

Water Management at UC Merced



University of California Overview

- 10 campuses
- 5 medical centers
- \$25 billion annual operating budget
- \$4 billion research grants & contracts
- 3 affiliated national laboratories

- 150 academic disciplines
- 600 graduate degree programs
- 238,700 students
- 198,300 faculty & staff members

University of California, Merced

- Total staff & faculty 2015: 1,360
- Total students, fall 2016: 6,800
- 1.3 MGSF
- 108 acres



University of California, Merced

SCHOOL OF NATURAL SCIENCES — SCHOOL OF ENGINEERING — SCHOOL OF SOCIAL SCIENCES, HUMANITIES AND ARTS



UC MERCED CENTERS:

- Health Sciences Research Institute
- UC Water
- University of California Advanced Solar Technologies Institute (UC Solar)
- CITRIS
- Blum Center
- Sierra Nevada Research Institute

University of California, Merced

PROJECT 2020: Expand campus to support 10,000 students

Long Range Development Plan (LRDP) Phase 2:

To guide growth to 10,000 students, and the eventual full development of the UC Merced campus to accommodate 25,000 students.

Program Concept:

1.2 MGSF of new facilities, including:

- Academic and research space
- 1700 residential beds
- Mixed-use, collaborative work spaces
- Recreation, dining and student-life facilities



Triple Zero Commitment

UC Merced is COMMITTED to achieving the following sustainability goals by 2020:

NET ZERO ENERGY

Net zero energy through efficiency and renewable energy production

ZERO LANDFILL WASTE

Divert from landfill all campus waste by reducing excess consumption and recycling to the maximum extent feasible

NET ZERO GREENHOUSE GAS EMISSIONS

Prevent as much carbon emissions as campus produces

UC MERCED
triplezero
zero net energy. zero landfill waste.
zero net greenhouse gas emissions.



UC MERCED LEED Certifications

Use LEED certification to drive comprehensive, continuous improvement in the sustainability of site development, building construction, and operation

PLATINUM CERTIFIED: Science and Engineering Building 2 Yablokoff Wallace Dining Center



University of California System Wide Water Efforts

- UC Sustainable Practices Policy
 - Reduce potable water consumption 20% by 2020 and 36% by 2025
 - Develop and maintain water action plan
 - Identify and develop plan for replacement of single pass cooling systems
 - New liquid cooling equipment connection requirements
- Water Working Group



UC Merced Water Conservation

- Governor Brown Mandate 2015
- UC Merced Water Watch
 - Water dashboard

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UC Merced Water Watch
Facilities Management

Home | Water Watch | Conservation | Facilities Management | Sustainability

CTK Quad
The quad is carefully watered by hand to ensure the minimum amount of water is used to prevent invasive weeds and killing the trees.

Previous | Pause | Next

Nine-Month Target: Jun 2015 - Feb 2016

Usage: 53,977,176 Gallons

Target: 53,977,176 Gallons

Jan-Feb, Nov-Dec, Aug-Sep, May-Jun, Dec-Jan, Oct-Nov, Sep-Oct, Jul-Aug, Jun-Jul

Welcome to the Facilities Management Water Watch Webpage!

California is experiencing its third year of drought, which started in 2011. In 2014, the state experienced its third driest year on record since 1896. In April 2015, Gov. Brown signed an executive order requiring communities to reduce potable water usage by at least 25 percent across the state.

"The State Water Resources Control Board (Water Board) shall impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage through Feb. 28, 2016. These restrictions will require water suppliers to California's cities and towns to reduce usage as compared to the amount used in 2013. These restrictions should consider the relative per capita water usage of each water suppliers' service area and require that those areas with high per capita use achieve proportionally greater reductions than those with low use. The California Public Utilities Commission is requested to take similar action with respect to investor-owned utilities providing water services."

UC Merced is pursuing strategies and projects to aggressively reduce potable water use to meet the 25 percent potable water reduction goal. This is especially difficult because the campus is still experiencing growth during this time. However, we are confident that with support from the campus community, we will meet the water reduction challenge.

This webpage tracks UC Merced's potable water usage as well as the campus' specific efforts to meet the 25 percent reduction goal.

Recent News Items

- [City of Merced Water Reduction](#)
06/02/2015
- [Report A Leak](#)
06/02/2015
- [Governor's Mandate](#)
05/28/2015

Resources

- [Site List](#)
- [Directory](#)
- [About UC Merced](#)

