

FY 14-15 Sustainability Annual Report

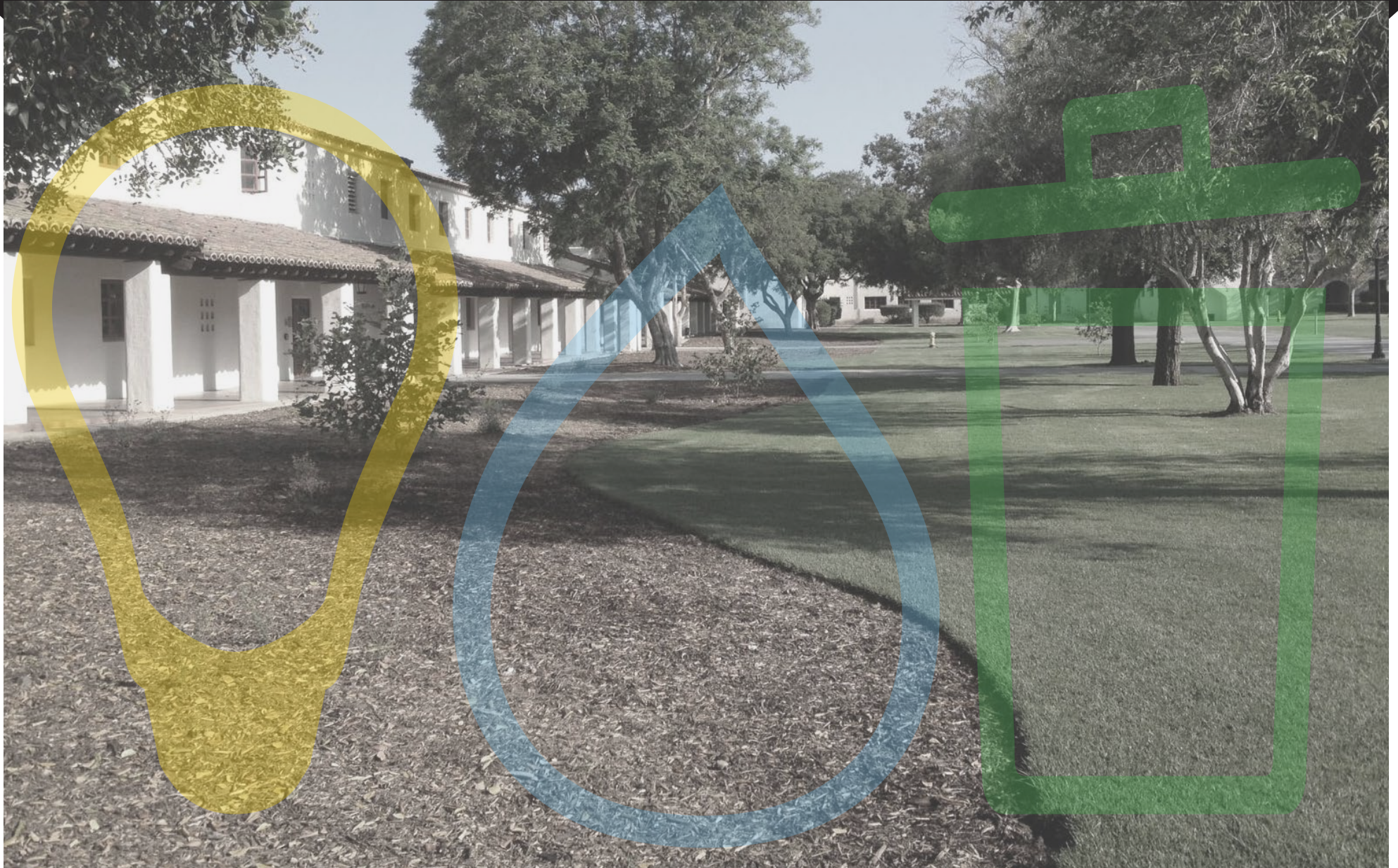


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CSU Channel Islands Sustainability

CSU Channel Islands has a very strong commitment to promoting an atmosphere and environment of sustainable practices and attitudes. Indeed, Sustainability is identified as one of the campus's strategic goals. Minimizing our impact on the environment is a major consideration in all activities in Facilities Services, and the entire campus community.

Facilities Services Mission Statement:

“Facilities Services (FS) supports CI stakeholders by providing highest quality service by practicing excellent workmanship, exhibiting forward vision, using resources effectively and efficiently, and continuously improving the quality of service. FS provides support for the entire campus through Facilities Support, Operations, Maintenance Stores, Work Control Center, and Planning, Design and Construction. Our core values are excellence in service, value our team members, continuous improvement, customer service and sustainable performance.”

