Sustainability Plan
Annual Update 2017
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>4</td>
</tr>
<tr>
<td>Dining</td>
<td>6</td>
</tr>
<tr>
<td>Education</td>
<td>8</td>
</tr>
<tr>
<td>Energy &amp; Buildings</td>
<td>10</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>12</td>
</tr>
<tr>
<td>Organics</td>
<td>14</td>
</tr>
<tr>
<td>Purchasing &amp; Consumption</td>
<td>16</td>
</tr>
<tr>
<td>Transportation</td>
<td>18</td>
</tr>
<tr>
<td>Waste Management</td>
<td>20</td>
</tr>
<tr>
<td>Water</td>
<td>22</td>
</tr>
</tbody>
</table>
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 a 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

2016-17 Priorities and Outcomes
• Investigate STARS Trademark credits.
  To receive the STARS credit EN-15 The University Corporation must register with the Worker Rights Consortium and the Fair Labor Association organizations, which both require annual fees. The benefits of joining the organizations will be evaluated and a decision to do this will be considered in 2018.
• Increase STARS worker satisfaction score.
  During the original STARS evaluation an error was made on credit PA-10: Assessing Employee Satisfaction. The error was due to a miscalculation and corrected this year with the help of Human Resources. This single credit increases the campuses overall score by .36 points.
• Overhaul division planning process and include sustainability reporting.
  ACAF planning process incorporates all university priorities, including sustainability. BASC has a list of projects including sustainability projects tied to the plan.
• Adopt City of LA Sustainability pLAn.
  CSUN has officially adopted the City’s Sustainability Plan and will be reporting on our progress annually.
• Develop a committee on Investor Responsibility.
  This credit (PA-13) was evaluated and it was determined that this priority should be moved to another year due to the complexity of the task and limited staffing.
• Investigate possible solutions for electronic/digital signatures on liability, field trip, internship, etc.
  Purchasing, IT, Sustainability as well as other key departments on campus reviewed several companies to provide a software solution which will be implemented in the 17/18 FY.
• Coordinate sustainability related outreach through social media efforts and/or portal notifications with incoming students.
  CSUN Sustainability efforts have been featured in CSUN Today, The Sundial, Matador News, CSUN On Point as well as our own social media outlets and The Footprint newsletter.
Gardening and Compost Workshop held at the Campus Garden.

Other Highlights
- The second Greenhouse Gas Report was completed this year and will continue on an annual basis.
- The IS Footprint Newsletter has grown in popularity and the distribution list has increased by 61% since last year.
- The Institute for Community Health and Wellbeing held several sustainability themed Walkability Wednesday’s including a general campus sustainability tour, garden and compost tour, tree walk tour, etc.

2017-18 Priorities
- Begin implementation of managed print services.
- Begin implementation of E-Signature platform with a target of completing 10 forms.
- Expand use of OnBase across all divisions.
- Overhaul division planning process and add sustainability reporting.
- Continue the promotion of Alternative Transportation, Transit Center, etc.
- Explore CSUN and CSUN Navigator programs as an opportunity for developing and promoting sustainability.
- Establish a culture of sustainability evident in policy and practice across the institution.

The IS Footprint Newsletter has gained in popularity and has over 2,120 subscribers.
Main Strategies
1. Increase sustainable campus food sources
2. Increase the availability of fresh, healthy vegetarian/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
2. Expand the selection of healthy foods
3. Provide nutrition and sustainability information for foods from campus food services

2016-17 Priorities and Outcomes
- Increase percentage of Real Food purchases.
  The University Corporation established a Real Food baseline of 7% and in order to increase their percentage they are focusing efforts in production kitchens. The strategy is to target top spend items so that they can achieve a larger impact. With several changes in place TUC has hired a student to update their Real Food Challenge Calculator to determine where they currently stand.
- Increase ratio of sustainably produced versus traditionally produced animal products.
  The University Corporation continues to review and select vendors who source sustainable products. They are currently researching the feasibility of providing alternative meat products at their locations.
- Expand post-consumer composting operations.
  The University Corporation is working with Athens Services to expand post-consumer composting.
- Develop Healthy Choice options at each location.
  Healthy Dining options are available at all TUC locations and Healthy Dining maps will help guide guests to better dining decisions. TUC has also implemented healthy choice Icons listed on price tags in the Mercado Stores.
- Assess “Healthy Choice” vending machines and develop suggestions for improvements.
  The assessment of the “Healthy Choice” vending machines was completed; the next step is to assess the impact the logo has on people’s perceptions.
- Assess promotional materials and campus advertising.
  TUC partnered with VISCOM to help produce window signage for the dining locations. The new signage promotes food products rather than soft drinks, energy drinks, etc.
2017-18 Priorities

