoir Site Improvement: To increase reliability of our water system, increase water quality, and increase the longevity of a vital reservoir, installation of an electrical motor center, some demolition and some drainage improvements were made. The project was completed in April 2012.

Chrysolite Pipeline Replacement Project: Through coordination with the County of San Bernardino the existing water main in Chrysolite Avenue was replaced prior to deadline of county Proposition 1B funding requirements. The project includes the replacement of 2,950 linear feet of 8" water main in Chrysolite Avenue. The project was completed August 2011.

Airport 2 Well Rehabilitation: When first installed in 1999, Airport No. 2 well produced 1,500 gallons per minute (gpm). Currently the well produces 1,000 gpm. This well is routinely operated and in 2010 the well produced 346 acre feet of water. In March 2011 Council approved an agreement with South West Pump & Drilling Inc. for the rehabilitation of Airport 2 well. This agreement included a video inspection to determine the condition of the well, a replacement pump, and rehabilitation work on the well. This well was selected for rehabilitation based on the well's reduced production capacity and air production. After removal of the pump and a review of the video from the interior of the well, there was a significant scaling problem which is believed to be part of the cause of the reduced production capacity. City staff discussed the video and condition of the well with the contractor performing the rehabilitation work and determined chemical treatment was necessary. The chemical treatment process was designed to remove the scale and restore some of the well's capacity and reduce some of the air entering the well. In addition to restoring much of the wells lost capacity, its reliability and service life has been greatly extended. The project was completed in August 2011.

Cypress/ Redlands Alley Storm Drain Upgrade: To remedy drainage problems that have been identified in this alley, installation of a single large alley drain and pavement upgrades were made to reduce downstream drainage problems. The project was completed in April 2012.

Primavera P6 and CM: In 2011, MUED implemented two computerized programs that allow for comprehensive project scheduling and tracking of all capital projects and special assignments performed by the MUED staff. The Primavera P6 program tracks all project specific schedules for each segment of the project as well as provides summary schedules of overall scheduling on a more global level for executive review. The Primavera CM program provides resource management for all Capital Program projects. With this resource management tracking, all capital projects can be processed in a systematic approach to observe and deliver information from the beginning of planning through the end of construction.

ilities and Engineering Projects

Grants Received: 2007 - 2012

Total

Highway Safety Improvement Program-Traffic Calming	\$553,700
Department of Water Resources-Opal Basin	\$5,000,000
Calrecycle Rubber Asphalt	\$248,375
Transit Stop Access Improvement Project	\$39,900
Orange Blossom Trail Grant SANBAG	\$746,045
Cycle 2 Safe Routes to School	\$1,000,000
Cycle 5 Safe Routes to School	\$445,500
Cycle 6 Safe Routes to School	\$360,000
Cycle 8 Safe Routes to School	\$810,000
Solar Project (Waste Water Treatment Plant)	\$678,000
Total	\$9,881,520*

*Some grants require a match, which was not included in the shown amounts.

Projects

Quantities

	<i>Completed 2007-YTD</i>	<i>To be completed in FY 2011/12</i>	<i>Total</i>
Resurfaced street (lane miles)	81.8	13.6	95.4
Repaired or replaced sidewalks (miles)	5.8	4.4	10.2
ADA ramps	314.0	110.0	424.0
Road striping (lane miles)	18.8	79.8	98.6
Water main replacement (miles)	7.6	1.5	9.1
Sewer main replacement (miles)	3.3	1.8	5.1
Storm drain replacement (LF)	4,376.0		4,376.0
Landscaping (SF)	72,500.0		72,500.0

Miscellaneous Work

Quantities

	<i>Completed 2007-YTD</i>
Hinckley Upgrade	1.0
Wells rehabilitated	9.0
Community Center Upgrades	1.0
Centrifuge installation	1.0
Redlands Airport Paving project	1.0
Peak Pond line replacement	2.0
Landfill expansion	1.0
Photovoltaic system (Wastewater Treatment Plant)	574 panels
Reservoir recoating/replacement	6.0
Sports Park parking lot paving project	1.0
Safety Hall Construction	1.0

