

UC SANTA CRUZ

BLUEPRINT FOR A SUSTAINABLE CAMPUS

2013-14



COMPILED BY THE
STUDENT ENVIRONMENTAL CENTER
SEC.ENVIROSLUG.ORG





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What is the Blueprint for a Sustainable Campus?

THE BLUEPRINT FOR A SUSTAINABLE CAMPUS WAS CREATED ELEVEN 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?

ALTHOUGH PREVIOUSLY HOSTED AT THE ANNUAL CAMPUS EARTH SUMMIT, THIS YEAR TOPIC group discussions were 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.

In addition to the Campus Sustainability Council, there are many other funding opportunities for UCSC students interested in furthering our progress. These include, but are not limited to, Measure 43 (The Sustainable Food, Health and Wellness Initiative) and the Carbon Fund.

- > For more information on Measure 43, visit: casfs.ucsc.edu/farm-to-college/measure-43-opportunities-2
- > For more information on the Carbon Fund, visit: sustainability.ucsc.edu/get-involved/funding/carbon-fund



ORGANIZATIONS

What is the Student Environmental Center?

THE PURPOSE OF THE STUDENT ENVIRONMENTAL CENTER (SEC) IS TO PROMOTE STUDENT involvement through research, education, and implementation of environmentally sustainable practices on campus in collaboration with the university. The SEC is comprised of seven different project based campaigns that are all directly related to the Blueprint for a Sustainable Campus. The seven campaigns are: Earth Summit, Waste Prevention, Transportation, College 8 Garden, Students for Organic Solutions, Green Building, and Drop Your Own Drip (a water conservation campaign).

To learn more about current projects or internship opportunities, visit: sec.enviroslug.org

Our Sister Organization: Education for Sustainable Living Program

EDUCATION FOR SUSTAINABLE LIVING PROGRAM (ESLP) IS A STUDENT-RUN ORGANIZATION WHICH offers an accredited student-led class every spring quarter. The class has two components: a Monday Night Speaker Series, and student-led sections. Each section and speaker night is based on sustainable living topics found in the Blueprint for a Sustainable Campus. ESLP class sections focus primarily on hands-on projects and experiential learning. A few Spring 2013 ESLP sections were: Urban Sustainability and Community Development, THRIVE: Tools For Healthy Living Through Holistic Perspective, Waste Management and Resource Utilization: Fostering Global Sustainability Consciousness and Community Collaboration, Ecology of UCSC, and Food Perspectives and Gardening Practicum.

To learn more about Spring quarter class sections, guest speakers, or internship opportunities, visit: eslp.enviroslug.org



RELEVANT POLICIES & CSP

Relevant Policies

The policies, commitments, and university strategies described in this section are of great importance for 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.

POLICIES:

Long-Range Development Plan (2005): Provides a framework for the physical development of the UCSC Campus through 2020. ucsc.edu/lrdp

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.

ucsc.edu/lrdp/comprehensive-settlement.shtml

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

COMMITMENTS:

Climate Action Compact (2007): Collaborative plan for the university, city, and county to reduce greenhouse gas emissions. cityofsantacruz.com/index.aspx?page=1231

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

UNIVERSITY STRATEGIES:

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

What is the Campus Sustainability Plan?

Although the Campus Sustainability Plan (CSP) overlaps with the Blueprint in many areas, these two documents are structured very differently. Firstly, the Blueprint is rewritten every year and has no specific reporting system, and the CSP is rewritten every three years and helps 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 compiled by mostly students along with some faculty, staff, and administration during the Blueprint Breakout discussions and at Earth Summit; while the Campus Sustainability Plan is specific measurable objectives compiled mostly 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 sustainability goals, identify strategic action, make informed recommendations, implement tangible, environmentally preferable change, and facilitate cooperation among all campus members and the extended community. The creators of the Blueprint and the CSP are currently collaborating to maintain the positive similarities and differences of the two plans, and work on areas where the two documents can build on each other to improve. For baseline data and metrics, key targets, a deeper history of sustainability on campus, and a greater understanding of campus policies and commitments, please refer to the 2013-16 Campus Sustainability Plan, found on the Sustainability Office's website.

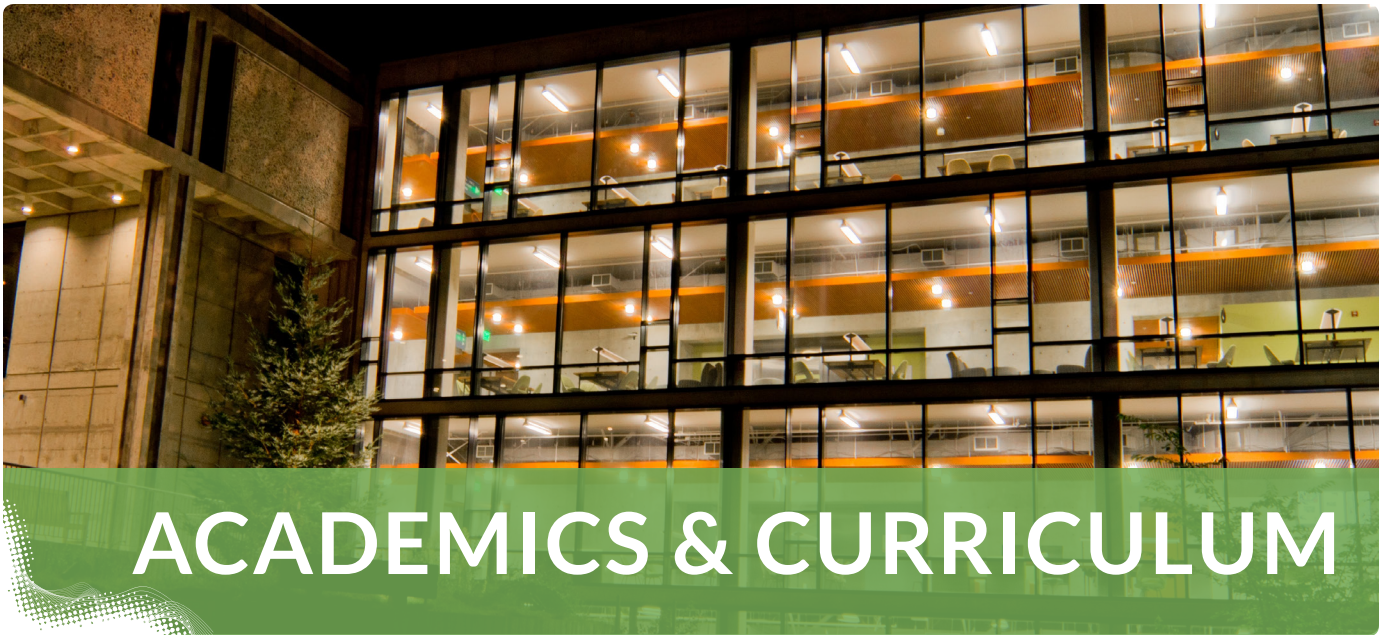


What is the Annual Earth Summit event?