Sustainability is incorporated into the CI environment in many ways; the primary focus of Facilities Services efforts involve:

- Energy Conservation
- Water Conservation
- Waste Minimization and Landfill Diversion

We also assist other entities and departments in their efforts by providing support for:

- Dining Services
- Transportation
- University Glen / Site Authority
- Channel Island Power (co-gen)



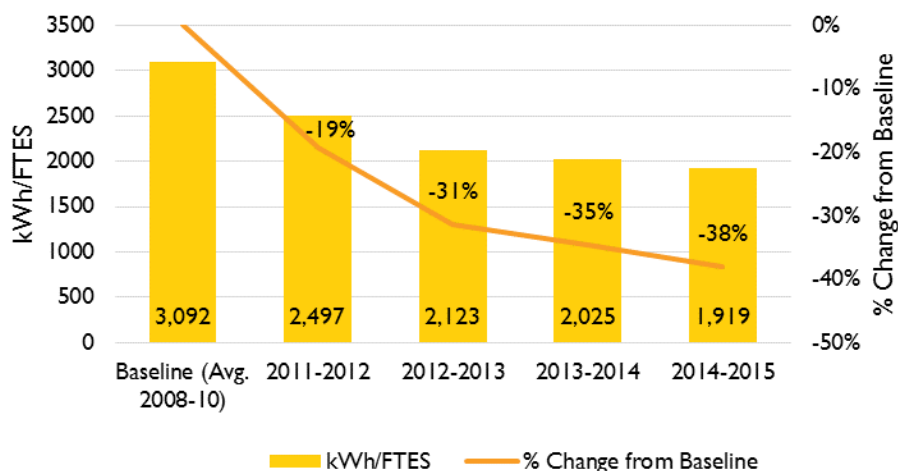
38% Reduction (kWh/FTES)
in usage from 2008-10
baseline data

Energy Consumption

23% Reduction (kWh/GSF)
in usage from 2008-10
baseline data

CSU Channel Islands makes concerted efforts to conserve energy wherever possible. From retrofitting street lights, to Energy Star-Rated equipment, to LEED* design of new buildings, minimal use of electricity is a key focus.
(*Leadership in Energy & Environmental Design)

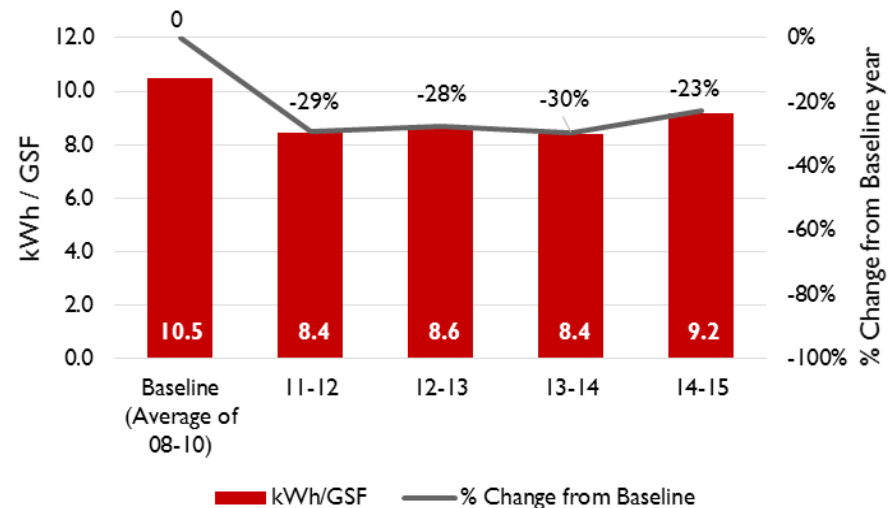
ELECTRICITY USAGE - KWH PER FTES



The electricity usage for the 2014-2015 Fiscal year was 1,919 kWh/FTES which is a 38% reduction from the baseline period 2008-2010 which was 3092 kWh/FTES. With the continuing growth of the campus population and built environment, reducing these numbers even further is a key goal.

*FTES 2014-15: Full Time Equivalent Students is 5100.

CSUCI ELECTRICITY USAGE KWH PER GSF



With the addition of new buildings like Sierra Hall, and soon to follow, Santa Rosa Phase 3 housing, our electricity consumption is still on a trend toward usage reduction and conservation. Our kWh/GSF for 2014-2015 is down 23% compared with baseline year 2008-2009. This is a bit less than when we compare usage to Full Time Equivalent Students, because that growth rate is higher than new building additions.

