

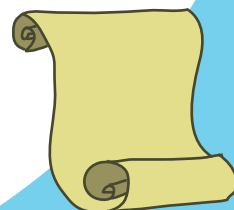


UC Santa Cruz



2014-15

Blueprint for a Sustainable Campus



Online version available at: www.blueprint.envirolug.org

Compiled by the Student Environmental Center
www.sec.envirolug.org



Blueprint for a Sustainable Campus

The Student Environmental Center presents our 2014 Blueprint for a Sustainable Campus! This year the SEC has made our Blueprint primarily available online, and offers a forum for discussion.

The website is:

www.blueprint.envirolug.org

This document strives to encompass the current visions of students, staff, faculty, and community members to reach the goal of an environmentally sustainable campus. It also serves as a resource guide for the campus community and can be utilized as a launching point for student-initiated projects.



Table of Contents



Introduction

Blueprint Summary	4
Funding through CSC	5
Organizations: SEC, ESLP & CSC	6
Campus Sustainability Plan & Relevant Policies	7
Earth Summit	8

Topic Sections

Waste Prevention	9
Transportation	11
Land, Habitat & Watershed	13
Food Systems	15
Green Building & Facilities	17
Green Purchasing	19
Social & Environmental Justice	21
Academics & Curriculum	23
Energy Conservation	25
Water Conservation	27

Acknowledgements	29
------------------	----



Summary

What is the Blueprint for a Sustainable Campus?

The Blueprint for a Sustainable Campus was created twelve years ago through the Student Environmental Center (SEC) as an outlet to document the visions of students for the future of sustainable growth at UC Santa Cruz. This multi-use, living document rewritten yearly strives to encompass the current visions of students, staff, faculty, and community members who have gathered together to compile this information intended to reach a shared goal of an environmentally sustainable campus. The purpose of the Blueprint is to serve as both a resource and a guide for the campus community, and can be utilized as a launching point for student-initiated projects. It is the desire of the Student Environmental Center that the Blueprint will encourage students to become an active member in their campus community and to take part in the experiential component of sustainability work.

What is a Blueprint Breakout?

Leading up to the Blueprint, Blueprint Breakouts are group discussions held as separate events leading up to the Earth Summit. This allowed for greater outreach potential and thus, increased inclusion and participation in the revision process. Five Blueprint Breakout discussions were held in the fall and winter quarters and attendance was nearly 250 people total. For each topic, group facilitators posed the following questions for discussion: What is exciting? What is challenging? What are our visions for the year 2020? What action steps can we take to meet these visions? The compilation of the notes from these discussions, in addition to the feedback received at the Earth Summit, is presented in this document.

Funding for Student Projects

Campus Sustainability Council (CSC)

The CSC originated as a student referendum that created a student-led granting body that provides funding for student initiated, on-campus organizations that promote and advance the goals put forth in the Blueprint for a Sustainable Campus. It is required that all organizations prove a direct relation between their proposed project and one or more topics encompassed in the Blueprint in order to qualify for funding. Students are encouraged to refer to the “Visions and Actions” segment of each topic for ideas and inspiration. The Campus Sustainability Council funds both of its sister organizations: The Student Environmental Center (SEC) and Education for Sustainable Living Program (ESLP).

How should the Blueprint be used to obtain funding?

Below are steps students in student organizations should follow if they would like to apply for funding for a sustainability-related component, project, or on campus event.

- > **Read the current Blueprint for a Sustainable Campus.** If you don't have a clear project idea, refer to the Blueprint for inspiration or speak to other students or staff who are passionate about your project topic. The resources section under each Blueprint topic can help direct you to current organizations that relate to the Blueprint topic.
- > **Check out the CSC website at csc.enviroslug.org.** You will find information on upcoming mandatory grant trainings, important grant deadlines, links to the newest version of the Blueprint, and the historical allocations for past CSC funded projects.
- > **Finalize your organization's structure.** Before you begin writing your grant make sure have a clear vision of your project and internal structure in your organization. Having a group of more than four students, a constitution, a fiscal staff and governing documents are required before receiving a grant from CSC.
- > **Sign up for a grant training.** These trainings are mandatory and in them you will receive guidance, useful tips, a grant training power point, and the opportunity to ask questions specific to your organization or project.
- > **Have a group grant writing session.** When writing the grant, make sure you have a fiscal staff personnel on board with your project to help you especially with your budget.
- > **Submit your grant.** CSC requires both a hard copy and an electronic copy. When you turn in your grant you will also sign up for an interview time.
- > **Attend your CSC interview.** CSC will ask your organization's representatives questions pertaining to your grant.
- > **Funding awards announced.** CSC will announce funding awards through email and will contact you about the next steps to receiving your funding.
- > **Attend CSC evaluation.** You will be required to attend a evaluation a year from when you receive your grant money. If you do not attend your evaluation, your possibility to get future CSC funding will be affected.

Organizations



SEC: The Student Environmental Center **ESLP: Education for a Sustainable Living Program** **CSC: Campus Sustainability Council**

The Student Environmental Center (SEC) formed in 2003 in collaboration with the Education for a Sustainable Living Program (ESLP) and the Campus Sustainability Council (CSC), all of which were created to further the student-initiated environmental movement at UC Santa Cruz. The Student Environmental Center functions using the guidelines of the Blueprint for a Sustainable Campus, a resource guide of environmentally geared projects brainstormed and published each year. These projects are implemented using funds provided by every undergraduate student at UCSC, and allocated to the organization by the Campus Sustainability Council. One of SEC's main goals is to collaborate with many other environmental organizations on our campus, primarily our own sister organization ESLP. The SEC and ESLP are student funded and run groups that practice consensus-based decision making and non-violent communication. Both organizations' primary philosophies include non-hierarchy, collaboration, accountability, transparency, personal well-being, and peer-to-peer learning. Working with ESLP, SEC, or CSC will provide an opportunity for academic and social learning, along with personal growth.