THE STUDENT ENVIRONMENTAL CENTER HELD THE FIRST EARTH SUMMIT IN 2002 TO PROVIDE A space for students to unite in their passions for environmental sustainability, social justice, education and food, learn more about campus actions and opportunities, and increase involvement in the campus sustainability movement. Earth Summit is also a space for discussion between faculty, staff, students, and community members. This year's theme, "Branch Out! Fostering Inclusive Solutions," is inspired by the importance of inclusivity among these various perspectives.

On the beautiful Friday, March 8th of 2013, over 600 members of the campus and Santa Cruz community came together to celebrate sustainability at UCSC and further the discussions from the Blueprint Breakouts. Some highlights from the 2013 Earth Summit include keynote speaker Flora Lu, and guest speaker Maya Salsedo; live band Second Floor Funk; over 30 campus and off-campus organizations with interactive tables; 11 student led workshops pertaining to various Blueprint topics; and fresh, local food from vendors including Zameen, The Bagelry, Redwood Pizzeria, and CAN Coffee. This event was Zero-Waste and 400 guests received a reusable mug and tie-dye napkin.





ACADEMICS & CURRICULUM

History of Academics & Curriculum at UCSC

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 is now directed by the research and educational Center for Agroecology and Sustainable Food Systems. The Education for Sustainable Living Program is a student lead course—created as a statewide coalition in 2004—offered every spring quarter at UCSC bringing a multidisciplinary speaker series that allows students to create sections 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

- 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.
- New majors are being developed such as the minor in Sustainability Studies, and a Major in Agroecology and Sustainable Food Systems that emphasize student engagement.





ACADEMICS: 2020 VISIONS & ACTIONS

VISION

Integrate sustainability education into academics and research

Sustainability education opportunities on campus are often limited in academic fields. This vision integrates sustainability into multidisciplinary academic programs and focuses on research to implement tangible change on campus and within the statewide UC system. UCSC can help set standards in offering sustainability programs and perhaps statewide sustainability GE.

ACTION !

- > **Incorporating more sustainability courses into Majors, Minors and GE requirements** through faculty support and student engagement to revise courses. Such as allowing ESLEP to fulfill the Perspectives: Environmental Awareness PE-E
- > **Integrating sustainability research opportunities across disciplines** by promoting multidisciplinary research teams with on-campus labs, farm and research centers
- > **Offering more Majors, Minors and Certificates Programs:** Sustainability Minor, an Agroecology and Sustainable Food Systems Major, a Sustainable Engineering Major, as well as promoting LEED and Permaculture Certificates
- > **Using Local Sites as Living Laboratories** for supporting education demonstrations and sustainable operations on campus in; Dining Halls, Village, PICA, Farm, Greenhouses, Reserves, and College Gardens

VISION

Expanding course offerings and topics within Sustainability Education

Sustainability education is multifaceted idea incorporating various fields of studies. Students in ESLEP and as well as other UCSC students have expressed their desire for more course offerings within sustainability education. This vision also includes student initiative to create events and courses related to this topics though outreach to guest lectures and outside organizations.

ACTION !

- > **Incorporating more Engineering and Ecological Design:** renewable energy, greywater, green building, microgrids, biomimicry, and permaculture
- > **Incorporating more Psychology and Social Justice:** ecopsychology, inner-landscaping, psycho-spiritual justice, social-cultural philosophy, service-learning, and community resilience
- > **Incorporating more Health and Wellness:** wellness and nutrition, preventative medicine, herbalism and natural remedies, and self-sustainability
- > **Incorporating more Leadership Development:** networking and leadership skills, and coalition building





VISION

Increase Co-Curricular and Experiential Learning Models

This includes incorporating more student initiated seminars, internships and alternative learning models as well as outdoor wilderness education, study abroad opportunities, youth program. This also connects with hosting educational events on-campus to engaged student community and raise awareness.

ACTION !

- > **Creating new and progressive education models** such as personalized majors, inter-generational collaborations, open space technology, think tanks, World Cafe, Peer-to-Peer learning models, outdoor education, and off campus programs
- > **Increasing internships to all majors:** expanding sustainability beyond the ENVS internship department by using the Career Center
- > **Creating more experiential and community living programs** expanding programs at PICA, the Village and themed residents halls focused on sustainability

CAMPUS SUSTAINABILITY PLAN

- Awareness, education and engagement is a new topic in the Campus Sustainability Plan, and is currently being developed. Overarching goals will be published in the 2013 edition of the plan. For more information on this topic section, please visit sustainability.ucsc.edu/topics/education.html



RESOURCES

Education for 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):
senate.ucsc.edu/committees/cep-committee-on-educational-policy



BUILDINGS & FACILITIES

History of Buildings & Facilities at UCSC

UCSC STRIVES TO SUSTAIN THE NATURAL ENVIRONMENT WHILE building, maintaining, and operating nearly six million gross square feet of housing, academic, administrative, research and recreational space. UCSC's commitment to sustainable building is implemented by requiring all new construction to be a minimum of at least LEED (Leadership in Energy and Environmental Design) Silver or equivalent. In 2011 the Cowell Student Health Center became the first LEED-Gold certified building on campus. Since then, the Porter College House A and the Biomedical Building have both also achieved LEED-Gold certification.



EXAMPLES

- With the help of Engineers without Borders and a local public art class, the Student Environmental Center's Green Building Campaign has successfully completed a solar-powered constructed wetland displaying the native ecology of our campus' Moore Creek Watershed. The replica is located on top of the Thimann Greenhouse.
- The Student Environmental Center's Green Building Campaign has recently completed the construction of a cob oven in the Sustainable Living Center at PICA (Program in Community and Agroecology). This sustainably-made oven is used to bake bread and other foods during workshops and serves as a symbol of collectivity.



VISION

Make use of existing buildings and avoid new construction

It has commonly been stated that the greenest building is one that already exists, meaning that it is more sustainable to retrofit an existing building rather than constructing an entirely new one. This cheaper alternative will overcome the funding issues associated with finding new space, as well as taking smaller short-term steps to meet our carbon reduction goals. We should optimize the space we already have on and off campus, before resorting to constructing new spaces.

ACTION !

- > **Utilize parking structures** by installing rainwater catchment systems, green roofs, and vertical gardening.
- > **Purchase nearby off-campus housing** so students can live in existing developments while maintaining a campus dorm atmosphere
- > **Open an off-campus community center** for people to gather and talk, and increase their global consciousness
- > **Retrofit the amphitheater** behind the bookstore that has been closed for many years due to safety concerns (current efforts are underway)
- > **Use more outdoor space for classes and meetings** instead of building more buildings

VISION

Increase education and awareness on campus about green building

Many students have expressed concern that there is a general lack of knowledge on campus regarding which buildings are sustainable and what that exactly means. With our campus boasting several LEED certified buildings, we should highlight these achievements and therefore increase excitement and involvement based on green building. Currently, the disconnect between those who construct green buildings and those who use these buildings is preventing involvement and awareness from being maximized. Our vision is to reinvigorate our campus's excitement for green building by highlighting our achievements more, increasing education, and building relationships and connections between all the stakeholders of our green buildings.

ACTION !

