

Annual Sustainability Report 2016-17



California State
University

**FACILITIES
SERVICES**

C H A N N E L
I S L A N D S



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CSU Channel Islands Facilities Services

Facilities Services incorporates sustainability on campus through:

- Energy Conservation
- Water Conservation
- Waste Minimization and Landfill Diversion
- Greenhouse Gas monitoring and minimization
- Native Landscaping and Habitat Preservation
- Riparian Restoration Projects

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

- Academic Affairs and Student Project Development
- Dining Services
- Transportation
- University Glen / Site Authority
- Channel Islands Power (co-gen)
- Housing and Residential Education

Our 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.



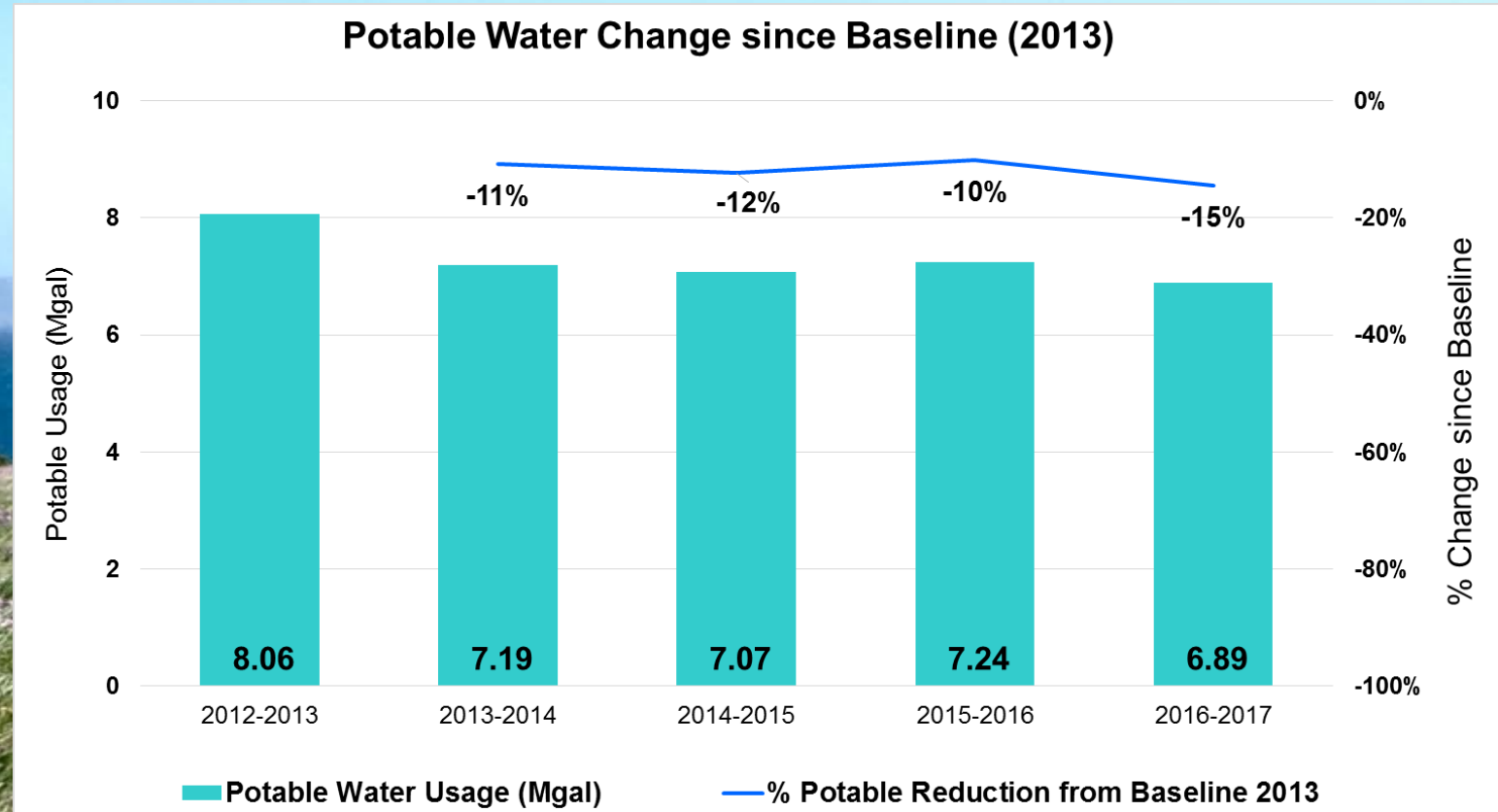
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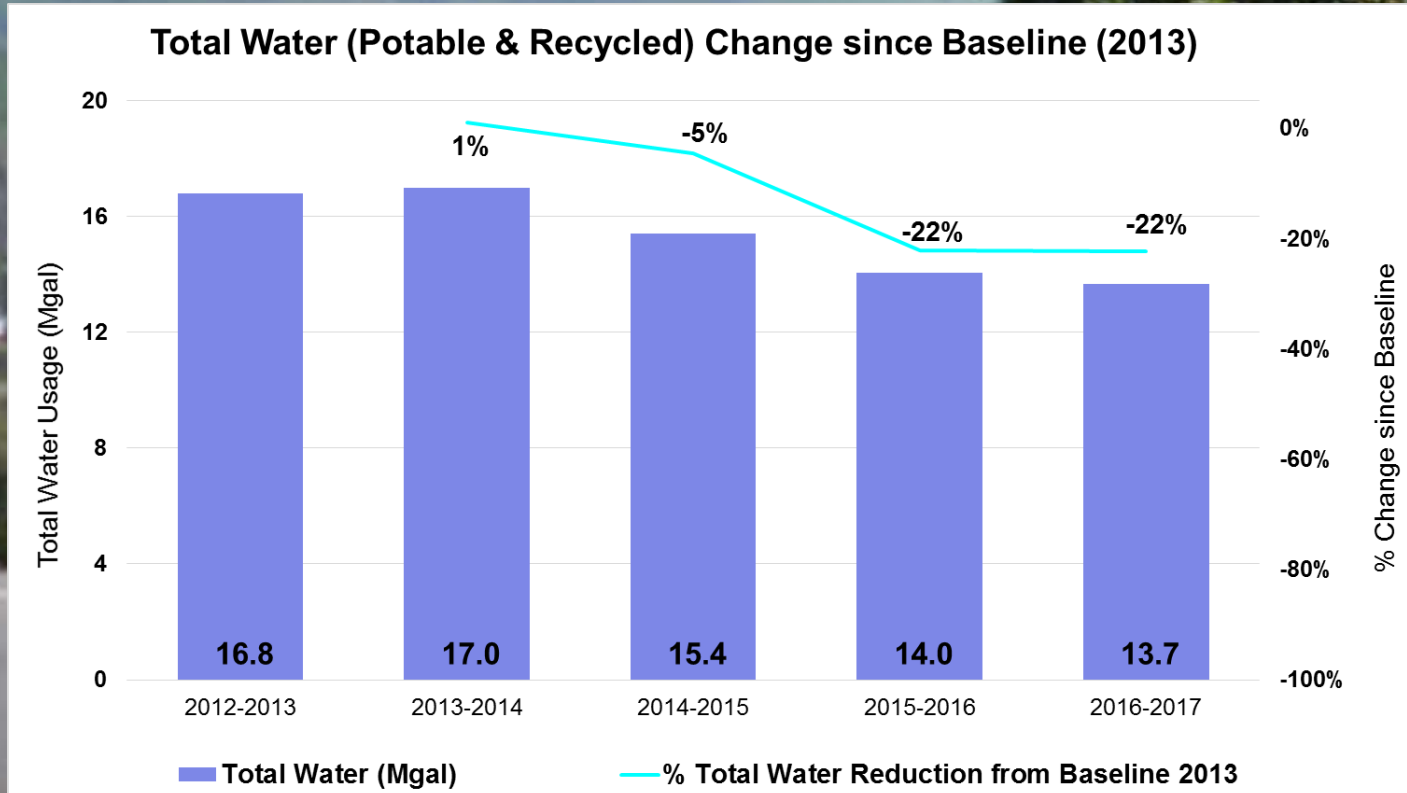
IRONWOOD
HALL

