



# Sustainability Plan

## Annual Update 2019

**CSUN.** | SUSTAINABILITY



## A Message from The President

At California State University, Northridge, our commitment to sustainability and climate action is embodied not only in course curricula, but also through faculty research, facility and landscape management, dining operations, student activism, university processes and leadership. As a measure of its importance, sustainability is one of the eight campus planning priorities, integral to all that we do. Through this all-inclusive approach, CSUN has made significant strides toward achieving climate neutrality by 2040.

CSUN plays a proud leadership role in the region and in the higher education community on sustainability issues. Since adopting a formal Sustainability Plan in 2013 and Climate Action Plan in 2016, the University has decreased its annual greenhouse gas emissions by 29% from the 1990 baseline, decreased water consumption by 31% or 199 million gallons annually since 2013, and achieved a 15% waste reduction from 2013, all while increasing campus built square footage and enrollment growth. In that time, CSUN has gained recognition for its efforts, most recently as an AASHE STARS Gold campus and with Bee Campus USA and Tree Campus USA designations. Additionally, nearly 160 CSUN students graduated with a minor in sustainability and more than 450 students enrolled in the 13 sections of the sustainability minor courses offered in 2018-19.

Beyond having a critical environmental impact, our sustainability efforts advance the university's academic mission by providing students opportunities to learn, demonstrate leadership, and even to discover new career and educational paths. CSUN students make indispensable contributions to campus sustainability by conducting hands-on research and projects including: assisting with the campus Sustainability Culture Assessment, fighting hunger through the collection and donation of nearly 10,000 pounds of food to the CSUN Food Pantry and local organizations, engaging the campus and community through film and journalism projects around sustainability, inventorying inefficient lighting and developing retrofit proposals, planting gardens on campus that provide herbs to campus dining locations, planting and inventorying trees, passing a Zero Waste resolution, engaging leadership through student government, and countless other activities. In this way, CSUN's sustainability efforts have not only improved efficiency, conserved resources and reduced environmental impacts, but have also enriched and fostered student success.

CSUN's role as an institution of higher education is not simply to educate, but to manifest the values and actualize the knowledge that we instill within our students. Through this model, CSUN empowers graduates to find innovative, collaborative solutions to modern dilemmas, including climate change, and inspires faculty and staff to engage in impactful practices and research.



Dianne F. Harrison, Ph.D.

President







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# Administration

To meet the ambitious objectives set forth in the Sustainability Plan, CSUN will need to create and maintain a culture of sustainable thinking on the campus and invest in sustainability infrastructure.

## Main Strategies

1. Incorporate the objectives defined for sustainability into established campus, division, and program planning processes
2. Improve coordination, infrastructure, data collection and record keeping in support of sustainability efforts
3. Utilize sustainability as a branding opportunity, particularly for recruitment

## Objectives for 2023

1. Establish a culture of sustainability that is evident in policy and practice across the institution
2. Allocate sufficient resources to support sustainability programs
3. Coordinate sustainability efforts across campus to reduce resource use, including unification of data and data management
4. Establish and promote CSUN as a destination campus for students interested in sustainability

## 2018-19 Priorities and Outcomes

- **Develop a Sustainable Events Guide and Policy.**  
A draft of this policy has been completed and reviewed by administration. Revisions are underway based upon feedback received. Sustainable event resources have been posted on the Resources page at [csun.edu/sustainability](https://csun.edu/sustainability).
- **Research and build framework for a GHG Mitigation fund - Carbon Fund for unavoidable business travel.**  
A framework for a Greenhouse Gas Mitigation fund has been built and a policy has been developed. This fund will specifically target university-funded business travel and should launch FY 19/20.
- **Continue implementation of E-Signature platform and track progress, savings, etc.**  
To date, over 6,000 forms have been submitted through DocuSign. We are working on getting data on the total number of pages that have been saved from being printed.
- **Complete an assessment of the campus sustainability culture.**  
A survey assessing sustainability knowledge and attitudes was created by the Institute for Sustainability and distributed to the campus community. Results from 917 respondents indicated that sustainability literacy can be improved by offering more sustainability-related courses, increasing faculty development opportunities and increasing the visibility of sustainability initiatives around campus."
- **Update the Campus Sustainability Tracking, Assessment & Rating System (STARS) Report.**  
CSUN successfully completed and submitted the AASHE STARS report, receiving Gold recognition for the second time and earning the highest ranking of any CSU campus.







## Other Highlights

- The 2018 Greenhouse Gas Report was completed and showed a 32% reduction in total emissions from 1990.
- The Institute for Community Health and Wellbeing held several sustainability-themed Walkability Wednesday events, featuring a campus Sustainability Tour, The Marilyn Magaram Center—Bee a Matador Honey, and The CSUN Food Pantry.
- CSUN was listed in the North American Sustainable Campus Index as a top performer in Diversity and Affordability.
- CSUN was ranked among the top 4 CSU's in the Sierra Club Cool Schools report.
- CSUN was included on The Princeton Review's 2018 Guide to Green Colleges.
- CSUN's Division of Information Technology hosted their first annual eProcess+ event which showcased projects that have used technology to go digital—promoting both efficiency and reduction in paper consumption.

## 2019-20 Priorities

- Develop a monetary donation program for sustainability initiatives on campus.
- Implement recommendations based on results from the campus sustainability culture assessment.
- Update policy for new construction to exceed LEED Gold.
- Improve the sustainability website and include a form for users to submit ideas on how to make CSUN more sustainable.







# Dining Services



CSUN's goal is to provide sustainable food choices that are healthy and delicious in its on campus food service locations.