- > **Have accredited student internship positions** (sustainability coordinators) in each college work with staff to perform audits of each individual college to show changes over time
- > **Offer more classes on green building** (Environmental Planning and Design) and a sustainable architecture major
- > **Create LEED certification class** for students. Students will gain job skills, professional experience, and graduate with a degree and a LEED certification.
- > **Promote our existing green buildings** better by having more signs, plaques, and fun events (bring in guest speakers like Mark Lakeman)





VISION

More efficient buildings

Our campus poses many challenges when it comes to energy efficiency in buildings. Luckily the mild weather in Santa Cruz forgoes the necessity for much heating and cooling in buildings. Our vision is to increase the efficiency of current and future buildings.



ACTION !

- > **Install more light sensors**
- > **Reuse construction materials** and ensure construction waste is salvaged for reuse
- > **Use recycled tire/earth insulation**, straw bale construction, LED lighting, green walls, solar energy on rooftops, countercurrent heating systems, passive water heating
- > **Utilize dual flush toilets and purple pipes** (used for grey-water) that already exist in many buildings.

CAMPUS SUSTAINABILITY PLAN

- Increase area (Outside Gross Square Feet - OGSF) of campus buildings that are built, operated, and maintained according to sustainable building practices, campus standards, and guidelines.
- Research and explore new and emerging ways to increase, track, manage, and communicate sustainable performance of campus facilities.
- Within the greater campus community, develop effective mechanisms to increase awareness of and engagement in sustainability activities related to facilities construction and operations.



RESOURCES

Green Building Working Group:

sustainability.ucsc.edu/governance/committees/working-groups

Physical Plant:

ucscplant.ucsc.edu/ucscplant/index.jsp

Physical Planning and Construction:

ppc.ucsc.edu/cp/projects

Student Environmental Center's Green Building Campaign:

greenhouse.ucsc.edu



ENERGY

History of Energy at UCSC

ENERGY EFFICIENCY OVERLAPS WITH ALL ASPECTS OF sustainability, whether it is transportation, green building, or purchasing. Based on data from the UC Partnership for Performance, UCSC has been one of the most energy efficient University of California campuses per maintained gross square foot since 1995. In 2008, UCSC contributed the lowest Greenhouse Gas (GHG) emissions per Gross Square Foot (GSF) of any UC. Powered by off-site electricity, natural gas, and an on campus cogeneration plant (which provides approximately 1/3 of campus electrical power), UCSC has made considerable commitments to reduce its impact and move towards 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

- Commitments the campus has made: The UC Policy on Sustainable Practices, Climate Action Compact, & the American Colleges and Universities Presidents' Climate Commitment.
- The Student Environmental Center's Green Building Campaign has recently completed energy audits of all the Cowell and Stevenson campus dorms.
- In 2012-2013 the UCSC Carbon Fund allocated funds towards a Bike Generator Project for "At Risk" Students to alleviate some of the uncertainty concerning power consumption. Students of Natural Bridges High School in collaboration with IDEASS will team up to build two bike generators.



ENERGY: 2020 VISIONS & ACTIONS

VISION

Develop more renewables on campus

Despite our campus's commitment to continue to reduce overall energy usage, our current energy sources on campus have a lot of room for improvement. Our vision is to decrease our reliance on unsustainable energy sources and to create our own energy sources.

ACTION !

- > **Having a few bike generators at the gym** to create energy while working out.
- > **Make our efforts public** to increase likelihood that funding will come for capital investments.
- > **Look into a bond investment system at UCSC** to encourage energy efficiency projects, similar to that of the medical department at UCSF.
- > **Install electric vehicle charging stations** in parking lots powered by solar, for example at the OPERS parking lot.
- > **Build wind turbines** at the James Lick Observatory and the Long Marine Lab.
- > **Biogas (or captured methane) instead of natural gas.** We can collect our own waste and process it in order to utilize the gas.

VISION

More efficient buildings

Our campus poses many challenges when it comes to energy efficiency in buildings. For example, the density of trees on campus prevents sunlight from reaching the roofs of our buildings, leaving little room for solar panels. Luckily the mild weather in Santa Cruz forgoes the necessity for much heating and cooling in buildings. There are many small changes we can make to increase the efficiency of our buildings and our future green buildings. Here are some suggestions our campus community came up with:

ACTION !

- > **Install more light sensors.**
- > **Reuse construction materials** and ensure construction waste is salvaged for reuse (and give students access to these materials).
- > **Utilize dual flush toilets** and purple pipes (used for greywater) that already exist in many buildings.
- > **Using less lighting in McHenry** by de-lamping and installing light timers.





VISION

Reduce energy usage on campus and increase efficiency

Since very limited education about energy usage and building efficiency on campus is available to students, increasing awareness can help reduce our campus's overall energy usage. Our vision is to increase the accessibility of reduced energy alternatives.



ACTION !

- > **Add a system where you swipe ID card** when students go in and out of the dorm so that the lights will go off when students are not in the room.
- > **Putting solar panels on LED streetlights.**
- > **Create an SEC campaign similar to Drop Your Own Drip** to increase energy saving awareness.
- > **Educate incoming students** at summer orientation about energy saving techniques.

CAMPUS SUSTAINABILITY PLAN

- **By 2020: UCSC has reduced its GHG emissions to 1990 levels (56,512 tons CO2 equivalent) and is successfully fulfilling the commitments laid out in the UCSC Climate Action Plan.**
- **Continue participation with the investor owned utility (PG&E), state entities (such as the California Public Utilities Commission (CPUC) and Public Interest Energy Research (PIER), as well as federal government programs.**
- **Continue to develop effective collaborations between university staff, faculty, student groups, and private companies in support of energy initiatives, research, and implementation of cutting edge energy technologies (including lighting, HVAC, energy management, and renewable energy generation).**



RESOURCES

UCSC Climate Action Plan:

rs.acupcc.org/site_media/uploads/cap/935-cap_2.pdf

UCSC Climate Action Team:

sustainability.ucsc.edu/about/student-staff/climate-action/index.html

City of Santa Cruz Climate Action Compact:

cityofsantacruz.com/index.aspx?page=1231

UCSC Carbon Fund:

sustainability.ucsc.edu/get-involved/funding/carbon-fund/apply.html

Physical Plant Energy Management:

ucscplant.ucsc.edu/ucscplant/Utility_Distribution/index.jsp

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

sustainability.ucsc.edu/get-involved/jobs-internships/ideass/index.html

UCSC Office of Sustainability:

sustainability.ucsf.edu/greening_the_medical_center

UCSC PowerSave Green Campus Program:

ucscpowersave.com



History of Food Systems at UCSC

UCSC IS A LEADER IN FOOD SYSTEMS, WITH MANY STUDENT, STAFF and faculty initiatives geared toward awareness and improvement of the food system on campus and in the community. The UCSC Center for Agroecology & Sustainable Food Systems (CASFS) was founded in 1993, but dates back to 1967, when the Chadwick Garden was created. The UCSC Farm, founded in 1974, now has 25 acres of land set aside for gardens, crop fields, research fields, orchards, greenhouses, a laboratory, classrooms and offices. The Food Systems Working Group, formed in 2003, works to bring sustainably and responsibly grown food to campus dining halls and promote education and awareness of the food system. 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. All of the UC Santa Cruz Dining locations have been awarded the Green Business certification by the City of Santa Cruz. UCSC dining halls have implemented Meatless Mondays and Beefless Thursdays to reduce meat consumption, and have introduced Farm Fridays where students are served food from UCSC and local farms in order to encourage local food consumption. Composting operations on campus divert 50 tons per month of food scraps from the landfill into nutrient-rich compost which is used to replenish soil and grow produce.