Relevant Policies, Plans, and Reports

The Campus Sustainability Plan

"UCSC's Campus Sustainability Plan (CSP) is a broad transformative initiative to increase sustainability campus-wide and move UCSC toward its vision. The CSP provides a comprehensive and detailed framework for advancing sustainability in nine interconnected topic areas, establishing goals, objectives, and metrics to guide and track progress"

Although the CSP overlaps with the Blueprint in many areas, these two documents are structured very differently. First, the Blueprint is rewritten every year and has no specific reporting system, and the CSP is rewritten every three years to help our campus report to many higher administrative bodies such as UC Office of the President (UCOP). The Blueprint is a compilation of broad vision and action steps created mostly by students along with some faculty, staff, and administration during the Blueprint Breakout discussions and Earth Summit. The Campus Sustainability Plan is specific measurable objectives compiled mainly by Working Group staff and students on the Committee for Sustainability and Stewardship (CSS). The CSP's nine Working Groups – one for each topic– report to CSS and work to prioritize sustainable goals, identify strategic action make informed recommendations, implement tangible environmental change, and facilitate cooperation among all campus members and the community.

The creators of the Blueprint and Campus Sustainability Plan are continue to collaborate to maintain the positive similarities and differences of the two plans, and develop the feasibility of each vision and action. For baseline data and metrics, key targets, a deeper history of sustainability on campus, and a greater understanding of campus policies and commitments, refer to the 2013-2016 Campus Sustainability Plan.

Policies

The policies, commitments, and university strategies described in this section are crucial to the UCSC sustainability movement, and are key considerations when evaluating project and campaign ideas. While the Blueprint for a Sustainable Campus reflects no commitments from University administration, the ideas and goals contained within are often shaped, strengthened, or even challenged by official university commitments.

Long Range Development Plan (2005): Provides a framework for the physical development of the UCSC Campus

Comprehensive Settlement Agreement (2008): Agreement between the university, city, and county that identifies policies for traffic, water use, and housing while allowing UCSC to proceed with growth.

UC Policy on Sustainable Practices (2009): Outlines methods for improving environmental performance throughout the entire UC system.

Committments & Strategies

Limte Action Compact (2007): Collaborative plan for the University, city, and county to reduce greenhouse gas emissions.

American College & University President's Climate Commitment (2007): Signed by nearly 700 colleges and universities, the ACUPCC is a commitment to take action for climate protection.

UCSC Climate Action Plan (2010): Outlines how UCSC will comply with climate-related target contained in the UC Policy, Climate Action Compact, and the ACUPCC.

Earth Summit



The Earth Summit is a space for students, staff, faculty, administrators and community members to come together and celebrate the history and current actions in campus sustainability, plan for future sustainability projects and strengthen student involvement.

The SEC held the first Earth Summit in 2002. Because SEC was receiving funding, a guiding document needed to be created. From this, came the Blueprint for a Sustainable Campus, which was created as a way to incorporate the student voice along with administration, faculty, staff, and community members.

Funding:

In the spring of 2003 the students at UC Santa Cruz passed fee Measure 9: Campus Sustainability Programs Fee. This ballot measure created the Campus Sustainability Council (CSC), ensuring the institutionalization and long-term viability of efforts towards campus sustainability, funded through a \$3.00 per quarter fee paid by every undergraduate student. In spring of 2005, Ballot Measure 14 was passed, with an additional \$3.00 per quarter fee added, bringing the total allocation to campus sustainability movements to \$6.00 per quarter, per student.

Structure:

Until 2011, all Blueprint Breakouts were held at the Earth Summit as a way to capture ideas for the Blueprint. In 2010, Nina Mautner proposed that the Breakouts be held leading up to the Earth Summit in order to allow for more dialogue. The new structure provides more time for conversation concerning the 10 Blueprint topics and has transformed the Earth Summit as a space to celebrate sustainability on campus as well as collecting additional ideas for the Blueprint.



Waste Prevention

History

The UCSC Recycling Program started on campus in 1990 and has since evolved to include a variety of reuse, recycling, and composting systems to save energy, natural resources, and reduce landfill waste. Campus Dining Services, apartments, and gardens have been increasing their support of compost systems. Electronic waste on campus has been reduced by reselling up to 80% of the computers, audio-visual equipment, and other electronics when upgrades occur. Green waste is chipped and reused on landscapes or hauled separately to the regional recycling facility to be ground into mulch. Campus-wide zero waste events are becoming more prevalent due to the collaboration between many Zero Waste programs such as the Student Environmental Center's Waste Prevention Campaign, the Sustainability Office Zero Waste Team, the Waste Diversion Task Force, as well as considerable efforts from Dining Services.

Examples

The Sustainability Office's Zero Waste Team has created many pilot programs such as waste audits and composting feasibility studies. The team also helps organizations make their events Zero Waste by providing appropriate waste receptacles.

The Stevenson Hand Towel Pilot Project successfully removed paper towels from all dorms on campus, encouraging students to bring their own hand towels and reduce paper waste.

In 2013 we diverted over 7 and a half tons of waste during the Zero Waste Move Out, an event that is organized with the goal of collecting and donating all waste from students who are leaving the dorms.

The Student Environmental Center piloted a reusable set of bamboo dishware called "Slugware," based off of the UC Davis model, to be checked out and used for events and then washed in the dining hall before being returned.



