

2013–16

Campus Sustainability Plan

“UCSC’s commitment to sustainability reflects one of our most closely held campus values: environmental stewardship. Students were the force behind our initial efforts, which inspired faculty and staff to join in. Today, sustainability is a campuswide commitment, and our programs are garnering national attention. That’s what being a leader is all about.”

—George Blumenthal, Chancellor



UC SANTA CRUZ

Chancellor's Letter	1
Overview/Introduction	2
Topic Section Overview	3
Awareness, Education, and Engagement	4
Buildings and Facilities	6
Energy and Greenhouse Gases	8
Food	10
Land, Habitat, and Watershed	12
Procurement	14
Transportation	16
Waste Reduction	18
Water	20
Community Activities	22
Sustainability at UCSC	23
Governance Structure	24
Key Policies	25
Monitoring and Reporting	26
Looking Forward	27
Resources and Acknowledgments	28

About the University of California, Santa Cruz

UC Santa Cruz opened in 1965 with 650 students. Forty-eight years later, the campus is home to 15,400 undergraduates and 1,400 graduate students. As an outstanding public research university with a deep commitment to undergraduate education, UCSC connects people and programs in unexpected ways while providing unparalleled opportunities for students to learn through hands-on experiences.

The main UC Santa Cruz campus occupies a spectacular 2,001-acre site overlooking Monterey Bay. UCSC also administers several other locations, including:

The 73-acre Marine Science Campus, about 2.4 miles from the main campus

Administrative and research facilities at 2300 Delaware Ave., Santa Cruz

Lick Observatory atop Mount Hamilton near San José

The Monterey Bay Education, Science, and Technology (MBEST) Center, in Marina

UCSC Extension Silicon Valley

UCSC also manages nearly 5,000 acres of UC Natural Reserve System land, including Año Nuevo Island Reserve, Fort Ord Natural Reserve, Landels-Hill Big Creek Reserve, and Younger Lagoon Reserve.

UC Santa Cruz is widely recognized for leadership in environmental and sustainability education and also as a model for sustainability in campus operations. From the internationally known Center for Agroecology and Sustainable Food Systems (CASFS) and Department of Environmental Studies, to applying new technologies in water conservation, UCSC provides an ideal living laboratory for teaching, learning, and modeling sustainability.



Our Sustainability Vision

Building on UCSC's longstanding commitment to environmental stewardship, the campus will successfully employ sustainability principles in all aspects of its operations. As UCSC pursues the UC mission of teaching, research, and public service, the campus will also serve as a model and a leader in advancing global sustainability.

From the Chancellor—

UC Santa Cruz is serious about sustainability, and our innovative approach to the issue is attracting national recognition. Sustainability is integral to UCSC's future and to our overall research, teaching, and public service mission. My vision is of a campus where sustainability is integrated into every facet of operations, from top-level policymaking, to academic and research programs, to daily life.

In 2010, UCSC took an important step in this direction with our first Campus Sustainability Plan. That plan was the result of a comprehensive campuswide effort, and we have worked together over the past three years to implement it.

I am pleased to introduce UCSC's Campus Sustainability Plan (CSP) 2013–16. This plan builds on our success and sets goals for the next three years.

I'd like to recognize and thank student, faculty, and staff participants; members of working groups that have spearheaded our planning and implementation efforts; and UCSC's Sustainability Office for coordinating and managing the overall process. This broad involvement across UCSC's academic and administrative divisions strengthens connections across campus, breaking down traditional "silos" and building bridges that foster progress.

Finally, thanks to the entire UCSC community for embracing this shared vision of our future. We are reaping benefits beyond our sustainability goals as we build a stronger and more cohesive campus.

George Blumenthal, Chancellor

Spring 2013

UCSC's Sustainability Vision

UC Santa Cruz's commitment to a broad sustainability vision for the campus grows out of a longstanding dedication to environmental stewardship. The campus is applying innovative, community-based approaches to ambitious sustainability goals that span all campus operations. UCSC is also advancing sustainability on a broader scale through its research, education, and public service programs.

The campus envisions that by 2020, sustainability will be well integrated into campus facilities, decision-making, learning, and the daily life of the campus community. These new behaviors and new ways of planning and assessment will be a permanent part of how the campus operates.

By 2020, UCSC will be a global leader and a model for sustainability. The campus will follow a comprehensive and holistic approach to operating and maintaining green buildings, and campus water demand will be minimized. Greenhouse gas emissions will be below 1990 levels, and on-campus travel will be primarily by bicycle or on foot. UCSC will be a zero-waste community, and 75 percent of food products will be sustainable. Campus undeveloped lands and sensitive habitats and species will be thriving.