## Main Strategies

1. Increase sustainable campus food sources
2. Increase the availability of fresh, healthy vegetarian and vegan options on campus
3. Provide nutrition and sustainability information for foods from campus food services

## Objectives for 2023

1. Expand sourcing of sustainable foods
  - Have 30% of total food purchases qualify as sustainable
  - Have 50% of produce be purchased from local sources
  - Have 100% of seafood purchases be Marine Stewardship Council certified, Aquaculture Certification Council certified, and/or Seafood Watch Guide "Best Choices" or "Good Alternatives"
2. Expand the selection of healthy foods
3. Provide information in all TUC-operated dining services to inform and educate the CSUN community about healthy and sustainable food choices

## 2018-19 Priorities and Outcomes

- **Begin sourcing herbs and produce locally from campus gardens.**  
Cilantro, oregano and mint are being grown at the Marilyn Magaram Center and Institute for Sustainability gardens for use in CSUN Dining facilities. To date, 7.6 pounds of oregano, 9.2 pounds of cilantro and 7 pounds of mint have been harvested.
- **Host one sustainability-themed meal per semester.**  
CSUN Dining participated in removing meat options from their Freudian Sip locations campus-wide for both Water Day and Sustainability Day as meat takes a lot of water and energy to produce.
- **Increase percentage of expenditures on Real Food.**  
CSUN Dining is continuing to work towards the 20% Real Food goal, however making progress has been a challenge. A new system for improving dining sustainability will be investigated next year.

## Other Highlights

- Earth Fair 2019 featured plant-based samples of various dishes from CSUN Dining.
- CSUN Food Pantry launched their Pop-up Pantry to engage more students and increase visibility of the program.
- The CSUN Food Pantry served 4,300 unique students with over 21,000 lbs. of food, 2,320 lbs. of which was fresh produce grown on campus or donated by local community organizations.
- In an effort to fight hunger and food waste, during the Spring Orange Pick over 3,040 pounds of oranges were harvested and donated to SOVA Community Food and Resource Program and the CSUN Food Pantry.
- The Food Recovery Network recovered over 6,500 pounds of food, which fed hungry students and community members.

## 2019-20 Priorities

- Investigate the Green Restaurant Certification program for CSUN Dining locations.
- Promote plant-based dining options.
- Host one sustainability-themed meal per semester.
- Work with franchise dining locations to improve sustainable practices including menu options and operations.



# Education

CSUN strives to reduce its own footprint on the environment, and to educate its students and the broader campus population on sustainable practices.

## Main Strategies

1. Expand education on sustainability principles and practices to entire campus population
2. Increase formal educational offerings in sustainability
3. Increase opportunities for hands-on student learning in sustainability
4. Increase research opportunities in sustainability

## Objectives for 2023

1. Participation in a sustainable office program by all campus offices/units by 2015
2. Implement university-wide sustainability education for all students by 2018
3. Offer M.A. Degree in Sustainability Practices by 2018
4. Expand service learning and internship opportunities in sustainability
5. Expand network of faculty engaging in sustainability-related research

## 2018-19 Priorities and Outcomes

- **Provide faculty development on sustainability Student Learning Outcomes (SLO's) and on how to incorporate sustainability content into courses.**

The Institute has formed a Sustainability Academic Strategy Committee focused on faculty development and increasing sustainability SLO's in the curriculum. The committee includes approximately 20 faculty representing every college. They have met twice to discuss structural, cultural, and financial challenges regarding integrating sustainability into the curriculum. They plan to continue meeting in Fall 2019.
- **Develop and launch a sustainability internship program.**

This Spring, the Institute employed eight Sustainability Scholars working on various projects and tasks including: gardening and compost (4 students), research including data collection, analysis and reports (3 students), social media, outreach, and event coordination (1 student). This program will continue next year as funds allow.
- **Develop method for identifying faculty research related to sustainability and develop an online directory of faculty.**

A database of faculty and staff who conduct research and/or hold expertise in a sustainability-related topic area was created based on the data collected from the AASHE STARS report. The directory is posted on the CSUN Sustainability website Resources page. The directory will continue to be updated as additional faculty are identified.
- **Coordinate with film and journalism departments to encourage student films, documentaries, public announcements and articles related to sustainability. These can be screened before events, on MIND screens, and linked via webpages.**

Numerous Journalism students reached out to sustainability staff for stories relating to LimeBike, Zero Waste and other sustainability efforts. Department chairs were made aware of sustainability-themed student project opportunities, and several students chose to pursue projects related to sustainability. Sustainability staff appeared on the Journalism student-run show "On Point" to discuss single-use plastics and CSUN's sustainability efforts.





## Other Highlights

- As of the 18-19 academic year, CSUN has graduated nearly 160 students with a minor in sustainability. Today, there are currently 80 students minoring in sustainability and 450 students enrolled in the 13 sections of sustainability minor courses offered this year.
- Students in the sustainability minor participated in hands-on learning through campus lighting inventories. Their data will be used to calculate the cost and savings of different lighting efficiency improvement projects within the buildings surveyed.
- As an ongoing priority to provide sustainability education to the entire campus and surrounding community, the Institute hosted 42 campus and community events and participated in 33 additional events, reaching over 6,000 people.
- The Institute hosted seven Sustainable Living Workshops with topics ranging from gardening to activism.
- Approximately 300 people attended the Institute's annual Sustainability Day event in partnership with Los Angeles Cleantech Incubator, which was focused around sustainable energy and transportation solutions for disadvantaged communities. In addition, over 650 people attended the Institute's annual water Day event that focused on local and global issues.

## 2019-20 Priorities

- Develop an Employee Educators Program to engage CSUN employees about sustainability through peer-education.
- Engage faculty to encourage student-driven creative endeavors related to sustainability.
- Encourage inclusion of sustainability-related SLO's and/or SUST core courses in programs by providing course-specific resources and materials to faculty and Department Chairs and hosting one course modification workshop per semester.
- Collaborate with local agencies and nonprofits to establish a list of service learning and internship opportunities in the community related to sustainability





# Energy & Buildings

Reduction in energy use and in the use of fossil fuels are core components of CSUN's commitment to sustainability. These reductions can be achieved in three ways – by conservation, efficiencies, and use of renewables. The proposed plan puts a priority on those actions that will lead to conservation and efficiency savings.