EXAMPLES

- Program in Community Agroecology (PICA) hosts market carts where students are given free fruits and vegetables from campus gardens. This increases student awareness about campus gardens and promotes healthy eating habits.
- Food Systems Learning Journeys through the UCSC Recreation Department allow students to explore the local food system through visits to local farms, cooking workshops, and more.



FOOD SYSTEMS: 2020 VISIONS & ACTIONS

VISION

Increase education and awareness of campus's beauty and issues

Our campus sits in an unique environment which acts as a living lab for its students. However, many students are unaware of the amazing natural features our campus has to offer. There are many ways for getting the greater student body more connected with nature on campus.

ACTION !

- > **Increase the number of outdoor classrooms** and create a program for utilizing outdoor resources, including field trips for all majors. Create an adventure program and hold the Environmental Studies field quarter every quarter rather than just in the spring.
- > **More portion-controlled meals** by using pre-plating.
- > **Reduce to-go container waste by:** charging extra for to-go containers and offering punch card discounts for bring your own tupperware. *Tuppy Tuesday!*
- > **Reduce daily food waste by:** not over-producing food and implementing a discount at the end of the day for students without meal plans for food that would have otherwise been sent to compost.
- > **Dining hall bombs:** spontaneous entertainment in dining halls encouraging people not to waste food.

VISION

To engage students, staff and faculty in gardening and local foods by making gardening and farmer's markets more accessible

UCSC has a farm, several gardens that grow food, and numerous opportunities for learning and involvement. However, the importance of sustainably and responsibly sourced local foods and the benefits of cultivating campus gardens can be far more incorporated into students' awareness and everyday activities.

ACTION !

- > **Free farmer's market in public on-campus area** incorporating all campus farms, with volunteer opportunities in exchange for free food.
- > **Hold Open Gardens** day during welcome week and earth week.
- > **Student-led classes** to give students hands-on lessons in gardening and composting (ex. core classes about food systems, or College 8 garden 1-unit class).
- > **Employ staff to help operate food systems,** farmer's markets, and gardens.





VISION

To achieve 40% real food on campus by 2020

Real Food, defined by the Real Food Challenge, is produced in a fair, humane and sustainable manner. In 2012, UCSC Dining reached approximately 28% real food. UCSC's food procurement is calculated through the Real Food Challenge's Real Food Calculator, which measures campus dining hall services across the nation. UCSC Dining must continue to increase transparency in food sources and engage students in real food initiatives on campus.



ACTION !

- > **Create internships** that would work with the Real Food Challenge's Real Food Calculator.
- > **Non-confrontational methods** of spreading information about real food, through educational classes and outreach.
- > **Increase frequency of Meatless Mondays** and Beefless Thursdays to occur every week in every dining hall; eventually switching from Meatless Mondays to Meat Mondays.
- > **Increase transparency** of unsustainable meat production.

CAMPUS SUSTAINABILITY PLAN

- **By 2020: increase the proportion of sustainable food in campus dining and onsite vendors (i.e. local, organic, fair trade, humane, and socially responsible).**
- **By 2020: enhance the efficiency and minimize the life cycle impact of campus food service equipment and facilities**
- **By 2020: minimize waste and increase composting to reduce costs and establish greater savings.**
- **By 2020: provide resources and opportunities for the campus community to learn about sustainable agriculture and food systems.**



RESOURCES

Program in Community Agroecology (PICA):

ucscpica.org

Student Environmental Center's Students For Organic Solutions Campaign (SOS):

sec.envirolug.org/students-for-organic-solutions.html

Community Agroecology Network (CAN):

canunite.org

Food Systems Learning Journeys through the Recreation Department:

ucscrecreation.com

Food Systems Working Group (FSWG):

casfs.ucsc.edu/farm-to-college/how-to-get-involved#FSWG

Center for Agroecology and Sustainable Food Systems:

casfs.ucsc.edu

Kresge Garden:

kresge.ucsc.edu/academics/kresge-garden.html

Stevenson Garden:

stevenson.ucsc.edu/activities/garden.html

Chadwick Garden :

envs.ucsc.edu/internships/available-internships/chadwick-garden.html

College 8 Garden:

sec.envirolug.org/college-eight-garden.html

Gardener's Alliance:

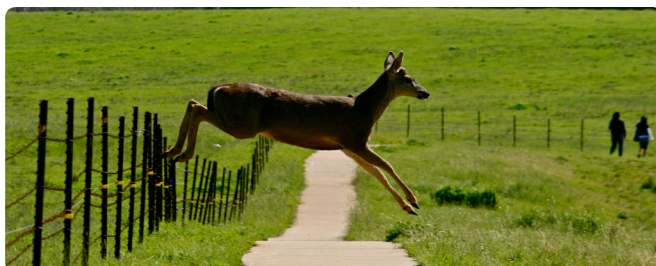
sec.envirolug.org/gardeners-alliance-group.html



LAND, HABITAT, & WATERSHED

History of Land, Habitat, & Watershed at UCSC

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 15 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 Students for Organic Solutions campaign in the Student Environmental Center is working to reinvigorating a garden in Oakes College, so that nearly every college on campus has access to a nearby community garden.
- In 2013, the GROW (Gardens, Resources, Opportunities, Waste management) measure was put on the ballot for campus elections. If passed, it would require each student to pay a small fee of \$4.20 per quarter to support the financing of student work positions for the campus farm, college gardens, and waste reduction efforts.



L, H, & W: 2020 VISIONS & ACTIONS

VISION

Increase education and awareness of campus's beauty and issues

Our campus sits in an unique environment which acts as a living lab for its students. However, many students are unaware of the amazing natural features our campus has to offer. There are many ways for getting the greater student body more connected with nature on campus.

ACTION !

- > **Increase the number of outdoor classrooms** and create a program for utilizing outdoor resources, including field trips for all majors. Create an adventure program and hold the Environmental Studies field quarter every quarter rather than just in the spring.
- > **Hold workshops and classes** informing students on campus development and issues surrounding the Long Range Development Plan. Arm yourselves with knowledge!
- > **Have group hikes** that are a fun and collaborative learning experience. Sessions during finals and midterms can provide students with a method for stress-management. Have workdays specifically for invasive species removal.
- > **Add QR codes for smartphones on restoration signs**, and add plaques to walkways to highlight the natural habitats and history nearby.
- > **Increase freshmen involvement in site stewardship** by outreaching to core courses and theming college nights on topics of the environment and sustainability.
- > **Use GIS mapping systems** to offer self-guided tours of campus natural history during orientation.

VISION

Better management of water resources

While UCSC's water consumption represents only 6% of the water demand for the City of Santa Cruz water service area (using roughly 1.1 million gallons per day), it is our responsibility to keep this number as low as possible. Water recycling and harvesting can help accomplish this. Additionally, improper water management can cause erosion. Our vision is to create plans for water recycling and reducing water-induced erosion.

ACTION !