*kWh: Kilowatt Hour

*GSF 2014-15: Gross Square Feet is 1,064,030.

Energy Conservation

Electricity usage is often a significant factor in the consideration of a facility's sustainability. It is also easily influenced. Simple actions such as remembering to turn off lights when leaving a room or putting on an extra layer before turning up the thermostat can make substantial impacts.

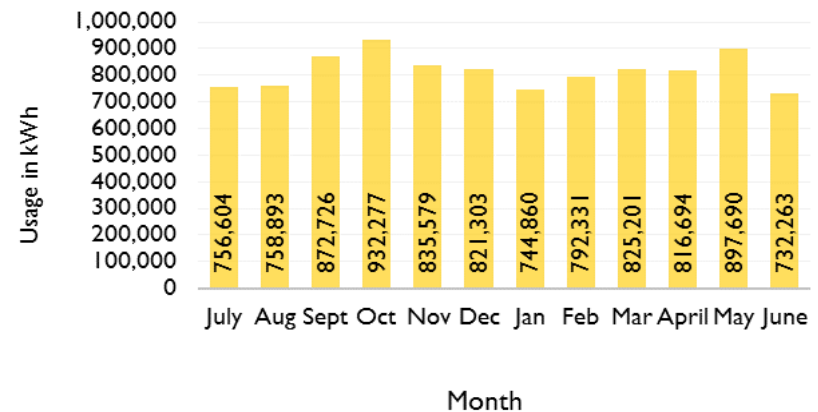
FS has taken measures to improve electrical efficiency by replacing existing equipment with more efficient models, as well as installing efficient equipment and technologies in new facilities such as Sierra Hall.

While more efficient equipment can cost more than standard performance, the costs over time can be recuperated in utility savings. A side benefit is the avoidance of greenhouse gases produced by production of electricity in fossil-fueled power plants.

Some of the conservation measures taken this year include:

- Variable speed drives on HVAC fans
- Replacement of lighting with LED equipment
- Chilled-beam (HVAC) technology in Sierra Hall
- State-of-the-art lighting controls

ELECTRICITY USAGE FY 2014-15



This graph depicts a monthly breakdown of electricity usage for the entire campus. The peak usage is during warmer, more student populated months during the academic year.



40%

Reduction in potable use from 2008-10 baseline data

Water Consumption

58%

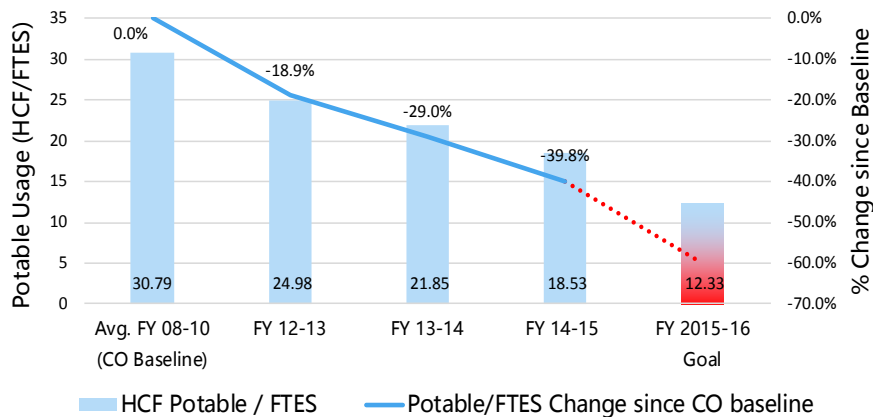
Reduction in recycled use from 2008-10 baseline

Potable Water: Compared to our baseline in 2008-2010, we've reduced potable water consumption almost 40% on a per student basis. In 2016, as compared calendar year 2013 as a baseline, the campus is required to reduce overall potable water usage by 36%. This is mandated by the Governor's declaration of a drought and the local water district's classification as a Tier 9 consumer.

Recycled Water: Recycled water is filtered and treated from sewer and potable water supplies at our local water supplier, Camrosa Water District. By using this water we are saving potable and groundwater supplies that can be used for other purposes. The quality of this water is completely safe for landscaping irrigation purposes as well as other applications the campus is considering.