Potable Water



Potable water is what we use for drinking, cooking, bathing and laundry. Our municipal provider, Camrosa Water District, has requested that potable water usage be reduced by **15%** compared to our 2013 baseline year. This means that in spite of campus growth, we must continue to reduce our water usage. CSUCI has successfully installed efficient fixtures around campus. Further progress toward our reduction goals will have to come from efforts in the community. That means our students, faculty and staff now hold the power to make a difference.

Total Water



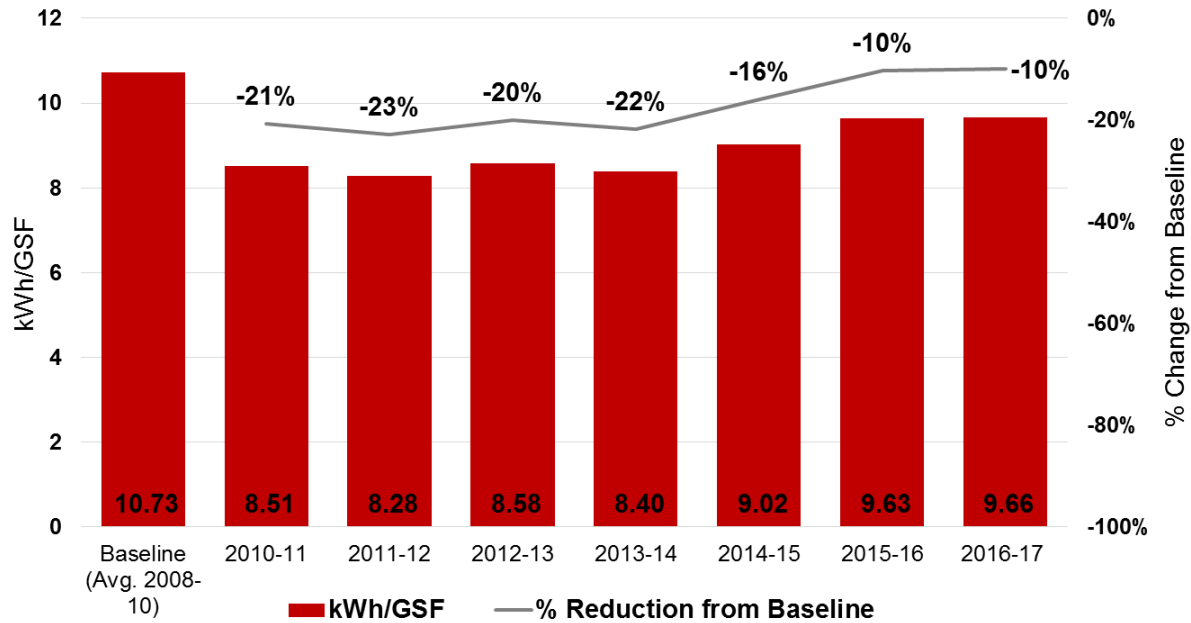
Total water includes all potable and recycled water used on campus. Recycled water is “waste water” that has received tertiary treatment for use in irrigation and other non-consumption purposes. The CSU Chancellor’s Office has set a reduction goal for total water of **25%** by 2020 compared to the 2013 baseline. We are working to meet this goal by using only recycled water for irrigation and utilizing SmartLink Irrigation Controller to continuously evaluate how we irrigate for opportunities to reduce. Making future reductions to total water involves educating our campus and community members how to make their own efforts to reduce.