What is the Campus Sustainability Plan?

UCSC's Campus Sustainability Plan (CSP) is a broad transformational 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.

UCSC's first Campus Sustainability Plan (CSP 2010–13) was developed by students, faculty, and staff collaborating in cross-divisional working groups that addressed each topic area (see Governance Structure, p. 24). With support from UCSC's Office of Sustainability, these ongoing groups have worked to implement CSP 2010–13, assess progress, and establish goals and objectives for CSP 2013–16.

CSP 2013–16 will guide campus progress toward sustainability over the next three years, implementing goals and objectives as resources become available. A new Awareness, Education, and Engagement working group has also been formed to address sustainability education on campus and to integrate sustainability-related topics into UCSC's curriculum and co-curricular activities.

The CSP is a comprehensive plan that integrates and coordinates sustainability activities across UCSC's academic and administrative divisions. It is also a

dynamic plan that adapts to changing circumstances, with updates planned every three years. At the same time, the CSP provides a vital framework for campus-wide involvement in sustainability planning and action, deepening the UCSC community's understanding of what it means to be a sustainable campus.

CSP 2013–16: Scope and Planning Context

Due to the extensive nature of UCSC's operations, the scope of CSP 2013–16 varies somewhat among topic areas. The plan covers the main UCSC campus, the Marine Science Campus, and UCSC's facilities on the west side of Santa Cruz. It also includes the UCSC Campus Natural Reserve, 400 acres of protected natural lands on the UC Santa Cruz campus. Some working groups also address other UCSC facilities, as noted in the specific topic sections.

The CSP working groups align their planning, implementation, and assessment work with numerous campus, UC system, regional, and state planning documents, policies, and agreements (see Key Policies, p. 25).

UCSC's implementation of CSP 2010–13 over the past three years has generated growing enthusiasm and involvement throughout the UCSC community. This engagement will be critical as UCSC seeks to change behavior and promote an ongoing commitment to living within available resources.

A Short History of Sustainability Planning at UCSC

- **2002**—UCSC's first Earth Summit, hosted by the Student Environmental Center, rallied the campus community together in support of a broad vision for sustainability.
- **2005**—UCSC's Long Range Development Plan (LRDP) included a commitment to sustainability initiatives.
- **2007**—The first comprehensive Campus Sustainability Assessment, driven in large part by UCSC's vibrant student sustainability movement, was completed.
- **2008**—UCSC's first Climate Action Plan was initiated.
- **2010**—The first Campus Sustainability Plan was drafted (CSP 2010–13).

The following sections of CSP 2013–16 provide an overview of the activities, goals, and objectives of the working groups listed on the next page. This includes a summary of progress made in implementing CSP 2010–13 and goals and objectives for the three years covered by CSP 2013–16.

The Campus Sustainability Plan Working Groups

At the core of UCSC's Campus Sustainability Plan are nine ongoing working groups, each addressing a critical topic related to campus sustainability. These groups span the campus's academic and administrative divisions to plan and implement measures that maximize efficiency and collaboration across the campus. Each of the individual topic working groups is guided by a vision that supports UCSC's broader sustainability vision. The CSP working groups are made up primarily of staff, with faculty and students also encouraged to participate. The campus is making a concerted effort to accommodate expanded student involvement as we move forward with CSP 2013–16 including coordination with the student-led Blueprint for a Sustainable Campus.

In addition to the eight working groups included in the first Campus Sustainability Plan (CSP 2010–13), CSP 2013–16 incorporates a new Awareness, Education, and Engagement working group. CSP 2010–13 was largely operational in scope, and it soon became apparent that changing behaviors and encouraging campuswide engagement are key elements of promoting sustainability.

The Awareness, Education, and Engagement working group coordinates campuswide communication related to sustainability to promote broader participation by the entire campus community. At the same time, it works to integrate sustainability education and awareness into UCSC's curricular and co-curricular offerings.

Working Groups—Topics and Scopes

Awareness, Education, and Engagement: Support sustainability education through curricular and co-curricular activities.

Buildings and Facilities: Build, operate, and maintain sustainable buildings and other facilities to the maximum extent possible.

Energy and Greenhouse Gases: Reduce campus greenhouse gas (GHG) emissions and energy use through conservation and distributive energy generation.

Food: Increase socially and environmentally responsible practices in campus dining operations, food vendors, and the broader campus community through research, education, and engagement in food systems.