## Main Strategies

1. Improve means to measure, report and communicate energy consumption at a building/unit level
2. Improve physical infrastructure to save energy through efficiency and conservation measures
3. Increase energy-related education and outreach to students, faculty and staff, and implement program to change behavior
4. Increase energy supplied from renewable and clean sources
5. Establish and implement strict building standards for new construction

## Objectives for 2023

1. All buildings to be individually metered for gas, water and electricity
2. Complete retro-commissioning on all buildings by 2023
3. Make real-time and historical energy use data available online to all campus community by 2018
4. Achieve a reduction in energy intensity (energy/sq. ft.) of 15% by 2018 and 25% by 2023 over 2012
5. Generate 20% on-site by 2018, with 25% on-site generation by 2023
6. Increase investment in renewable energy: 10% from renewables by 2023
7. All new buildings to meet LEED Gold or higher standard effective 2013

## 2018-19 Priorities and Outcomes

- **Perform a Demand Flow Optimization on one campus building.**

Demand Flow Optimization will be piloted on University Hall in conjunction with fault detection and diagnostic analytics. Fault detection and diagnostics will also be implemented on Sequoia, Citrus, Magnolia, Bookstein and Education.

- **Complete outdoor walkway lighting retrofits.**

178 LED retrofit kits have been installed on all remaining outdoor walkway fixtures, reducing the energy consumption of each light by 76%.

- **Complete at least 200 indoor lighting LED retrofits or replacements.**

Over 270 LED fixtures have been installed with daylight and occupancy sensors, replacing older fluorescent fixtures. These newer fixtures use 45% less power and respond to occupancy to reduce overall runtime.

- **Assess the potential savings in energy and water from pool covers.**

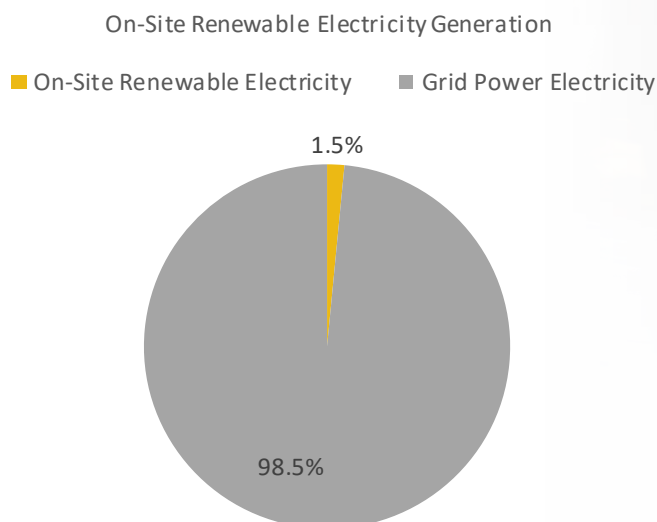
The University Student Union is using pool covers to prevent heat loss and save energy. The pools at Campus Housing are not heated, and thus, are not covered when not in use.

- **Evaluate The Sustainability Center for Net Zero Achievement.**

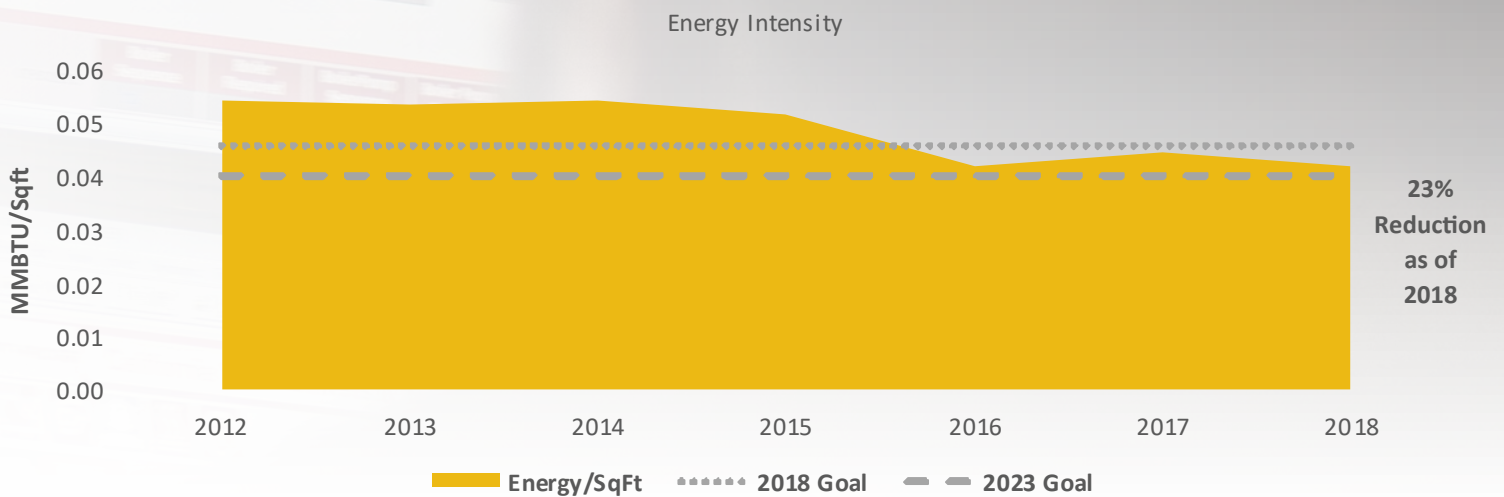
The building's solar array will have been operational for a full year as of June 18th, 2019, at which point a full net zero assessment will be conducted. Preliminary evaluation suggests that the building generated about 80% of the energy that it consumed in its first year of operation.

- **Evaluate potential for research lab energy efficiency measures.**

CSUN has identified several technologies that could play a role in reducing lab energy consumption. The campus will be piloting low pressure drop vent hood valves and vertical sash doors to decrease effective opening size in vent hoods in one of the labs to determine total savings potential and viability for expanding the pilot program.







## Other Highlights

- The Fuel Cell was decommissioned in August 2018 to reduce Greenhouse Gas Emissions and annual utility expenditures.
- 1,381 fixtures in the G3 and B5 parking structures were retrofitted from fluorescent to LED lamps at no cost to the university. This will reduce their energy consumption over 30% and save over \$37,000 annually.

## 2019-20 Priorities

- Launch a retro-commissioning and fault detection & diagnostics (FDD) program for three campus buildings.
- Conduct analysis to determine feasibility of utilizing solar thermal hot water heating as a supplement for the HHW loop.
- Conduct lighting audits for five campus buildings.
- Pilot window films as a way to reduce heating and cooling loads of campus buildings.