Reduction Tips: Water

- Limit shower duration and frequency and avoid taking baths.
- Turn off the tap while lathering hands with soap and while brushing teeth.
- Only run full loads of laundry and dishes. If hand washing dishes, fill up the sink instead of letting it run.
- Update to efficient fixtures or repair leaky sinks or toilets; students in housing simply place a work order.
- Reuse water for cooking pasta as broth for stew or to water your plants.
- Use car washes instead of washing at home. Car washes are required to treat and reuse their water.
- Convert turf to drought tolerant and native plants which support local animals and insects and look more beautiful!

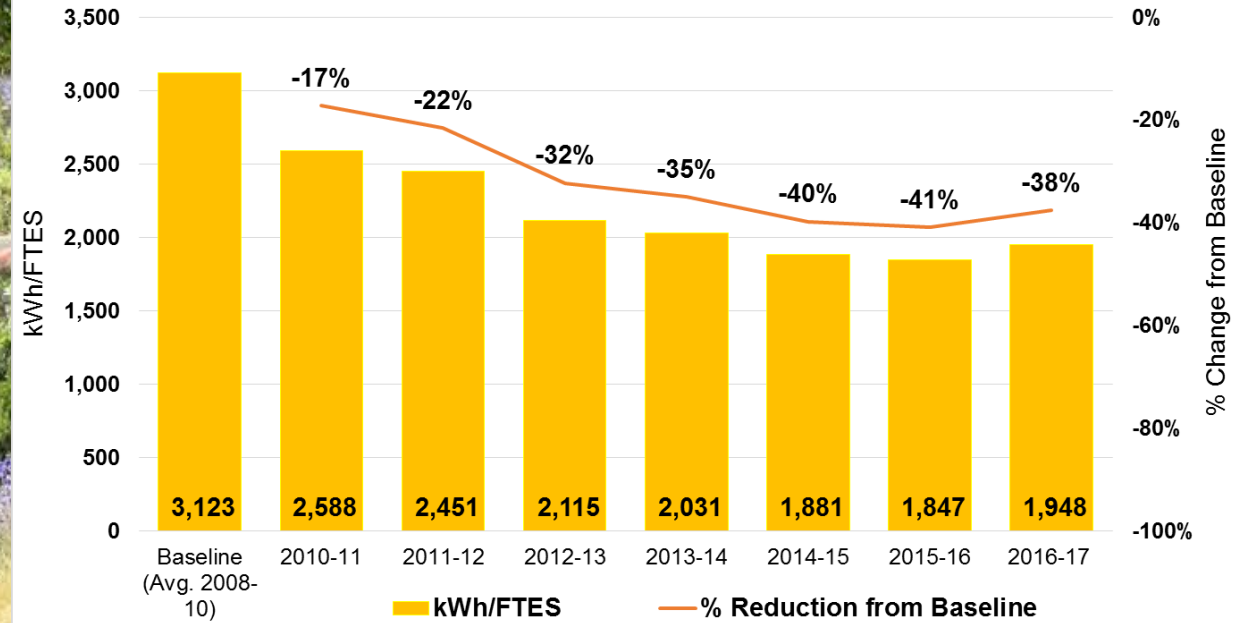
Electricity

Electricity Usage - kiloWattHours per Gross Square Feet



With continual upgrades, and the construction of new, efficient facilities, our campus is able to grow while making significant improvements in overall campus efficiency, on a per square foot basis.