POTABLE CHANGE SINCE BASELINE

ON PER FTES BASIS

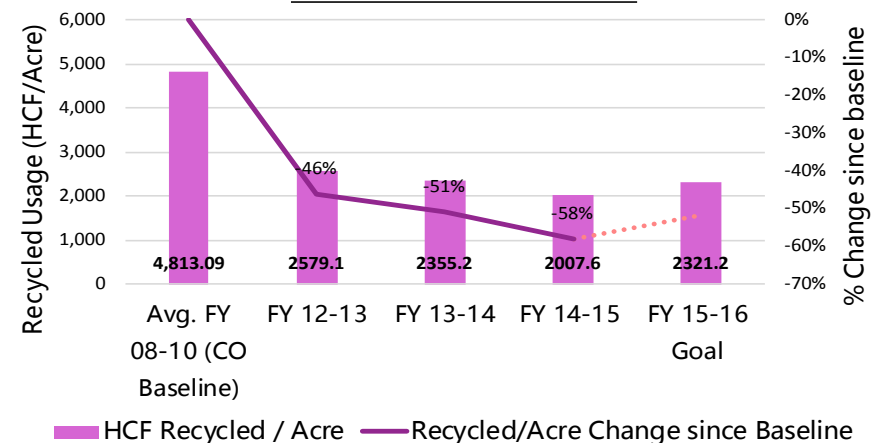


The campus has done an excellent job in water conservation efforts, but has a far distance to go in order to make the 36% goal. All personnel on site must be extremely conscientious of their water usage habits, and conserve at every opportunity.

***Potable or Domestic Water:** Water used for human consumption.

RECYCLED CHANGE SINCE BASELINE

ON PER ACRE BASIS



In addition to landscape irrigation, CI is investigating use of recycled water in other applications such as cooling towers in the Central Plant, and toilets in new building construction. Besides saving potable water for other uses, CI saves money on the cost of recycled water over potable!

***Recycled Water:** Water reclaimed from sewage and storm runoff, used for irrigation and other non-consumption uses.

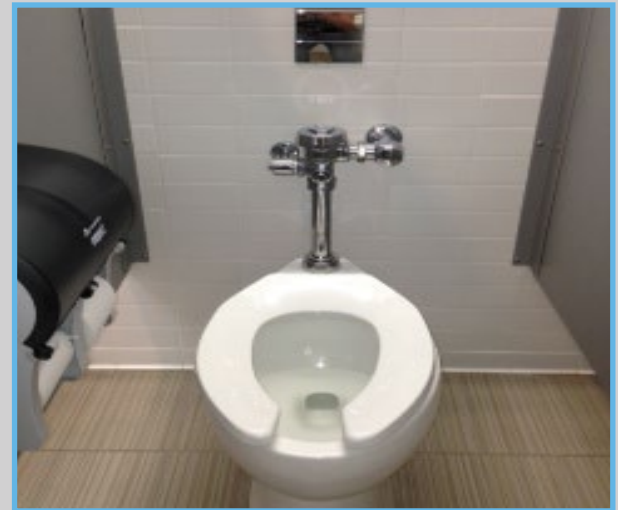
Water Conservation

Water conservation has become a critical, primary focus of sustainability efforts recently. While the campus community has been aggressive in its conservation and reduction efforts in the past, a declaration of severe drought by the Governor of California has heightened focus on action. Previous energy has been spent on the following measures:

- Replacement of toilets with low- and ultra-low-flow models
- Replacement of urinals with waterless models
- Replacement of faucet aerators with low-flow models on bathroom and kitchen faucets
- Purchase of Energy Star equipment and appliances
- Conversion of irrigation systems from potable to recycled water
- Modification of landscaping to drought-tolerant features

New focus is being given to additional areas that are a little less conventional and simple. Some that are being considered include:

- Conversion of operational processes to use recycled water instead of potable
- Modification of fountain maintenance practices
- Evaluation of common maintenance washing practices of facilities, vehicles, etc.
- Construction of new buildings with recycled water used in the toilets
- Removal of additional turf / lawn areas and replacement with drought-tolerant landscape