- > **Use innovative water recycling** ideas (look at examples from NASA!). This could include using greywater (water from our showers, sinks, and washing machines) to water gardens and lawns.
- > **Restoration of the watershed.** Currently, the Moore Creek Watershed on campus is causing erosion and habitat degradation. In 2013, the California Coastal Commission awarded a grant to the Arboretum specifically for watershed restoration along the portion of Moore Creek that runs through the Arboretum. Student manpower is needed to assist in removing invasives and planting native species, as well as creating plans for reducing erosion.
- > **Enhanced storm water management** by recharging this water through vegetated swells along sidewalks, and creating pervious pavement in all parking lots and sidewalks. By making these surfaces permeable, water from storms will enter the watershed in less concentrated forms and reduce the effect on erosion.
- > **Increase awareness around Santa Cruz Desalination** potential, issues, and alternatives. In 2012, Measure P passed allowing Santa Cruz county citizens the right to vote on the construction of a local Desalination plant. It is critical that voters exercise this right and educate themselves regarding this controversial dispute.



VISION

Sustainable smart growth

As the student population on campus grows every year, there is increasing demand for classrooms and housing facilities on campus. To mitigate the effect of this demand, it is important we utilize the resources and space we already have available before resorting to building on precious habitat.



ACTION !

- > **Build up, and not out.** Constructing taller buildings uses less acreage and achieves the same amount workspace.
- > **Utilize greenhouses** and other potential classrooms, and create more online classes to prevent building of more classrooms.
- > **Create more satellite schools** in order to address increasing class sizes and limited resources

CAMPUS SUSTAINABILITY PLAN

- **By 2020:** outreach and education efforts engage more than 500 student interns and volunteers each year in support of education, research, natural lands management, and restoration efforts.
- **By 2020:** lands are monitored, maintained and restored in accordance with a collaboratively developed campus landscape management plan.
- **By 2020:** the UCSC campus is a model of balance between ecological stability and successful operation of a vibrant university.



RESOURCES

Land, Habitat, and Watershed Working Group:

sustainability.ucsc.edu/governance/committees/working-groups.html

UCSC Storm Water Management Plan:

cleanwater.ucsc.edu/sw-management-plan/index.html

Grounds Services:

ucscplant.ucsc.edu/ucscplant/Grounds/index.jsp

UCSC Greenhouses:

greenhouse.ucsc.edu

Natural History Museum:

mnhc.ucsc.edu

Physical Planning and Construction:

ppc.ucsc.edu/contact

Campus Assessment:

sustainability.ucsc.edu/topics/files/ucsc-assessment-land.pdf

UCSC Campus Natural Reserves:

ucsantacruz.ucnrs.org

Long Range Development Plans:

www1.ucsc.edu/lrdp/final-lrdp.shtml

Local Agency Formation Commission:

santacruzlafco.org

Center for Agroecology and Sustainable Food Systems:

casfs.ucsc.edu

The Arboretum :

arboretum.ucsc.edu/visit



History of Purchasing at UCSC

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 for example by consolidating purchases to minimize truck deliveries. Procurement works to negotiate the most 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) collaborating with the Sustainability Office enlisted a Provost's Sustainability 2013 Intern (PSI) to develop a Life Cycle Cost Analysis tool (LCCA) that, when introduced, can increase the number of environmentally preferable products the campus procures. Through CruzBuy, campus employees can use the LCCA to identify environmentally preferred products (EPP). Increasing transparency regarding the environmental impact of products offered through CruzBuy will allow employees to make the right choices when purchasing campus supplies and services.
- In 2012 Procurement Services created a PSI position through the Sustainability Office to create an on-line Greenwashing Training program. Although not currently a mandatory training, it can be accessed through the UC Learning Center.



PURCHASING: 2020 VISIONS & ACTIONS

VISION

Educating the general campus community

Increasing education and awareness is a common tactic for creating behavior change in the public that will result everyday decisions that are healthier for the environment. Since green purchasing has been largely under the radar of many people, it is important to inform our society of the importance of our purchasing decisions. Our vision is to reconnect consumers on campus with the environmental impact of the supply chain their goods come from.

ACTION !

- > Create a “Green Living” app for smartphones with facts and tips educating students on sustainable purchasing practices.
- > Integrate concepts of sustainable purchasing and green office practices into business and marketing classes and the Economics and Business Management curriculum.
- > Teach an Education for Sustainable Living (ESLP) course and create a Student Environmental Center Campaign based on Green Purchasing.

VISION

More transparency on the supply chain

A major challenge for those who attempt to make environmentally conscious purchasing decisions is overcoming Greenwashing. Greenwashing is the act of false or misleading marketing claims aimed at promoting a product for its sustainability or environmental friendliness, when in fact it may not be as sustainable as producers claim. Many efforts are underway, and our vision is to further these efforts and give producers and consumers the tools to choose more environmentally preferred products.

ACTION !

- > Audit suppliers on the environmental impact of their products as well as social justice aspects involved in production.
- > Requiring on campus Café's and vendors to become Green Business Certified using either the Sustainability Office's Green Office Certification Program or the Monterey Bay Green Business Program.
- > Displaying comparisons of green and non-green products to create a wow-factor motivating people to make environmentally friendly purchases. Convey the true costs associated with a product rather than simply what is on the price tag.

“I felt it was a major priority to become a certified Green Business. Given the transitional environmental/sustainability issues our generation is facing, I believe our certification will help lead the way for other independent food vendors to demonstrate their commitment to support local agriculture, food waste awareness, and energy efficiency. Going through this process of being certified has revealed several minor measures that all of us can take to make a major difference in the food industry. Thanks to all who helped along the way!” -Adam Hoffman, General Manager Global Village Café



VISION

More opportunities on campus for Green Purchasing

There are numerous underutilized opportunities to increase access to green procurement on campus. Adding resources will also have the positive side-effect of increasing awareness on campus of the importance purchasing sustainably.

ACTION !

- > **Hold a local business fair!** Have local businesses come to campus giving the campus community easier access to purchasing local products.
- > **Increase utilization of the UCSC Surplus Office** by advertising and spreading awareness. This office is located at the base of campus and sells used furniture, building supplies, storage containers, etc. at a discounted price. Additionally, revamping the Surplus Office by increasing capacity and creating new policies for vendors that want to sell to us would increase opportunities for our campus to reuse and recycle old products. Requiring them to buy back their items at the end of their life cycle would hopefully incentivize them build their items in a more sustainable manner.
- > **Have swap meets,** second-hand stores, and flea markets held on campus.

CAMPUS SUSTAINABILITY PLAN

- 100% of campus waste diversion from landfills by 2020 to create a Zero Waste campus.
- By 2020 75% of goods and products meet UCOP sustainable food services procurement guidelines.
- Increase Environmentally Preferable Purchasing (EPP) practices of goods including office supplies, appliances, electronics, and cleaning supplies.





