CSUN Sustainability Plan, 2013-2023
Annual Update, 2015

June 1, 2015

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Executive Summary

This report documents progress made in Fiscal Year 2014-15 towards the goals and objectives of CSUN's Sustainability Plan, 2013-2023. This update highlights significant milestones achieved in each topic-specific section of the plan and provides a status report on each of the strategies, and next steps. In additional to the status update, priorities for the upcoming 2015-16 year are identified under each section.

In the past year the University has solidified itself as a sustainability leader in higher education. President Harrison has led and supported these efforts through the commitment to the American College and University Presidents' Climate Commitment, as well as co-chairs the ACUPCC Policy and Governance Committee. CSUN was represented at the 2014 Presidential Summit on Climate Leadership hosted by the ACUPCC by the President and four other members of CSUN's sustainability team. The institutionalization of sustainability at CSUN continues to advance rapidly with increasing adoption of best practices across the campus.

In September 2014, the University hired its first Sustainability Program Manager, Austin Eriksson. Mr. Eriksson's charge is to lead the University's sustainability implementation efforts and coordinate activities towards meeting campuswide goals. Since the hiring of the Sustainability Program Manager many new efforts towards meeting the campus' sustainability objectives have been initiated and are well on their way to completion. Some of the accomplishments include the launch of a new sustainability website, sustainability marketing materials and icons, successfully obtaining several grants for campus projects (over $250k), gaining CSUN recognition as a Tree Campus USA, increasing water conservation measures over 10%, initiating the campus' Strategic Energy Plan, biding a new waste RFP which will help CSUN achieve over a 70% diversion rate, to just name a few.

This year we also completed and reported our Greenhouse Gas Emissions Inventory, covering the period from 1990-2013. Fifty five percent of our emissions result from commuting, twenty-nine percent from electricity use and nine percent from natural gas and other fuels used for heating and campus vehicles. The report is available through the campus sustainability website.

For 2015/16, an important objective is to complete our Climate Action Plan, which will define a path towards achieving net zero emissions. In a phased-in approach the campus has begun installing building-level meters throughout campus, which will allow for a better understanding of energy consumption and help inform our strategic energy plan. Another important benchmarking activity was the completion of a 2015 Commuting Survey of faculty, staff and students. Analysis and reporting will be completed in summer 2015. With more than half for the university's carbon emissions resulting from commuting, we are working to support alternative transportation options on multiple fronts including the expansion of the ZipCar program, improvements in bicycling infrastructure, installation of twenty-two electric vehicle charging stations and improvements to our ridesharing program.

Concern over the worsening drought in California and the West prompted an acceleration of water reduction measures on campus, led by Facilities and Physical Plant Management. These included the removal of more than 100,000 sq ft of turf, replaced by native and drought-tolerant plantings, with another 200,000 sq ft scheduled for replacement in the year ahead. Facilities and Physical Plant Management piloted an agricultural grade hydrogel product on East Field to test its effectiveness on reducing the irrigation needs of turf landscapes. Due to the successful pilot, there are plans to expand this application to additional turf areas used for recreation. Upgrades to the existing irrigation system are underway that will enable the system to detect leaks or breaks and automatically shut down the faulty zone. These alerts are then sent to a real-time purpose-built display in PPM grounds department. Low-flow aerators have been installed on all plumbing fixtures throughout campus and housing. These water savings measures are anticipated to exceed the Chancellor's Office goals of 10% reduction by 2016 and 20% by 2020 with expected savings of 15% by end of 2014-15 and 23% by end of next year.

2014-15 saw the opening of the Matasphere, a dedicated student sustainability-themed housing unit, and witnessed our most successful year competing in the Campus Conservation Nationals in which seventeen residence halls took part in a "Matabattle" for energy and water reductions. This year, Associated Students received the go-ahead for construction of a new Sustainability Center, selected an architect, and are now close to completing the 75% design for presentation to the Board of Trustees. Groundbreaking is scheduled for January 2016 and opening 12 months later. A.S. assumed responsibility for the Sustainable Office Program that educates CSUN employees about sustainability practices at work, and completed forty-one office assessments. A.S. and TUC together launched a highly popular weekly Farmers' Market which will continue next year. TUC appointed a Sustainability Coordinator who has led their efforts to reduce waste and transition to 100% compostable containers for all take-out containers. In striving to increase their sustainable food purchases, TUC began work on the Real Food Challenge.

The Institute has continued to expand its composting efforts in collaboration with TUC and now collects and processes kitchen waste and coffee grounds from throughout campus, utilizing them in the food garden where students learn to grow food organically. This effort has garnered recognition through two awards this year - a *California Higher Education Sustainability Best Practices Award* for 'Integrating pre-consumer waste diversion and organic food gardening in a learning opportunity', and a *Certificate of Achievement* from EPA in their Food Recovery Challenge.

This year a new marketing and outreach platform was developed including online and print materials to inform on best practices in sustainability, progress in the ten sustainability plan sections, utility usage and greenhouse gas emissions data. A single sustainability portal has been developed in collaboration between Facilities Management and the Institute for Sustainability, which will feature both departments' ongoing work, sustainability planning materials, utility data, education and curriculum, and sustainability-related events and resources.

The 2015-16 FY will be one of the most progressive years for sustainability at CSUN. Many foundation elements were put into place this year that will allow us to focus on more priorities in each section of the plan. Some of the main focus areas will include the development of the Climate Action Plan, completion of STARS reporting, expansion of sustainability literacy efforts, completion of the Real Food Challenge assessment, development of the Strategic Energy Plan, installation of additional building-level metering, improvements in energy efficiency, implementation of a Green Cleaning program, expansion of composting, implementation of an Environmentally Preferred Purchasing Policy, expanding support for alternative transportation, significantly improving our diversion rate, and implementing drought resiliency measures.

Helen M. Cox   Austin Eriksson
Director, Institute for Sustainability   *Sustainability Program Manager*

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2015-16 Priorities

Administration
- Develop and publish Climate Action Plan.
- Complete STARS, Sierra Club Cool Schools and Princeton Review reporting.
- All campus units to incorporate Sustainability into their Annual Plans.
- Eliminate non-essential paper processes and create new e-workflows.
- Expand sustainability literacy efforts to include more signage, posters and social media.
- Utility data to be accessible on the sustainability website.

Dining Services
- Complete REAL Food Challenge initial assessment.
    - o Establish percent of REAL food baseline.
    - o Work towards 20% goal
- Increase the attendances and purchases at the Farmers Market.
- Provide improved healthy dining marketing, food labeling and healthy food guidelines.
- Explore sustainable food vendors and evaluate opportunities for purchasing power through local CSU's.

Education
- Develop and distribute cohesive campus wide sustainability signage.
- Publish results of Student Sustainability Knowledge Assessment.
- Develop a strategy to assess and improve staff and faculty sustainability literacy.
- Develop new interdisciplinary Master's Degree in sustainability practices.

Energy and Buildings
- Meter ten additional building for electrical usage.
- Install building electrical meters in the USU and Student Housing locations.
- Develop utility dashboards, ideally through Siemens Advantage, that are accessible via online or on monitors in building lobbies.
- Complete Strategic Energy Plan.
- Install 100 LED retrofit street and walkway lights.
- Install lighting controls in 2 campus buildings.
- Investigate new renewable energy opportunities through Bloom Energy and Panasonic Solar.
- Involve faculty and students in work to improve building energy performance.
- Establish EMS to EMS connection between the two systems.
- Complete study on savings from classroom scheduling consolidation.

Environmental Quality
- Develop, conduct training and launch a campus wide Green Cleaning Program.
- Evaluate the potential to adopt LEED EBOM for campus operational standards.
- Investigate the potential to reuse chemicals on a campus to reduce waste.

Organics
- Expand composting throughout dining facilities.
- Pilot a paper towel composting project.
- All Freudian Sips on campus to participate in the composting program.
- Update the Campus Tree Inventory.

Purchasing and Consumption
- Implement Environmentally Preferred Purchasing Policy.
- Develop a "Green Purchasing" list through office supply vendor, minimizing the purchase of items that do not fit the criteria.
- Increase awareness and promote office programs.
- Assess spending on products to determine baseline purchases of office products and paper. Set reduction goals based on analysis.

Transportation
- Analyze and publish results of 2015 commuting survey.
- Review and update recommendations from CSUN bicycle report, and begin implementation.
- Increase carpooling and investigate new ridesharing program options.
- Establish a "Sustainable Transportation" parking location on campus.
    - Shared EV charging station parking spots.
    - Parking for carpooling, ridesharing, hybrids, high MPG vehicles.

Waste and Materials Management
- Increase the campus diversion rate to at least 50%.
- Improve Student Housing Move Out program to reduce waste.
- Install additional recycling bins interior and exterior.
- Launch a pilot program to study the effectiveness of removing trashcans from classrooms and installing receptacles in the corridors and lobbies only.

Water
- Reduce water consumption by at least 15% from the 2006-2010 average baseline.
- Expand drought resiliency through the:
    - Removal of an additional 100,000 sqft of turf and convert to drought tolerant and native vegetation.
    - Application of Aqua Cents to additional locations.
    - Investigation of stormwater capture opportunities.
    - Exploration of reclaimed water use for central plant blow down and fuel cell operations.
- Inventory all existing restroom fixtures to identify opportunities for improvement.

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Key to Acronyms and Abbreviations

AM = Asset Management

ARP = Academic Resources and Planning

AS = Associated Students

CIELO = Center for Innovative and Engaged Learning Opportunities

EH&S = Environmental Health and Safety

EPA = Environmental Protection Agency

FA = Faculty Affairs

FIN = Financial Services

FPDC = Facilities Planning, Design and Construction

HR = Human Resources

IS = Institute for Sustainability

IT = Information Technology

LSP = Liberal Studies Program

MMC = Marilyn Magaram Center for Food Science, Nutrition, and Dietetics

PS = Police Services

PCA = Purchasing and Contract Administration

PPM = Physical Plant Management

PTG = Pioneering Technology Group

RGS = Research and Graduate Studies

SA = Student Affairs

SLO = Student Learning Outcomes

SCC = Sustainability Curriculum Committee

SOP = Sustainable Office Program

Tseng = Tseng College

TUC = The University Corporation

USU = University Student Union

Status Key:

On-going = Item has no end date

In-progress = Item will be complete at some point in time

Priority Key:

Phase 1 = Top priority. Lowest cost for highest benefit

Phase 2 = Second priority. To be implemented, but will take more time and/or effort

Phase 3 = Lower payoff for implementation and may take substantial time and/or effort

In order to meet the ambitious objectives set forth in this document, 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
- Establish a culture of sustainability that is evident in policy and practice across the institution.
- Allocate sufficient resources to support sustainability programs.
- Coordinate sustainability efforts across campus to reduce resource use, including unification of data and data management.
- Establish and promote CSUN as a destination campus for students interested in sustainability.