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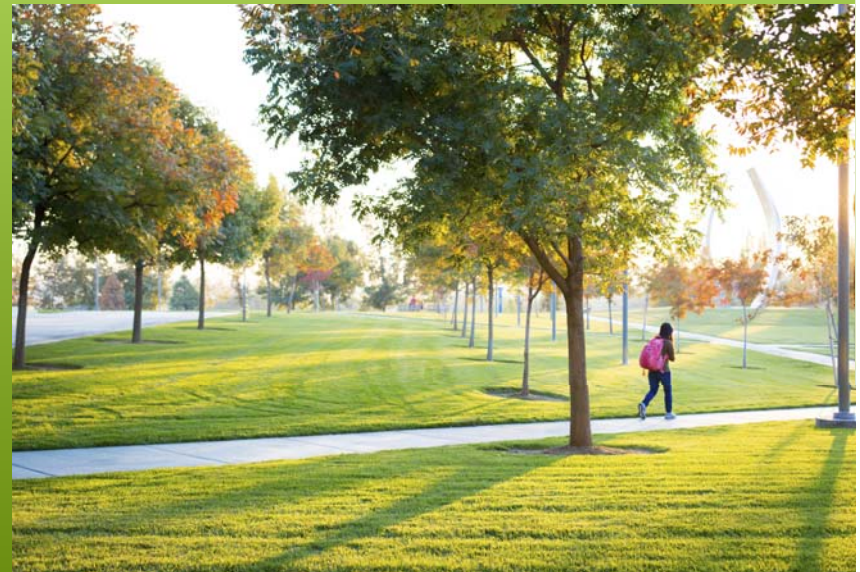
UC Merced Water Conservation: Buildings

- USGBC LEED
- Title 24: California Energy Code
- Report a Leak - QR Code
- Challenge
 - Growing campus population – utilize per campus weighted user



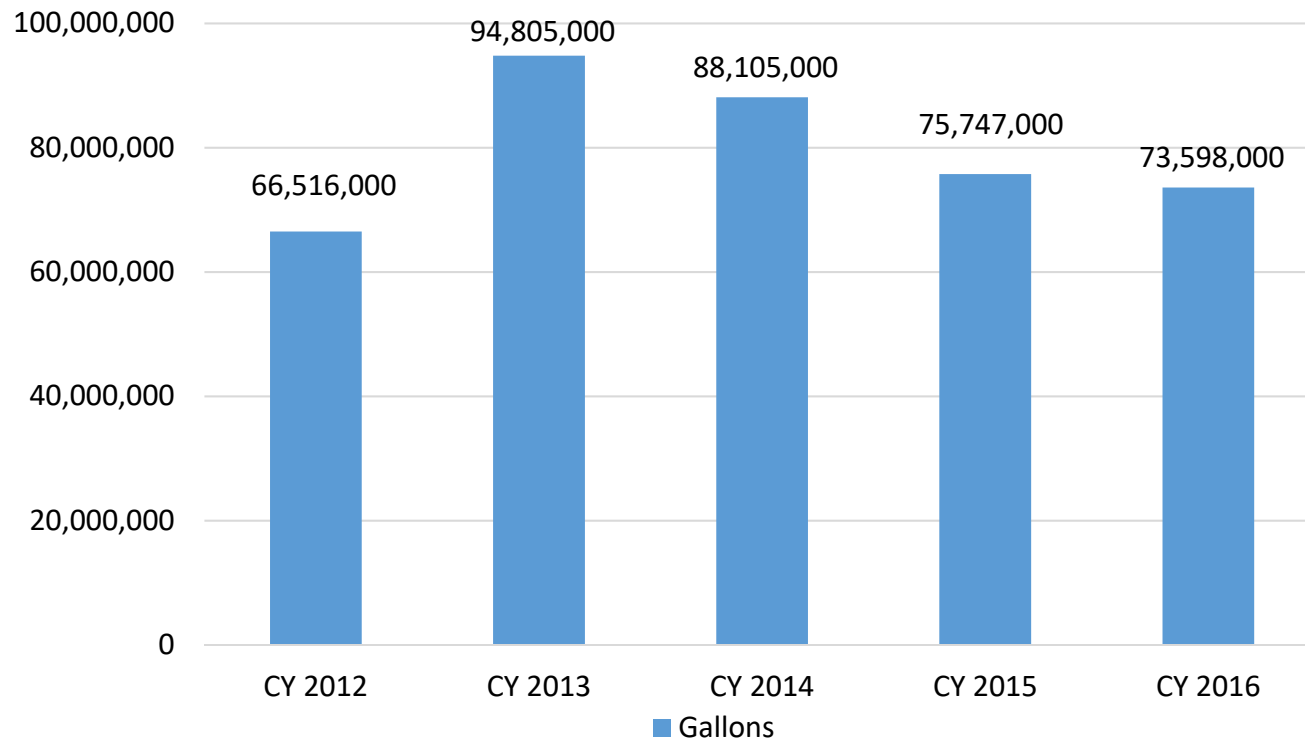
UC Merced Water Conservation: Grounds/Irrigation

- Hydrogel - Aquacents
- Leak detection – Beacon
- Central irrigation controller – Tucor
- Eliminate overspray, wind drift
- Turf replacement with bark and rock
- Irrigation water savings
 - 2015 vs. 2016: 2.8M gallons
- Challenge
 - Lack of separate tree and turf irrigation



UC Merced Water Use

Gallons of Water
(In Millions)



Questions?

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