PURCHASING: 2020 VISIONS & ACTIONS

VISION

Sustainable Aligned Investment

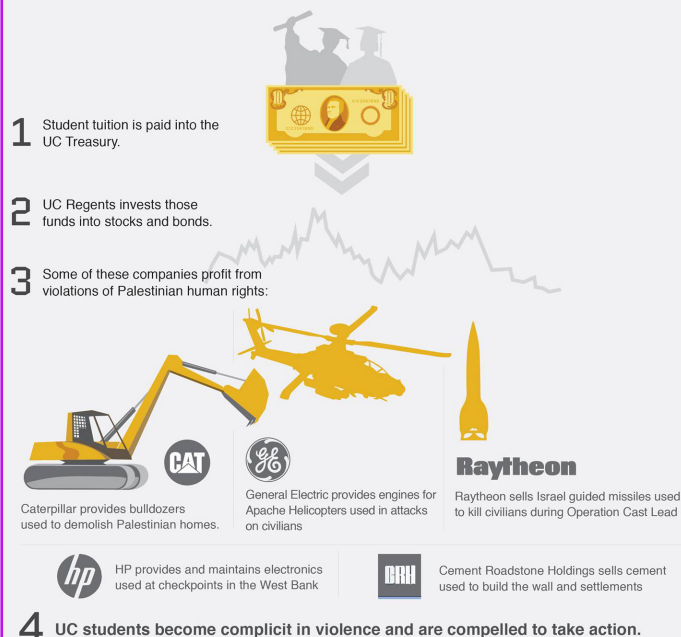
This vision promotes the investment of socially and environmentally just businesses and industries into the UC and UCSC endowments as well as strategies to re-invest into sustainability on campus.

ACTION !

- > **Student protests**, creating supporting documents and advocacy to UC Regents to divest UC investments from fossil fuel industries and other socially and environmental in just industries.
- > **Promoting increase of positive sustainability investments** in industries such as; renewable energy, sustainable forestry and companies promoting sustainable practices.
- > **Creating a student and staff managed sustainable investment fund**, which can fund on-campus energy efficiency projects for net savings.

OUR TUITION, OUR RESPONSIBILITY.

WHERE IS OUR TUITION GOING?



WE CAN BREAK THIS CHAIN.

LEARN MORE

about the UC divestment campaign at sjpwest.org/bds

GET INVOLVED

with your local chapter of Students for Justice in Palestine sjpwest.org/chapters

SPREAD THE WORD.

Tell a friend! Help grow the campus consensus for Palestinian rights and ethical UC investments



RESOURCES

Green Purchasing Working Group (GPWeG) and the Green Purchasing Guide:
financial.ucsc.edu/Pages/GreenPurchasing.html

UCSC Procurement Services - CruzBuy:
cruzbuy.ucsc.edu

UCSC Campus Surplus Store:
receiving.ucsc.edu/surplus/surplusstore.html

UCSC Green Office Certification Program (GOC):
sustainability-dev-2.ucsc.edu/propsucsc/assess_areas

Monterey Bay Area Green Business Certification Program:
www.montereybaygreenbusiness.org

Greenwashing online training tool at the UC Learning Center:
<http://learningcenter.ucsc.edu/>



SOCIAL & ENVIRONMENTAL JUSTICE

History of Social & Environmental Justice at UCSC

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 with the theme of Social Justice and Community, focusing 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 are intertwining these topics, exemplifying that to have environmental justice, we first must achieve a degree of social equality.



EXAMPLES

- An on-campus housing option, Rumi's Field, allows for students to engage in nonviolent communication (NVC) skills in their living community. NVC is taught across the globe and strengthens one's ability to inspire compassion from others and respond considerately under difficult circumstances.
- The Office for Diversity, Equity, and Inclusion offers a Diversity and Inclusion Certificate program and the annual Chancellor's Diversity Awards.
- The Practical Activism Conference is a dynamic one-day student-led event held every fall.
- The Strawberry and Justice Festival is held every spring at the UCSC Farm (CASFS).



SOCIAL JUSTICE: 2020 VISIONS & ACTIONS

VISION

Expand involvement on Social Justice issues on campus

While UCSC offers a variety of interdisciplinary majors such as environmental studies, legal studies, and feminist studies, other important majors and courses are disappearing. To offset this, more opportunities for extracurricular involvement in social justice issues must be created to ensure our campus is engaged, equal, and aware.

ACTION !

- > **Bring back the Community Studies major!** Student petitions and letters to regents.
- > **Implement ESLP classes** focusing on Environmental/Social Justice.
- > **Incorporate multicultural programming around campus**, not just isolated to Oakes College, such as including more multicultural themes in core classes and having cultural days throughout campus.
- > **Give Family Student Housing more of a voice**, by incorporating college nights, movie nights, and creating a community garden.
- > **Hold workshops on racism** involving multiple organizations.

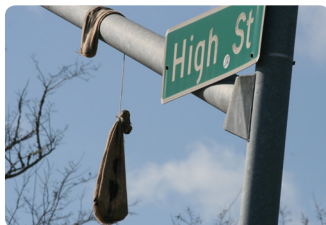
VISION

Bridge UCSC with Off-Campus Community

While both the city of Santa Cruz community and the UCSC community have strong ideals when it comes to social and environmental justice, there is a disconnect between the two separate communities. When the University was first built, one of the main outcries of the Santa Cruz community was the inevitable overcrowding of the town. This distinct separation of the town from the university is something that we should be working towards eliminating by bridging the gap.

ACTION !

- > **Host UCSC events off-campus** in the community and plan to collaborate with organizations in the city, such as Open Streets.
- > **Collaborate** with the Chancellor's Undergraduate Intern (CUPI) for the Good Neighbor program and come up with projects for campus.
- > **Integrate sustainable local food by supporting local Santa Cruz businesses.** This would include getting food for events such as Farm Fridays in the dining hall from local farms in addition to the UCSC CASFS Farm.
- > **Subsidize interested suppliers on how to grow organically**, and offer community garden tours, classes through the rec for non-students, etc.
- > **Have more off-campus field trips** to places such as the water treatment center, the landfill, and low-income areas.
- > **More mapping/brainstorming of connections** with communities and individuals and how they might be affected by environmental projections like climate change.





VISION

Recognizing UCSC workers and employees and creating a larger dialogue with them

On the UC Santa Cruz campus, we have such a wide network of workers and employees on campus. This great variety of individuals all possess unique skills which are integral to furthering the place of social and environmental justice on our campus.



ACTION !

- > **Storytelling:** create a space for these employees to tell their stories, struggles, and accomplishments. Having university cafe discussions with intercultural groups. Invite employees as guest speakers to events, classes, and workshops.
- > **Recognize** bus driver, janitor, food-service, etc. employee appreciation days! Reach out to invite them to Alliance/Relationship building events.
- > **Fight for fair wages**, beyond just campus community, through petitions and/or protests.

CAMPUS SUSTAINABILITY PLAN

- There currently 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.