# Environmental Quality

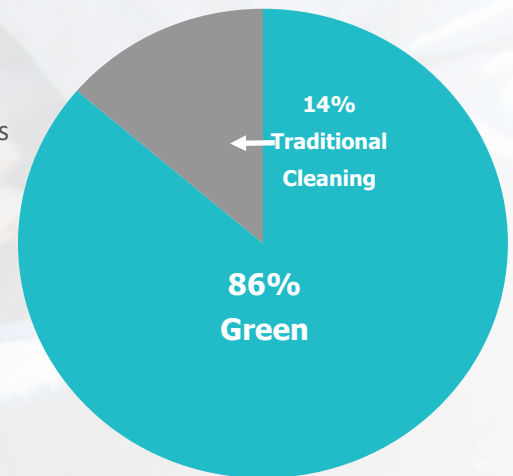
Factors contributing towards environmental quality include the use of chemicals and hazardous materials. It is important that CSUN works toward reducing the use of these products and continues to ensure their proper disposal.

## Main Strategies

1. Reduce use of hazardous materials and ensure proper disposal
2. Increase awareness of issues related to hazardous materials

## Objectives for 2023

1. Study effectiveness of organic fertilizers and reduce the use of synthetic fertilizers
2. Phase in more Green Seal-certified cleaning products and adopt green cleaning procedures
3. Develop a set of sustainable operations and maintenance standards
4. Complete the campus inventory of chemicals and hazardous materials



## 2018-19 Priorities and Outcomes

- **Develop goal and transition away from inorganic fertilizers.**  
Analysis of purchasing data revealed that 70% of CSUN's fertilizers are organically derived. The goal for next year is to increase this number to 85%.
- **Identify and implement alternatives to synthetic fertilizers.**  
Milorganite is an organically-derived fertilizer that can and will be used instead of synthetic fertilizers in most applications on campus. Test plots will also be established to see how compost from CSUN's green waste compares to synthetic fertilizers when applied to turf grass.
- **Continue to expand stormwater pollution prevention efforts and education program.**  
Environmental Health and Safety held an awareness training on stormwater pollution prevention for Physical Plant Management staff. They also tabled at Earth Fair to provide education and raise awareness of stormwater pollution prevention.
- **Look into new construction and renovation replacements of refrigeration equipment and develop standard.**  
CSUN adheres to standards provided by the South Coast Air Quality Management District. No equipment is purchased that uses refrigerants that are being phased out, and equipment efficiency is prioritized to the greatest extent possible.

## Other Highlights

- Since the Green Cleaning Program was launched, the campus has consistently met its purchasing goal and ended 2018 calendar year at 86%.
- An inventory form along with guidelines has been developed to assist with the tracking and inventory of flammable and caustic materials, acids, bases, oxidizers, compressed gas cylinders and other hazardous materials. These practices are observed by laboratory managers.

## 2019-20 Priorities

- Evaluate current practices against LEED EBOM requirements
- Develop test plots to determine effectiveness of inorganic fertilizer vs. campus compost.
- Develop strategies to ensure campus E-Waste is being disposed of properly.
- Research glyphosate product alternatives to reduce its use on campus.



# Organics



CSUN has an important role to play as an educator and responsible party in the efforts to reduce the quantity of food waste produced and the shipment of organic waste off campus.

## Main Strategies

1. Reduce quantity of organic waste
2. Educate students and the campus community about food waste
3. Continue to develop the CSUN Organic Food Garden as an educational resource
4. Develop and manage campus grounds using sustainable practices

## Objectives for 2023

1. Reduce quantity of food waste by 15% by 2015 and by 50% by 2023
2. Reduce quantity of other green waste by 50% by 2018 and 80% by 2023
3. Conduct on-site composting to generate organic fertilizer for use on campus grounds
4. Gain recognition as a Tree Campus USA
5. Re-use waste vegetable oil
6. Fully develop Organic Food Garden which provides educational and research opportunities for students, faculty, staff and the surrounding community

## 2018-19 Priorities and Outcomes

- **Pursue Bee Campus USA designation.**  
CSUN has achieved Bee Campus USA designation through the Xerces Society, and has installed a pollinator garden to support this effort. The campus will be developing a Pollinator Habitat Plan, hosting annual events and workshops discussing the role and importance of pollinators, and installing educational signage near pollinator-friendly plants across campus.
- **Determine feasibility of an on-campus post-consumer food waste digester.**  
The cost of operating an on-campus digester to process compostable post-consumer waste far outweighs the cost of having it composted by a contracted waste hauler. CSUN will most likely be diverting its compostable waste through a waste hauler rather than processing it on campus.
- **Expand campus garden and increase production.**  
Through a Campus as a Living Lab grant, three large beds were added to the Sustainable Garden Education Center. These beds are producing cilantro, parsley, basil, mint and oregano which are being used in CSUN Dining facilities.
- **Continue green waste composting on campus and begin spreading material as fertilizer.**  
Seven large windrows were established at The PILE this year and the first harvest of usable material will occur over the summer. Additional equipment will be added to support operations moving forward, including a larger chipper and sifter. The temperatures of the windrows are being closely monitored and they are turned on a regular basis. Once a sifter is procured, both finished compost and mulch from the facility will be spread on campus grounds.

## Other Highlights

- CSUN established its first Pollinator Garden, located on the north end of campus next to the Sustainable Outdoor Classroom.
- CSUN gained recognition as a Tree campus USA for the 5th year in a row.
- The campus preconsumer food waste compost program has been transitioned to CSUN Dining, who has partnered with its waste hauler to compost the materials offsite.
- As part of the Campus As A Living Lab (CALL) Grant, The Institute for Sustainability purchased a bike as an alternative to an electric cart which will be used to deliver produce from the garden to CSUN Dining facilities.

## 2019-20 Priorities

- Develop a Campus Pollinator Habitat Plan.
- Develop and offer a pollinator protection workshop.
- Post signage about pollinator-friendly landscaping principles.
- Develop service learning opportunities for student involvement in Bee Campus USA, Tree Campus USA, and The PILE.
- Continue to expand The PILE and refine the operation.
- Deploy compost receptacles throughout campus buildings.







# Purchasing & Consumption



CSUN seeks to reduce the significant impacts of its consumption by reducing the total amount of products purchased and increasing sustainable products purchased.