Waste Prevention Visions & Actions

Vision: Help to make all events Zero Waste

- Collaborate with SOAR to create a training guide for all organizations and clubs to plan their events in an environmentally conscious way
- Organize a Zero Waste Move In: Send out an email prior to move in discouraging students to pack with cardboard boxes and encouraging students to bring storage bins and reusable bags

Vision: Create composting programs in all of the dorms

- Establish a compost system for each college; not all colleges have gardens, so other systems may need to be put in place depending on college capacity
- Educate students on composting: create more gardening classes on campus and outreach for composting classes both on and off campus to teach students about the benefits of a composting system
- Build a compost facility on campus, or work with the farm to expand their composting program
- Partner with Santa Cruz County to create a more widespread composting system

Campus Sustainability Plan

By 2020, develop and implement campus-wide education, outreach and behavioral change initiatives to improve waste reduction practices among UCSC community members.

By 2020, identify and pursue opportunities for operational infrastructure improvements that will increase waste diversion.

Resources

The Student Environmental Center's Waste Prevention Campaign:
<http://sec.enviroslug.org/waste-prevention.html>

Waste and Recycling Working Group:
<http://sustainability-dev-2.ucsc.edu/governance/committees/working-groups>

Sustainability Office Zero Waste Team:
<http://sustainability.ucsc.edu/about/student-staff/zerowaste/index.html>



Transportation

History

The UCSC campus has always strived to find sustainable solutions to its challenging topography. In the past years, sustainable alternative forms of transportation have increased significantly. In 1972, UCSC first instituted a transit fee that reflected the campus' high commitment to providing reliable alternatives to single-occupancy vehicles. In 2007, Measure 24 was passed which increased student transportation fee in order to continue to provide students with adequate transportation services, such as the Night Owl service and continuation of unlimited ridership on Metro buses.

Even though student enrollment has increased, sustainable transportation initiatives at UCSC have resulted in an approximate decrease in overall fuel use of 4.8%. Due to the commitment from Transportation and Parking Services (TAPS) in promoting sustainable forms of transportation, there has been a significant reduction to the number of single-occupancy vehicle use. Currently 60% of all person-trips that are made to and from campus employ sustainable transportation practices. The campus bike community has also provided increasing support for beginning cyclists by introducing bike shuttles, an on-campus bike co-op, bike maintenance stations, and many more services.

Examples

This year, TAPS planned a "Walk to Class Challenge Day" in which students registered and pledged to walk to their classes for one day. The purpose of the event was to promote walking as a viable and sustainable transportation mode for cross-campus travel, reduce UCSC's carbon footprint, improve individual health, and help students make more sustainable choices for themselves and the environment.

TAPS also runs the Bike Library and Helmet Giveaway on campus. Both originally projects of the Student Environmental Center, they promote bike ridership and support a growing bike community by providing bikes and helmets to students, faculty, and staff who would otherwise not have them.

To improve safety among the bike community, the Bicycle Transit Planning Team (BTPT) under the Impact Designs: Engineering & Sustainability through Student Service (IDEASS) program on campus compiled data from different sources and used Geographic Information Systems (GIS) to discover most frequently traveled roads, road quality, and past cycling collision locations and created a map to outline this information.



Transportation Visions & Actions

Vision: Increase walking and bike safety on campus

- Install motion censored lights powered by solar panels funded through TAPS or SOAR
- Create a buddy support system to encourage students to walk to class since they are more likely to choose sustainable transportation if they are not doing it alone
- Encourage bikers, walkers, and drivers to have more awareness of safety
 - Host workshops through TAPS or the SEC Transportation Campaign
- Create a “What you want to know” info packet as educational tool to promote walking and bike safety

Vision: Interactive campus signage and encouraging alternative transportation

- Increase bike programs through OPERS such as a learning journey about bike and transportation safety
- Create an app--similar to Google Maps--with class schedules and locations that provide the best routes and modes of transportation
- Create verified (safe) carpool programs for students

Campus Sustainability Plan

Reduce UCSC-related transportation impacts and associated GHG emissions including fleet fuel use, air travel, commute, service/delivery and electric vehicle (EV) charging stations.

Promote and increase use of non-Single Occupancy Vehicle (SOV) transportation modes for travel to and from campus.

Promote and increase reliance on human-powered transportation modes for on-campus travel.

Research, develop, and test new funding model and sources for transportation services, programs, and infrastructure that support the campus sustainability vision.

Provide opportunities for the campus community to increase understanding and engage in sustainable transportation activities.

Resources

The Student Environmental Center's Transportation Campaign:

<http://sec.enviroslug.org/transportation.html>

Transportation and Parking Services (TAPS):

<http://taps.ucsc.edu/>

Transportation Working Group:

<http://sustainability-dev-2.ucsc.edu/governance/committees/working-groups>

Office of Sustainability Transportation Advisory Committee:

<http://sustainability.ucsc.edu/governance/committees/transportation-advisory-committee.html>

TAPS Bike Library:

<http://bikelibrary.weebly.com/>



Land, Habitat, & Watershed

History

Ecologically diverse and physically spectacular, the UC Santa Cruz campus comprises over 2,000 acres with approximately 1,400 acres consisting of undeveloped natural areas. The campus supports diverse vegetation communities ranging from coastal terrace prairie grasslands and chaparral to mixed evergreen forest to stands where redwoods predominate, all within four distinct watersheds. 55% of the campus is designated in the 2005 Long-Range Development Plan (LRDP) as Campus Natural Reserve, site research area, and other land use designations that restrict development. UCSC has successfully used an Integrated Pest Management (IPM) approach to control weeds, diseases, insects, and rodents on campus for approximately fifteen years. With the campus community expanding, climate change, and endangered species posing many challenges to the future of Land, Habitat, and Watershed on our campus, student involvement and restoration projects are crucial.

Examples

Annually, outreach and education efforts engage more than 500 student interns and volunteers in support of education, research, natural lands management, and restoration efforts - making the campus a model of balance between ecological stability and successful operation of a vibrant university.

The UCSC Site Stewardship Program holds invasive weed removal volunteer workdays to maintain restoration sites on and off of the main UCSC campus. With help from the UCSC Greenhouse, this program returns native species to their natural habitat, maintaining the genetic integrity of the campus ecosystem.