CSU Policy (May 2014)
- The CSU will pursue sustainable practices in all areas of the university, including:
  o business operations such as procurement; information technology; student services; food services; facilities operations; design and construction; and
  o self-funded entities such as student housing, student unions, parking, children's centers, and auxiliary operations. (14-New)
- Each CSU is encouraged to designate a sustainability officer responsible for carrying out and/or coordinating campus sustainability program efforts. (14-New)
- The CSU will strive to reduce systemwide facility greenhouse gas (GHG) emissions to 1990 levels, or below, by 2020 consistent with AB 32, California's Global Warming Solutions Act of 2006 (HSC §38550). Emissions will include both state and auxiliary organization purchases of electricity and natural gas; fleet, marine vessel usage; and other emissions the university or self-support entity has direct control over. The Chancellor's Office staff will provide the baseline 1990 facility emission levels (for purchased electricity and natural gas) for the campuses that existed at that time and assist campuses added to the CSU after 1990 to determine their appropriate baseline. (14-New)
- The CSU will strive to reduce facility GHG emissions to 80 percent below 1990 levels by 2040. Campus tracking and reporting of their GHG inventory will be grounded in the American College and University President's Climate Commitment guidelines or equivalent,

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with consideration to campus requested improvements. Metrics will include GHG emissions per FTE. (14-New)

- To the extent possible, academic and non-academic programs will be consolidated in a manner to achieve the highest building utilization. (78-; 88-Adopt; 01-No Change; 04-No Change; 14-Revise)
- All CSU campuses will implement a utilities chargeback system to recover direct and indirect costs of utilities provided to self-supporting and external organizations pursuant to procedures in the Integrated California State University Administrative Manual (ICSUAM). (78-; 88-Adopt; 01-No Change; 04-No Change; 14-Revise)
- Each CSU campus is encouraged to develop and maintain a campuswide integrated strategic energy resource plan, which will include tactical recommendations in the areas of new construction, deferred maintenance, facility renewal, energy projects, water conservation, solid waste management, and an energy management plan. This plan will guide the overall energy program at each campus. (78-Adopt; 88-Revise; 01-Revise; 04-Revise; 14-Revise)

2014-15 Priorities and Outcomes
1. Hire a sustainability program manager.
    a. Complete: Position was filled in September 2014.
2. Move more paper processes to fully electronic (paperless).
    a. In-progress: Many internal processes have been converted to paperless work flows; the most notable accomplishment in this category was the Electronic Travel process.
3. Roll-out production version of Geographic Information System to FPDC, PPM and AA.
    a. Complete: GIS has been moved to FPDC for management of space and infrastructure database.
4. Begin work on a Climate Action Plan.
    a. In-progress: IS, FPDC and Sustainability capstone students have begun working on the CAP.
5. Increase outreach for sustainability with visibility and marketing. Use reusables for campus events to demonstrate commitment to sustainability.
    a. In Progress/Continual: IS/FPDC has worked with VISCOM to generate a sustainability marketing campaign that will help promote awareness and help educate the campus on the CSUN's commitment to sustainability.

Other 2014-15 Highlights
- GHG inventory and report completed, January 2015.
- The University Corporation and Associated Students have sustainability plans.
- Colleges have been asked to integrate the campus sustainability plan into their annual plans within Academic Affairs.
- The Sustainable Office Program (AS) has completed 41 office assessments and reports this year.

- Electronic Travel has been rolled out on campus and been adopted by the Chancellors Office.
- MyCSUNBox is being widely used for data storage and paperless meetings.
- Employee benefit information has been moved to electronic versions.
- A joint Institute and Facilities CSUN Sustainability website was launched in May 2015 along with other sustainability marketing items.
- In June 2015, utility data was migrated to Siemens Advantage Software which provides dashboards and analytics.

2015-16 Priorities
1. Develop and publish Climate Action Plan.
2. Complete STARS, Sierra Club Cool Schools and Princeton Review reporting.
3. All campus units to incorporate Sustainability into their Annual Plans.
4. Eliminate non-essential paper processes and create new e-workflows.
5. Expand sustainability literacy efforts to include more signage, posters and social media.
6. Utility data to be accessible on the sustainability website.

2014-15 Update on Administration Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
AD1.1	Sign the ACUPCC	President, IS	The University signed the ACUPCC on March 11, 2013. GHG Inventory & Report were completed December 2014. CAP is being developed and will be ready January 2016. IS and FPDC are taking the lead on this with support from Digital Energy and the Spring 2015 SUST 401 class. TWG will contribute to the CAP transportation section, with 2 IS student interns doing research on this now.	In-progress. IS/FPDC to develop CAP
AD1.2	Integrated planning	VPs	Colleges have been asked to integrate the campus sustainability plan into their annual plans. AS has a standalone sustainability plan. TUC has launched Sustainability 2.0 plan. AA has published a plan that incorporates sustainability.	In-progress. Need to integrate sustainability into planning across all campus units. USU and Advancement to integrate sustainability into their plan.

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AD1.3	Sust coordinator	FPDC, IS	Sustainability Program Manager now on board.	Complete.
AD1.4	SOP	IS, AS, HR	SOP has moved to AS. There is a team of students working on the SOP and they have completed 41 offices. The SOP team has created a new rating system that is intended to create competition between offices.	On-going.
AD1.5	CSUN Shine	Advancement	IS and FDPC will work with Advancement to leverage CSUN's social media, CSUNShine weekly (faculty and staff emails), CSUN Today.	In-progress: Need to develop a communication plan.
AD2.1	Electronic processes	FIN, IT, IS, **HR**, RGS	E-Travel completed and rolled out campus wide in Fall 2014. Chancellor's Office has adopted this process. META Lab is piloting a system that will allow longitudinal assessment of individual students. Faculty additional pay is being converted to electronic. Discussion of movement to automated system. Paperless UDWPE (test and payment now online). Human Subjects IRB delayed. MyCSUNBox used widely for meetings. PCard upgrades have been done. IRA and AS annual and supplemental budget processes now electronic. A&R, Financial Aid, Financial Services using OnBase system for digital record/file keeping. Financial Aid submission process is now a fully electronic workflow. CoH developing standards for AA to use OnBase. AA and IT investigating OnBase for curriculum workflow. Cost allocation entries will be	In-progress. Investigate whether data can be collected form e-travel to allow for calculation of carbon footprint from this. TUC needs to implement E-Travel. Field trips still need to be done and will use S4 product. EAS (electronic course-level assessment system) is in initial rollout. Policy issue to be addressed to request/require all materials be shared electronically for meetings (use MyCSUNBox).

			automatic starting in July. HR- has moved benefits to E-Benefits. Recommended acceptance of electronic submission of academic work approved by Faculty Senate (May 2014). VA and credential application process is now electronic.	Look into the use of OnBase for e-signatures.
AD2.2	Electronic storage	IT	MyCSUNBox now has ability to create boxes for units/depts. etc. Scholar Works now includes A&R, AR, HR administrative records and faculty senate standing committee agenda and minutes. Sport clubs registration and risk management records are stored electronically using Do Sports Easy.	In-progress. OnBase (workflow piece just being started) AA in progress (storage). Work needs to be done on integrating systems.
AD2.3	Web interface	IT, Advancement, ARP	Combined FPDC and IS CSUN Sustainability website was launched in June 2015.	On-going.
AD2.4	Electronic forms (see AD2.1)		See AD2.1	On-going.
AD2.5	GIS facility database	FPDC, ARP, **IS**	Moved to FPDC (along with support). Adding infrastructure data (lighting, ADA facilities…). Integration with SFDB taking place to address any data and area inconsistencies.	On-going. Need to Integrate the GIS with SOC.
AD2.6	Maintain GIS data	FPDC, ARP, IS	Migrated support to FPDC.	On-going.
AD2.7	Data management	FPDC, IS, IT, IR	Utility data has been migrated to Siemens Advantage system and will allow for building level monitoring. Waste data is reported monthly through Google Drive.	On-going.

				In-progress. Cannot include local address and mode of transport on class enrollment checklist because local address is often established after enrollment.
AD2.8	Use of SOLAR	IT	Investigating the ability to use SOLAR for determining commuting modes of transportation. Information on transportation options is now in the Student Portal.	
AD3.1	Sust material online	IT, **IS**, Advancement	Ongoing.	On-going.
AD3.2	Cohesive story	Advancement, IS	Working with UA on marketing and outreach opportunities that will aid in telling the CSUN Sustainability Story.	On-going.

Action Plan — 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 campus food sources that are sustainable.
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

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

CSU Policy (May 2014)

- All campus food service organizations should track their sustainable food purchases. Such tracking and reporting will be grounded in the Real Food Challenge guidelines, or equivalent, with consideration to campus requested improvements. Campuses shall strive to increase their sustainable food purchases to 20 percent of total food budget by 2020. **(14-New)**
- Campuses and food service organizations shall collaborate to provide information and/or training on sustainable food service operations to staff and patrons. **(14-New)**

2014-15 Priorities and Outcomes

1. Prepare tracking and reporting information for participation in the REAL Food Challenge.
    a. TUC hired a team of students to go through two months of billing information with the intention of establish a baseline for the REAL Food Challenge. This was completed June 1st.
2. Expand vegetarian and vegan food offerings.
    a. Campus Food Report was completed this year which outlines various menu items and options for vegetarian and vegan food. Salads are available at every location.

Other 2014-15 Highlights

- TUC has eliminated all foam containers of any type being distributed from dining service locations.
- Subway will switch to paper bags from plastic.

- AS, in partnership with TUC, has established a Farmers Market on campus that occurs every Tuesday.
- TUC converted all PUCC's (plate, utensils, cups, and containers) to compostable, biodegradable or reusable with the exception of hot soup cups.

2015-16 Priorities
1. Complete REAL Food Challenge initial assessment.
    a. Establish percent of REAL food baseline.
    b. Work towards 20% goal
2. Increase the attendances and purchases at the Farmers Market.
3. Provide improved healthy dining marketing, food labeling and healthy food guidelines.
4. Explore sustainable food vendors and evaluate opportunities for purchasing power through local CSU's.