Land, Habitat, and Watershed: Increase education, research, and conservation activities on campus natural areas while supporting sustainable land, habitat, and watershed management practices.

Procurement: Reduce, reuse, and recycle; provide and promote sustainable alternatives in the procurement of goods and services; and leverage UCSC's market influence to realize the university's vision for sustainability.

Transportation: Provide and promote effective, equitable, and sustainable access to and around UCSC campus facilities.

Waste Reduction: Create, develop, and implement programs and strategies to reduce campus waste.

Water: Research, develop, and implement programs and strategies that minimize potable water use on the UCSC campus.

Awareness, Education and Engagement

Engaging the Entire UCSC Community



Improving campuswide environmental performance means not only transforming infrastructure, operations, and policies, but also expanding knowledge and changing behaviors. Achieving UCSC's broad sustainability vision will require the active participation of the entire campus community.

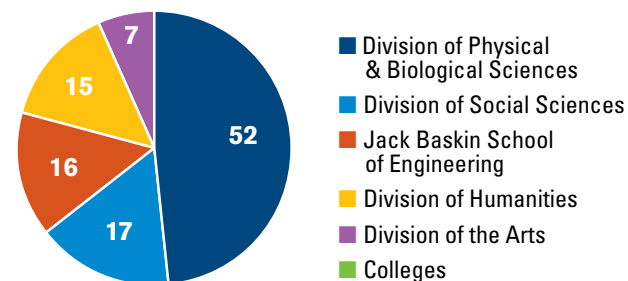
The Awareness, Education, and Engagement element of UCSC's Campus Sustainability Plan identifies opportunities to coordinate sustainability education and communication on campus. The goals and objectives outlined in this section seek to inspire the entire campus community to learn about and

engage in sustainable practices in order to make UCSC a model of sustainable behavior, living and practices.

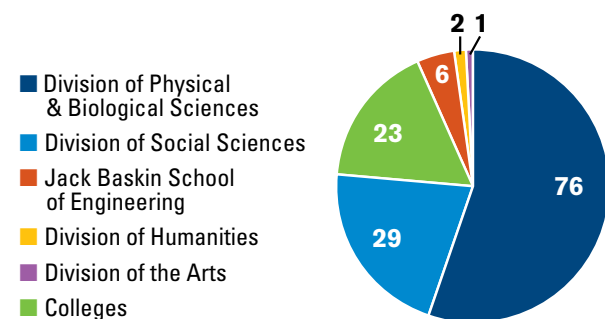
In pursuing these objectives, the campus will develop sustainability leadership among students, staff and faculty through curricular and co-curricular opportunities, as well as through campus communications.

GOALS	OBJECTIVES
1. Expand knowledge of and engagement in sustainable practices on campus.	<p>Develop a strategic communications plan to publicize campus sustainability opportunities and progress.</p> <p>Document and promote sustainability learning opportunities via curricular and co-curricular opportunities and through campus communications.</p> <p>Integrate sustainability into campus tours and orientation activities.</p>
2. Promote and support sustainability working groups in implementation of their education and outreach objectives.	<p>Develop a web tool to show live sustainability data.</p> <p>Provide assistance to develop internship positions for sustainability working groups.</p> <p>Develop and promote educational videos for CSP topic areas.</p>
3. Promote and support sustainability research and teaching.	<p>Engage faculty to identify and implement strategies to support sustainability research and teaching.</p> <p>Utilize the campus as a living laboratory in order to link the operational and academic aspects of the university.</p>