Campus Sustainability Plan

By 2020: Support public safety and protect sensitive species and habitats on the UCSC campus by engaging effective and proactive stewardship and maintenance practices for campus natural lands.

By 2020: Increase student, faculty and staff engagement on campus natural lands through research, stewardship, and informal and formal learning.

By 2020: Increase campus and broader community appreciation and understanding of campus natural lands through development of outreach programs focused on stewardship, citizen science research, and environmental education.

Land, Habitat, & Watershed Visions & Actions

Vision: Greater transparency between stakeholders of the LRDP and UCSC students

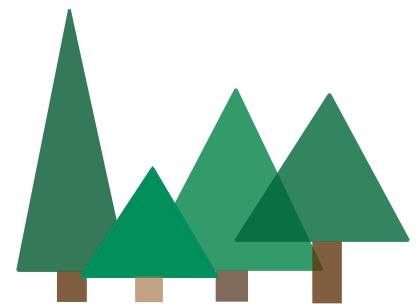
- Mandate all meetings and agendas to be publicly posted.
 - In order for students at UCSC to be more involved with the LRDP, meetings should be more public. This could be achieved by mandating that meeting agendas be posted and available online, or as a webcast
- Establish a student position to serve as a representative and steward of information
- A Chancellor's Undergraduate Intern (CUPI) or Student Union Assembly (SUA) position could be created to go to LRDP meetings, voice the students' concerns and ideas, and bring information from the stakeholders back to student organizations

Vision: Educating students and public

- Better understanding of Natural History of campus
- Train RA's to make programs about the issues surrounding land, habitat, and watershed (and all 10 Blueprint topics)
- 2-unit university-wide core course on UCSC natural history
- Field trips in non-ENVS/Bio classes
 - Greater interaction with or outdoor classroom
- Centralize a place to collect notes/resources for places to get involved
- Showing walking trails more (refer to transportation)
- Support referendum initiatives- reach out to student media

Vision: Address invasive species

- Invasive cover mapped to 10% by 2020
- Research and implement alternative weed control methods via student projects (connect with faculty and staff)



UCSC Greenhouses: <http://greenhouse.ucsc.edu/>

Natural History Museum: <http://mnhc.ucsc.edu/>

Physical Planning and Construction: <http://ppc.ucsc.edu/>

Land, Habitat, and Watershed Working Group:

<http://sustainability-dev-2.ucsc.edu/governance/committees/working-groups>

UCSC Storm Water Management Plan: <http://cleanwater.ucsc.edu/about/>

Grounds Services:

<http://ucscplant.ucsc.edu/ucscplant/Grounds/index.jsp?page=home.jsp&layout=print>

Campus Assessment:

<http://sustainability.ucsc.edu/governance/plans-reports/campus-assessment.html>

UCSC Campus Natural Reserves: <http://ucsantacruz.ucnrs.org/>

Long Range Development Plans: <http://lrdep.ucsc.edu/>

Local Agency Formation Commission: <http://www.santacruzlafco.org/>

Center for Agroecology and Sustainable Food Systems: <http://casfs.ucsc.edu/>

The Arboretum: <http://arboretum.ucsc.edu/>

Resources



Food Systems

History

The improvement, awareness, and education of sustainable food systems has been integrated in to UC Santa Cruz since early years of campus development. Just two short years after the school was founded, Alan Chadwick was hired to create a Student Garden Project. This project was so successful it lead to the development of the Farm in 1971. Two decades later, in 1993, the Center for Agroecology and Sustainable Food Systems (CASFS) was formed. CASFS is now a leading facility in research and education of environmental and social aspects of sustainable agriculture.

The Food Systems Working Group (FSWG), established in 2003, works to bring responsibly grown food to the dining halls, which was made much easier with the transition in 2004 to self-operated dining services. In Spring 2010 students approved Measure 43, the Sustainable Food, Health and Wellness Initiative, which generates over \$100,000 from student fees to support a healthy campus food system. The remarkable drive and collaboration from students, staff, and faculty has brought organic, fair trade, and sustainable foods to campus and created an opportunity to educate the broader community and set an example for other schools.

Examples

Program in Community Agroecology (PICA) hosts market carts where students can get free fruits and vegetables from campus gardens. This increases awareness of the campus gardens and promotes healthy eating habits.

Food Systems Learning Journeys through the UCSC Recreation Department allow students to explore the local food systems through visits to local farms, cooking workshops, and more.

UCSC Dining hosts an Annual Local and Organic Food Tasting Fair. This free event allows the campus community to learn more about dining options on campus and in the community, while tasting local, organic food.

Campus Sustainability Plan

By 2016, increase and sustain 36% real food purchases across UCSC Dining Services, and bring all contracted food locations to 20% real food.

By fall 2015, establish an agroecology and food justice orientation program for new and transfer students.

By fall 2015, have at least two contract service vendors green business certified.

Food Systems Visions & Actions

Vision: Provide resources and educational tools that explain where food on campus comes from and where it goes.

- Research to create visuals for the dining halls that show what “real food” is and where campus sources food from. Also, post pictures and descriptions of farms campus dining buys from and the people who work there to connect students to non-packaged food
- The Sustainability Office and FSWG have both done similar things in the past and would be good organizations to collaborate with. There is also a Sustainability Intern for Campus Dining that would be a great resource to learn more from

Vision: Incorporate food system education into the residential college classes and other university courses.

- Collaborate with provosts and professors to see if they can incorporate food system learning into their syllabi. Explore how food sustainability or food justice relates to each of the college themes or core course topics. A good college to start with would be College Eight, as their theme is “Environment and Society”

Vision: Create a campus-wide “Food Run” event.