2013-14 Update on Dining Services Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
DS1.1	Sustainable vendors	TUC, IS, MMC	MMC is working with CSA. Produce is from Underwood Family Farms. F Sip uses Ground Works an LA based Certified Organic Roaster & Fair Trade. TUC is determining their vendors supply, the Real Food Challenge will help with this effort.	In-progress. Explore sustainable food vendors and evaluate opportunities for purchasing power through local CSU's.
DS1.2	Franchise food sources		All service ware was converted to paper products. Subway is converting to paper bags. El Pollo Loco to make adjustment to packaging their to-go orders to reduce the use of plastic bags and cutlery, changing to a single utensil option vs prepackaged plastic wrapped set.	In-progress. Investigate other franchise food service locations and improve their operations.

DS1.3	Purchase recommendations (see DS1.1)		In-progress.	In-progress: TUC-Determine who the sustainable vendors are. Then make recommendations.
DS1.4	Use sustainable vendors (see DS1.1 and DS1.3)		TUC is currently using: Family Tree, Ground Works, Driftwood farms. All chicken purchased is antibiotic and hormone free chicken. Free range chicken.	In-progress: TUC will research alternative/additional vendors including United Natural Foods Incorporated (UNFI) as an alternative to SYSCO.
DS1.5	CSA program	IS, **MMC**	CSA has 22 current members, one more than last year. Box pick up is from 3pm-6pm on Tuesdays. This program has a capacity of 60 participants.	On-going: Evaluate ways to expand program.
DS1.6	Fresh produce	TUC	Farmers Market now on campus.	On-going. Increase the attendances and purchases at the Farmers Market
DS2.1	Salad bars	TUC	There are no plans to expand the salad bars at OGB, G'Mos and Sierra Center. Every location has salads to order.	No further action.
DS2.2	Healthy, vegetarian options	TUC	Campus Food Report was completed 1/26/15 and highlights healthy vegan and vegetarian options at various locations.	In-progress G'Mos to provide report on their healthy and vegetarian option.
DS2.3	Collaborative program	TUC, **MMC,** IS	TUC has hired students to help with the RFC and has student interns working through a 494 course to establish calorie content.	On-going MMC to develop a plan for product development for items to sell using orange grove fruits. Sell at bookstore or farmers market.

DS3.1	Food labeling	TUC, IS, MMC	Computrition Menu Management software is a new module that displays info on food items, ingredients, calories, etc. This will be rolled out at G'Mos.	In-progress.

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
- Participation in Sustainability Office Program (SOP) by all campus offices/units by 2015.
- Implement university-wide sustainability education for all students by 2018.
- Offer graduate certificate in Sustainability by 2015.
- Offer M.A. degree in sustainability practices by 2018
- Expand service learning and internship opportunities in Sustainability.
- Expand network of faculty engaging in sustainability-related research.

CSU Policy (May 2014)
- The CSU will seek to further integrate sustainability into the academic curriculum working within the normal campus consultative process. **(14-New)**
- The CSU will develop employee and student workforce skills in the green jobs industry, promote the development of sustainable products and services, and foster economic development. **(14-New)**
- The CSU will cooperate with federal, state, and local governments and other appropriate organizations in accomplishing energy conservation and utilities management objectives throughout the state; and inform students, faculty, staff and the general public of the need for and methods of energy conservation and utilities management. **(78-Adopt; 88-Revise; 01-No Change, 04-No Change; 14-No Change)**

2014-15 Priorities and Outcomes
1. Implement Sustainable Office Program.
    a. 41 offices have been completed this FY.
2. Improve sustainability literacy amongst students.
    a. New 100-level GE course in Understanding Climate Change offered for first time in Spring 2015.
    b. First year of Sustainability-themed living-learning community (Matasphere).
    c. 90 currently declared minors in sustainability.
    d. Largest number of SUST sections (10) to date taught in 2014-15.

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e. Sustainability knowledge assessment study completed.
3. Expand faculty participation in sustainability teaching.
   a. Number of different faculty who have taught sustainability courses now at 21. Fourteen faculty teaching in SUST courses in 2014-15.

Other 2014-15 Highlights
- SOP training and office resource materials have been completed. SOP is now being run through AS.
- Hosted Sustainability Day, Water Day, America Recycles Day, Earth Day and Arbor Day with strong attendance at all events.
- Sustainability marketing campaign was launched including site signage, plaques, new Sustainability website, icons, etc.
- Expansion of number of students enrolled in minor (90), number of faculty teaching sustainability (14), number of students taking a sustainability course (389).

2015-16 Priorities
1. Develop and distribute cohesive campus wide sustainability signage.
2. Publish results of Student Sustainability Knowledge Assessment.
3. Develop a strategy to assess and improve staff and faculty sustainability literacy.
4. Develop new interdisciplinary Master's Degree in sustainability practices.

2014-15 Update on Education Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
ED1.1	SOP materials	IS, AS	Completed.	Completed.
ED1.2	Training workshops/audits	IS, AS, HR	SOP students are training other students as they are hired on.	On-going.
ED1.3	SOP tracking	IS, AS	AS will track program success/progress.	On-going.
ED1.4	Host events	IS, AS	Sustainability Day, Water Day, America Recycles Day, Earth Day and Arbor Day. Arbor Day was hosted this year to promote our Tree Campus USA recognition.	On-going.
ED1.5	Film series	IS, AS, SA, Housing	This has not been started yet.	Look into the potential to run a film series through the MataSphere.

ED1.6	Site signage	IS, FPDC, PPM	FPDC/IS have working with VISCOM to develop a sustainability marketing campaign for all aspects of this plan.	On-going. Develop bike rack signs, light pole banners, deploy poster, dashboards, etc.
ED1.7	Informational signage	IS, AS, TUC, PPM, SA sust. comm.	Same as above.	On-going.
ED1.8	Student media pieces	IS, faculty, AS	Potential to use students to create sustainability media pieces.	No action taken.
ED1.9	Campus tour and orientation	SA, AS	Campus tours offered in new student orientation in August and January. Tours are given throughout the year to prospective students.	On-going: Self-Guided Tour brochure complete.
ED1.10	Informal education in housing	IS, Housing	Potential to do this through the Matasphere as champions in student housing.	No action taken.
ED1.11	Living-learning community	Housing	Summer 2014 the MataSphere was created in Student Housing as a living learning community.	On-going.
ED1.12	Assess sust. literacy	IS, Faculty, AS	IS has compiled the first year's results. This was presented at AASHE. Testing will continue in spring.	On-going: Need to collect and analyze more data.
ED2.1	Identify courses	SCC, IS, LSP	Created GE course SUST 111/L GE course in climate change.	On-going. Need to develop more SUST courses.
ED2.2	Faculty development	SCC, LSP	Some of this is being done through the GE path.	In-progress.
ED2.3	SLOs and SUST courses	SCC, LSP	No action taken.	No action taken.
ED2.4	Master's program tracks	SCC	MBA with a sustainability concentration has been approved.	In-progress.
ED2.5	Sustainability literacy	SCC, LSP, IS, AS	Under ED1.6. Created GE course Sustainability 111/L GE course in climate change.	On-going.

			CSUN has 12 faculty currently teaching Sustainability 300, 2 additional teaching in Sustainability 310.	
ED2.6	Identify faculty	SCC, LSP, IS		On-going.
ED2.7	Online/hybrid SUST 300	faculty	This has not been done yet. There has not been an issue filling in class sessions. We would add in class sessions before online if expanding.	On-hold.
ED2.8	Offer graduate certificate	SCC, IS, Tseng	On-hold.	On-hold.
ED3.1	On-campus SL & internships	IS, CIELO	This has been expanded, garden compost, lighting inventories, RFC, SOP, farmers market, event org.	On-going: IS will work on expanding On-campus SL & internships.
ED3.2	Community SL & internships	IS, CIELO	There are some opportunities on Moodle.	Need to contact external companies for opportunities.
ED3.3	Active learning procedures	IS, CIELO	Keeping a Moodle page updated with available service learning projects and opportunities.	On-going.
ED3.4	Active learning outreach	IS, CIELO	Ongoing	On-going.
ED3.5	Internship course	SCC, Faculty	In Progress.	In-progress.
ED4.1	Faculty research	IS, RGS	Potential to use the Library team to develop an efficient way to determine faculty involved with sustainability research.	In-progress.
ED4.2	Online directory	IS, RGS	No action taken.	No action taken.
ED4.3	Faculty participation	IS	This is being done through the new working groups as well as the teaching faculty.	On-going.

Reduction in energy use and in the use of fossil fuels is a core component of CSUN's commitment to sustainability. This reduction 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
- All buildings to be individually metered for gas, (water) and electricity.
- Retro-commissioning to be completed on all buildings by 2023.
- Real-time and historical energy use available online to all campus community by 2018.
- Reduction in energy intensity (energy/sq ft) of 15% by 2018 and 25% by 2023 over 2012.
- Generate 20% on-site by 2018, with 25% on-site generation by 2023.
- Increase investment in renewable energy: 10% from renewables by 2023.
- All new buildings to meet LEED Gold or higher standard effective 2013.