## Main Strategies

- 1. Reduce overall product consumption
- 2. Increase the use of sustainable products
- 3. Increase awareness regarding sustainable purchasing and consumption

## Objectives for 2023

- 1. Implement campus-wide environmentally preferred purchasing policy
- 2. Create campus purchasing reduction goal for various product categories based on baseline data to be collected
- 3. Reduce campus copy paper use by an amount to be determined upon consultation with appropriate entities. Proposed reduction goal of 20% by 2015, of 40% by 2020, and of 50% by 2023





## 2018-19 Priorities and Outcomes

- **Continue implementation of the Environmentally Preferred Purchasing Policy.**

From 2016 to 2017, CSUN's expenditures on office supplies with recycled content increased from 29% to 39%. Additionally, the LEVEL Furniture Certification program has been adopted by the university as a standard to ensure environmentally friendly furniture purchases.

- **Determine the feasibility of providing spending incentives for departments to reduce spending on office equipment and supplies.**

A Staff Service award will be created to recognize departments that achieve noteworthy purchase reductions in different categories. Recipients will be nominated based upon departmental purchasing data and invited to share their purchase reduction strategies.

- **Create campus purchasing reduction goal for various product categories.**

Purchase reduction goals were established for paper and binders due to the cost and waste they represent. The goal is to reduce purchases of these products by 5% per year for the next five years.

- **Research implementation of central rental/shared resource facility to reduce duplication of purchases by campus units and assess the option of stocking reusable tableware in meeting rooms.**

Associated Students Sustainability will be utilizing the Sustainability Center recycling yard as a centralized shared resource space and extension of the current Recycle Listserve. They will collect, store, advertise and distribute office supplies, books, binders and other donated items that don't fall under University Asset Management.

## Other Highlights

- After the evaluation of several years of paper purchasing habits, CSUN will be shifting all copy paper from 30% to 100% recycled content through the Staples auto-sub program.
- Binders and other supplies no longer used by campus departments were given to the CSUN Food Pantry to provide students with free school supplies. This partnership will continue next year.

## 2019-20 Priorities

- Provide incentives for departments to reduce spending on office supplies and equipment.
- Promote purchasing reduction goals to drive change.
- Implementation of a central rental/shared resource facility to reduce duplication of purchases by campus units and give a second life to discarded usable goods.
- Incorporate appropriate environmentally preferred commodity criteria into all RFPs and contracts. Include specifications for a manufacturing take-back program for RFPs/contracts with electronic purchases.





# Transportation

The University is addressing the adverse consequences of being primarily a commuter campus by investing in policies to reduce commuting, by increasing use of alternative modes of transportation, and through the use of alternative energy technology.

## Main Strategies

1. Reduce total number of commuting miles
2. Reduce use of single occupancy vehicles for commuting
3. Reduce emissions associated with vehicle use on campus

## Objectives for 2023

1. Reduce commuting population from 95% to 85%
2. Reduce vehicle miles traveled by faculty, staff and students by 10%
3. Reduce commuting trips to campus by 10%
4. Increase share of alternatives to single-occupancy vehicles for commuting from 26% to 40%
5. Gain recognition as a Bicycle-friendly University
6. Reduce vehicle use in the campus core, with a goal of eventual elimination.
7. Reduce average emissions associated with university fleet operations (non- construction/maintenance vehicles) by 50%
8. Systematize transportation data collection

## 2018-19 Priorities and Outcomes

- **Conduct one unified Campus Transportation Survey for students, staff and faculty to gather data required to calculate CSUN's Greenhouse Gas emissions.**  
Because the South Coast Air Quality Monitoring District transportation survey must be distributed to all employees, it will be used to collect data on employee commuting habits for CSUN's greenhouse gas inventory. A separate survey will be used to collect data on student commuting habits. Additionally, fields for vehicle make and model will be added to CSUN's parking permit purchase form to collect data on vehicle types used to commute.
- **Develop and implement a No-Idling Policy.**  
A No-Idling Policy has been drafted and approved by the Division of Administration and Finance. Enforcement of the policy will primarily involve educating campus users about the policy's intent and impact.
- **Create a separate housing-specific permit which would be valid only in student housing parking lots.**  
Housing has agreed to the restrictive permit in alignment with the University's Climate Action and Sustainability goals. This new restriction would allow for after hours parking on the main campus to address nighttime safety concerns.
- **Determine the feasibility of purchasing transit passes and vanpool passes under pre-tax Commute Choice benefits option for employees.**  
This model is feasible, and will be pursued in the coming year. Parking and Transportation Services is also looking to utilize the MetroLink app as a replacement for employee MetroLink cards.
- **Pilot level 1 EV chargers.**  
A survey was distributed to CSUN's electric vehicle user group, which found that 85% of respondents were in favor of level 1 EV chargers. The new G6 parking structure will contain over 100 level 1 charging spaces, which will be the single largest deployment of EV charging infrastructure on campus to-date.
- **Develop a Bicycle Education Program.**  
A campus bicycle committee has been created, tasked with completing CSUN's application to become a Bicycle Friendly University through the League of American Cyclists. This process will create a complete snapshot of cycling education, policy, infrastructure and enforcement on campus, paving the way for the development of a comprehensive education program.



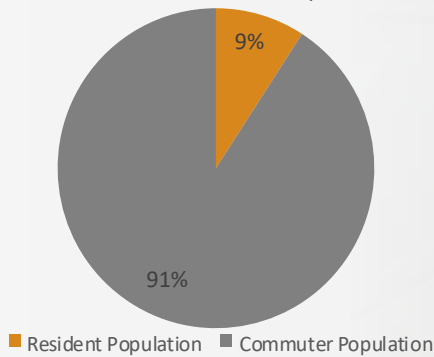
## Other Highlights

- A smart parking system was installed on campus parking structures which shows how many spaces are available in each structure. This will help reduce the congestion and idling through parking garages to find spaces.
- February 28, 2018, "Operation Firefly" was held outside the Student Recreation Center. Presented by the LA County Bicycle Coalition in conjunction with Associated Students, the event provided bike safety information and free bike lights. 85 free bike lights were distributed.
- The AS Ticket Office sold 4,405 transit passes for Metro and AVTA. Over 577,000 rides were taken using the Metro U-Pass.
- Zip Car is currently serving over 480 active members at CSUN.
- ZimRide saw 1,382 active users this year, which was primarily made up of students but also included staff and faculty.

