

Water Action Plan

CSU DOMINGUEZ HILLS

2019 Calendar Year Update

Office of Sustainability

Tel (310) 243-2303

1000 East Victoria Street
Carson CA 90747

www.csudh.edu/sustainability
sustainability@csudh.edu

2019 Calendar Year Update

Overall Usage

After establishing the Water Action Plan in 2017, the campus was able to decrease its overall consumption (reclaimed and potable) of water by 2,997 CCF (or 2,241,756 gallons) in the 2018 calendar year, and by 46,891 CCF from 2017 levels (or 35,074,468 gallons) in the 2019 calendar year.

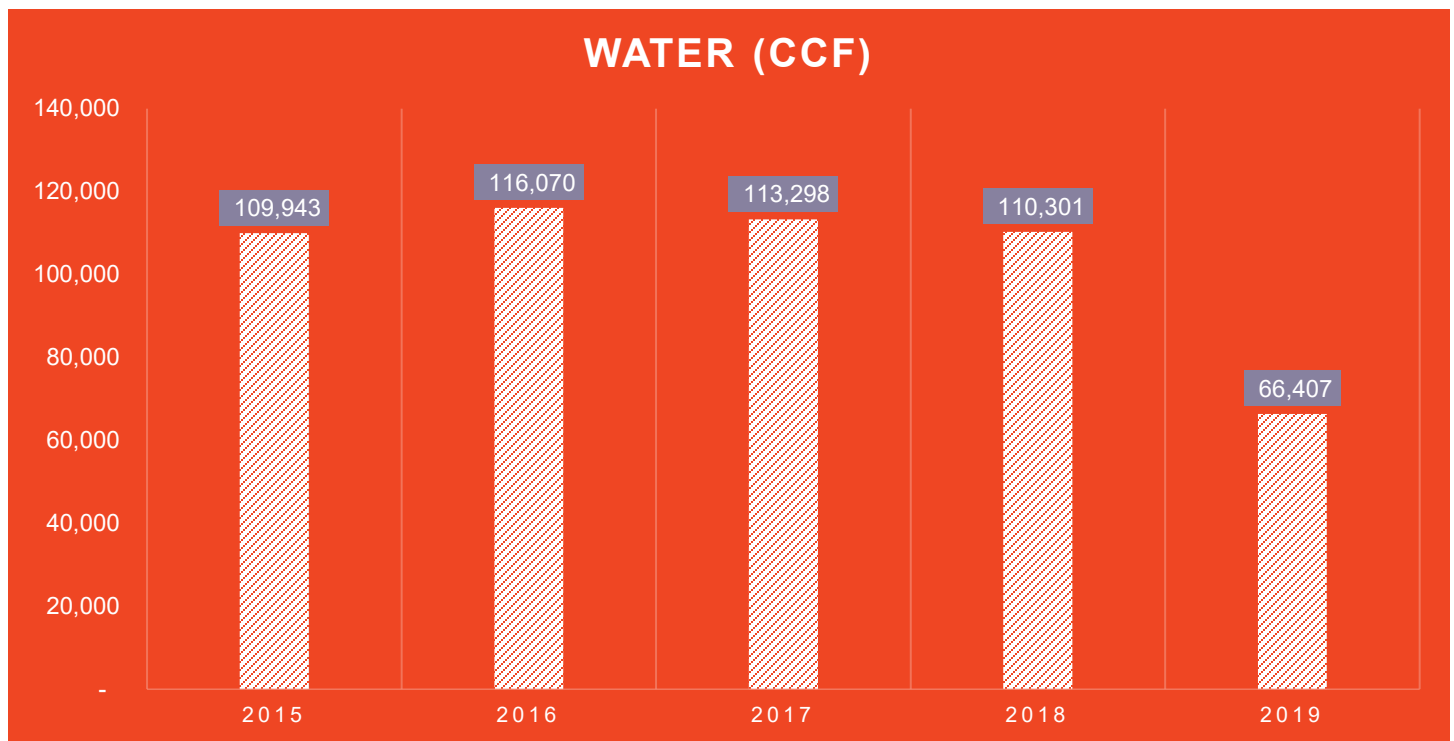


Figure 1- Total campus water consumption by calendar year for CSUDH.

Reclaimed and Potable Water Usage

Potable water on campus is mostly used for indoor applications, with the exception of landscaping in Housing and parts of Parking Lot 7 while reclaimed water is used exclusively for outdoor irrigation.