Number of Faculty Engaged in Sustainability Research



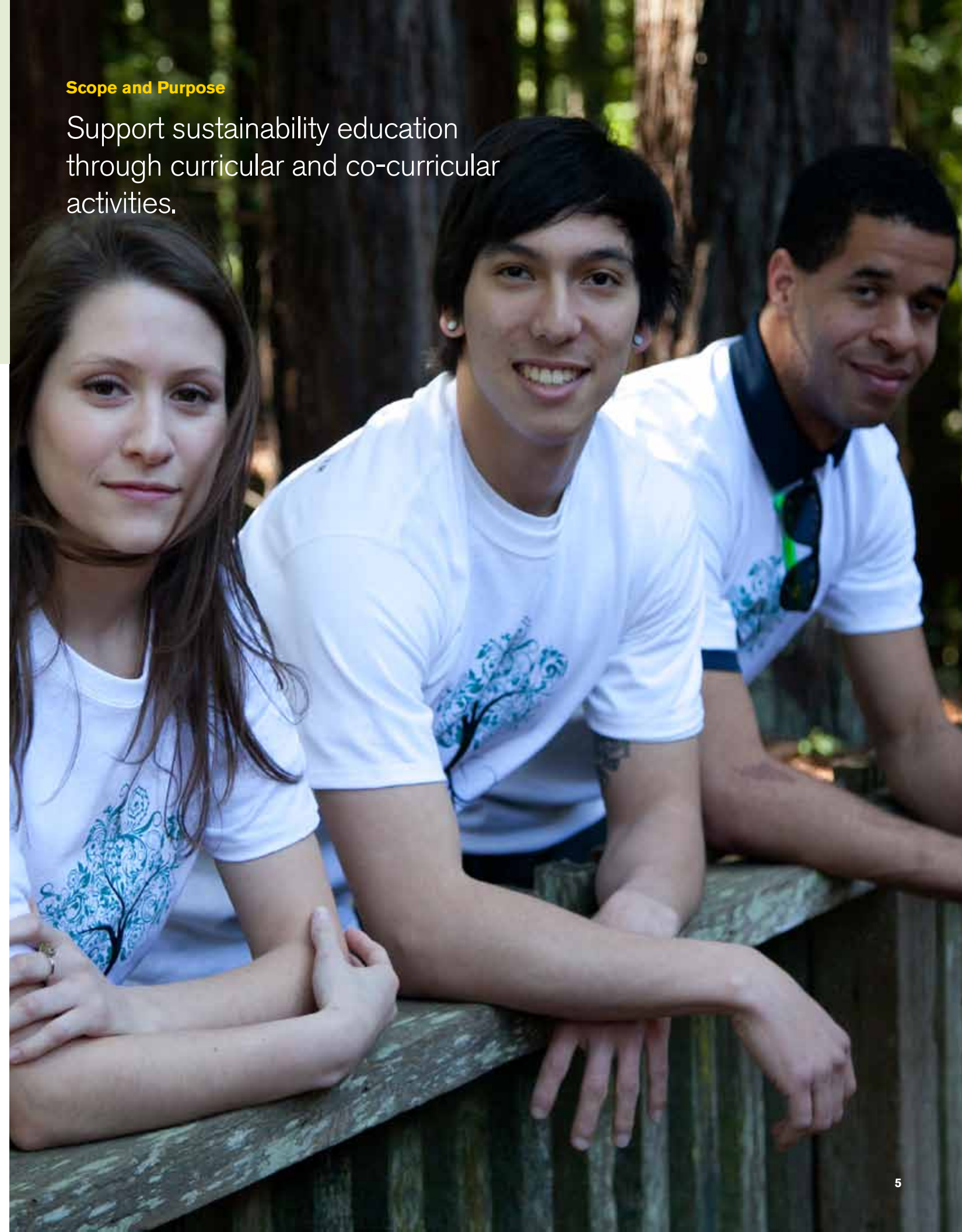
Number of Sustainability-Related Courses by Division



Key Metrics

Scope and Purpose

Support sustainability education through curricular and co-curricular activities.



Buildings and Facilities

Sustainable Development and Operations



UCSC operates nearly 6 million square feet of built space, as well as roads, utilities, and other infrastructure that support campus programs. These diverse facilities offer many opportunities for sustainability in operation, maintenance, expansion, and renewal.

UCSC continues to be a leader in sustainable development and operations. Over the past three years, two projects received LEED Gold certification (Cowell Student Health Center and Porter College House A) and two received LEED Silver certification (Porter College Dining Commons and Porter College House B).

The Cowell College Commons received LEED CI certification. Overall, nearly 530,000 square feet is LEED certified, and UCSC will expand that total over the next three years. “Green workshops” were held early in the Detailed Project Program phase of several new projects to incorporate aggressive sustainability measures.

The recently opened Biomedical Sciences Facility raised the bar for sustainable lab design and was toured by over 100 lab design engineers. The campus continues to seek new approaches to sustainable operations and maintenance. For example, a major paving project utilized an innovative method that repro-

