

University of Redlands
Water Conservation and Drought Response

Water scarcity is an ongoing reality in California, especially in Southern California where we receive water from Northern California or the Colorado River. On January 17, 2014 a drought emergency was declared as the total rainfall in the state was the lowest in its 163 year history. Although Governor Brown has now lifted the drought emergency, the University continues with its plan to conserve. It is important to note that the University uses only NON-POTABLE WATER for irrigation on campus.

The University has been engaged in water conservation efforts for some time. Listed here are measures that have been taken or are currently being implemented to conserve water on campus:

- Faucet aerators have been installed on all faucets on campus.
- In 2012, all laundry machines in residence halls on campus were upgraded to high efficiency machines which use 18 gallons of water less per load.
- In 2013, shower heads in all residence halls were changed to low-flow shower heads which save approximately five gallons per minute.
- In 2013, over two acres of turf were eliminated and replaced with synthetic turf at the football practice field and no longer require irrigation.
- Overhead spray irrigation continues to be transitioned to more effective and less wasteful drip irrigation systems. This is an ongoing transition as we change to more water wise landscape practices on campus. This has resulted in an annual 30% reduction in irrigation water usage, as compared to fiscal year 2011/12, prior to irrigation improvements on campus.
 - Additionally, in fiscal year 2015/16, the University was successful in reducing approximately 6,000,000 + gallons of domestic water by diverting non-potable water to the cooling towers located in the Energy Center.
 - The University has shares of water entitlements for non-potable irrigation water. There is a finite amount of water that can be used by the University each year, but there are no restrictions or ramifications for using less water than entitled. However, these entitlements allow the University to consider alternative ways to reduce domestic (drinking) water without impacting the environment, such as diverting non-potable water to cooling towers.
- We continue to remove turf under trees, replacing the grass with mulch. This reduces irrigation demand as well as evaporation around our trees. This too is an ongoing process. Numerous planter beds and grass areas have been transitioned to drip irrigation, and/or turf has been eliminated, for example at the Hall of Letters sitting area or outside the Green Room, west of the Chapel.
 - 10 + acres of turf have been removed from campus since 2012
 - 7.37 acres around the Coastal Live Oak trees on the Quad
 - 2 acres located west of the Yard Field (synthetic turf installed)
 - 1.5 acres of miscellaneous turf areas on campus

In light of the recent drought conditions, there are additional and ongoing measures that have been implemented to further our water conservation efforts on campus. Some of these are:

- **Limit the hours and conditions in which the Hunsaker Fountain operates.**
Previously, the Hunsaker Fountain operated 24 hours, 7 days a week. Beginning in 2014, the fountain was idle, except for special occasions such as the start of the academic year, new student orientation, Commencement, etc. As of the 2016/17 fiscal year, the fountain has been operating 12 hours per day, 7 am to 7 pm, 7 days a week, in response to students, staff, and administrator requests.
- **Alter campus watering schedules.** The campus is irrigated by non-potable water. However, Facilities Management is currently working on limiting watering schedules of campus landscape. We attempt to follow City of Redlands recommendations for watering cycles, in particular:
 - **Eliminate watering between Noon – 8pm when possible**
 - **Reduce watering wherever possible**
- **Reduce Fall Campus Overseeding.** Historically, the campus lawns are re-seeded each fall with rye grass so that lawns are green year round. Currently, we have limited the over-seeding, reducing the water needed for this process and for watering lawns during the winter months.

Frequently Asked Questions:

Q. If we are limiting our watering, why do I see the Quad sprinklers running during the day in Fall term?

A. During the Fall term, we typically plant winter rye grass on campus. Although we have limited this due to the drought, we still plant this grass on the Quad. Planting new seed requires an unusually high amount of water to ensure proper seed germination. This is a short-term process that occurs each Fall for two to four weeks depending on seasonal conditions.

Q. I have noticed several sprinkler heads that are watering the sidewalk – wasting water. What is the University doing to stop this?

A. The University consists of 160 acres of landscape. We have two full-time irrigators that are constantly making repairs, programming systems, and helping to identify where water can be reduced, whether through scheduling irrigation or setting up alternative systems such as drip irrigation. If you identify an area where a sprinkler head is misaligned, please report that to Facilities Management at x8020.

Q. Why is the fountain on Colton Avenue impacted by drought restrictions?

A. Although the fountain uses non-potable water, it has a high rate of evaporation. In an effort to be a good steward of our water resources, the University has decided to limit fountain run times.

Q. Doesn't the University have to use a certain amount of water as part of its water allocation?

A. No. The University does have water shares from Lugonia Water Company. The University owns a reservoir that supplies non-potable water to campus for irrigation. The water supplied to the reservoir is provided from Lugonia Water Company. The University's shares allow for a maximum water allocation each year which is impacted during drought conditions. There is no penalty for using less than our water allocation; in fact, we have done so for the last several years.