CSU Policy (May 2014)
- The CSU shall pursue energy procurement and production to reduce energy capacity requirements from fossil fuels, and promote energy independence using available economically feasible technology for on-site and/or renewable generation. The CSU shall endeavor to increase its self-generated energy capacity from 44 to 80 megawatts (MW) by 2020. (05-New; 14-Revise)
- The CSU will endeavor to exceed the State of California and California Public Utilities Commission Renewable Portfolio Standard (RPS) sooner than the established goal of procuring 33 percent of its electricity needs from renewable sources by 2020. (05-New; 14-Revise)
- All CSU buildings and facilities, regardless of the source of funding for their operation, will be operated in the most energy efficient manner without endangering public health and

safety and without diminishing the quality of education and the academic program. (78-Adopt; 88-Revise; 01-No Change; 04-No Change; 14-Revise)

- All CSU campuses will continue to identify energy efficiency improvement measures to the greatest extent possible, undertake steps to seek funding for their implementation and, upon securing availability of funds, expeditiously implement the measures. **(78-Adopt; 88-Revise; 01-No Change; 04-No Change; 14-Revise)**

- Each CSU campus will designate an energy/utilities manager with the responsibility and the authority for carrying out energy conservation and utilities management programs. The Chancellor's Office will have the responsibility to coordinate the individual campus programs into a systemwide program. (78-Adopt; 88-Revise; 01-No Change; 04-No Change; 14-No Change)

- The CSU will monitor monthly energy and utility usage on all campuses and the Chancellor's Office, and will prepare a systemwide annual report on energy utilization and greenhouse gas emissions. The Chancellor's Office will maintain a systemwide energy database in which monthly campus data will be compiled to produce systemwide energy reporting. Campuses will provide the Chancellor's Office the necessary energy and utility data, such as electricity and natural gas consumption; water and sewer usage; fuel consumed by fleet vehicles, boats, and ships; waste disposal for the systemwide database in a timely manner. (78-; 88-Adopt; 01-Revise; 04-No Change; 14-Revise)

- All future CSU new construction, remodeling, renovation, and repair projects will be designed with consideration of optimum energy utilization, low life cycle operating costs, compliance with all applicable energy codes (enhanced Title 24 energy codes) and regulations. In the areas of specialized construction that are not regulated through the current energy codes, such as historical buildings, museums, and auditoriums, the CSU will ensure that these facilities are designed to consider energy efficiency. Energy efficient and sustainable design features in the project plans and specifications will be considered in balance with the academic program needs of the project within the available project budget. (78-Adopt; 88-Revise; 01-Revise; 04-Revise; 14-Revise)

- Capital Planning, Design and Construction in the Chancellor's Office shall monitor building sustainability/energy performance and maintain information on design best practices to support the energy efficiency goals and guidelines of this policy. The sustainability performance shall be based on Leadership in Energy and Environmental Design (LEED) principles with consideration to the physical diversity and microclimates within the CSU. (05-New; 14-Revise)

- The CSU shall design and build all new buildings and major renovations to meet or exceed the minimum requirements equivalent to LEED "Silver." Each campus shall strive to achieve a higher standard equivalent to LEED "Gold" or "Platinum" within project budget constraints. Each campus may pursue external certification through the LEED process. (05-New; 14-Revise)

- Each campus shall operate and maintain a comprehensive energy management system that will provide centralized reporting and control of the campus energy related activities. (78-Adopt; 88-Revise; 01-Revise; 04-No Change; 14-Revise)

2014-15 Priorities and Outcomes

1. Outdoor LED lighting installation.
   a. The University has installed over 100 LED walkway and street lights this year.
2. Continuing monitoring-based commission of buildings.
   a. 18 meters were installed to facilitate monitoring-based commission.

Other 2014-15 Highlights

- Heat flow and temperature monitoring in all existing buildings has been completed.
- LED lights have been installed in the B4 parking lot, along Jacaranda Walk, Cleary Walk, and Lindley Walk, with an additional four outside University Hall, and 2 next to Chicano House.
- 69 refrigerators throughout campus were replaced with Energy Star units through a LADWP program.
- 18 electric meters were installed to monitor 10 buildings.
- Developed installation plan for 15/16 FY sub metering chargeback locations:
  o 23 electric meters.
  o 10 water meters.
  o 5 gas meters.
- The campus now has a utility database through the Siemens Advantage program.
- Student teams performed lighting inventories in 5 campus buildings and mapped all exterior street and walkway light poles.

2015-16 Priorities

1. Meter ten additional building for electrical usage.
2. Install building electrical meters in the USU and Student Housing locations.
3. Develop utility dashboards, ideally through Siemens Advantage, that are accessible via online or on monitors in building lobbies.
4. Complete Strategic Energy Plan.
5. Install 100 LED retrofit street and walkway lights.
6. Install lighting controls in 2 campus buildings.
7. Investigate new renewable energy opportunities through Bloom Energy and Panasonic Solar.
8. Involve faculty and students in work to improve building energy performance.
9. Establish EMS to EMS connection between the two systems.
10. Complete study on savings from classroom scheduling consolidation.

2014-15 Update on Energy and Buildings Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
EN1.1	Flow meters & temp sensors	**FPDC**, PPM	Campus Buildings and Programming EMS System completed.	In-progress. USU to install Building Level flow meter and temp sensors.
EN1.2	Electric meters	**FPDC**, PPM	Chargeback Meters to be installed: Sierra Center, Bookstore, Arbor Court, USU, AS Recycling, Orange Grove Bistro, Parking Lots / Structure. USU Meters: Investigating energy and water metering on 9 buildings. Campus Building Meters installed: Oviatt, Jerome, Sierra Tower, Sierra South, Bayramian, Science 1, 2, 3, 4, University Hall for this year.	In-progress. Need to determine funding source for housing meters.
EN1.3	Real-time energy monitoring	**FPDC**, PPM, IS, PTG	Siemens Advantage is being implemented as a utility tracking and analytics system. This system will also be gathering data from any available meters.	In-progress. Need to continue installation of meters to improve real-time energy monitoring.
EN2.1	Prioritize retro-commissioning	FPDC, PPM, IS	Central Plant Retro-commissioning has been completed.	On-going. Need to develop a list of buildings to be retro-commissioned and prioritize that list.
EN2.2	Energy audits	PPM	Campus will be moving forward with the Strategic Energy Plan. This will also contribute to the CAP. Students in sustainability course are working on parts of the CAP that will touch on energy.	In-progress. FDPC and PPM to work with a consulting company to develop the SEP. FDPC and IS will work with Faculty and students to develop sections of CAP.

			Nordhoff Hall Mechanical Replacement completed in April 2015. Phase approved and scheduled for August 2015.	In-progress. PPM/USU/TUC need to develop a list of buildings and prioritize improvements.
EN2.3	Prioritize improvements - Building Retrofits	FPDC, PPM	USU Scheduling and power shut down when not in use, continued replacement with LED fixtures/lamps. Potential TUC bookstore project, changing out lighting to LED's. SHU mechanical replacement complete. PPM is working with LADWP to upgrade the VFD's for Santa Susana Hall. The Northridge Center in the USU has huge energy and lighting upgrade potential.	Working with engineering faculty and students to improve energy efficiency in buildings as part of Campus As A Living Lab.
	Automated Scheduling EMS to EMS	FPDC, PPM, IT	IT to work with Room Reservations to coordinate implementation.	PPM will work with IT to integrate the two systems, and integrate with GIS.
EN2.4	Lighting upgrades	FPDC, PPM	Cleary Walk, Lindley, Redwood North walkway and streetlights completed. 75 of 607 campus walkway fixtures retrofitted with LED. Prairie and Plummer streets and an additional 50-60 walkway lights will be done over the summer break. USU completed East Conference Center, Wellness Center with Lighting upgrades. Sol center is 80% LED now. All new buildings will be LED.	On-going. Continue implementation.
EN2.5	Indoor lighting assessment	FPDC, PPM, IS	Students have inventoried 5 campus buildings and all exterior street and walkway lights.	In-progress.
EN2.6	Power consumption assessment	PPM, IS, academic departments	Same as EN2.2	In-progress.

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EN2.7	Reduce office and lab computer power consumption	IT, IS, PTG, college techs, USU IT	All computer models that IT and Purchasing provide as options have the capability of being put to sleep automatically. IT uses this functionality for the areas that they support.	On-going. Need to ensure all campus computers are using this sleep function.
EN2.8	Motion-detection switches	FPDC, PPM	Enlighted Lighting Controls is being piloted in University Hall FPDC office and corridor.	In-progress.
EN3.1	Implement Sustainable Office Program (see AD1.4, ED1.1, ED1.2, ED1.3)	AS, IS, FPDC	See AD1.4, ED1.1, ED1.2, ED1.3	In-progress. Need to gain more campus interest and participation.
EN3.2	Energy use web page (see AD2.7)	FPDC, PPM, IS	Potential to use Advantage software for dashboards and webpage.	In-progress.
EN3.3	Dashboard monitors	FPDC, PPM, IS, Housing	There have been no dashboards installed, but there is potential to use Advantage for this application.	In-progress.
EN3.4	User behavior	PPM, IS, Housing, AS	FDPC/IS has worked with VISCOM to help promote sustainability on campus and target user behavior through several outlets: switch plate covers, signage, social media, website, etc. The MataSphere advocate these initiatives through the living learning community.	On-going.
EN3.5	Initiatives and competitions (see EN3.4)	Housing, IS	Student Housing participated in Campus Conservation Nationals and created a competition between the different dorms.	On-going. Need to identify funding for upgraded building meters to more easily and accurately compete.
EN3.6	Consumption data visible.	IS, AS	See EN3.2	In-progress.

EN4.1	Solar thermal analysis	FPDC, PPM, IS	The University has not looked into this yet, but it will be evaluated as part of the SEP. There are also incentives for these projects through Go Solar California.	In-progress.
EN4.2	Invest in renewable energy	Faculty, FPDC	No new PV installed, but discussions on expanding CSUN's PV have begun. The University is moving PV from the Boeing Site to Jacaranda hall. PV to be installed on the Sustainability Center.	On-going. Investigate the feasibility of doing solar on parking structures, and other buildings as well as the thin film technology.

Action Plan — Environmental Quality

Factors that contribute to environmental quality are related to the use of chemicals and hazardous materials such as refrigerants, synthetic fertilizers, cleaning products, paints, and chemicals used in science and engineering laboratories and art studios. 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
- Study effectiveness of organic fertilizers and related operational issues and apply results to reducing the use of synthetic fertilizers and progressively replacing them with organic fertilizers. Quantitative goals (% reduction) for 2023 to be set upon further consultation with the appropriate campus entities and following study.
- Phase in more Green Seal-certified cleaning products and adopt green cleaning procedures. Objectives for 2023 to be set upon further consultation with the appropriate entities.
- Develop a set of sustainable operations and maintenance standards in coordination with the appropriate entities.
- Complete the campus inventory of chemicals and hazardous materials and make it available to University faculty and staff.

CSU Policy (May 2014)
- The CSU will encourage the reduction of hazardous waste to the extent possible while supporting the academic program. **(14-New)**

2014-15 Priorities and Outcomes
1. No priorities were set for 2014-15 FY.

Other 2014-15 Highlights
- PPM has started using eco logo products in their bottle and bucket cleaning chemicals.
- E-Waste Data is maintained in PPM and is tracked through the Waste Tracking Google Sheet with the rest of the campus waste.

2015-16 Priorities
1. Develop, conduct training and launch a campus wide Green Cleaning Program.
2. Evaluate the potential to adopt LEED EBOM for campus operational standards.
3. Investigate the potential to reuse chemicals on a campus to reduce waste.