- Continue implementation of compost bins in TUC Dining Locations.
- Investigate excess food waste in TUC kitchens.
- Analyze food nutrition and publish at TUC locations.
- Investigate opportunities for shifting advertisements to show more healthy choices.
- Develop survey to investigate student’s perception of water on campus.

Other Highlights

- A Chef from CSUN Dining presented a cooking demonstration at the CSUN Earth Fair of three, healthy, easy to make recipes. Tasting samples, as well as, recipe cards were provided for those interested in making the dish at home.
- In collaboration with the Marilyn Magaram Center, CSUN Dining organized a monthly cooking demonstration at the weekly Farmers Market. Easy to prepare vegetarian dishes are highlighted to educate students regarding healthy cooking on a budget is possible.
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 sustainability 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

2016-17 Priorities and Outcomes
- Pilot an energy dashboard in a campus building.
  The new Sustainability Center will be the first building on campus to go live with a Lucid Dashboard. The campus is also working with our Energy Information System vendor to develop dashboards.
- Promote World Food Day.
  The CSUN World Food Day was hosted by Student Dietetic and Food Science Association (SDFSA) on October 17. Food Recovery Network and Food Science Association participated in the event, a day dedicated to bring awareness to food insecurity, food waste, and food sustainability worldwide.
- Develop signage and educational materials for new Sustainability Center.
  The project site is wrapped with temporary sustainability signage and educational materials about the new Sustainability Center. AS has documented the sustainable features which may not be visible after construction for presenting in various forms once the Center opens.
- Assess the impact of outreach efforts.
  The AS Sustainability Committee developed and began distributing a survey starting at Earth Fair. They worked with several sustainability course volunteers to help increase surveying capacity. The results are pending.
- Encourage sustainability-related SLOs in graduate programs.
  This was discussed at a GSC meeting this year, but no progress was made. This will be readdressed next year as an agenda item.
- Offer continuing education that addresses sustainability.
  The working group has researched what other campuses have done to address continuing education and is developing concepts for CSUN to explore.
- Explore alternative media based outreach and engagement.
  AS has dedicating Wednesdays as sustainability message day. The IS launched a biweekly newsletter called The Footprint and has increased the use of social media to promote campus sustainability efforts.
- Gain curriculum approval from new sustainability undergraduate course offerings.
  All sustainability curriculum the Institute supervises has been on hold while the decision about where to house the courses was being made - this will be revisited next year.
- Develop an interdisciplinary Master’s Degree in sustainability practices
  Progress has been made on this priority as Social and Behavioral Sciences will house the curricula, which include the minor, certificate, and master’s programs.
2017-18 Priorities

- Develop an interdisciplinary Master’s Degree in sustainability practices.
- Commissioning student art pieces to display at the sustainability center.
- Develop sustainability center tour and virtual tour video.
- Explore opportunities to develop an internship program utilizing interns from existing internship courses.
- Promote the new Sustainability center as the hub for sustainability on campus.
- Launch a sustainability film series.

Other Highlights

- CSUN Sustainability and the IS tabled at Global Currents Festival at the VPAC and shared our campus efforts with the local community.
- The IS held “A Family Earth Day Celebration” which brought 19 schools throughout the valley to display their work on sustainability. The 1,000 attendees ranged from school board representatives, teachers, families, volunteers and council members.
- There are 27 students graduating this year with a minor in sustainability.
- The IS facilitated several off campus sustainability tours including LACI, NASA JPL, Discovery Cube LA, Hyperion Water Treatment and one of LADWP’s hydro-electric power plants.
- In addition to the annual IS hosted events, Water Day and Sustainability Day, they also held an Earth Day Speaker Series in conjunction with AS Earth Fair.
**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. Retro-commissioning to be completed on all buildings by 2023
3. Real-time and historical energy use available online to all campus community by 2018
4. 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