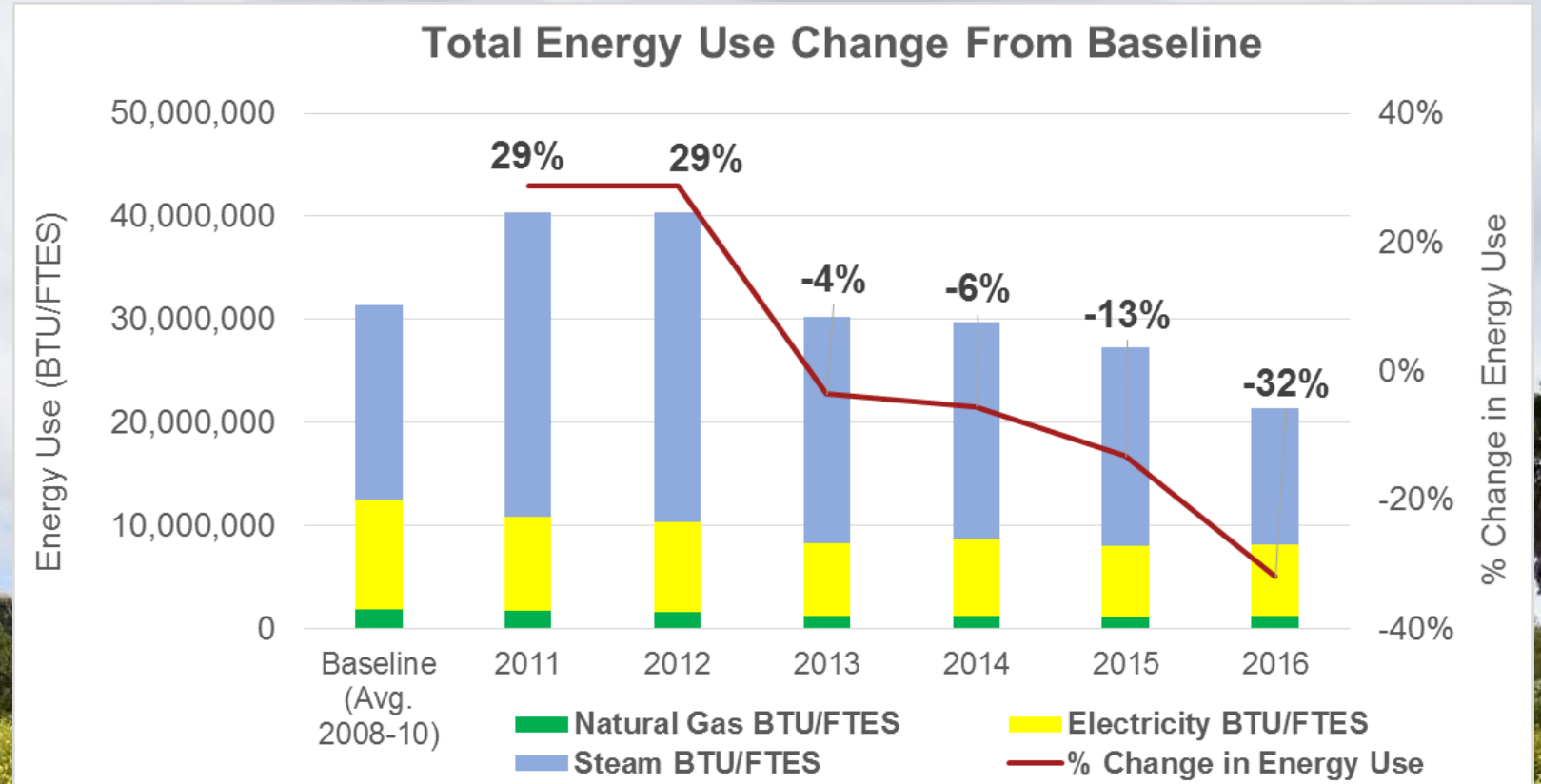
Electricity Usage - kiloWattHours per Full Time Equivalent Students



Over the past six years, our electricity usage per full time equivalent student has been steadily decreasing. Despite the growth in CI's student population, the energy used per student is still being reduced.

CSU Channel Islands uses a baseline averaged from the usage between 2008-2010. From this baseline, we need to reduce electricity usage by **25%** on a per student basis. This reduction is instrumental in reaching our sustainability and greenhouse gas reduction goals.

Total Energy



Total energy is our method of representing all of the resources used to provide energy to the campus. The majority of our energy comes from Channel Islands Power (CIP). CIP generates our electricity from both gas and steam turbines. The “waste” steam is then channeled to Central Plant where it is used to produce hot and chilled water. Hot water is used domestically for showers and sinks while both hot and chilled water contribute to our HVAC system to keep buildings at comfortable temperatures. Whenever our electricity requirements exceed 1.5 MW or, CIP is not operating, we obtain electricity through the grid provided by Southern California Edison.