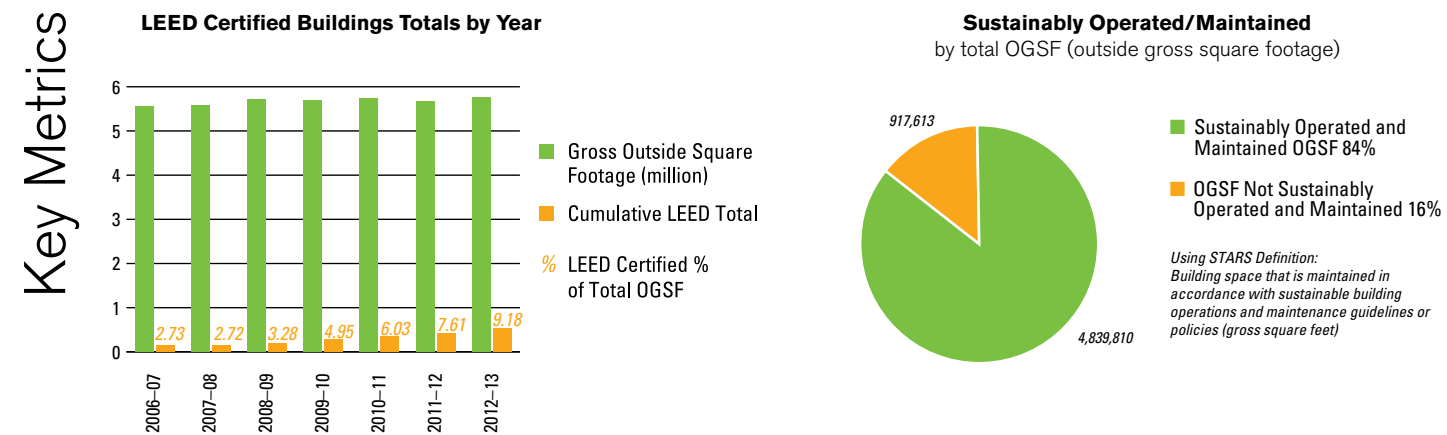
cessed existing pavement, eliminating the need for disposal and delivery.

Overall goals for 2013–16 include measures to exceed UC Sustainable Practices Policy; pursuing NetZero on major capital projects; developing sustainability policies for small projects; research and piloting of innovative technologies; and continuing UCSC’s sustainability leadership. Step by step, by 2020, the campus will be established as a model of comprehensive “greening” in planning, design, construction, operation, and maintenance, and our built environment will serve as a “classroom” for sustainable living.

Scope and Purpose

Design, build, operate, and maintain sustainable buildings and other UCSC facilities, to the maximum extent possible.

GOALS	OBJECTIVES
1. Increase percentage of developed campus area that is built, operated, and maintained according to sustainable practices.	<p>Develop and implement internal guidelines and procedures to incorporate sustainability in renovation projects under \$5 million and other capital projects that do not fall under the purview of UC Sustainable Practices Policy III-A and V-A.</p> <p>In addition to the requirements of UC Sustainable Practices Policy III-E and V-E, develop and implement internal guidelines and procedures to incorporate energy savings and sustainable practices in deferred maintenance and major repair projects.</p> <p>Develop and implement internal guidelines and procedures to incorporate energy savings, sustainable practices, and green materials into planned maintenance and repair practices not included in campus’s LEED EB: O&M Master Site.</p>
2. Research and explore new and emerging technologies and/or policies to increase sustainable performance in existing and new campus facilities	<p>Partner with research entities on and off campus to explore new technologies (e.g., Electric Power Research Institute).</p> <p>For each new major capital project assess the feasibility of achieving “Net Zero” energy use.</p>
3. Increase awareness of and engagement in sustainability activities related to facilities construction and operations.	<p>Create a pilot web-based tool that allows users to view operations information for three types of campus buildings (e.g., classroom, administrative, residence hall).</p> <p>Identify, share, and acknowledge established sustainability practices that occur within facilities.</p>



Energy and Greenhouse Gases

Reducing UCSC's Carbon Footprint



Reducing greenhouse gas (GHG) emissions to 1990 levels by 2020 continues to be the campus's overarching vision, as mandated by the UC Policy on Sustainable Practices and California Assembly Bill 32. Through energy efficiency projects, expanded renewable energy use, and changing behaviors in the campus community, UCSC achieved 2000 GHG levels in 2012, well ahead of the 2014 target.

UCSC's success has been the result of many collaborations between students, staff, faculty, and private companies. Partnerships with on- and off-campus

stakeholders remain a top priority as the campus seeks innovative ways to fund its energy programs. The campus Carbon Fund provides financial support for projects that reduce GHGs on campus and in the community, and has awarded 23 grants to date. UCSC also piloted a Green Revolving Loan Fund that provides up-front capital for efficiency projects.