Water Efficient Rebate Program

The City of Redlands is now offering rebates on water efficient products. Rebates are available for the purchase and installation of high efficiency toilets, synthetic turf, high efficiency washer machines, weather based irrigation timers, and high efficiency nozzles. Pre-inspections and post-inspections will be required to be eligible for rebate. After-the-fact rebates will not be given. All rebates will be given on a first come, first serve basis until funds are exhausted, given all requirements are met. For additional requirements and to download application, please visit www.cityofredlands.org/water/conservation or call 909-798-7516

High Efficiency Nozzles

High Efficiency Nozzles are sprinkler nozzles designed to reduce water consumption. High Efficiency Nozzles come in the form of rotary nozzles and spray nozzles. Instead of a fixed stream of water, rotary nozzles deliver multiple streams, reducing water waste. High Efficiency nozzles deliver a wider stream of water that decreases overspray and runoff. Increase in water droplet size in newer spray nozzles decrease the amount of overspray while increasing amount applied to vegetation. High efficiency nozzles are designed for easy replacement on pop-up irrigation heads. The rebate amount for qualifying nozzles is \$4 per nozzle. Eligible nozzles are as follows:

- Nozzles must be new;
- Nozzles must have documentation (pamphlet, sticker, etc.) signifying its water use efficiency;
- While there is no minimum requirement to be eligible for rebate, it is required that all nozzles on an individual valve circuit be replaced at the same time for effective conservation.

High Efficiency Toilets

High Efficiency Toilets (HETs) are toilets that have a low volume flush of 1.28 gallons per flush (gpf) or less. The rebate amount for a qualifying HET is \$100. Eligible HETs are as follows:

- ALL HETs must be new;
- All HETs must have a low volume flush of 1.28 gpf or less;
- All toilets being replaced must be models using 3.5 gpf or greater;
- All HETs must bear the WaterSense logo and must be on the list of WaterSense labeled toilets found at www.epa.gov/watersense.

Other

Additional methods that can prove to reduce water consumption are also available for rebate. This allows Redlands customers, particularly in the industrial and commercial uses, to explore ways to improve water efficiency in their businesses. By offering incentives for additional water savings, given their ability to prove and validate water reduction, customers will be encouraged to practice water conservation in various methods resulting in additional water savings. The rebate amount for this portion of the program is \$1 per 150 gallons saved per year.

Weather Based Smart Irrigation Timers

Weather based smart irrigation timers (Smart timers) improve irrigation efficiency by applying the appropriate amount of water necessary. Thereby reducing over watering. Smart timers have a weather based component that tracks current weather conditions by use of a weather sensor and will turn off, or reduce, irrigation if precipitation is present or irrigation is not needed. The rebate amount for a qualifying Smart timer is \$80. Eligible smart timers are as follows:

- Customers must have an existing automated irrigation system with an operable irrigation controller;
- Smart timer must be new and include a weather sensor or the purchase/installation of a weather sensor that is compatible with existing irrigation timer; thus making it a "smart timer".

Synthetic Turf

Synthetic turf eliminates substantial amounts of water used for outdoor irrigation. By offering incentives for synthetic turf, Redlands is encouraging customers to replace existing turf, resulting in the elimination of the need to irrigate in the City's service area which will also result in reduction on cost of watering and turf maintenance. Synthetic turf rebates will require a pre-inspection and post-inspection and must take place within 90 days after pre-inspection. The rebate amount for qualifying synthetic turf is \$1 per square foot of landscape area replaced. Rebate amount will not exceed \$300. Synthetic turf replacement will be eligible for rebate if:

- Synthetic turf is designed to be water and air permeable.
- Must replace the irrigated landscape area.
- Must be new.
- Must be installed by the homeowner or a licensed contractor.
- Must be approved by applicable homeowners associations.

High Efficiency Washers

High Efficiency Washers (HEWs) yield savings in both water and electricity. HEW's maximum water factor is 6 (based on gallons per cycle/per cubic foot) and use at least 35% less water than conventional washers. Reduction in water usage also reduces energy use because less water needs to be heated. The rebate amount for qualifying HEWs is \$100. Eligible HEWs are as follows:

- HEWs must be new;
- HEWs must be on the current list of Energy Star qualified clothes washers, as found at www.energystar.gov and have a water factor of 6 (gallons per cycle/per cubic foot) or less per load (specified on the qualified current list);
- Must be replacing a unit that uses a higher volume of water per load.