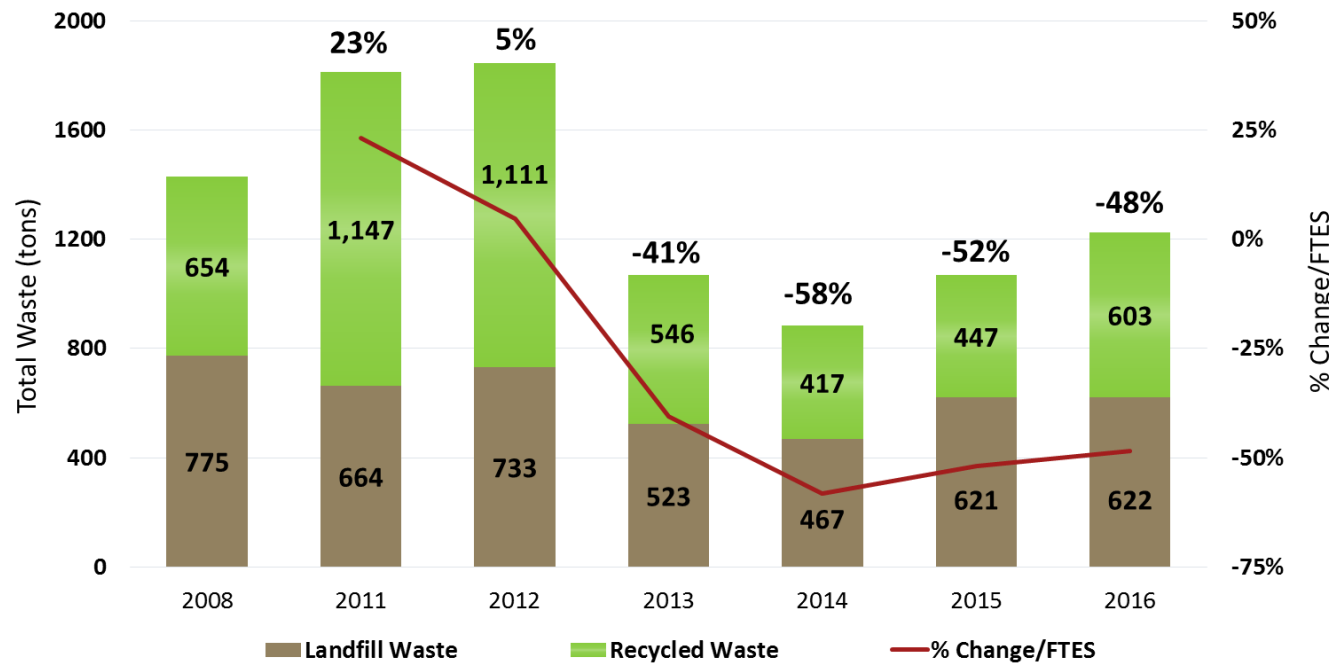
Reduction Tips: Energy

- Close windows and doors while air conditioning, whether that be at home, at school or in the car. Air Handlers are very costly and while they work excellently to cool buildings, they are ineffective at cooling the outdoors.
- Wash clothes in cold water – it cleans just as well without paying to heat it.
- Switching to efficient light bulbs can reduce energy usage as much as 80%.
- Upgrade to Energy Star appliances.
- Power strips are useful for turning multiple appliances off at once. Most electronics constantly use small amounts of energy – and it adds up!
- Use windows for free lighting, and blinds to regulate temperature.
- Use a programmable thermostat. Clean A/C filters regularly – dirty filters force the unit to run harder and spreads dust and allergens.
- Seal air leaks and properly insulate before the air you paid for escapes right out the front door!