Campus energy initiatives comprise projects from UCSC's Strategic Energy Partnership with PG&E, efforts by PowerSave Green Campus, the Green Labs and Green Office Programs, and student-led projects. Together, these initiatives are reducing GHGs by 2,843

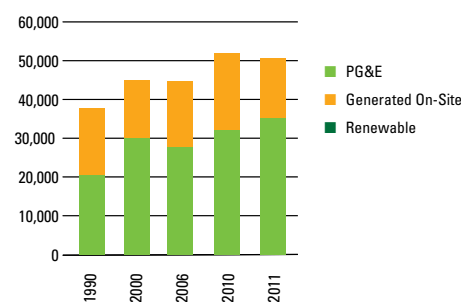
metric tons per year. UCSC has also partnered with PG&E's Savings by Design Program on all new construction projects and will install 250 kW of solar photovoltaics at McHenry Library. The campus has established a Climate Action Manager position to implement and update UCSC's current Climate Action Plan.

In 2013–16, UCSC will build on these accomplishments, further reducing the campus's carbon footprint through education and behavior change programs, as well as through energy efficiency, cleaner energy supply and technology, and expanded staff and fiscal capacity to effectively implement energy initia-

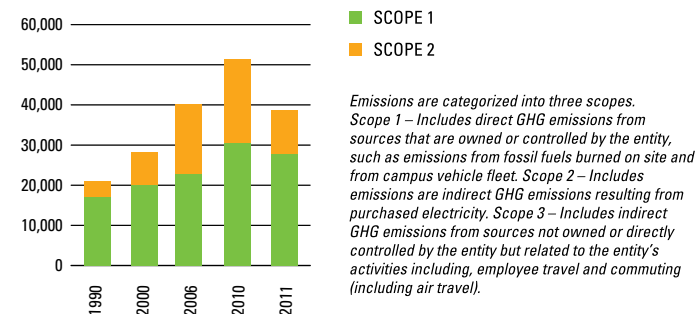
GOALS	OBJECTIVES
1. Collaborate with internal and external stakeholders to reduce the campus carbon footprint through education and behavior change programs.	<p>Develop and begin implementation of a prescribed curriculum for campuswide, energy-focused behavior change program, including development of educational videos, to support the execution of the 2013 Climate Action Plan.</p> <p>Create consortium focused on energy research with specific goal of reducing energy use and GHG emissions through application of existing technologies.</p> <p>Actively pursue funding opportunities to support four intern positions within staff departments to help accomplish energy initiatives by 2016.</p>
2. Reduce GHG emissions and overall energy consumption through energy efficiency, cleaner energy supply, and technology.	<p>Develop strategic energy plan for 2015-20 that reduces campus energy use by at least 15%</p> <p>Procure electricity for UCSC that has a Renewable Portfolio Standard (RPS) 15% higher than state required minimum (25%) by 2016.</p> <p>Procure biogas that reduces the annual campus stationary combustion emissions to less than or equal to 20,000 metric tons by 2015..</p>
3. Build staff and fiscal capacity to effectively implement energy initiatives.	<p>Establish Green Revolving Loan Fund of at least \$250,000 by Fall 2013, with first applications received in Winter 2014.</p> <p>Actively pursue funding opportunities to hire at least one full-time dedicated staff to work on energy efficiency in auxiliary units by 2015.</p> <p>Identify permanent funding source to continue to employ staff currently funded by the Strategic Energy Partnership (SEP) by 2015.</p>