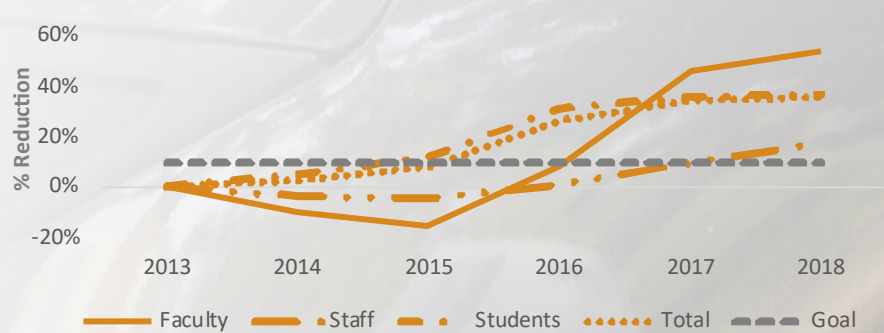
## 2019-20 Priorities

- Investigate alternative dockless mobility solutions.
- Implement Clean Air Parking Spaces (CAPS) program in 2 campus parking lots.
- Develop an EV charging station plan and pilot level 1 EV charging spaces.
- Conduct annual transportation survey.
- Investigate pedestrian and micromobility infrastructure.

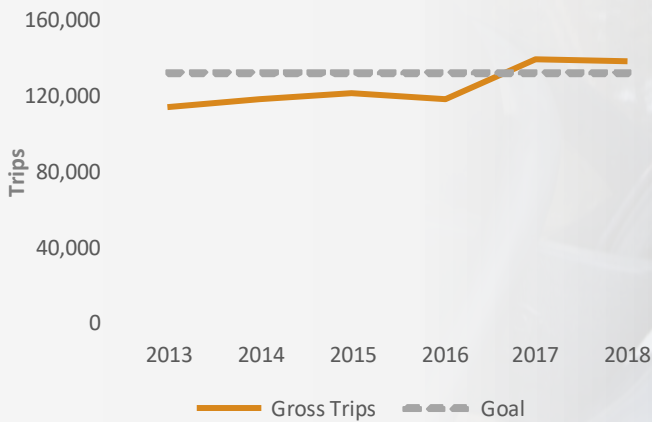
Resident vs Commuter Population



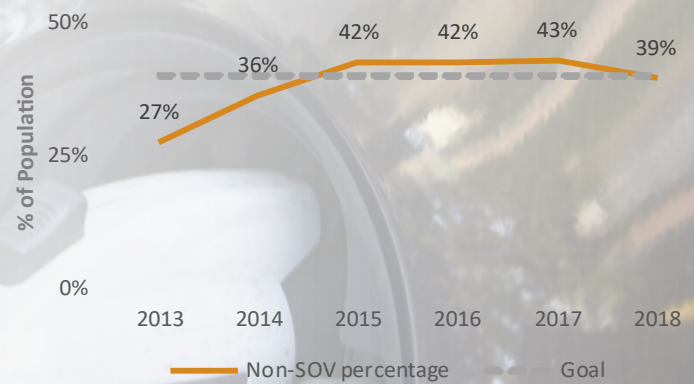
Vehicle Miles Traveled



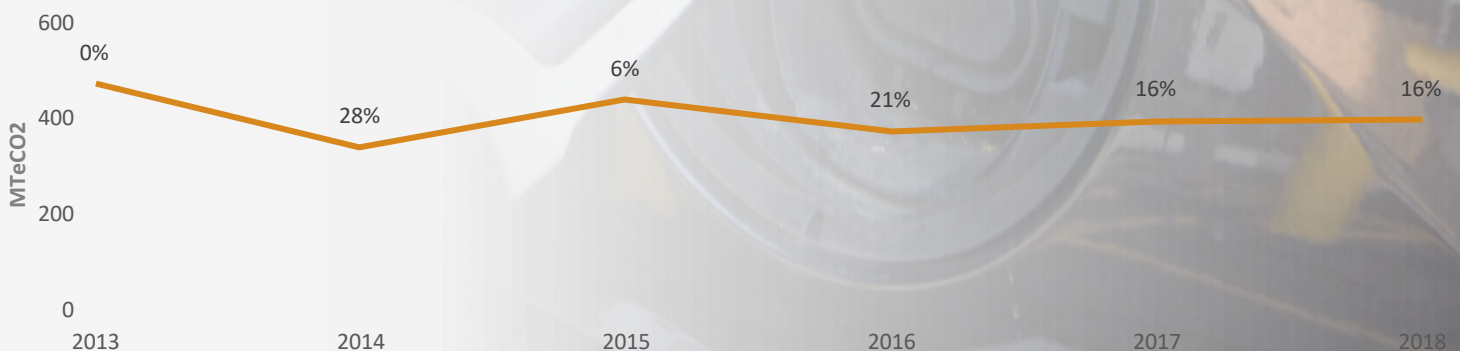
Commuting Trips to Campus



Population Using Alternative Modes of Transportation to Single Occupant Vehicles



University Fleet Emissions





# Waste & Materials Management

Campus waste generation amounts to approximately 70 pounds per person annually. Reduction of CSUN's waste is necessary to conserve valuable natural resources, reduce environmental pollution and reduce negative social impacts.