2014-15 Update on Environmental Quality Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
EQ1.1	Organic fertilizers	PPM, USU, IS, Housing	No organic fertilizers are being used, organic mulch is used.	PPM needs to evaluate the potential for using organic fertilizers.
EQ1.2	Cleaning products	IS, PPM, USU, Housing	PPM has switched some cleaning products this year to include several green cleaning products.	In-progress. Need to develop a campus wide Green Cleaning Policy/Program.
EQ1.3	Operation standards	PPM, FPDC	Potential to adopt LEED EBOM standards as building operation standards for the campus.	In-progress. FPDC and PPM need to evaluate the LEED EBOM standards and whether they will work for the University.
EQ1.4	Materials inventory	EH&S	Chemical inventory from departments has been established, however not all faculty are participating.	On-going. EH&S to work with researchers on campus to provide a chemical inventory. Need to develop a policy to ensure this reporting is completed. EH&S will look at the potential to reuse chemicals on a campus to reduce waste.
EQ1.5	Determine e-waste	AM, IS, IT, USU	Asset Management in PPM and AS Recycling both have e-waste inventories.	On-going. Need to ensure these are being tracked through the university waste and recycling tracking sheet.
EQ2.1	Educational campaign	EH&S, IS, FPDC	Training is coordinated with sciences and PPM.	On-going. E-Waste education is needed. EH&S to work with FPDC and IS on educational outreach.
EQ2.2	Data collection	EH&S	Ongoing.	On-going.
EQ2.3	Communication	PPM, EH&S	This will be included in the marketing efforts of the sustainability campaign.	On-going.

Organic materials are the largest component of municipal solid waste accounting for 30% of the total. Food waste (21%) is the single largest material in the solid waste stream. Reducing the amount of food waste has significant economic, social and environmental benefits including reducing disposal costs, improving the lives of the needy by donating food, reducing the resources and costs in the production of wasted food (including water, fertilizers, pesticides, and energy), reducing greenhouse gas emissions (methane) from landfills and creating compost, a valuable soil amendment. CSUN has an important role to play as an educator and socially responsible party in the efforts to reduce the quantity of food waste produced, and to reduce 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 sustainability practices.

Objectives for 2023
- Reduce quantity of food waste by 15% by 2018 and by 50% by 2023.
- Reduce quantity of other green waste by 50% by 2015 and 80% by 2023.
- Conduct on-site composting to generate organic fertilizer for use on campus grounds.
- Gain recognition as a Tree Campus USA.
- Re-use waste vegetable oil.
- A fully-developed Organic Food Garden that provides educational and research opportunities for students, faculty, staff and the surrounding community.

CSU Policy (May 2014)
    N/A

2014-15 Priorities and Outcomes
1.   Collect and process all kitchen green waste into compost.
    a.   All pre-consumer food waste from Geronimo's and Juice it Up are being collected and processed for compost.
2.   Collect and process all campus coffee grounds into compost.
    a.   The coffee grounds from all five Freudian Sips are being collected and processed for compost.
3.   Increase student participation in garden activities.
    a.   Over 640 students participated in the campus garden activities this FY.

Other 2014-15 Highlights

- The data on food and organic waste being composted is being tracked through the Campus Waste and Recycling Tracking Google Sheet.
- CSUN/TUC received the EPA Food Recovery Challenge (RFC) Certificate of Achievement for increasing food waste diversion from landfills by 471% from 2012 to 2013.
- TUC has donated its pickle buckets to help with transportation of coffee grounds on campus.
- PPM has developed a list of drought tolerant plants that are well suited for CSUN's microclimate.
- Redwood Hall, Arbor Court and the corner of Plummer and Lindley turf has been reduced. These locations are now landscaped with DG and drought tolerant plants.
- 100 bags of campus compost were given away at the Earth Day/Arbor day Celebration.
- The Tree Inventory is being updated.
- CSUN was recognized as a Tree Campus USA.

2015-16 Priorities

1. Expand composting throughout dining facilities.
2. Pilot a paper towel composting project.
3. All Freudian Sips on campus to participate in the composting program.
4. Update the Campus Tree Inventory.

2014-15 Update on Organics Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
OG1.1	Collect and record waste data	TUC, IS	Campus Composting is collecting organic waste from Juice It Up, G'Mos, and Freudian Sip. Weight is taken for all of these items. Roughly 1,300lbs a week. All waste data is now be tracked through the "Campus Waste and Recycling Tracking" Spreadsheet.	On-going.
OG1.2	Compost receptacles	AS, PPM, TUC, USU, Housing	TUC is determining which kitchens have space for bins. Freudian Sips are using recycled pickle buckets to collect coffee grounds.	In-progress.
OG1.3	Compostable/reusable containers	TUC, AS	All Plates, Utensils, Cups and Containers (PUC's) are compostable including Pepsi	In-progress.

				cups with the exception of hot soup containers. Franchises are excluded from this.	
OG1.4	Receptacles in kitchens	TUC, IS, AS	There are currently bins at all Freudian Sip locations and at G'Mos student dining facility.	In-progress. TUC needs to investigate the feasibility of rolling out this program to all TUC kitchens.
OG1.5	Coffee grounds	TUC, IS, AS	Collecting all coffee grounds from Freudian Sips.	On-going. TUC to add the new F-Sip location next FY to this program.
OG1.6	Expand compost operations	TUC, IS, AS	TUC will be including organics in new RFP.	In-progress.
OG1.7	Compost waste paper	PPM, AS, IS, TUC	This will be feasible under the new waste RFP.	Need to discuss whether this is something the University wants to do.
OG1.8	In-vessel composter	PPM, AS, IS, TUC	This was not a cost effective option for composting.	No further action.
OG1.9	Biodiesel converter	PPM, IS, EH&S	No action taken.	No action taken.
OG1.10	Waste vegetable oil	PPM, IS, TUC	A company picks up all the waste vegetable oil for the food services locations and converts it to biodiesel off site.	On-going.
OG2.1	Food waste signage	PPM, AS, IS, TUC	Waste hauler should provide signage for back of house kitchen composting. For post-consumer composting TUC will be developing signage for the bins.	In-progress.
OG2.2	Compost receptacle signage	PPM, AS, IS, TUC	Same as above.	In-progress.

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OG2.3	Garden internships	IS	Interns are funded through the IS to maintain the garden and collect compostables.	On-going.
OG2.4	Student compost research	IS	Geography 404 students sampled compost for fertility, particle size, etc. This course occurs once per year.	On-going.
OG3.1	Greenhouse storage area	PPM, IS	No action taken.	No action taken.
OG3.2	Outdoor classroom	PPM, IS	No action taken.	No action taken.
OG3.3	Work area	PPM, IS	No action taken.	No action taken.
OG3.4	Garden budget	IS	There is funding through IS for student workers, but there is no materials budget for the garden.	In-progress.
OG3.5	Expand compost area	PPM, IS	Application submitted for an IRA grant for improving/expanding the compost area.	In-progress.
OG3.6	Horticulture class	IS, LSP, Tseng	Under consideration.	In-progress.
OG4.1	Liquid fertilizer	PPM, IS	No action taken.	No action taken.
OG4.2	Use/sell compost	PPM, IS	No action taken.	No action taken.
OG4.3	Tree inventory	FPDC, PPM, IS	Tree Inventory is maintained by PPM Grounds and FPDC.	On-going.
OG4.4	Landscape and native plants	FPDC, PPM	PPM has created a preferred plant list for the campus. Turf removal and replacement with drought tolerant plantings and native plants.	Ongoing: Continue with turf removal and replacing with drought tolerant vegetation.

Action Plan — Purchasing and 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
- Implement campus-wide environmentally-preferred purchasing policy.
- Create campus purchasing reduction goal for various product categories based on baseline data to be collected.
- 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.

CSU Policy (May 2014)
- Campuses will promote use of suppliers and/or vendors who reduce waste, re-purpose recycled material, or support other environmentally friendly practices in the provision or goods or services to the CSU under Contract. This may include additional evaluation points in solicitation evaluations for suppliers integrating sustainable practices. (14-New)
- To move to zero waste, campus practices should: (1) encourage use of products that minimize the volume of trash sent to landfill or incinerators; (2) participate in the CalRecycle Buy-Recycled program or equivalent; and (3) increase recycled content purchases in all Buy-Recycled program product categories. (14-New)
- Campuses shall continue to report on all recycled content product categories, consistent with PCC § 12153-12217 and shall implement improved tracking and reporting procedures for their recycled content purchases. (14-New)

2014-15 Priorities and Outcomes
1. Increase use of recycled content paper.
    a. For FY14/15 54% of the total purchased paper had between 30%-100% of recycled content.
2. Increase recycled content of paper and other products purchased for use on campus.
    a. The new EPP Policy will increase the recycled content of all applicable materials purchased.

Other 2014-15 Highlights

- A Paper Usage Report was generated by OfficeMax. The University's baseline paper usage was established.
- Campus (PPM) is using toilet paper that is 100% recycled content; paper towels are 70% recycled content; folded towels are 100% recycled content.
- Environmentally Preferred Purchasing Policy was drafted and should go into effect 15/16 FY.

2015-16 Priorities

1. Implement Environmentally Preferred Purchasing Policy.
2. Develop a "Green Purchasing" list through office supply vendor, minimizing the purchase of items that do not fit the criteria.
3. Increase awareness and promote office programs.
4. Assess spending on products to determine baseline purchases of office products and paper. Set reduction goals based on analysis.

2014-15 Update on Purchasing and Consumption Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
PU1.1	Baseline paper usage	OM	Baseline Paper Usage: 43%- 30% Recycled Content 10%- 50% Recycled Content 1%- 100% Recycled Content 46% Virgin Paper	Complete: Determine which departments are not using recycled content.
PU1.2	Electronic signatures (see AD2.1)	FIN, IT, IS, HR, RGS	See AD2.1.	On-going.
PU1.3	Increase to 50% PCW paper	OM, IS, PCA	This will be covered in the EPP Policy. Paper must be between 30% and 50%.	In-progress.
PU1.4	Assess spending	PCA, OM, IS	No action taken.	This is a priority for the 2015-16 FY.
PU1.5	Spending incentives	IS	Terra Cycle program could fund incentives. They donate$0.02 per instrument. Program pending merger results.	In-progress: Need to look into this program and how it would work at CSUN.