Landfill and Recycling

Our waste goal as set by the Chancellor's Office is to reduce solid waste disposal by **50%** compared to 2008. Even with almost twice the number of students (and supporting faculty and staff) than we had then, the efforts made by the community are continuing the decreasing trend in waste generation on both an absolute and per student basis.

CI Annual Waste Generation Compared to Baseline (2008)



Reduction Tips: Waste

- Bring reusable bags and containers when shopping for clothes or groceries, traveling, or packing lunches or leftovers.
- Avoid individually wrapped items, snack packs, and single-serve containers. Buy in bulk when practical and make your own.
- Purchase cleaning agents in concentrated forms and dilute.
- Compost food and yard waste and make your own nutrient rich dirt for free.
- Use both sides of paper for printing, note taking and recycle when done.
- Reduce the amount of mail you receive. Many banks are going paperless and magazine are often available digitally.
- Shop for clothes and furniture at second hand shops first – it saves you money and gives them a second chance at life.

Student Involvement: Waste Education

During the Earth Day festivities, one student group transformed waste separation education into a fun game. Improving waste signage makes choosing the right bin easier. Ensuring proper segregation saves potentially recyclable and compostable materials from our landfills.

In order to become compliant with AB 1826, CSUCI must begin collecting its organic waste and using EJ Harrison and Sons to recycle the organic waste at Agromin, an industrial compost facility. The student leaders in this project made posters for the CSUCI community to assist in the effective launch of CSUCI compliance initiative for organic waste collection.



Why improve CSUCI's waste signage?

- Help students, faculty and staff identify which bin is appropriate to use
- Increase basic recycling knowledge
- Improve overall success in proper waste separation



Student Involvement

Our thoughtful and dedicated student body has been invaluable in the development of informative Green Screen presentations and Food Drives for fellow students. Many students have also assisted in completing tree surveys that helped us earn our 5th Tree Campus USA award and E-Waste Disposal Events to help us reach our 70% reduction goal by 2020.



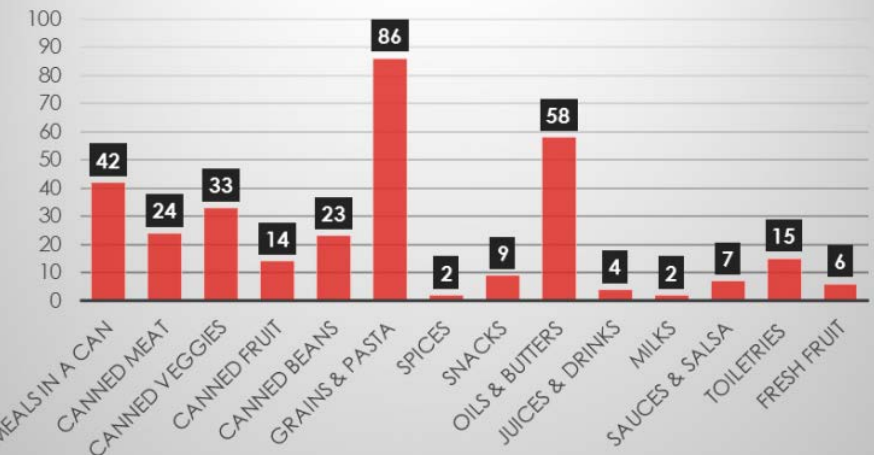
Catalina Ironwood

Tree Plantings

- On Earth Day 2016 the ESRM Program and others planted native trees and shrubs at the Long Grade Creek Restoration site. The restoration is a part of a continuous collaborative effort to reintroduce native plants and animals to disturbed areas around campus.

- On Earth Day 2017 students worked with FS Grounds staff to plant a number of new trees on campus located near housing and in the central mall.