- Organize a run through campus to all the different dining areas and learn about the food systems along the way. The finish line can be at the Farm and at the end there can be a celebration with food from the farm
- A good place to start on this project would be partnering with OPERS and UCSC Dining

Program in Community Agroecology (PICA): ucscpica.org

Community Agroecology Network (CAN): canunite.org

Student Environmental Center’s Students for Organic Solutions Campaign (SOS):
sec.envirolug.org/students-for-organic-solutions.html

Food Systems Learning Journeys through the Recreation Department: ucscrecreation.com

Food Systems Working Group (FSWG): <http://casfs.ucsc.edu/farm-to-college/how-to-get-involved.html>

Center for Agroecology and Sustainable Food Systems (CASFS): casfs.ucsc.edu

Chadwick Garden: envs.ucsc.edu/internships/available-internships/chadwick-garden.html

Gardener’s Alliance: sec.envirolug.org/gardeners-alliance-group.html

College Gardens:

Kresge Garden: kresge.ucsc.edu/academics/kresge-garden.html

Stevenson Garden: stevenson.ucsc.edu/activities/garden.html

College 8 Garden: sec.envirolug.org/college-eight-garden.html

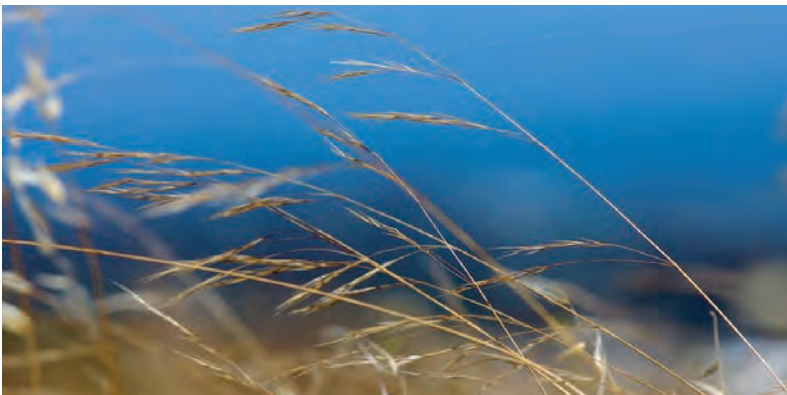
Resources



Green Building & Facilities

History

UC Santa Cruz has continued to set goals to sustain the natural environment while still building, maintaining and operating nearly six million gross square feet of housing, academic, administrative, research, and recreational space at multiple locations. In 2011, Cowell Student Health Center became the first LEED (Leadership in Energy and Environmental Design) building on campus receiving a Gold certification. This project was accomplished by being almost entirely student initiated, with students doing most of the design and construction. Administrators have heard this demand for more sustainable buildings and responded by setting a requirement that all new construction be a minimum of at least LEED Silver or equivalent. Since then, the Porter College House A and the Biomedical Building have both also achieved LEED-Gold certification.

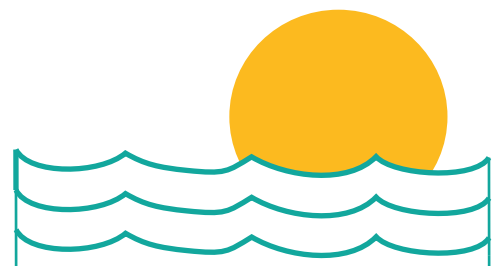


Examples

The Student Environmental Center's Green Building Campaign has recently completed the construction of a "Self-Sufficient Greenhouse" with an integrated aquaponics growing system powered from rain water and solar energy.

This greenhouse lives next to the College Eight Garden.

There are multiple LEED certified buildings on campus. LEED is a set of rating systems for the design, construction, operation, and maintenance of green buildings. The Engineering 2 Building, the Porter College Dining Commons and the Cowell Student Health Center are some examples of LEED on campus.



Green Building & Facilities Visions & Actions

Vision: Increase the percent of developed campus that is built according to sustainable practices.

- Ensure that all renovations and new construction is designed efficiently and achieves the highest LEED Certification possible (LEED Gold is the minimum requirement for UCSC)
- Use organic and local products, and renewable and recycled materials
- Incorporate behavioral changes in building development, such as excluding AC/heat from buildings
- Start with pilot program

Vision: Research innovative technologies that can be used to increase the sustainable performance in existing spaces.

- Implement energy auditing in all buildings (residential housing, research labs, lecture rooms, OPERS, ect)
- Discover creative development methods that keep buildings cool without energy
- Partner with research entities such as the Physical Plant or the Physical Planning and Construction Working Group

Campus Sustainability Plan

Increase percentage of developed campus area that is built, operated, and maintained according to sustainable practices.

Research and explore new and emerging technologies and/or policies to increase sustainable performance in existing and new campus facilities.

Increase awareness of and engagement in sustainability activities related to facilities construction and operation.

Resources

Green Building Working Group:

<http://sustainability.ucsc.edu/topics/Buildings.html>

Physical Plant:

ucscplant.ucsc.edu/ucscplant/index.jsp

Physical Planning and Construction:

<http://ppc.ucsc.edu/>

Student Environmental Center's Green Building Campaign:

<http://sec.enviroslug.org/green-building.html>

UCSC Greenhouse:

greenhouse.ucsc.edu



Green Purchasing

History

Procurement has generally been viewed as a behind-the-scenes process that many students aren't directly involved with, and therefore it hasn't always received appropriate attention as a key contributor to our campus sustainability initiatives. Green Purchasing refers to the procurement of products and services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. UCSC Procurement works with suppliers to encourage waste reduction – especially in packaging and GHG emissions by consolidating purchases to minimize truck deliveries. Procurement works to negotiate the competitive pricing on most Environmentally Preferred Products (EPP) for widely used items such as paper, computers and janitorial supplies. They also, in competitive bidding, grade suppliers on their sustainable business practices as well as the products. It is crucial we consider the carbon footprint and other impacts of the goods we purchase and consume and the service providers we enlist.