**2016-17 Priorities and Outcomes**

- **LEED EBOM Evaluation.**
  A LEED EBOM Evaluation gap analysis was performed on the Sierra Center during the spring semester. This project involved a consulting firm as well as a team of students from the Construction Management course. The students were able to help with data collection, entry as well as learn how to use the web based benchmarking platform - Energy Star Benchmarking.
- **Develop Lighting and Controls RFP and roll out through one campus property.**
  A campus wide Lighting and Controls RFP is not feasible at this time, however the campus has standardized on a lighting control system and has begun to implement this on many smaller projects through the JOC program.
- **Develop list of all metering items and create a PM schedule.**
  A list of all metered items has been created and a PM schedule is being developed in conjunction with our campus EMS provider, Siemens.
- **Bookstore HVAC replacement and upgrades.**
  This project was completed and included the replacement of 3 air handlers.
- **LED Retrofits and Occupancy sensors in USU**
  The USU will be continuing the LED retrofits to exterior lighting on various buildings this summer.
- **Phase 1 SEER HVAC Unit Replacement.**
  This project did not receive funding this year, however two units from phase one were replaced and incentives were captured.
- **Develop a plan for outside air modulating dampers and determine costs.**
  PPM Mechanical Services has created a list of known faulty dampers and will be developing estimates on the costs for repair.
- **Develop a plan for VFD’s upgrades and determine costs.**
  A list of locations for VFD upgrades and estimated costs has been created.
- **Develop Solar RFP.**
  Facilities has been working with P2S Engineering on developing specifications for our campus solar project. This project will be between 3-4 megawatts installed on the top level of the three campus parking structures.
- **Begin exterior lighting retrofits at Sierra Center.**
  This project has begun and TUC is piloting new LEDs in 5 fixtures.
Other Highlights

- The Sustainability Center – CSUN’s first NZE building is set to open in late August 2017.
- CSUN Engineering Students partnered with the Institute for Sustainability to build 8 Solar Charging Trees. Seven of the eight Trees were installed in select locations throughout campus. The last Tree will be placed at the new Sustainability Center building.
- The IS hosted several energy workshops this year including one on residential energy efficiency through the TRIO Program as well as a Professional Development session on going solar.
- The Electric shop has continued to install exterior walkway LED retrofit kits.

2017-18 Priorities

- Establish a method and process to make consumption data visible (EN3.6).
- Solar Projects: B3, B5, G3 (EN4.3).
- Develop Dashboards for all campus buildings. (EN3.3).
- Pilot Dashboard kiosk in a campus building and a CSUN Dining location.
- Continue Implementation of LED Lighting and Lighting Controls.
- Pilot Solar Thermal Analysis (EN4.1).
Factors contributing towards environmental quality include the use of chemicals and hazardous materials. It is important that the University 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

2016-17 Priorities and Outcomes
- PPM Grounds Department to test electrical/battery powered equipment.
  The Grounds Department has tested several brands of battery powered equipment ranging from blowers to chainsaws. The overall adoption of the new battery powered equipment has been very positive and they are confident that these new types of equipment will suit their needs.
- Launch campus wide Green Cleaning program. Develop signage for Program.
  Signage was created for the new Green Cleaning Program with the help of Reprographics. This icon will be placed in restrooms along with other prominent locations to help promote the program and improve awareness of our efforts.
- Pilot Solar Powered Grounds Shop (carts and equipment).
  The Grounds Department has two DC Solar Trailers adjacent to their shop which are being used to charge their carts. This has proven to be a successful pilot and has become a standard practice for the Grounds Department.
- Pilot biodiesel mower system.
  An analysis to determine the potential for using biodiesel in PPM revealed the majority of diesel was being consumed in ride on mowers from the grounds Department. The decision was made to find alternative equipment rather than continuing to use diesel in the mowers.
Assortment of battery powered equipment being tested by the Grounds Department.

Other Highlights
- CSUN Grounds department received its first all-electric battery powered ride on lawn mower.
- Since launching the Green Cleaning Program this year, the campus has increased green cleaning expenses by 31% meeting our goal of 80%.
- CSUN’s custodial department is experimenting with an alternative eco-friendly floor stripper and wax which would allow us to convert this to a green cleaning process.

2017-18 Priorities
- Continue Ground Shop Electrification.
- Continue implementation of SLMP and increase organic compost use.
- Storm Water Pollution Prevention.
- Pilot unopened chemical reuse/storage room.
- Develop materials inventory program/process.