47%

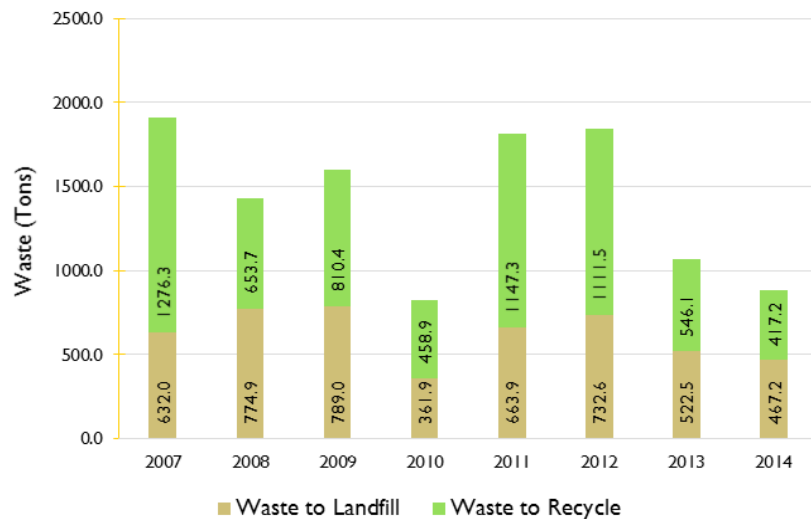
Higher diversion rate of waste from landfill to recycle versus 2008

Waste Management

62%

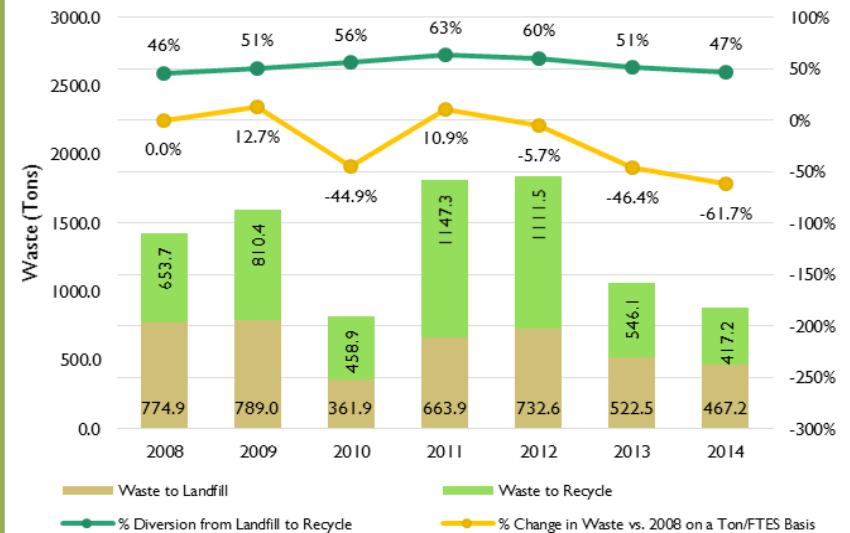
Less waste generated overall per student versus 2008

CI WASTE GENERATION



Waste to landfill has decreased from 774.9 tons in 2008 to 467.2 tons in 2014-2015. These are absolute numbers, not expressed as a unit per student. This means that our waste creating is decreasing even as our campus population is increasing. We are putting less waste into the landfills AND we are sending less to be recycled overall. While recycling is preferable to sending material to landfill, it still has its environmental impacts in that it has to be transported, processed, and redeployed, all of which involve additional energy and potential emissions.

CI WASTE GENERATION AND DIVERSION



The % reduction is shown compared to the baseline year 2008. There has been a 47% reduction in the amount of waste being sent to the landfill and instead being recycled. Overall, the amount of waste being generated per student has decreased by 61.7% over the last six years. It is statistics like these that demonstrate how truly committed the CI community is to living and operating sustainability!

Waste Minimization

Waste generation and diversion efforts are one of the areas people can have a significant influence with their sustainable practices. From choosing to purchase products with less packaging, or packaging that is recyclable or reusable, to making conscious choices about how waste is handled, individuals can make a substantial impact. The CI campus has recycle receptacles in almost all areas where waste can be deposited.

In addition to post-consumer activity, Channel Islands is proactive in its waste-control efforts. We periodically meet with the disposal contractor to discuss how we are doing in our separation efforts and stay up-to-speed on new regulations and technology. All of the new construction that occurs on campus also has an enormous effect on our waste generation. Consideration of handling of construction waste materials is given from the early planning stages of all projects.

A few more Waste Minimization and Management Practices:

- All demolished building materials are recycled into new buildings
- Many student projects support waste minimization like the Hydration Stations and the Recycling Drive around campus
- Recycling drive took place at the Student Union in the spring of 2015
- CI water bottles are given out around campus in another effort to reduce plastic waste



Acknowledgments

CSU Channel Islands is striving for a more sustainable campus community every day.
For questions, concern, or ideas on new sustainability efforts please email Coleen.Barsley@csuci.edu

Appreciation goes out to the following contributors:

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