Examples

The Green Purchasing Working Group (GPWeG) promotes sustainable purchasing campuswide through outreach and collaboration.

In 2013, the Green Purchasing Guide on UCSC's Financial Affairs website was launched which was a major factor in the campus's 71% increase in EPP purchases since 2009.

GPWeG's 2012 Provost's Sustainability Intern (PSI) developed a "greenwashing" awareness program that will be made available to the entire campus community.

Campus Sustainability Plan

Increase the number of Environmentally Preferred Products (EPP) the campus purchases.

Educate the campus community through effective outreach and collaboration to institutionalize sustainable procurement practices.

Engage suppliers to develop strategies that promote sustainable procurement practices within the supply chain and measure those suppliers to agreed standards.

Green Purchasing Visions & Actions

Vision: Require every employee on campus to be educated on the topic of “green washing.”

“Green washing” refers to companies and products that appear to be eco-friendly by not providing all the information. These products promote rather than reduce consumerism

- Required trainings could be developed with one or multiple facilitators promoted by an organization. There are educational tools available and organizers must be outreach

Vision: Create composting programs in all of the dorms

- PSI or CUIP for sustainable purchasing could connect with SSAs and initiate conversation with campus community. PSI position currently does not require the intern to connect with other organizations

This position could encompass these actions:

- Update CruzBuy to highlight sustainable products
- Have a third party certification process for products
- Audit suppliers for waste and energy use
- Increase the purchasing of sustainable products sold in on-campus stores
- Provide more sustainable packaging of products sold and only selling products deemed sustainable. For example: no plastic bottles sold at all (soda, water, etc)
This calls for a behavior change on campus, which is difficult to implement but not impossible
- Tailoring what is sold to how and where we are able to dispose of it thinking about campus recycling capabilities

Resources

Green Purchasing Working Group (GPWG) & The Green Purchasing Guide:

https://financial.ucsc.edu/Pages/Purchasing_GreenPurchasing.aspx

UCSC Procurement Services:

Cruzbuy: <http://cruzbuy.ucsc.edu/>

UCSC Campus Surplus Store:

<http://receiving.ucsc.edu/surplus/surplusstore.html>

UCSC Green Office Certification Program (GOC):

<http://sustainability.ucsc.edu/about/student-staff/greenoffices/>

Monterey Bay Area Green Business Certification Program:

<http://www.montereybaygreenbusiness.org/>

Greenwashing online training tool at the UC Learning Center:

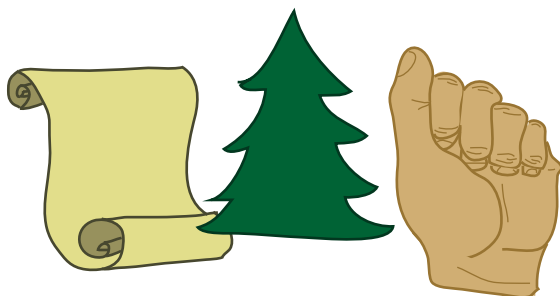
<http://projectclearinghouse.ucsc.edu/greenwashing-training-tool-goes-viral>



Social and Environmental Justice

History

Since its establishment, UCSC has been a leader in social justice. Because environmental issues are one of the core principles here on campus, it is no surprise that UCSC plays host to many successful programs making UCSC a leader in social and environmental justice. In 2002, College 10 was founded on the inequalities that exist in society, such as discrimination and poverty, and the role of community involvement in addressing social injustices. Classes are becoming more inclusive of food, agriculture and social justice as interlocking components. Courses in the Environmental Studies, Sociology, Community Studies, Anthropology and Legal Studies Departments and intertwining these topics, exemplifying that to have environmental justice, we first must achieve a degree of social equality.



Examples

The Office for Diversity Equity, and Inclusion offers a Diversity and Inclusion Certificate program and the annual Chancellor's Diversity Awards.

The Strawberry and Justice Festival is held every spring at the UCSC Farm (CASFS). This annual event includes a panel discussing justice issues concerned with our food system.

Campus Sustainability Plan

Currently, there is not a Social & Environmental Justice topic section in the Campus Sustainability Plan. However, many other topics strive to encompass social justice aspects while assessing sustainability.

Social and Environmental Justice Visions & Actions

Vision: Interconnection between campus & community sustainability organizations

- Integrate social justice into core courses. For example: require Freshmen to attend at least 2 sustainability/social justice events
- Integrate social justice into more interdisciplinary courses
- Reach out to departments not necessarily part of sustainability
- One person can spearhead this but all the organizations have to put equal effort into the relationships. Would require outreach and education
- Examples of organizations that could connect both sustainably and non sustainably focused and support diversity on campus:
Sustainability Office, Student Environmental Center, Campus Sustainability Council & Education for a Sustainable Living Program (SEC, CSC & ESLP), Ethnic Resource Centers (ERC), Cultural Arts & Diversity (CAD), College 9 & College 10

Vision: Support solidarity between students and service workers, as well as staff and faculty

- Begin holding more spaces for discussion between students and service workers, as well as staff and faculty. What are our commonalities and differences?
Are there ways to support common and/or similar struggles? (i.e. tuition costs and worker wages)

Resources

Community Agroecology Network (CAN): <http://www.canunite.org/>
Global Information Internship Program (GIIP): <http://www.everettprogram.org/>
Engaging Education: <http://www.engagingeducation.org/>
Chicano Latino Resource Center: <http://www2.ucsc.edu/raza/>
African American Resource Center: <http://aarcc.ucsc.edu/>
Asian American/Pacific Islander Resource Center: <http://www2.ucsc.edu/aapirc/>
American Indian Resource Center: <http://airc.ucsc.edu/>
Cantu Queer Center: <http://queer.ucsc.edu/>
Practical Activism: <http://www.practicalactivism.org/>
College 9: <http://collegenine.ucsc.edu/>
College 10: <http://collegeten.ucsc.edu/>
Office of Diversity, Equity, and Inclusion: <http://diversity.ucsc.edu/>