CSUN’s first all electric ride on lawnmower with solar canopy.
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 sustainability 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.

2016-17 Priorities and Outcomes
- Develop a Sustainable Landscape Management Program (SLMP).
  A SLMP was created in house with a partnership between PPM Grounds and Sustainability Staff. This plan outlines lawn maintenance and landscaping practices, tree care and maintenance, pesticide and herbicides use, invasive species, native plant selection, and water conservation efforts.
- Begin implementation of SLMP.
  Several of the SLMP practices have been implemented including: minimum mow height, reducing harsh chemicals used for pest control, and continuous monitoring of irrigation system to reduce water consumption.
- Increase ratio of organic versus inorganic materials used on CSUN Grounds.
  Grounds received its first delivery of commercial compost in April from our waste hauler, Athens Services. This compost is the end product from the composting facility where our green waste and food waste is processed.
- Position Campus to be successful in complying with AB 1826 Mandatory Commercial Organics Recycling.
  All campus entities are now serviced by the same waste hauler which has the ability to haul and process our organics and food waste offsite. The University Corporation is working with Athens Services to expand post-consumer composting throughout their facilities. In Fall 2017 the new 3-compartment source separation bins will be deployed in the Sierra Center.
2017-18 Priorities

- Pilot on campus grounds composting using material that is currently being brought offsite.
- Develop an effective method for distributing and using Athens compost for planters and turf.
- Complete the construction of the Outdoor Classroom and begin holding classes at the site.
- Install work area located at the campus garden
- Continue the implementation of compost bins in TUC Dining Locations.

Other Highlights

- The Grounds Department has eliminated the use of traditional ant pesticide and is now using an all natural concentrated mint solution to treat ants and other insect pests.
- CSUN Sustainability course students volunteered at the Sierra Center to help their peers in understanding what material goes in which bin.
- Over 204 students volunteered at the CSUN Garden.
- The IS hosted several workshops at the garden and compost site including Backyard Compost Made Easy and a Veggie Garden Workshop at the campus garden to educate faculty and staff about organic gardening.
- The Grounds Department has been doing extensive research and trials of alternative pesticide and herbicides that meet both the Sustainable Landscape Management Plan and the Integrated Pest Management Plan.
- The Campus Garden was toured by several classes this year including an Interior Design course.
Purchasing & Consumption

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

Main Strategies
1. Reduce overall product consumption
2. Increase the use of sustainable products
3. Increased 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.

2016-17 Priorities and Outcomes

- Develop system for tracking EPEAT and EnergyStar products purchased/used on campus.
  Developing a system for EPEAT and Energy Star product tracked was explored; however the decision would need to be made at the Chancellors Office level. A system was developed using the existing report that allowed us to retrieve the relevant information.

- Increase proportion ($) of green cleaning products purchased.
  The Physical Plant Management Green Cleaning Program officially launched this year and with this program we have seen an increase in green cleaning products – frequently meeting the 80% mark.

- Increase the percentage spent on paper purchased with 50%-100% recycled content.
  All non-recycled copier paper has been restricted as of January 2017 and any order placed with non-recycled paper will be redirected to a minimum of 30%. An analysis is being done to determine the financial impacts to the campus of moving to a 50% minimum and 100%.

- Increase $ ratio of green office products purchased.
  CSUN created our own Environmentally Preferred Purchasing list accessible through CSUN Staples accounts. The intent of this list is to make it easier for purchasers to select the more environmentally friendly version of office supplies.

- Utilize SOP to help implement purchasing priorities.
  The Sustainable Office Program has continued to promote the Universities purchasing priorities through informal education to office occupants and purchasers as well as providing additional information when needed.

Reusable utensil set giveaways helping to reduce the purchase of disposable versions
Other Highlights

- Since the implementation of the auto substitution program for non-recycled copy paper to a minimum of 30% the campus has reduced its spend on non recycled paper by 24% with the expectation that next year we well see 0% non-recycled content copy paper purchased.
- CSUN has increased its total percent of recycled copy paper versus non recycled from 52% in 12/13 to 79% in 16/17.