## Main Strategies

1. Reduction of total waste generated by the campus (including landfill, recycling, and other disposal methods)
2. Increase diversion of waste from landfills
3. Increase awareness of waste, recycling and related issues
4. Improve collection and access of waste-related data and information

## Objectives for 2023

1. Reduction of total waste per capita by 20% over current values
2. Diversion of 75% of waste from landfills by 2023
3. Expand recycling capability to a wider range of plastics and other materials

## 2018-19 Priorities and Outcomes

- **Develop Zero Waste Program marketing materials and begin education campaign.**  
Sunny the squirrel was created as the face of the Zero Waste program and he will be used as an education and engagement tool along with the new campus website and social media outlets devoted to Zero Waste. Additionally, a "Trash Talkers" program has been created to spearhead peer-to-peer waste education efforts.
- **Continue deployment of Zero Waste Infrastructure.**  
New landfill, recycling and compost bins were purchased and deployed at athletic facilities, and are also being used at outdoor events. Trash cans were removed from classrooms in buildings where recycling and landfill bins are available in hallways.
- **Decrease single-use water bottles at campus events and meetings.**  
Water dispensers were used in place of water bottles at Commencement, The President's Picnic, and at CSUN Navigator booths during the start of the Fall semester. Compostable cups were provided to users without their own reusable water bottles.
- **Establish a program in Student Housing to collect electronics, durables, appliances, clothing and cleaning supplies during move-out.**  
Student Housing hosted a Pop-up Shop for three days during move-out to collect clothing, appliances, school supplies, food, cleaning supplies and other durable goods. Items can be claimed by any campus user, and leftover items are donated to local organizations. This year, leftover cleaning supplies will be stored during the summer and made available to incoming students during move-in.
- **Create an education program for the Housing Resident Assistants and an orientation for students on waste and recycling.**  
A preliminary assessment of waste infrastructure at Campus Housing has been conducted to guide the development of educational materials. Sustainability staff also presented the Zero Waste Plan to the Residence Hall Association, encouraging them to promote participation and provide support for the plan.

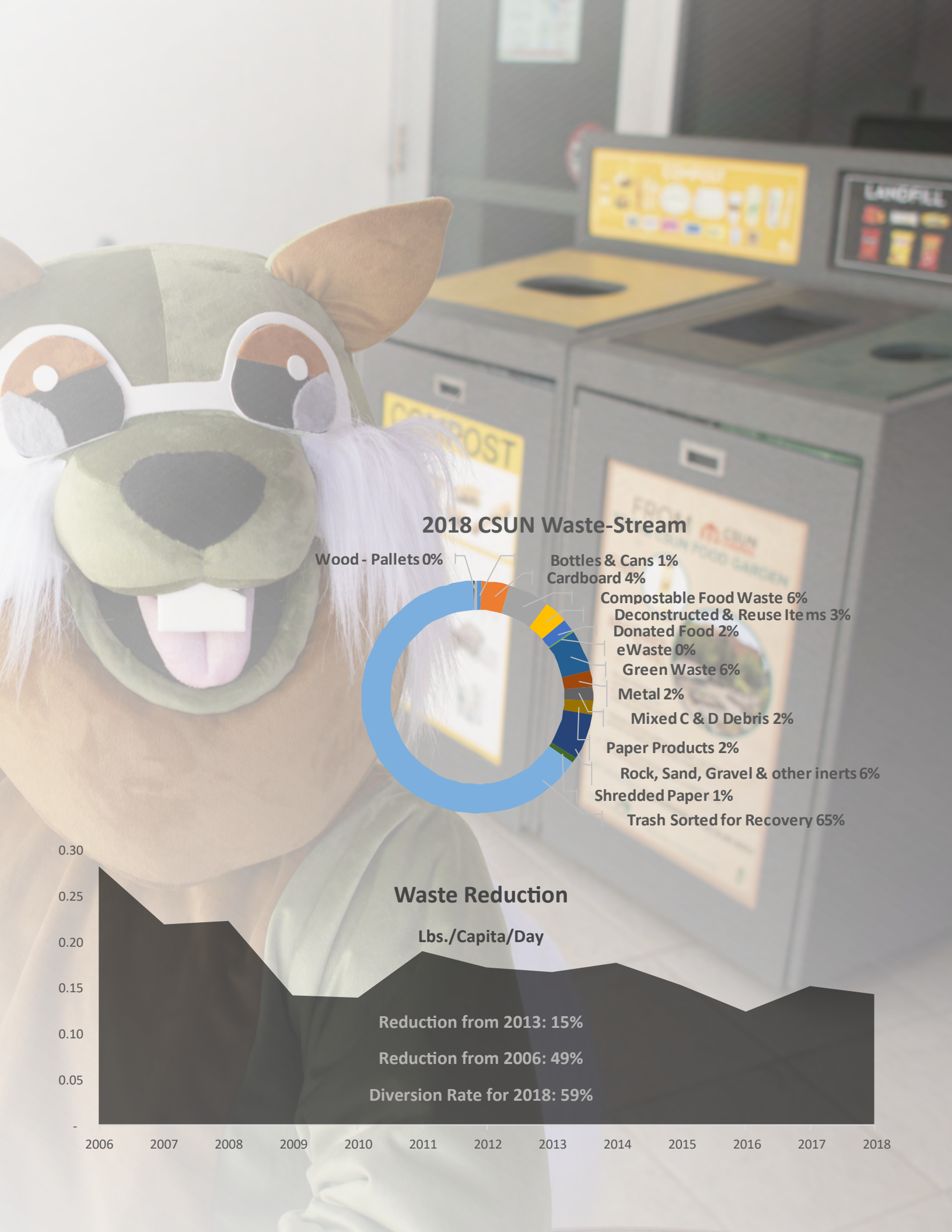
## Other Highlights

- CSUN was the recipient of a \$124,000 CalRecycle Grant which will be used to deploy new multi-stream bins throughout campus buildings.
- The University will be transitioning its waste streams from the collection of bottles and cans, paper and trash to comingled recycling, compost and trash. This new system will help ensure the diversion of all recyclables and organics in our waste stream—with organics making up between 20%-30% of the material we send to the landfill.