Key Metrics

Electricity Consumption by Source

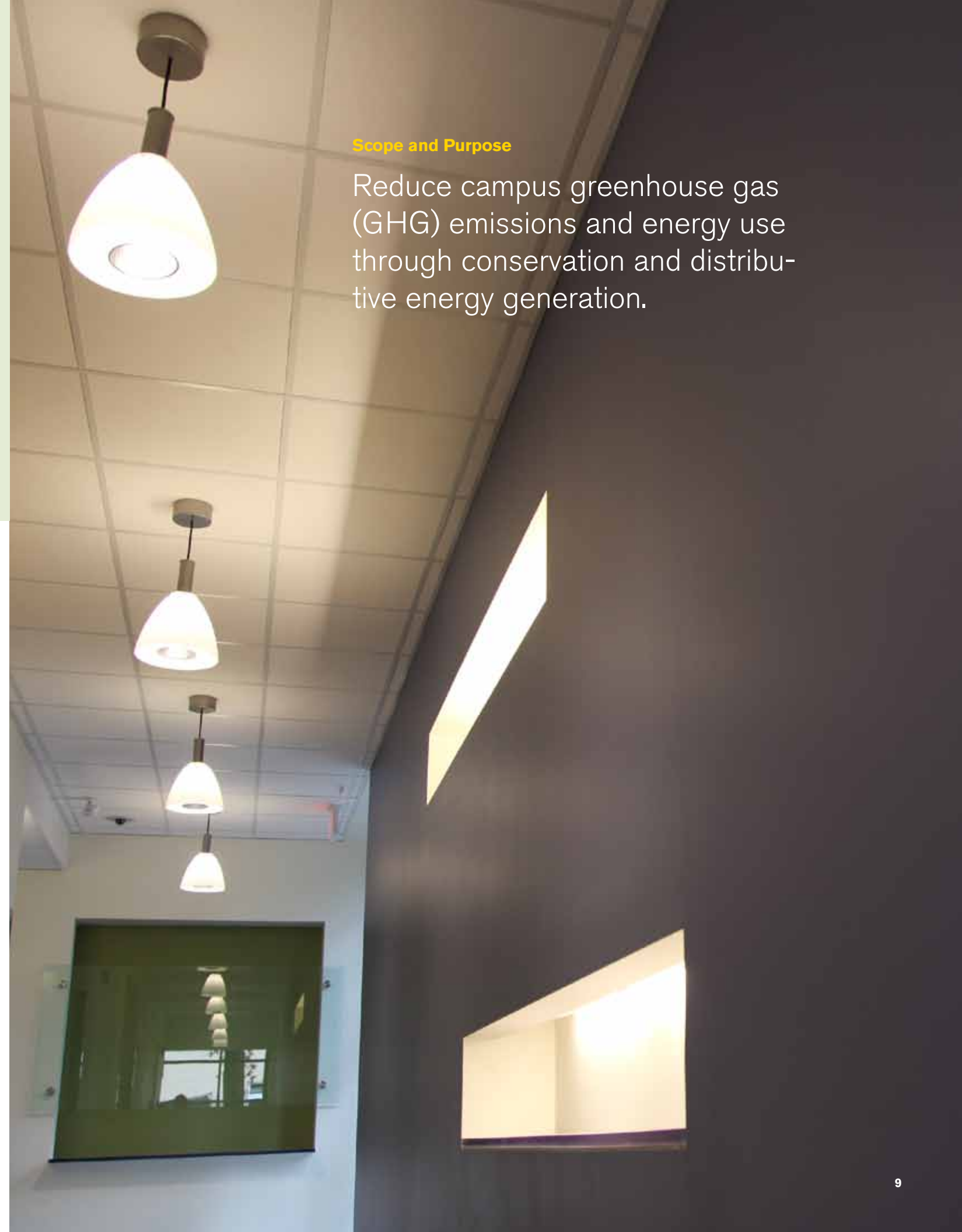


GHG Emissions by Scope



Scope and Purpose

Reduce campus greenhouse gas (GHG) emissions and energy use through conservation and distributive energy generation.



Food

Promoting Food Sustainability Campuswide



UCSC is internationally known for research and education in sustainable food systems, and the campus has also developed model sustainability programs for the food served on campus. UCSC Dining Services oversees numerous facilities—including five residential dining halls, catering, the University Center restaurant, and several cafés and coffee carts—and its sustainability programs integrate purchasing, waste prevention, energy efficiency, and education.

In March 2012, UCSC signed the Real Food Campus Commitment, a nationwide student-based campaign promot-

ing food sustainability on university campuses.¹ Due to UCSC's innovative food sourcing, the campus has already surpassed the Real Food goal of 20%, with more than 28% sustainable food purchases. The campus has set a 36% goal for 2016 and plans to reach 40% by 2020. In addition, 25% of UCSC's fresh produce is certified organic (2012), with more than 50 percent of all fresh produce locally sourced. More than 85% of seafood served is certified by the Monterey Bay Seafood Watch Program. All Dining Services sites are now certified green, and the campus is promoting certification by vendor-operated facilities. The campus composts 100% of potentially compostable and

biodegradable materials from dining operations.

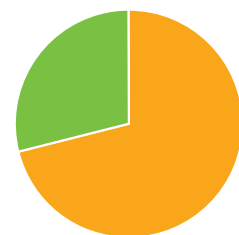
Continued involvement by the campus community will be essential as UCSC pursues its 2013–16 goals. The Food Systems Working Group sponsors dozens of events each quarter and is working with colleges and partners on establishing garden sites at all sister colleges to offer experiential learning opportunities. The campus will also continue working to integrate food sustainability into the academic program and co-curricular activities.

¹"Real food," as described by the Real Food Challenge, is food produced in a fair, humane, and sustainable manner.