METAL THEFT

The City of Redlands, like many other cities, have experienced an increase in metal theft over the last few years. Metal theft affects water utilities and often poses obstacles in the distribution of water. Fire hydrants, backflow devices, chainlink fencing and wiring are often targets. Below are prevention tips from the Redlands Police Department that can help prevent the theft of both city property and personal property.

Redlands Police Offer Metal Theft Prevention Tips

One of the fastest growing crimes in the United States is metal theft. Copper, aluminum, nickel, stainless steel and scrap iron have become the desired target of thieves looking to make a quick buck. Of particular concern is copper circuit breakers. Copper theft often includes gutters, flashings, downspouts, water lines and electrical wiring that can be quickly stripped from vacant buildings, industrial facilities, commercial buildings and construction sites. Air conditioning units are particularly attractive, and are often tampered with or stolen for their copper coils and pipes that connect to HVAC systems. The metal is then sold to recycling companies and scrap yards for a huge profit. Circuit breakers in industrial buildings have also been targeted. The metal theft problem is exacerbated by the damage caused by the thieves. The theft of \$100 worth of copper might cost you \$10,000 or more in repairs, lost productivity and profits in addition to the replacement cost of the metal. While the economy struggles, metal theft appears to be increasing as people become desperate for any kind of income. Vacant buildings and homes under construction are huge targets for thieves.

Preventing metal theft

The best defense is to prevent metal theft at the source. Consider these measures to reduce your risk:

- Install a security camera with video recorder and keep recordings for a sufficient period.
- Secure all equipment in locked buildings, or in well-lit areas secured by fencing. Better yet, use a perimeter security system with contact alarms or motion detectors, or install a 6-foot perimeter fence with barbed wire at the top (as allowed by local rules, regulations or standards) and gates with locks to avoid theft of common scrap metals, such as copper, nickel, stainless steel and others.
- Post "No Trespassing" placards around the property or signs indicating the presence of a surveillance or security system to deter thieves. Even with non-active systems, these signs tend to discourage some instances of metal theft.
- Remove access to buildings and roofs. Eliminate items that allow for easy entry to buildings, such as trees, ladders, scaffolding, dumpsters and accumulated materials such as pallet piles.
- Secure your building access with deadbolts, and door and window locks.
- Trim or remove shrubbery or other landscaping that allows criminals to hide from view on your property.
- Mark metals with the company's name using paint, hard-to-remove decals or engraving equipment.
- Make sure someone is present when supplies such as copper wiring or pipe are delivered at a job site so the materials can be immediately secured.
- Don't receive supplies earlier than you need them. The longer metal is onsite and unused, the longer it's at risk of theft.
- Develop a relationship with local law enforcement. Ask for their guidance in preventing metal theft at your business and what to do in the event a theft occurs.
- Increase lighting outside, and protect fixtures (such as AC units) with locked metal cages.
- Create a master list of all of your equipment and bulk metal (if applicable) and include pictures. Providing the list to your agent and the authorities might help in recovering the items.
- Talk with your insurance agent. Make sure you have adequate insurance to cover metal theft, and be sure to update your agent as your business changes. For example, if your building becomes partially or fully vacant, your coverage may change without you realizing it.
- Secure all access points to wire junction boxes. Some companies have gone so far as to place boulders on top of junction boxes. Other methods include encasing wire access points in concrete.
- Utilize GPS tracking technology on high ticket items including generators, tractors, etc. Several companies provide this type of service.
- If a metal theft does occur, call the Redlands Police Department immediately. Be sure to preserve the crime scene, including tire tracks, shoe tracks and fingerprints. This evidence could be used to help prosecute the thieves if they are caught.

POSTAL CUSTOMER

Art, Education, Water Conservation

For the past four years the Municipal Utilities & Engineering Department has held a water conservation poster art contest that involves our local elementary school students. Each year has produced wonderful examples of art and water awareness in our community. Below are the winners of this year's contest. We would like to thank all of the participants for their wonderful artwork and commitment to being water smart.



Maggie Adrian
Grade 1
McKinley Elementary

Valeria Fonseca
Grade 4
Crafton Elementary