PU1.6	Energy management (see EN2.7)	IT, IS, PTG, college techs, USU IT	The EPP Policy covers various electronics and equipment purchasing. Also covered in EN2.7.	In-progress.
PU1.7	Print management (see WR1.3)	IT, college IT reps., library	Potential to use software to monitor all printers on campus through a partnership with office supply vendor. Also covered in WR1.3.	Need to implement the software, and determine best timing for implementation.
PU1.8	Consumption reduction goal	PCA, OM, IS	No action taken.	Need to establish a baseline and analyze expense reports.
PU1.9	Central resources	PCA, IS, ARP	No action taken.	Determine how to set up a shared resource facility; this would discourage the purchase of duplicate items.
PU1.10	EPP policy	PCA	Policy has been drafted, should go into effect July 1, 2015.	In-progress.
PU2.1	Product inventory	PCA, OM	OfficeMax created a product list with a ranking system based on product sustainability. This can be used to limit the types of items allowed for purchase.	In-progress, the EPP Policy will make reference to the standard.
PU2.2	Evaluate spending (see PU1.4 and PU2.1)	PCA, OM, IS	No action taken.	No action taken.
PU2.3	Purchase contracts	PCA	The EPP Policy will require RFP's to comply.	In-progress, EPP Policy will reference the standard.

PU2.4	State recycle policy	PCA, PPM	This is managed through PPM.	On-going.
PU2.5	EPEAT baseline	PCA, IT	All IT recommended items are on the list as Gold, Silver, or Bronze. This was started with the bulk purchasing program.	On-going. Purchasing will analyze spending through its bi-annual bulk purchasing program on computer equipment. Purchasing will ask vendors if all products available for purchasing are at least EPEAT Bronze.
PU3.1	Promote office programs	PCA, OM, IS, ASR	Terra Cycle and Reusable Tote Program on hold due to merger.	When merger is complete, restart these programs on campus. Determine how to promote E-STOP program, Office Surplus, E-waste Procedures, AS Recycling Program and EH&S Programs.

Action Plan — Transportation

CSUN employs more than 3,500 faculty and staff and has a student enrollment of over 35,000, almost 95% of whom commute to campus, 74% by single occupancy vehicle. 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 fuel and power 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
- Reduce commuting population from 95% to 85%.
- Reduce vehicle miles traveled by faculty, staff and students by 10%.
- Reduce commuting trips to campus by 10%.
- Increase share of alternatives to single-occupancy vehicles for commuting from 26% to 40%.
- Gain recognition as a Bicycle-friendly University.
- Reduce, with a goal of eventual elimination, vehicle use in the campus core.
- Reduce average emissions associated with university fleet operations (non-construction/maintenance vehicles) by 50%.
- Systematize transport data collection.

CSU Policy (May 2014)
- The CSU will encourage and promote the use of alternative transportation and/or alternative fuels to reduce GHG emissions related to university associated transportation, including commuter and business travel. (14-New)

2014-15 Priorities and Outcomes
1. Conduct and analyze campus-wide commuting survey.
   a. The campus-wide commuter survey was completed and student teams analyzed the data.
2. Expand ZipCar program.
   a. AS Zip Car program has been extremely successful and showing a great ridership. The program has expanded from the original two cars to six.
3. Expand support for reduced-footprint transportation (bicycles, van and car pools).
   a. New bicycle racks are being purchased for Jacaranda Hall and Oviatt Library using CQF monies from 2014.
   b. Ridesharing application is being evaluated.

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Other 2014-15 Highlights

- New student housing is under construction and should be ready for Fall 2015 move-in. This will add 400 beds and reduce student commuting.
- Installation of 22 EV Charging stations.

2015-16 Priorities

1. Analyze and publish results of 2015 commuting survey.
2. Review and update recommendations from CSUN bicycle report, and begin implementation.
3. Increase carpooling and investigate new ridesharing program options.
4. Establish a "Sustainable Transportation" parking location on campus.
   a. Shared EV charging station parking spots.
   b. Parking for carpooling, ridesharing, hybrids, high MPG vehicles.

2014-15 Update on Transportation Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
TR1.1	Student options to live on-campus	FPDC, Housing	New Student Housing to be completed for Fall 2015. Will bring total number of beds to 3,500. 2,700 apartment style and 800 dormitory style.	In progress.
TR2.3	Ride sharing programs	SA, AS, PS	Discussions are underway whether to carry out a marketing effort for Ridelinks or move to an alternative product. There is a link on MySolar site that will send students to the Ridelinks site.	In progress. AS/TWG to determine whether to continue the use of Ridelinks or utilize a different product.
TR2.8	Bike circulation infrastructure	FPDC	Jacaranda Walk Bike Path completed 13/14FY. No action this year.	FPDC needs to apply for the CQF grant or seek alternative funding to improve bike circulation infrastructure and complete a bicycle plan for campus.

TR2.9	Bike parking infrastructure	Facilities	Funding received for Sequoia Hall & Oviatt area under Dec 2013 CQF award. Additional funding received for under CQF submitted Dec 2014.	In-progress: Continue to Apply for CQF grants to improve bike parking infrastructure.
TR2.10	Bike shop; bike rental program	AS	No action taken this year.	No action taken this year.
TR2.11	Education program	FPDC, IS, PS, AS	A Transportation Guide was created that outlines the various options for transportation.	In progress. FPDC and PS to develop signage in conjunction with marketing/awareness campaign.
TR2.12	Coordination with agencies	IS	Ongoing, there has been some progress made with Metro and the councilman's office.	On-going.
TR3.10	Smart parking	IS, SA, AS, PS	PS is exploring car count system technology for structures.	In-progress. PS may purchase a commercial application.
TR3.11	Zero emission fleet	PPM, PS	PS is taking officers out of their vehicles to do foot and bicycle patrol. All AS recycling services are collected via electric carts, with plans to expand their electric fleet.	PPM and PS need to continue to evaluate the campus fleet and determine a baseline for vehicles.
TR3.12	Avoid motorized vehicle use	FPDC, PPM, PS	Various departments utilize electric carts and bicycles where feasible.	On-going.
TR3.14	Maintain vehicles	PPM	All state vehicles are maintained to increase their longevity.	On-going.
TR3.16	Reduced deliveries	PCA	Reduced deliveries are being accomplished through the OfficeMax dollar amount order limit.	In-progress.
TR1.4	Alternative instruction	Faculty, IS	On-going.	On-going.
TR2.1	Alt transport funding	FPDC, AS, PS	No action taken.	No action taken.

TR2.2	Expand shuttle hours	AS, PS	This has been discussed by the TWG, but will require additional funding.	AS and PS need to determine a funding source.
TR2.4	Car-sharing program	AS	Car-sharing is being done through ZipCar, a successful program run through AS.	In-progress. AS to continue growing the Zip Car program.
TR3.6	Lower cost housing permit	Housing, PS	No action taken.	No specific plans for this line item.
TR3.7	Parking on periphery	PS	PS has reduced the cost of parking in the F5 lot to encourage parking on the periphery of campus.	In-progress. PS to evaluate this program.
TR3.8	No-car policy in housing	FPDC, PS, Housing	No current plans or discussions on this.	No current plans or discussions on this.
TR3.15	Travel behavior surveys (see also TR1.4)	IS	Campus-wide Commuting Survey completed this year.	On-going.
TR1.2	Staff opps to live locally	FPDC, TUC	No action taken.	No specific plans for this line item.
TR1.3	Live local and reduce commuting	FA, HR, PS	No action taken.	No specific plans for this line item.
TR2.5	Preferential parking	SA, AS, PS	Discussions are underway in conjunction with car-sharing program.	FPDC and PS need to pilot a "Sustainable Transportation" parking location on campus.
TR2.6	Tiered parking fees	PS	No action taken.	No specific plans for this line item.
TR2.13	Pedestrian infrastructure	FPDC	On-going.	On-going.
TR2.14	Pre-tax transit passes	HR, PS	Under investigation.	In-progress.
TR3.1	EV charging stations	CECS faculty, FPDC, PS	Current count is 22. 1 additional to be opened with Engineering Student Project.	On-going. PS to continue installation as needed.
TR3.2	Info centers	FPDC	No action taken.	No specific plans for this line item.

TR3.3	Discourage campus traffic	FPDC	On-going.	On-going.
TR3.4	Alternative transportation days	FPDC, PS	No action taken.	No specific plans for this line item.
TR3.5	Pedestrian and bike only zones	FPDC	No action taken.	No specific plans for this line item.
TR2.7	Alt transport incentives (see TR2.1)	FPDC, AS, PS	No action taken.	No specific plans for this line item.
TR3.9	Car sharing (see TR2.4)	AS	See TR2.4.	See TR2.4.
TR3.13	Purchase alternative vehicles (see TR3.11)	PPM, PS	On-going.	On-going.

Action Plan — Waste and Materials Management

In 2011 CSUN generated 1,430 tons of waste which was hauled away and transported to Sunshine Canyon Landfill in the Los Angeles basin at a cost of $193,926. Campus waste generation amounts to approx. 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 wastes from landfills.
3. Increased awareness of waste, recycling and related issues.
4. Improve collection and access of waste related data and information.

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

CSU Policy (May 2014)
- Campuses shall seek to reduce the solid waste disposal rate by 50 percent (PRC § 42921) by 2016, by 80 percent by 2020, and move to zero waste. (14-New)

2014-15 Priorities and Outcomes
1. Assess pilot in-building recycling program and expand program to more buildings.
   a. This program has shown great success in its first year, diverting over 1,500 lbs. of plastics, glass and aluminum cans.
2. Publish report on historical waste and recycling data.
   a. Historical data was collected, analyzed and shared internally. Report has been written as internal document but was not published due to faulty data received from waste hauler. Landfill and recyclables are now being tracked collectively and reports are available at any time.
3. Implement new printing standards, including duplex printing throughout campus.
   a. There were 94 new printers purchased for every student lab on campus as well as the library. These printers are defaulted to duplex printing and are able to track printed and discarded pages through the new printer software.

Other 2014-15 Highlights
- IS has collected historical waste and recycle data from campus entities and has produced an internal report.

- AS conducted a visual waste audit in Sierra Quad area as part of Earth week.
- Freudian Sips have switched to a double lined cup to eliminate need for sleeve. Cup lining will be plant-based (biodegradable and recyclable).
- TUC is selling 16 oz. reusable mugs and water bottles. First drink is free with purchase and customers save $0.30 on future purchases.
- Plastic bags have been removed from all convenience stores.
- Eucalyptus Hall bathrooms are being upgraded to include hand dryers and paper towels.
- Printers capable of automatic duplex printing have been purchased for computer labs. A 100 page/student/semester quota was allocated. A CQF proposal was funded for Go Print software, server, printers and copiers, and duplex printers to create uniform printing quota across campus.
- Faculty wrote joint resolution ERC/ATC for duplex and electronic submission of work from students.
- Faculty wrote joint resolution ERC/ATC for duplex and electronic submission of work from students.
- Advancement has announced that the @CSUN newspaper is no longer in print; it was replaced with the CSUN Shine Weekly e-newsletter.
- March/April 2015 a visual waste audit was performed on trashcans around the Bookstore and Arbor Grill; and Earth Day 2015.