Academics and Curriculum

History

UCSC offers a breadth of academic programs and curriculums focused on sustainability; many of these programs incorporating student initiation. In 1967, the Alan Chadwick garden was founded and in 1974 the UCSC farm was started. Both had student engagement and apprenticeship programs, which are directed by the research and educational Center for Agroecology and Sustainable Food Systems. The Education for a Sustainable Living Program is a student-led course created as a statewide coalition in 2004, offered every spring quarter at UCSC, bringing multidisciplinary speaker series related to Blueprint Topics. In 2006, the Sustainable Engineering and Ecological Design Group was formed as a joint collaboration between the Engineering and Social Sciences faculty to promote sustainability courses and research opportunities on campus, locally, and internationally.

Examples

College Eight is collaborating with Environmental Studies, the School of Engineering, the Program in Agroecology and Community and other UCSC programs in developing a Sustainability minor, which was launched in 2014.

Since 2004 ESLP has given over 2000 students credit, incorporated over 100 guest speakers, and created over 50 student led sections. In 2012–2013 alone, the ESLP organizers, students and facilitators bridged over 35 majors.

Campus Sustainability Plan

Develop a Strategic communications plan to publicize campus sustainability opportunities and progress.

Integrate sustainability into campus tours and orientation activities

Engage faculty to identify and implement strategies to support sustainability research and teaching

Utilize the Campus as a living laboratory in order to link the operational and academic aspects of the University.

Academics and Curriculum Visions & Actions

Vision: Providing hands-on and experiential learning, increased student-led education, and utilize community partnership with similar local programs.

- Create student-led ESLP class. Design a class that has a small enrollment size, hand-on learning, and possibly outdoor/field experience.
Share important subject matter that might not be addressed in traditional curriculum.
- Field trips partnering with Cabrillo
- Implement a mandatory Sustainability GE, similar to AlcoholEdu
(First assessing interest by an online survey for sustainability GE)
- Awareness and a Sustainability Education Guide (includes Cabrillo): Partner with campus and community-wide programs to publish a guide that includes all opportunities, classes, and internships that are sustainability related
- Core Classes that speak to environmentalism
(Speak with Dean of Undergraduate Classes/Provost): Create curriculum for professors/ lectures to be taught to every student

Vision: Host Sustainability Week with picnic days (partner with OPERS Festival)

- OPERS Events: Each organization could talk about how they implement sustainability in their organization, zero waste as an educational tool and interactive tabling

Vision: Involve the Career Center

- Have Career Center make email announcements about sustainability events
- Advertise internships/workshops, skills gained

Resources

Education for a Sustainable Living Program:

eslp.enviroslug.org

Sustainable Engineering and Ecological Design:

seed.soe.ucsc.edu/current-courses

Common Ground Center:

kresge.ucsc.edu/commonground/academics

Committee of Education Policy (Course approval forms for student seminars, etc):

<http://senate.ucsc.edu/committees/cep-committee-on-educational-policy/>

Office of Physical Education, Recreation, and Sports (OPERS):

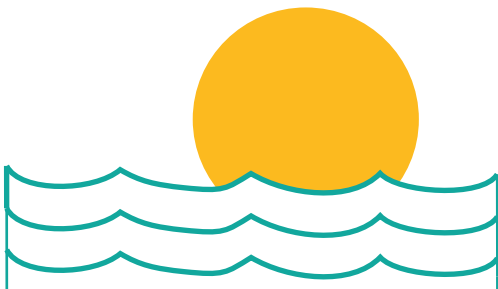
<http://opers.ucsc.edu/>



Energy Conservation

History

Energy efficiency overlaps with all aspects of sustainability, whether it is transportation, green building, or purchasing. Based on data from the UCSC Partnership for Performance, UCSC has been one of the most energy efficient UC campuses per maintained gross square foot since 1995. In 2008, UCSC contributed to the lowest Greenhouse Gas (GHG) emissions per Gross Square Foot (GSF) of any UC. Powered by the off-site electricity, natural gas, and an on-campus cogeneration plant (which provides approximately $\frac{1}{3}$ of all campus electrical power), UCSC has made considerable commitments to reduce its impact and move toward carbon neutrality. With the effects of climate change causing increasing concern, renewables and energy efficiency is a long-term goal our campus must continue to strive towards.



Examples

Through energy efficiency projects, expanded renewable energy use, and changing behaviors in the campus community, UCSC achieved 2000 GHG levels in 2012.

UC wide Fossil Free Campaign uses student voice to advocate and demand that the UC's immediately freeze any new investment in fossil-fuel companies, and to divest within five years from direct ownership and from any commingled funds that include fossil-fuel public equities and corporate bonds.

Campus Sustainability Plan

Collaborate with internal and external stakeholders to reduce the campus carbon footprint through education and behavior change programs.

Reduce GHG emissions and overall energy consumption through energy efficiency, cleaner energy supply, and technology.

Build staff and fiscal capacity to effectively implement energy initiatives.