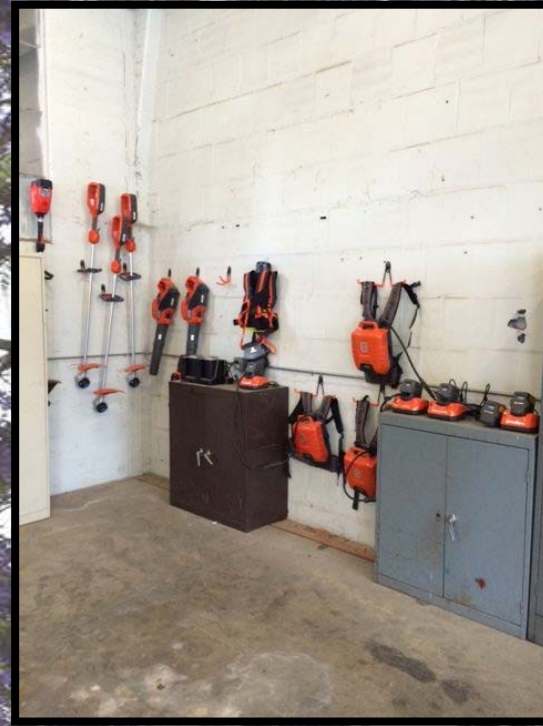
Food Drive Donations



Project Highlights



In the Fall Semester of 2016, students planned and proposed a project to replace CI's gas powered garden tools with battery powered tools. The goal is to eventually replace all the leaf blowers, hedge trimmers and edge trimmers with battery powered ones. The project was approved and funded by IRA for \$5,000. Husqvarna power tools were selected for their durable and lightweight qualities.



Electric tools
reduce harmful,
unpleasant
fumes

Lower
maintenance
costs

36 Volt Lithium
Ion Batteries are
rechargeable

Batteries can be
used with all
Husqvarna
electric tools

Power can
come from
renewable
sources

Quieter, with
the same
amount of
power

We now have
3 Trimmers
3 Leaf Blowers

We now have
3 Li-Ion Batteries
4 Battery
Chargers

Project Highlights



Plants:
Palo Verde 'Desert Museum'
Barrel cactus
Queen Victoria Agave



Our resident Gardening Specialist, Ricky Medrano and others took a barren brickwork patch in front of Aliso Hall and transformed it in to a beautiful floral display. This patch will not require irrigation which reduces water usage as well as labor, since the plants will not require maintenance. The plants also support our native pollinators. This is a part of a continual effort to transition the landscaping around campus to be more water wise and less labor intensive.

Awards



SANTA ROSA VILLAGE STUDENT HOUSING CSU CHANNEL ISLANDS

Camarillo, California

HAS FULFILLED THE REQUIREMENTS OF THE LEED GREEN BUILDING RATING SYSTEM CERTIFICATION ESTABLISHED BY THE U.S. GREEN BUILDING COUNCIL AND VERIFIED BY GREEN BUSINESS CERTIFICATION INC.

LEED 2009
NEW CONSTRUCTION AND MAJOR RENOVATIONS

GOLD

April 2017

MAHESH RAMANUJAM

MAHESH RAMANUJAM, PRESIDENT & CEO, U.S. GREEN BUILDING COUNCIL,
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION INC.

We are proud to announce that our newest housing development, Santa Rosa Village was awarded LEED Gold Status for its construction. LEED-certified buildings are resource efficient. They use less water and energy and reduce greenhouse gas emissions. As an added bonus, they save money.

For the 5th year in a row CI has been recognized by The Arbor Day Foundation's Tree Campus USA. This acknowledges the campus's commitment to maintaining an environment enhanced by beautiful, healthy trees.

CSUCI has qualified for Gold by the Sustainability Tracking, Assessment & Rating System™ (STARS). This service is a transparent, self-reporting framework for our university to measure sustainability performance.



5th
Year in a
row!

Acknowledgements

CSU Channel Islands is striving for a more sustainable campus community every day. To stay up to date with our activities, check out our website:

<http://www.csuci.edu/fs/sustainability/>

For questions, additional information or ideas on new sustainability efforts, please email

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Key Developers:

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Grounds Department, Electricians, and all of Facilities Services
Wesley Cooper, Senior Director of Facilities Services



Channel Islands
CALIFORNIA STATE UNIVERSITY