RESOURCES

Community Agroecology Network (CAN):

canunite.org

Global Information Internship Program (GIIP):

giip.org

Engaging Education (E²):

engagingeducation.org

Chicano Latino Resource Center:

www2.ucsc.edu/raza/orgs.shtml

African American Resource and Cultural Center:

aarcc.ucsc.edu

LALS 164, ENVS 147, KRSR 64, Experiential Leadership Program, & College 9/10 Courses - see course catalog

Asian American/Pacific Islander Resource Center:

www2.ucsc.edu/aapirc

Cantu Queer Center:

queer.ucsc.edu

Practical Activism:

activism.ucsc.edu

College 9:

collegenine.ucsc.edu/index.html

College 10:

housing.ucsc.edu/colleges/ten.html

Office for Diversity, Equity and Inclusion:

diversity.ucsc.edu

American Indian Resource Center:

airc.ucsc.edu/current-students/student-groups.html



TRANSPORTATION

History of Transportation at UCSC

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 the student transportation fee in order to continue to provide students with adequate transportation services including 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

- The Student Environmental Center's Transportation Campaign operate the People's Bike Generators (PBG) which is a project that aims to supply people-power to public functions through portable bike generators. These generators are powered solely by the energy of the person riding them and can be hooked up to sound systems, blenders, light shows and other electronic devices.
- The TAPS Bike Library, previously housed under the Student Environmental Center, aims to promote bike ridership and support a growing bike community by providing 28 bicycles to students, faculty, and staff who would otherwise not have them. Applications to receive a bike are submitted at the start of each quarter.



TRANSPORTATION: 2020 VISIONS & ACTIONS

VISION

Improve the sustainability of Metro and loop buses

For many years, UCSC has maintained a collaboration between TAPS and the City of Santa Cruz Metro in order to provide unlimited subsidized ridership for students. Despite the wide variety of alternative forms of transportation, limited outreach and funds stand in the way of achieving a campus norm of predominantly human-powered modes of transportation.

ACTION !

- > **Increase outreach awareness of campus transportation** (bike paths, bike library, van pool, zimride) by showing bike and walking paths at summer orientation and distributing maps of bike paths.
- > **More available funding for public transit** to re-add Metro buses that have been cut or to add an express bus that takes students directly downtown from campus.
- > **Add more bike racks** on loop buses to increase use and accessibility.
- > **Use E-15 diesel** on campus cars and vanpools.
- > **Bring a CUIP back to TAPS** to create a student run committee that is focused on encouraging sustainable campus transportation.



VISION

Increase bike accessibility on campus

Lack of bike safety skills and challenging hilly topography are some of the obstacles that reduce bike accessibility on campus. Our vision is to provide students with the resources and infrastructure necessary to encourage the use of alternative forms of transportation.

ACTION !

- > **Improve the bike path system** on campus by making it more clear and distinguished from the walking paths. Installing reflectors or solar powered lights and making pathways smoother can increase cyclist safety.
- > **Expand the Bike Library** by increasing outreach; adding different types of bikes (tandem/electric/etc.); and including a sector for renting bikes daily or hourly using an electric system of checking bikes in and out.
- > **Increase bike safety** by expanding Bike Street Skills Workshops to focus on educating cyclists about maneuvering through hot-spot danger areas on campus. A survey for cyclists that can help pinpoint these hot spots and can identify areas that need improvement is currently underway.
- > **Enforce traffic rules for cyclists** thus creating incentives for bike safety and improving motorist-cyclist relations.
- > **Collaborate with off-campus city climate manager** to add more bike lanes off campus.

VISION

Encourage more sustainable on-campus car usage

UCSC is located on a very expansive campus and for this reason UCSC has maintained its commitment to promote and support many transportation alternatives including: zip cars, zim rides, parking garage with electric charging stations, carpool permits, vanpools, and bike shuttles. Despite the multiple options of transportation, there are still many students that continue to rely on single-occupancy vehicles. Our vision is to continue to expand resources that encourage sustainable transportation and to continue to reduce the number of single-occupancy vehicle use.

ACTION !

- > **Reduce campus traffic** by installing more roundabouts and encouraging students to carpool or walk.
- > **Host a campus-wide “Walk to Class” challenge day**
- > **Implement a tier permitting system** for fuel efficient cars or have discounted parking permits for low emission cars.
- > **Install more solar powered electric car** charging stations in parking garages.

CAMPUS SUSTAINABILITY PLAN

- **By 2020: 75% of commuter person-trips are by non-Single Occupant Vehicle (SOV) modes.**
- **By 2020: Fossil fuel use is reduced 50% from 2008 levels.**
- **By 2020: Human-powered modes are predominant for on-campus travel.**



RESOURCES

Student Environmental Center's Transportation Campaign:
sec.envirolug.org/transportation.html

Transportation and Parking Services (TAPS) :
taps.ucsc.edu

Transportation Working Group:
sustainability.ucsc.edu/governance/committees/working-groups

Bike Library:
bikelibrary.weebly.com



WASTE

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 composting programs have been increasing in support in dining services, apartments and campus gardens. Electronic waste on campus has improved with the upgrading and reselling of up to 80% of the computers, audio-visual equipment and other electronics. 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

- In 2012 we diverted 65,000lbs 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's Waste Prevention Campaign has recently piloted "Slug-ware", based off of the UC Davis model, where students can check out plates, utensils, etc. then have them washed in the dining hall before they are returned.
- Stevenson Hand Towel Pilot Project is replacing paper towels with cloth ones in all dorms.



WASTE: 2020 VISIONS & ACTIONS

VISION

Reduce dining hall waste

The dining hall has made several strides to reduce its waste including by removing food trays, and all dining halls composting their front and back-of-the house food scraps. Some obstacles the dining halls face are lack of student awareness of how much is wasted and an overproduction of food, despite the intensity of current efforts from Dining services. Our vision is to cut dining hall waste even further.

ACTION !

- > **Add waste statistics to plates** showing average food waste relative to tangible examples so that people can relate to the amount of food they are wasting (hypothetical example: "Your weekly food waste weighs as much as an elephant!")
- > **More portion-controlled meals** by using pre-plating, rather than students helping themselves to more than they can consume.
- > **Reduce to-go container waste** by charging extra for to-go containers and offering punch card discounts for bring your own tupperware. *Tuppy Tuesday!*
- > **Reduce daily food waste** by not over-producing food and implementing a discount at the end of the day for students without meal plans for food that would have otherwise been sent to compost.
- > **Dining hall bombs!** Spontaneous entertainment in dining halls encouraging people not to waste food.

VISION

Shifting waste reduction practices to a culture rather than a service

Many zero waste projects have been implemented on campus including: a new student sustainability advisor at all sister colleges; zero wasting summer orientation and OPERS fall festival; Take Back the Tap working on banning plastic water bottles; and the zero waste move-out. Despite the many groups on campus working to reduce waste, conscious waste reduction is still not fully integrated into our everyday lives. Behavior Change techniques should be used to encourage a zero-waste culture on campus.

ACTION !

- > **Expand waste education for freshman** by incorporating a welcome week presentation on waste at all colleges.
- > **Comprehensive education/training** for students on what is compostable/recyclable.
- > **No plastic bags on campus!** Charge for plastic bags at Bookstore, etc, and continue to give students free reusable bags at orientation.
- > **Institute waste competitions:** among student dorms/apartments (like Drop Your Own Drip does with water usage); a campus wide competition –Recycle-Mania! Or a competition between dining halls.
- > **Change student behavior and trends** by using memes bashing unsustainable practices or making composting/recycling look "cool".



WASTE: 2020 VISIONS & ACTIONS



VISION

Increase zero waste accessibility

Many composting systems have been implemented in the apartments, in campus gardens, the Global Village Cafe, Owl's Nest, PICA and the Village. Composting limitations and confusing signage are some of the obstacles that limit the expansion of these programs. We envision a campus where limiting waste is facilitated by more programs, incentives and overall increased accessibility.



ACTION !