2017-18 Priorities

- Begin implementation of managed print services
- Provide incentives for people to utilize Asset Management as a source for furniture and other office equipment.
- Continue implementation of EPPP in alignment with PU2.1
- Develop proposal and plan for shifting from 30% to 50% to 100% recycled content printer paper
- Pilot Reuse Room on campus. Sierra Hall East lobby or Santa Susana IS Storage room.
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 by 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 vehicle miles traveled by faculty, staff, and students by 10%
2. Increase share of alternatives to single-occupancy vehicles for commuting from 26% to 40%
3. Gain recognition as a Bicycle-Friendly University
4. Reduce, with a goal of eventual elimination, vehicle use in the campus core
5. Reduce average emissions associated with university fleet operations (non-construction/maintenance vehicles) by 50%
6. Systematize transport data collection

2016-17 Priorities and Outcomes
- Increase student ridership of Metro and promote alternative modes of transportation.
  CSUN’s Metro ridership has increased to 1,665 users in Fall and 1,556 users in Spring.
- Increase percentage of alternatively fueled fleet vehicles.
  CSUN has increased its percent of alternatively fueled vehicles from 58% to 60% adding 16 additional electric vehicles to the fleet.
- Test an EV replacement vehicle for PPM trucks and Vans.
  This project did not receive funding this year.
- Establish a “Sustainable Transportation” parking location on campus.
  The departure of our campus Parking Manager put a halt on this project, and it will be revisited next fiscal year.
- Advertise and promote ZimRide and ZipCar programs.
  The ZimRide and ZipCar programs are being promoted at New Student Orientation, the AS website, Earth Fair as well as New Employee Orientation.
- Offer bicycle education workshops through the Matador Bike Shop.
  The Matador Bike Shop did not give any bicycle safety trainings this year but has provided 680 repairs since their opening in April of 2016.
Other Highlights

- The campus launched a pilot program with Metro being the first in our region to offer a Metro U-Pass to our students. The Metro U-Pass is a reduced-fare transit pass, offering students unlimited rides to campus, work, shopping, or anywhere they choose on any of Metro's bus or rail lines. This pass was subsidized by both AS and Police Services making a semester pass only $95.
- CSUN will be receiving an award at the 2017 California Higher Education Sustainability Conference for the Metro U-Pass Program.
- Two additional ZipCars have been added to the campus inventory and are located in the B5 parking lot. These additional units bring our total to 9 ZipCars.
- ZimRide has a total of 1,656 CSUN users and over 800 rides have been posted since the first of the year.

2017-18 Priorities

- Test an EV replacement vehicle for PPM trucks and Vans.
- Establish a “Sustainable Transportation” parking location on campus.
- Parking Guidance System.
- Transportation Survey.
- Bicycle Education Program (TR2.11).
- Improve bicycle infrastructure and signage.
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

2016-17 Priorities and Outcomes

- Develop a Zero Waste Plan.
  A Zero Waste Taskforce was created and included the PPM, TUC, USU and AS. This group is currently gathering information about their facilities and developing strategies. A plan should be complete by the end of the summer.
- Reduce truck trips for waste hauling services.
  Athens Services has reduced truck services for main campus waste pick-ups from five days a week to three.
- Produce annual waste and materials management report.
  An annual report is available on our campus waste tracking website (csun.wastetracking.com) and can be viewed at any time.
- Capture JOC C&D waste stream and add to CSUN’s waste tracking system.
  JOC C&D waste is now being captured in our waste tracking website and in order to ensure data quality and consistency all JOC projects are required to use the campus hauler.
- Explore adding Major Cap waste submittals to CSUN’s waste tracking system.
  The new Sustainability Center will be the first major capital project to be added to the waste tracking website.
- Capture shredded paper data and investigate in house shredding
  Shredded paper reports are now being sent to the campus every other month from the current shredding vendor. In the future PPM will offer an in-house shredding service that will allow us to capture more accurate data on our paper shredding waste stream.
- Install waste and recycling signage for all bins & for high waste locations
  New signage was developed with the assistance of the Associated Students Marketing Department. Signage was created for all waste stream types and is being deployed on all bins from deskside units to building level dumpsters.
- Capture alternative waste streams from PPM and Auxiliaries.
  Data on alternative waste streams from EH&S is available and being tracked. TUC is now tracking their waste oil on the waste tracking website.
2017-18 Priorities

- Go topless (coffee cup lids) initiative.
- Investigate opportunities for eliminating receipts at TUC locations.
- Sustainability Center (WR2.1).
- Continue signage throughout campus and housing.
- Pilot reusable pallet wraps.