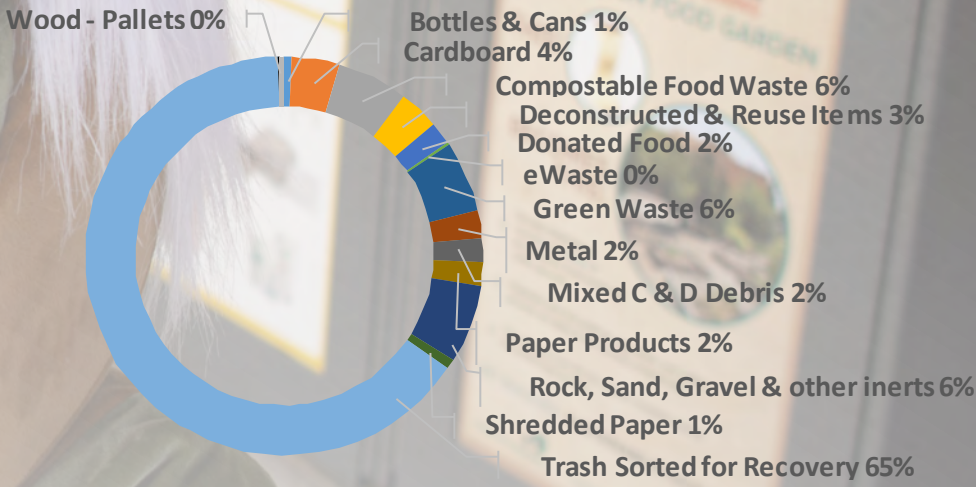
## 2019-20 Priorities

- Ensure proper multi-stream bins are located in all buildings
- Expand classroom bin removal to all campus classrooms
- Continue Zero Waste Plan marketing and educational materials
- Develop and host a Zero Waste Event
- Expand reuse opportunities





### 2018 CSUN Waste-Stream



### Waste Reduction

Lbs./Capita/Day





# Water

CSUN is located in a region characterized by an insufficient supply of local water to serve its population. CSUN's commitment is to be a good steward of water resources, and to conserve wherever possible.

## Main Strategies

1. Improve conservation practices and reduce water consumption
2. Improve data collection, management and analysis
3. Increase awareness of water as a valuable resource and educate on water conservation principles

## Objectives for 2023

1. 15% reduction in water consumption
2. Measure, record, and analyze water consumption on a facility level
3. Increase awareness of water-related issues by students, faculty, and staff

## 2018-19 Priorities and Outcomes

- **Complete 2 landscape renovations.**  
Over 7,000 square feet of turf grass were converted to drought-tolerant landscaping on the east side of Redwood Hall and the west side of Sequoia Hall. Additionally, 11,500 square feet of space was renovated with drought-tolerant plants, trees and crushed granite pathways on the north side of Sequoia Hall.
- **Study potential rainwater capture opportunities for Lindley and Etiwanda streets.**  
An Urban Planning class worked with a Geology professor to determine four feasible bioswale locations for rainwater capture and groundwater recharge on campus.
- **Pilot smart water metering devices.**  
Smart metering devices are being piloted on five different campus water meters. These devices provide flow data on an hourly basis which can be viewed online, and are also capable of sending leak detection alerts.
- **Examine other opportunities for water reuse including capture of condensate from campus HVAC system.**  
The storage and purification of HVAC condensate was determined to be cost prohibitive, alternatively this water can be collected and piped directly to landscaped areas to reduce irrigation needs. This will be further investigated next year. Additionally, the campus is looking into using blowdown water from its cooling towers for irrigation, and will be including this in an RFP for its cooling tower water treatment contract.

## Other Highlights

- CSUN has replaced over 6,000 linear feet of the Heating Hot Water pipe, which will significantly reduce the daily leak rate.
- A grant was received from the Metropolitan Water District to study the impacts of hydrogels and compost applications on the water needs of turf grass.

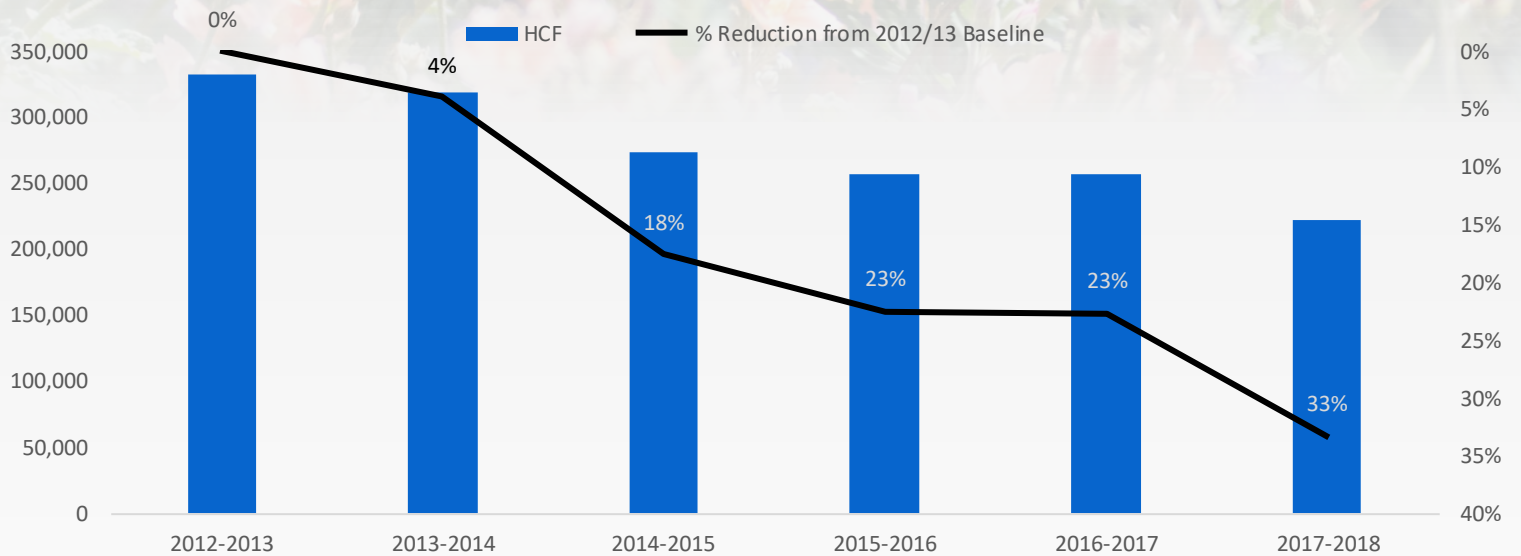
## 2019-20 Priorities and Outcomes

- Sub-meter five campus buildings for water and integrate into the Energy Information System.
- Complete three landscape renovations and include water capture/retention features in each renovation.
- Pilot water reuse opportunities through the use of HVAC condensate and cooling tower blowdown water.





### Total Campus Water Consumption







**Thank you to all of the sustainability working group members and campus partners for making these great achievements possible.**

**Photographs by:**

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