Energy Conservation Visions & Actions

Vision: Improve efficient practices for energy saving techniques and begin behavior change

- Outreach and education based
- Incentives to reduce energy-- partnering with student groups such as Power Save, and IDEASS
- Work with student residents in creating and implementing a program to save and conserve electricity. Set up reward program for dorm buildings/ individuals who conserve electricity. (Similar to Drop Your Own Drip)

Vision: New Energy Saving technology

- Solar panels (affordability, efficiency has gotten way better)
- Class dedicated to solar panel feasibility, increased collaboration between faculty and staff
- Motion sensor lights and more energy efficient lightbulbs
- Having eco efficient items at bookstore (lights, energy strips, coffee maker, refrigerators etc)

Vision: Research into green energy

- Sustainable Living Lab to be used to research sustainability projects
- Practice tracking and research/data
- Renewable energy research lab to discover feasibility and pay-back plan
- Campus- wide database online for internships, classes, and opportunities to get people involved, and to allow for communication between organizations
- Awareness through the Sustainability Education Guide (see Academics and Curriculum)

Resources

UCSC Climate Action Plan: <http://sustainability.ucsc.edu/governance/plans-reports/climate-action-plan.html>

UCSC Climate Action Team: <http://sustainability.ucsc.edu/about/student-staff/climate-action/index.html>

City of Santa Cruz Climate Action Compact: <http://www.cityofsantacruz.com/index.aspx?page=1231>

UCSC Carbon Fund: <http://sustainability.ucsc.edu/get-involved/funding/carbon-fund/index.html>

Physical Plant Energy Management: http://ucscplant.ucsc.edu/ucscplant/Utility_Distribution/index.jsp

Impact Designs: Engineering and Sustainability through Student Service (IDEASS):

<http://sustainability.ucsc.edu/get-involved/jobs-internships/ideass/index.html>

UCSC PowerSave Green Campus Program: <http://ucscpowersave.com/>

UCSC Fossil Free UC: <http://www.fossilfreeuc.org/>

Path to a Greener Stevenson: <http://stevenson.ucsc.edu/activities/student-groups/ptags.html>



Water Conservation

History

Santa Cruz is a self-contained system that does not have the luxury of importing water from other countries. UCSC's water consumption represents 6% of the water demand for the City of Santa Cruz water service area- using roughly 1.1 million gallons per day.

Santa Cruz County, like other parts of California, has received much less rainfall than normal for multiple years. Because of that, the Santa Cruz City Council has passed a resolution declaring a Stage 3 Water Shortage Emergency within the City of Santa Cruz water service area.

Since the 90's, UCSC has launched a variety of programs that have successfully lowered water use. In 2007, UCSC created a campus-wide survey that identified 54 water efficiency retrofit projects which were all completed by 2011. These projects include the replacement of toilets, urinals, and shower heads with high efficiency fixtures, and installation of faucet aerators in high-use areas of more than 20 buildings. A state-of-the-art wireless meter system has allowed the campus to reduce unmetered use to less than 5% and has helped identify water leaks. UC Santa Cruz Dining Services have made improvements with their facilities in order to reduce water waste and are currently operating at stage 3 water conservation levels.

In 2008, all UCSC dining halls stopped using plastic trays which decreased water use by 35% and reduced cleaning water waste by 1 million gallons per year. With support from Power Save Campus, all dining hall spray nozzles were replaced with more efficient low-flow nozzles and water saving dishwashers were also installed.

Examples

In 2013 the Student Environmental Center's Drop Your Own Drip (DYOD) implemented a water reduction competition among the 10 college apartment buildings where mock water statements were sent to the apartment residents. Cowell College reduced personal water use the most and earned a celebratory block party and reusable water bottles.

Take Back the Tap installed 15 retrofits on water fountains around campus. The campaign hopes to increase water accessibility on campus in order to decrease the necessity for single-use plastic water bottles.

Campus Sustainability Plan

Research, identify, and apply new technologies and improvements that reduce campus water consumption and/or increase efficiency.

Implement ongoing student-directed effective educational campaigns to effect behavioral change and reduce water consumption.

Water Conservation Visions & Actions

Vision: Provide resources for effective communication for talking to housemates or friends about water conservation

- Provide links online to nonviolent communication, worksheets, sample conversations, conflict resolution

Vision: Crossover and collaboration between organizations and with faculty and staff

- Allow for more meeting transparency; ask organizations to provide agendas and notes online, shared or visible to other organizations
- Create a sustainability calendar on the UCSC website for all students, staff, faculty, and community to view and have the opportunity to attend events and outreach
- Create a sustainability SUA position to build relationships between student union and sustainability organization

Vision: Reduce water usage in residence hall showers

- Conduct feasibility studies for push showers, shower timers, shower playlists, water counters
- Create a tracking system for water use and outreach how much water is being saved to encourage further improvement

Resources

The Student Environmental Center's Drop Your Own Drip Campaign (DYOD):

sec.envirolug.org/drop-your-own-drip.html

Take Back the Tap:

takebackthetapuc.org

Desal Alternatives:

desalalternatives.org

Water Working Group:

<http://sustainability.ucsc.edu/topics/Water.html>

2014 City of Santa Cruz Drought Information:

<http://www.cityofsantacruz.com/index.aspx?page=2029>

Acknowledgements

Earth Summit & Blueprint Campaign:

Chancellor's Undergraduate Intern (CUIP) and Earth Summit/Blueprint Coordinator – **Lily Urmann**

Logistics and Fiscal Coordinator – **Julie Foster**

Media & Graphic Design Coordinator – **Jacqueline Puliatti**

Outreach Intern – **Lucia Calderon**

SOAR Staff Advisor & Mentor – **Joyce Rice**

*We thank her dearly for her positivity, knowledge and support!

Earth Summit Speakers & Performers:

Keynote Speakers: **Lina Constantinovici, Tommaso Boggia & Eva Stevens**

Spoken Word: **Climbing PoeTree**

With Support from: The Student Environmental Center, Education for Sustainable Living Program, Campus Sustainability Council, Campus Sustainability Office, College 8 Programs, Food Systems Working Group, Program in Community and Agroecology, UCSC Dining, Transportation and Parking Services, UCSC Copy Center Printing Services, and many more!

Thank you to all the attendees and contributors to the blueprint breakout events and the 13th annual campus Earth Summit!

A special thank you to all of the Working Group members that attended the Blueprint Feasibility Task Force Meetings and provided input in order to make the Blueprint as practical as possible.

Blueprint Design by Jacqueline Puliatti 