Based on the Five Year Water Action Plan, the campus is committed to water conservation targets in all categories: potable water usage, reclaimed water usage, and overall water consumption.

Five-year comparison of actual water consumption in CCF including the 2019 calendar year is included below:

Calendar Year	Potable Water (CCF)	Reclaimed Water (CCF)	Total (CCF)
2015	42,933	67,009	109,943

2019 Calendar Year Update

2016	52,963	63,107	116,070
2017	51,561	61,773	113,298
2018	48,587	61,714	110,301
2019	15,369	51,038	66,407

Water Action Plan Progress

Based on the Five Year Water Action Plan, the campus exceeded its targets in the 2019 calendar year by a significant amount, mostly due to major building construction eliminating a large building complex of older, more inefficient buildings (as described in the Activities section).

Category	Goal	2019 CY Usage	Reductions Needed
<i>Net Zero Water: water consumption matches natural water balance</i>	80,228 CCF	66,407 CCF	None (+13,821 CCF)
<i>Chancellor's Office: 20% water conservation from 2013 levels by 2020</i>	76,785 CCF	66,407 CCF	None (+10,378 CCF)
Potable Water: 10% reduction per capita from 2013 levels	2,444.7 gallons/capita (10% from 2013 levels)	754.4 gallons/capita (15,239.1 FTE Employees & Students)	None (+1,690.3 gallons/capita)
Reclaimed Water: 20% reduction from 2013 levels	56,080 CCF	51,038 CCF	None (+5,042 CCF)

2019 Calendar Year Activities

To support the Water Action Plan's goals, the campus implemented several measures in the 2019 calendar year to support water conservation and efficiency. It also benefitted from major construction that reduced its square footage:

- In March 2019, 47,491 square feet of older building structures (Small College complex) were demolished with potable and reclaimed water lines to that space disconnected at that time. This correlates to the majority of the drop in potable water consumption for the 2019 calendar year for the campus. As these buildings were slated for demolition, many infrastructure improvements and maintenance tasks were cancelled for the year prior which may have resulted in leaks going unaddressed prior to that time. These buildings were also some of the oldest and

2019 Calendar Year Update

most inefficient in the campus portfolio, which may have also contributed to a higher water footprint before this date.

- In May of 2019, Central Plant replaced its natural gas-fired absorbers with more efficient electric chillers. The more efficient chillers produce less heat than the gas-fired absorbers, thereby alleviating water demand from the cooling towers, providing additional water savings in the order of approximately 2.8 million gallons/year.
- Facilities Services continued to respond to reports of leaks by campus users, addressing 86 placed work orders related to plumbing leaks in the 2019 calendar year.
- Continued to add water sub-meters where feasible to campus buildings and equipment.
 - In Fall of 2019, with the opening of the new Classroom Village complex, Central Plant was able to detect an ongoing toilet leak through the water sub-meter for the building and its EcoVox data dashboard. Based on the live EcoVox readings from the water meter for the building, Central Plant was able to notify the Plumbing shop of unusual water activity and address the leak in a timely manner.
 - These types of preventative and early response measures will continue to occur as sub-meters continue to be added throughout the campus and connected to EcoVox.
- Integrated soft infrastructure projects to help renew water balance as part of new capital planning project design for the new science and business buildings as well as the new phase of Housing (all under construction).
- Ongoing construction of the new science building which is slated to be certified as a LEED Platinum building.
- Continued to upgrade the CalWater sensor system to add additional irrigation points for monitoring.
- Enforced code compliance on new toilets and fixtures replacing existing fixtures (1.2 gpm sinks, 1.28 gpf toilets).
- The Sustainable Landscape Committee continued to review landscape projects for ensuring compliance with the Sustainable Landscape Plan which incorporates MWELo standards for irrigation for three major capital projects (Classroom Village, INI, Housing Phase III). It also took ownership of a 245 square-foot lawn area next to NSM and converted it into a less water-intensive native species garden. The campus earned 2019 Tree Campus USA recognition for its collective landscape management efforts.

Contact Information



Office of Sustainability, Facilities Services
NSM F-127

California State University Dominguez Hills
1000 East Victoria Street
Carson, CA 90747

Tel: (310) 243-2303
sustainability@csudh.edu

Additional questions? Contact Sustainability Coordinator Ellie Perry at eperry@csudh.edu or (310) 243-2303