Other Highlights

- All Campus entities are now using one waste hauler which has allowed the campus to easily track our total waste generation and diversion rates.
- CSUN has kept its diversion rate above the state mandate requirements, consistently keeping it around 59%.
- Sustainability staff worked with the students in from a sustainability course to perform one of the largest scale waste audits on campus.
- CSUN Sustainability staff and AS Sustainability and Recycling staff are meeting with Physical Plant Management Custodial staff monthly to review waste diversion goals as well as recycling efforts and operations on campus.
- CSUN’s PPM has switched to new waste bin liners made from 90% recycled content and are now color coded to our waste streams—blue for paper, black for landfill and green for bottles and cans.

New waste stream signage has been placed on bins throughout the campus.
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

2016-17 Priorities and Outcomes
- Expand drought tolerant vegetation installations
  Locations have been established and a scheduled is being followed. The Grounds Shop has completed locations through number 6.
- Complete Arbor Court drought tolerant renovation.
  This project has been complete.
- Complete programming of irrigation controllers to utilize ET, FS and MV's.
  This multiyear project is scheduled to be complete this summer. It has involved upgrading and programing over 60 controllers.
- Continue implementation of the Irrigation strike teams.
  The Irrigation Strike Team has completed their initial task and the irrigation crew continues to utilize the dashboard in their shop to pinpoint the location of leaks.
- Expand turf removal at identified locations.
  This fiscal year several additional locations have been converted to drought tolerant landscaping with the most prominent location being along Prairie and Darby as well as the B4 parking lot.
- Expand Brown is the New Green.
  Several locations have been converted to drought tolerant landscaping and signage has remained a priority to ensure the campus community is aware of the effort.
- Application of Aqua Cents to 3 additional locations (Boot Hill, Sierra South lawn, Manzanita lawn).
  Funding to continue this effort was not available this year.
- Install drip irrigation in the rose median along Lindley and Etiwanda.
  Funding for this project was not available this year, however it still remains a priority.
- Investigate bio-remediation of fuel cell water for the pond.
  Preliminary discussions have occurred and it does seem feasible to utilize the Fuel Cell Wastewater as supplemental water in the Orange Grove Pond.
Other Highlights

- CSUN achieved a 24% reduction in water consumption from the baseline year of 2013.
- CSUN will be receiving an award at the 2017 California Higher Education Sustainability Conference for the Irrigation Upgrade Project.
- The Grounds Department piloted a project with a startup company from the LACI called Rain Systems to determine the effectiveness of their hydrogel technology. The product will continue to be tested throughout the summer months.
- Due to the above average rain fall this year, the campus was able to keep the irrigation off for a total of 96.

2016-17 Priorities and Outcomes

- Utilize existing irrigation data to develop water maps of the campus.
- Determine the feasibility of migrating data from the irrigation system into EcoVox.
- Identify (map) locations of irrigation runoff and begin to address each location.
- Application of hydrogels to 3 additional locations (Boot Hill, Sierra South lawn, Manzanita lawn).
- Install drip irrigation in the rose median along Lindley and Etiwanda.
- Begin building level water metering.
- Sierra Center landscape renovation.
- D1 Turf removal project.
- Replacement of Sierra Center Dishwasher.
Thank you to all of the Green Core Working Group members for their participation and efforts in making these great achievements possible.

Mechelle Best, Hedy Carpenter, Debi Cours, Helen Cox, David Crandall, Michele Davis, Kevin Elmore, Austin Eriksson, Emilio Fernandez, Deborah Flugum, Mario Giraldo, Mary Hanson, Diane Hartjen, Zack Hillbruner, Larry Isrow, Sarah Johnson, Tim Killops, Astrid Logan, Jim Logsdon, Jorge Martin, Christina Mayberry, John McGuire, Kristy Michaud, Ron Norton, Tony Pepe, Jean Porter, Ken Premo, Cyndi Signett, Diane Stephens, Frank Stranzl, Bill Sullivan, Travis Thomas, Rolando Valiente, Deborah Wallace, Karina Ward, Erica Wohldmann, Mintesnot Woldeamanuel

Photographs by: Joy Hillman
(http://www.joyelisephotography.com)