- > **Increase number of compost locations** in café's, campus housing, and classrooms.
- > **Limit paper towel use across campus** with mandatory workshops and alternative drying methods (for students to get towels washed).
- > **Incentives for BYOM** (bring your own mug) / BYON (bring your own napkin), like a discount.
- > **Hand out reusable mugs** to freshmen during orientation.

CAMPUS SUSTAINABILITY PLAN

- By 2020: UCSC is a zero waste campus: all materials are either compostable, recyclable, or reusable & overall levels of consumption are reduced.
- Research and implement improvements to waste reduction practices and performance tracking systems.
- Divert waste away from landfills: achieve 75% diversion by June 30, 2012, and 100% diversion by 2020.
- Collaborate with students, Residential Life, and the greater campus community to develop waste reduction campaigns and promote behavioral change.



RESOURCES

Waste and Recycling Working Group:

sustainability.ucsc.edu/governance/committees/working-groups

Student Environmental Center's Waste Prevention Campaign:

sec.enviroslug.org/waste-prevention.html

Sustainability Office Zero Waste Team:

sustainability.ucsc.edu/sustainability-topic/waste-recycling

Take Back the Tap:

takebackthetapuc.org



History

SANTA CRUZ COUNTY IS A SELF-CONTAINED SYSTEM THAT DOES not have the luxury of importing water from other counties. 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. Since the 90s, 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 showerheads with high-efficiency fixtures, and installation of faucet aerators in high-use areas of more than 20 buildings campus-wide. A state-of-the-art wireless meter system has allowed the campus to reduce unmetered water use to less than 5% and has helped identify water leaks. UC Santa Cruz Dining Services have made many improvements with their facilities in order to reduce water waste and are currently operating at Stage II water conservation levels. In 2008, all UCSC dining halls stopped using plastic trays which reduced water waste in dining halls by 35% and reduced cleaning water waste use by 1 million gallons per year. With support from PowerSave Green-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 Campaign (DYOD) implemented a water reduction competition among the 10 different 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.



WATER: 2020 VISIONS & ACTIONS

VISION

Increase on-campus water efficiency

Our campus has made several strides to try improve the sustainability of campus buildings, including adding low flow fixtures on campus (showers, toilets, faucets). Limited funds stand in the way of implementing new technologies but collaboration between students and campus architects may be able to overcome this challenge.

ACTION !

- > **Retrofit** all toilets to become green handle and low-flow.
- > **Greywater** is recycled water from our dishes, showers, and washing machines. This water can be harvested, filtered, and re-used to water plants and used in toilets. Currently, “purple-pipes” exist in some LEED certified buildings on campus but aren’t being utilized due to policy and safety issues. To increase water use efficiency on campus, we need to change policy so that greywater can be safely re-used after it has gone through a biofiltration process.
- > **Create more water efficient structures** such as green roofs and more rainwater catchment systems. This can be accomplished through collaboration with the SEC’s Green Building Campaign or through other student involvement in the design and planning.

VISION

Increase student awareness about water issues

Our campus offers many funding opportunities for potential water related projects and is already home to many water campaigns. One obstacle is the lack of educational courses that inform students about current water issues and current campus projects. Another obstacle that prevents expanded dialogue about local water issues is the disconnect between UCSC students and Santa Cruz community members. The combined efforts of increasing the promotion of current water conservation efforts and increasing educational opportunities can help raise overall awareness on campus.

ACTION !

- > **Utilize core curriculum to educate new students** about global water issues. Courses should inform them about the importance of water issues, the consequences of depleting water supplies, the benefits of saving water, and it should also provide students with tips to implement water saving techniques in their daily lives.
- > **Raise awareness about current water-related programs** and events by increasing collaboration between organizations. Utilizing incentives to entice students to learn more and be more involved.
- > **Strengthen ties with the wider Santa Cruz Community** by holding meetings to create visions for water conservation. Collaborate with the Good Neighbor CUIP to build these connections.
- > **Implement student initiated water related campaigns** that aim to provide incentives for behavioral change. Competitions can also be utilized to make learning about water issues more interactive and engaging.



VISION

Decrease overall campus water usage

As our campus expands, it is important to maintain a balance between growth and conservation especially when considering water usage. Aside from dealing with the challenges of natural water systems (like sinkholes) and limited funding, our campus has many opportunities to reduce overall water usage.



ACTION !

- > **Install building specific meters** so that water usage can be tracked and users can be held more accountable.
- > **Create more incentives to save water.** Expand a similar Drop Your Own Drip competition to dorms and offer the incentive of lowering the housing price for a quarter for the building that saves the most water.
- > **Create a plastic bottle water free campus** by utilizing a student petition to pressure on campus vendors to get rid of plastic bottles. Collaborate with Take Back the Tap to spread awareness on the importance of removing single-use water bottles.
- > **Increase water accessibility** on campus by installing more retrofits on water fountains, adding water filtration systems and by fixing broken fountains.
- > **Hand out reusable water bottles** at summer orientation to provide students the tools necessary to reduce their individual water consumption.

CAMPUS SUSTAINABILITY PLAN

- **By 2020: Maintain the campus potable water demand at levels equivalent to or lower than 206 MGY 1.**
- **Research, identify and apply new technologies and improvements that reduce campus water consumption and/or increase efficiency.**
- **Implement effective educational campaigns to effect behavioral change and reduce water consumption.**



RESOURCES

The Student Environmental Center's Drop Your Own Drip Campaign:
sec.enviroslug.org/drop-your-own-drip.html

Take Back the Tap:
takebackthetapuc.org

Teach the Forest:
teachtheforest.wordpress.com

Desal Alternatives:
desalalternatives.org

Water Working Group:
sustainability.ucsc.edu/governance/committees/working-groups.html



EARTH SUMMIT/BLEUPRINT CAMPAIGN:

- *Chancellor's Undergraduate Intern (CUIP) and Earth Summit/Blueprint Coordinator* - Katie Lippus
- *Logistics Coordinator* - Adriana Renteria
- *Media & Outreach Coordinator* - Camryn Yaros
- *Logistics Intern* - Ria Mukerji

Staff Mentor: Joyce Rice - special thanks for all of her support, contributions, and advising!

EARTH SUMMIT PLANNING SUBCOMMITTEES:

- **Food:** Sophie Barnhorst, Maaya Hensmen, Lora Johansen, Mallika Palecanda
- **Waste:** Darya Soofi, Kevin Green, Yukari Shichishima, Naomi Stern
- **Speakers & Entertainment:** Kirsten Pringle, Brenden Fant, Andrew Szeto
- **Publicity & Outreach:** Camryn Yaros, Madeleine Turner, Andrew Plebanek, Melissa Ott
- **Workshops:** Amy Chau, Sarah Angulo, Marlayna Kirby
- **Volunteers & Tablers:** Nicole Scott, Anna Fairehrenreich, Cheslea Pack, Melissa Hanson
- **MC:** Marlo Custodio
- **Keynote Speakers:** Flora Lu, Maya Salsedo
- **Live Band:** Second Floor Funk!

Associated CUIPs: David Shugar, Melissa Ott, McKenzie Laird, Megan Laird

Campus Sustainability Plan Working Group Leaders and Director of Sustainability Lacey Raak

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!

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