2015-16 Priorities
1. Increase the campus diversion rate to at least 50%.
2. Improve Student Housing Move Out program to reduce waste.
3. Install additional recycling bins interior and exterior.
4. Launch a pilot program to study the effectiveness of removing trashcans from classrooms and installing receptacles in the corridors and lobbies only.

2014-15 Update on Waste and Materials Management Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
WR1.1	Comprehensive assessment	PPM, AM, Housing, TUC, USU, AS, IS, PCA	The University has developed a new RFP that will require the waste hauler to collect data per bin pick up and to complete two waste audits annually. Potential to add TUC and USU to main contract.	In-progress. TUC to determine if existing hauler can provide composting services.

WR1.2	Paper towels v. blow dryers	PPM	In progress: PPM has installed several and has identified a few restrooms with high traffic, access to electrical, and areas that would not be impacted by the noise. Largely held up by funding for the dryers.	In-progress.
WR1.3	Electronic processes	IT, college IT reps., library	The University has purchased 94 printers purchased for every lab and the library. The new features include: Limited free printing and then there is a charge for excess. Default system to duplex, must select single sided. Branding for printing. "Think before you print." USU has moved over to duplex printing in student printing labs. Housing- getting rid of paper tickets, using hand held devices for electronic W/O's. USU and SRC are using electronic W/O's. PPM- in discussion, Paper MER will go away using Siemens Advantage database. CMMS potential to change. They are using computers in shops to view W/O's reducing printing. AS- Annual budget process all paperless. All AS printers are duplex. AM- working on rolling out electronic process.	In-progress. Continue electronic process implementation.
WR1.4	Office surplus program	AS, IS	AS and AM have begun to researching this and need to determine general logistics of this program. Potential to use Matador Exchange system for this program.	In-progress. Investigate potential to use Matador Exchange for this type of program.
WR1.5	Disposable dinnerware	TUC	All plates, utensils, cups and containers (PUCC's) are compostable including Pepsi	On-going.

			cups except for hot soup containers. Franchises are excluded.	
WR2.1	Recycling Center	AS, FPDC	New AS Sustainability and Recycling Center is in design. Design should be completed end of semester.	Construction will begin Fall 2015.
WR2.2	Expand recycling program	AS, PPM	In-Building recycling program was piloted this year. This program should be expanded, but staffing and funding are issues. A CQF grant for new bins was applied, awaiting results. The new RFP will allow for the purchase of additional bins.	In-progress. Continue to roll this program out throughout campus.
WR2.3	Bins in VPAC lobby	AS, TUC, VPAC, PPM	Recycling or compostable bins are being evaluated for VPAC.	In-progress.
WR2.4	Recycling in student housing	AS, Housing	AS Recycling is servicing this location (18 bins). The new phase of housing will have recycling and landfill shoots to be collected by the hauler.	In-progress. Need to determine how to improve the program in student housing.
WR2.5	Horizontal baler	AS	This will be included in the new AS Sustainability and Recycling Center.	In-progress.
WR2.6	Recycle #3-7 plastics	AS	No progress on this, there needs to be a market for these items.	No action taken.
WR2.7	Item reuse in housing	Housing, AS, PPM	There has been no movement on this.	No action taken.
WR3.1	Website of recycled items	AS, IS	Matador Exchange could be used for all items except for state property. State property could go through asset management.	In-progress. Investigate potential to use Matador Exchange for this type of program.
WR3.2	Signage for all bins	AS, PPM, TUC, Housing, USU	Working with VISCOM on developing signage for bins as well as sustainability plan wide logos, etc.	In-progress.
WR3.3	Signage in high waste locations	AS, PPM, TUC, Housing, USU	Same strategy as above WR3.2.	In-progress.

WR3.4	Housing education program	Housing, AS	The MataSphere themed living community will ideally grow and expand their efforts on education in housing.	On-going. Housing to install sticker signage throughout their facilities during the summer of 2015.
WR3.5	Housing coordinator	Housing	Student taking the lead with education on recycling. MataSphere has potential to do this.	In-progress.
WR3.6	Sustainability education (see Education section)	AS, IS	See Education section.	In-progress.
WR4.1	Historical data assessment	PPM, IS, AS, USU, Housing, TUC	Collection, analysis and report were completed but data from the current waste hauler is spotty and unreliable.	On-going.
WR4.2	Data collection and accessibility	PPM, IS, AS, USU, Housing, TUC	All data is now being collected in the waste and recycling tracking google sheet.	On-going.
WR4.3	Waste audits	PPM, AS, Housing, TUC, USU, IS	This will be done through the new waste hauling contract 2 times annually. AS completed a visual audit of random bins throughout campus.	On-going.
WR4.4	Assess waste streams (part of WR1.1)	PPM, AM, Housing, TUC, USU, AS, IS, PCA	This will be done through the new waste hauling contract 2 times annually.	On-going.
WR4.5	Waste management research (see Education section)	IS	No action taken.	Determine the level of education on the waste stream.

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Action Plan — Water

CSUN is located in a region that is characterized by an insufficient supply of local water to serve its population. The problem of inadequate local supply has been addressed by accessing water from the northern parts of the State and the Colorado River, but it appears inevitable that these sources will cease to be as effective in future in light of continued population growth and the effects of global warming. CSUN's commitment is to be a good steward of water resources, and to conserve wherever we can.

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

CSU Policy (May 2014)
- All CSU campuses will pursue water resource conservation to reduce water consumption by 10 percent by 2016, and 20 percent by 2020 including such steps to develop sustainable landscaping, install controls to optimize irrigation water use, reduce water usage in restrooms and showers, and promote the use of reclaimed/recycled water. In the event of a declaration of drought, the CSU will cooperate with the state, city, and county governments to the greatest extent possible to reduce water use. (78-; 88-Adopt; 01-No Change; 04-No Change; 14-Revise)

2014-15 Priorities and Outcomes
1. Complete retrofit of indoor plumbing fixtures to reduce water use.
   a. Low flow aerators have been installed throughout campus and are being replaced as needed.
2. Continue transition of turf areas to native and drought-tolerant vegetation.
   a. Over 50,000 sqft of turf removed at three locations.

Other 2014-15 Highlights
- PPM conducted an inventory of all plumbing fixtures in 2013-14 to ascertain where water savings can be made.

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- Dual flush toilet retrofits with signage have been completed in Juniper Hall and University Hall, and are being used for pilot testing.
- All kitchen and bathroom aerators have been replaced in campus housing with low-flow (1.5 gpm), 796 toilets have been replaced with 1.2 gpf, showerheads with 2 gpm flow rate. All upgrades were funded through LADWP rebates at no cost to Housing.
- AquaCents hydrogel was injected on East Field in a pilot project to test water savings.
- The Irrigation Efficiency project is being implemented and will identify when and where leaks occurs and shut the system down. PPM developed a user friendly display system that shows real-time information in the PPM Grounds shop.

2015-16 Priorities
1. Reduce water consumption by at least 15% from the 2006-2010 average baseline.
2. Remove additional 100,000 sqft of turf and convert to drought tolerant and native vegetation.
3. Apply Aqua Cents to additional locations.
4. Inventory all existing restroom fixtures to ensure low flow units are installed.
5. Investigate potential of stormwater capture.
6. Investigate the feasibility of Sustainable Water.

2014-15 Update on Water Strategies

Strategy #	Strategy	Party Responsible	Status	Action Items
WA1.1	Waterless and low-flow urinals	PPM	In-progress. Campus: 265 waterless urinals, 3-5 low flow, 20+- low flow dual flush. USU: All waterless urinals.	On-going. Continue implementation throughout campus.
WA1.2	Retrofit plumbing fixtures	PPM, Housing	In-progress. Campus: 1,100 sink aerators Next low flow shower heads USU- continuing installation of low flow toilets, aerators Housing- low flow toilets TUC- Low Flow toilets, waterless urinals, dual flush valves, aerators Bookstore and Sierra center not done.	On-going. Continue implementation throughout campus.
WA1.3	Construction projects	FPDC, PPM	Buildings will be built per current energy and water codes.	On-going.

WA1.4	Leak detection and repairs	PPM, Housing, USU	Irrigation system is being upgraded to detect for leaks, breaks, take into consideration weather data, and display important alerts in the grounds shop on a monitor. Irrigation strike team active. Project to be completed over summer.	On-going. PPM needs to investigate infrared imaging for leak detection.
WA1.5	Reduce landscaped areas	FPDC	65,000 sqft of turf replacement this FY year. Redwood Hall, Arbor Grill, Lindley/Plummer complete. Another 266,000 sqft planned.	On-going.
WA1.6	Drought tolerant plants (see WA1.5)	FPDC, PPM	PPM has developed a list of 35 drought tolerant plants and low water use trees. Any turf replacements projects will have drought tolerant vegetation planted. USU mainly drought tolerant, planting drought tolerant vegetation.	On-going.
WA1.7	Reclaimed water and runoff	FPDC, PPM, Housing, USU	FPDC met with LADWP and LA Bureau of Sanitation to see if they would be interested in partnering on a water treatment facility. Unfortunately their master plan does not include satellite treatment plants.	In-progress. PPM and FPDC need to do a runoff analysis and determine the ideal locations for storage/holding tanks.
WA1.8	Water reuse opportunities	FPDC, PPM, Housing, USU	Potential to use Fuel Cell water for irrigation or another alternative use.	PPM and FPDC need to investigate Fuel Cell water reuse options.
WA2.1	Historical water use data (see WA2.3 and WA2.4)	IS, PPM, Housing, USU	Historical water use data is being collected and will be maintained in the Advantage software.	On-going.

WA2.2	Periodic water audits (see WA2.1)	FPDC, PPM	Custodial and Facility workers check for leaks in restrooms every day during working hours. Signage is also posted in every restroom to allow for the campus community to report leaks. Irrigation strike teams active. 23% of campus is complete.	On-going. PPM needs to set up meter reading verification system.
WA2.3	Sub-meter campus buildings	PPM, Housing, USU	Discussions on whether submetering a building is needed vs submetering at various locations around the loop.	FPDC and PPM need to develop a strategy for water metering and create a plan for water meters.
WA2.4	Sub-meter irrigation zones	PPM, Housing, USU	Irrigation system is sub-metered through the flow sensors that are installed at each of the 60+ controllers. This should be completed by mid-summer.	In-progress.
WA3.1	New student orientation (See Education)	AS, IS	See Education section.	On-going.
WA3.2	Information in housing (see Education)	Housing, FPDC, IS	New signage will be place throughout housing to remind students not to leave water on or running unnecessarily.	In-progress.
WA3.3	New employee orientation (see Education)	IS, FPDC	No action taken.	Need to work with HR to develop a training session.
WA3.4	Increased water signage (see Education)	FPDC, PPM, IS	Water signage posted throughout campus and will be added to.	On-going.
WA3.5	Students at Water Day (see Education)	IS	Water day is held every year and has had a great turn out again this year.	On-going.

JOINT MEETING

COMMITTEE ON EDUCATIONAL POLICY
COMMITTEE ON CAMPUS PLANNING, BUILDINGS AND GROUNDS

California State University Sustainability Policy Proposal

Presentation by :

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Executive Vice Chancellor and Chief Academic Officer
Academic Affairs

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Assistant Vice Chancellor
Capital Planning, Design and Construction

Summary

This item brings forward the revised policy on sustainability for approval by the California State University Board of Trustees, having been presented at the March 2014 board meeting as an information item. An updated report highlighting the accomplishments of the CSU in sustainability since 2011, as well as the vision for the future as prescribed by the policy herein, will be available at the meeting.

As stated at the March 2014 board meeting, the Board of Trustees has been a proponent of energy conservation and other sustainability measures and has had established policies since 1978. This proposed revised policy is broader than prior policies and more inclusive of all areas of the university community. The policy aims not only to reduce the university's impact on the environment and educate our students, faculty and staff on sustainable practices and incorporate sustainability principles and climate science in our educational offerings.
University Sustainability

1. The CSU will seek to further integrate sustainability into the academic curriculum working within the normal campus consultative process. **(14-New)**

2. The CSU will develop employee and student workforce skills in the green jobs industry, promote the development of sustainable products and services, and foster economic development. **(14-New)**

3. The CSU will pursue sustainable practices in all areas of the university, including:

a. business operations such as procurement; information technology; student services; food services; facilities operations; design and construction; and

b. self-funded entities such as student housing, student unions, parking, children's centers, and auxiliary operations. **(14-New)**

4. Each CSU is encouraged to designate a sustainability officer responsible for carrying out and/or coordinating campus sustainability program efforts. **(14-New)**

Climate Action Plan

1. The CSU will strive to reduce systemwide facility greenhouse gas (GHG) emissions to 1990 levels, or below, by 2020 consistent with AB 32, California's Global Warming Solutions Act of 2006 (HSC §38550). Emissions will include both state and auxiliary organization purchases of electricity and natural gas; fleet, marine vessel usage; and other emissions the university or self-support entity has direct control over. The Chancellor's Office staff will provide the baseline 1990 facility emission levels (for purchased electricity and natural gas) for the campuses that existed at that time and assist campuses added to the CSU after 1990 to determine their appropriate baseline. **(14-New)**

2. The CSU will strive to reduce facility GHG emissions to 80 percent below 1990 levels by 2040. Campus tracking and reporting of their GHG inventory will be grounded in the American College and University President's Climate Commitment guidelines or equivalent, with consideration to campus requested improvements. Metrics will include GHG emissions per FTE. **(14-New)**

3. The CSU will encourage and promote the use of alternative transportation and/or alternative fuels to reduce GHG emissions related to university associated transportation, including commuter and business travel. **(14-New)**

Energy Independence and Procurement

1. The CSU shall pursue energy procurement and production to reduce energy capacity requirements from fossil fuels, and promote energy independence using available economically feasible technology for on-site and/or renewable generation. The CSU shall endeavor to increase its self-generated energy capacity from 44 to 80 megawatts (MW) by 2020. **(05-New; 14-Revise)**

2. The CSU will endeavor to exceed the State of California and California Public Utilities Commission Renewable Portfolio Standard (RPS) sooner than the established goal of procuring 33 percent of its electricity needs from renewable sources by 2020. **(05-New; 14-Revise)**

Energy Conservation and Utility Management

1. All CSU buildings and facilities, regardless of the source of funding for their operation, will be operated in the most energy efficient manner without endangering public health and safety and

without diminishing the quality of education and the academic program.
(78-Adopt; 88-Revise; 01-No Change; 04-No Change; 14-Revise)

2. All CSU campuses will continue to identify energy efficiency improvement measures to the greatest extent possible, undertake steps to seek funding for their implementation and, upon securing availability of funds, expeditiously implement the measures.
    (78-Adopt; 88-Revise; 01-No Change; 04-No Change; 14-Revise)

3. The CSU will cooperate with federal, state, and local governments and other appropriate organizations in accomplishing energy conservation and utilities management objectives throughout the state; and inform students, faculty, staff and the general public of the need for and methods of energy conservation and utilities management. **(78-Adopt; 88-Revise; 01-No Change, 04-No Change; 14-No Change)**

4. Each CSU campus will designate an energy/utilities manager with the responsibility and the authority for carrying out energy conservation and utilities management programs. The Chancellor's Office will have the responsibility to coordinate the individual campus programs into a systemwide program. **(78-Adopt; 88-Revise; 01-No Change; 04-No Change; 14-No Change)**

5. The CSU will monitor monthly energy and utility usage on all campuses and the Chancellor's Office, and will prepare a systemwide annual report on energy utilization and greenhouse gas emissions. The Chancellor's Office will maintain a systemwide energy database in which monthly campus data will be compiled to produce systemwide energy reporting. Campuses will provide the Chancellor's Office the necessary energy and utility data, such as electricity and natural gas consumption; water and sewer usage; fuel consumed by fleet vehicles, boats, and ships; waste disposal for the systemwide database in a timely manner. **(78-; 88- Adopt; 01-Revise; 04-No Change; 14-Revise)**

6. Each CSU campus is encouraged to develop and maintain a campuswide integrated strategic energy resource plan, which will include tactical recommendations in the areas of new construction, deferred maintenance, facility renewal, energy projects, water conservation, solid waste management, and an energy management plan. This plan will guide the overall energy program at each campus. **(78-Adopt; 88-Revise; 01-Revise; 04-Revise; 14-Revise)**

Water Conservation

1. All CSU campuses will pursue water resource conservation to reduce water consumption by 10 percent by 2016, and 20 percent by 2020 including such steps to develop sustainable landscaping, install controls to optimize irrigation water use, reduce water usage in restrooms and showers, and promote the use of reclaimed/recycled water. In the event of a declaration of drought, the CSU will cooperate with the state, city, and county governments to the greatest extent possible to reduce water use. **(78-; 88-Adopt; 01-No Change; 04-No Change; 14-Revise)**

Waste Management

1. Campuses shall seek to reduce the solid waste disposal rate by 50 percent (PRC § 42921) by 2016, by 80 percent by 2020, and move to zero waste. **(14-New)**

2. The CSU will encourage the reduction of hazardous waste to the extent possible while supporting the academic program. **(14-New)**

Sustainable Procurement

1. Campuses will promote use of suppliers and/or vendors who reduce waste, re-purpose recycled material, or support other environmentally friendly practices in the provision or goods or services to the CSU under Contract. This may include additional evaluation points in solicitation evaluations for suppliers integrating sustainable practices. **(14-New)**

2. To move to zero waste, campus practices should: (1) encourage use of products that minimize the volume of trash sent to landfill or incinerators; (2) participate in the CalRecycle Buy-Recycled program or equivalent; and (3) increase recycled content purchases in all Buy-Recycled program product categories. **(14-New)**

3. Campuses shall continue to report on all recycled content product categories, consistent with PCC § 12153-12217 and shall implement improved tracking and reporting procedures for their recycled content purchases. **(14-New)**

Sustainable Food Service

1. All campus food service organizations should track their sustainable food purchases. Such tracking and reporting will be grounded in the Real Food Challenge guidelines, or equivalent, with consideration to campus requested improvements. Campuses shall strive to increase their sustainable food purchases to 20 percent of total food budget by 2020. **(14-New)**

2. Campuses and food service organizations shall collaborate to provide information and/or training on sustainable food service operations to staff and patrons. **(14-New)**

Sustainable Building Practices

1. All future CSU new construction, remodeling, renovation, and repair projects will be designed with consideration of optimum energy utilization, low life cycle operating costs, compliance with all applicable energy codes (enhanced Title 24 energy codes) and regulations. In the areas of specialized construction that are not regulated through the current energy codes, such as historical buildings, museums, and auditoriums, the CSU will ensure that these facilities are designed to consider energy efficiency. Energy efficient and sustainable design features in the project plans and specifications will be considered in balance with the academic program needs of the project within the available project budget. **(78-Adopt; 88-Revise; 01-Revise; 04-Revise; 14-Revise)**

2. Capital Planning, Design and Construction in the Chancellor's Office shall monitor building sustainability/energy performance and maintain information on design best practices to support the energy efficiency goals and guidelines of this policy. The sustainability performance shall be based on Leadership in Energy and Environmental Design (LEED) principles with consideration to the physical diversity and microclimates within the CSU.
(05-New; 14-Revise)

3. The CSU shall design and build all new buildings and major renovations to meet or exceed the minimum requirements equivalent to LEED "*Silver*." Each campus shall strive to achieve a higher standard equivalent to LEED "*Gold*" or "*Platinum*" within project budget constraints. Each campus may pursue external certification through the LEED process.
(05-New; 14-Revise)

Physical Plant Management

1. Each campus shall operate and maintain a comprehensive energy management system that will provide centralized reporting and control of the campus energy related activities.
(78-Adopt; 88-Revise; 01-Revise; 04-No Change; 14-Revise)

2. To the extent possible, academic and non-academic programs will be consolidated in a manner to achieve the highest building utilization. **(78-; 88-Adopt; 01-No Change; 04-No Change; 14-Revise)**

3. All CSU campuses will implement a utilities chargeback system to recover direct and indirect costs of utilities provided to self-supporting and external organizations pursuant to procedures in the Integrated California State University Administrative Manual (ICSUAM). **(78-; 88-Adopt; 01-No Change; 04-No Change; 14-Revise)**

The following resolution is presented for approval:
RESOLVED, by the Board of Trustees of the California State University, that:

1. The revised Sustainability Policy in Agenda Item 1 of the May 20-21, 2014 joint meeting of the CSU Board of Trustees' Committees on Educational Policy and Campus Planning, Buildings and Grounds is adopted.

2. The progress in achieving the goals stated in this revised Sustainability Policy shall be evaluated at the end of 2016-2017. Interim reports may be requested.

3. The chancellor or his designee is authorized to take all necessary steps to implement the intent of this policy including seeking available state, federal, grant, and private sector funds.

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