GOALS	OBJECTIVES
1. Increase the proportion of real food in all campus food locations.	Increase and sustain 36% real food purchases by 2016 across UCSC Dining Services. Bring all contracted food locations to 20% real food by 2016. Develop and complete effective tracking mechanism for real food procurement by Fall 2013 for UCSC Dining Services.
2. Increase environmental best management practices for contract service vendors.	Have at least two contract service vendors green business certified by Fall 2015.
3. Work towards zero waste in all campus food locations by reducing overall food waste, increasing diversion, and achieving greater savings.	Reduce overall food waste and composting tonnage by 10% of 2012 levels by 2016. Develop residential waste diversion and composting education modules for all colleges by 2016. Implement a pilot Lean Path training strategy in at least one dining hall by January 2014.
4. Provide resources and opportunities for the campus community to increase understanding and engage sustainable agriculture and food systems.	Increase undergraduate student hands-on involvement at the farm and campus garden sites. Establish an agro-ecology and food justice orientation program for new and transfer students by fall 2015. Host 30 food agriculture educational events for students per year. Establish and sustain experiential learning sites co-managed by students throughout the calendar year at all colleges by fall 2016.

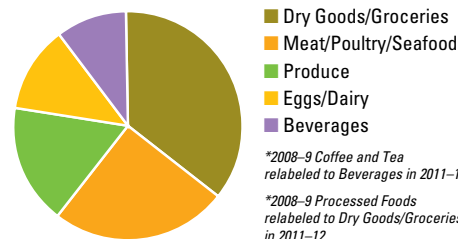
Key Metrics

Total UCSC Dining "Real Food" Purchases



■ 29% "Real Food"
■ 71% All other food

2011-12
Total Food Purchases by Category
Total Food Purchases: \$6,914,553



*2008-9 Coffee and Tea relabeled to Beverages in 2011-12
*2008-9 Processed Foods relabeled to Dry Goods/Groceries in 2011-12

Scope and Purpose

Increase socially and environmentally responsible practices in campus dining operations, food vendors, and the broader campus community through research, education, and engagement in food systems.



Land, Habitat, and Watershed

Managing UCSC's Natural Areas



Ecologically diverse and physically spectacular, the UCSC campus comprises over 2,000 acres, including 1,400 acres of undevel-

oped natural land and hundreds of acres of landscaped or natural areas adjacent to buildings. The location of research and teaching facilities in close proximity to natural areas provides unparalleled opportunities for education and research. These lands serve as outdoor classrooms and living laboratories for UCSC students and faculty, and they also provide a much-used informal recreational resource.

UCSC envisions that by 2020, these important campus lands will be carefully managed and used by faculty, students, staff, and other regional stakeholders for a multitude of leading-edge research and stewardship projects. The campus will achieve a model balance between ecological integrity and the operation of a vibrant university.

From 2010–13, several key accomplishments have moved the campus closer to this vision. Student use of natural lands for education and research increased significantly, and working group members completed a number of clean-up and targeted restoration projects. Collaborations have increased with campus partners,

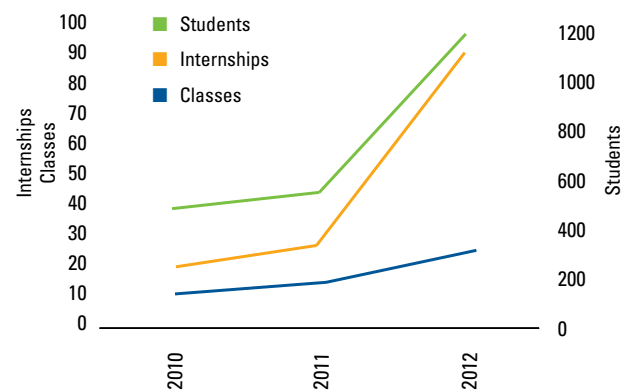
such as the Campus Natural Reserve, Site Stewardship Program, Arboretum, UCSC Greenhouses, and the Museum of Natural History Collections.

Goals and objectives for 2013–16 include increasing student engagement, better preserving the educational value of campus natural lands, enhancing protection of sensitive habitats and species, and broadening awareness of impacts to campus lands. Additionally, UCSC will complete key habitat management plans, increase watershed-focused restoration and reporting activities, and ensure appropriate management and monitoring of sensitive resources.

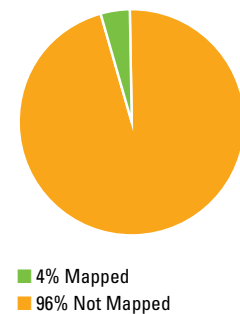
GOALS	OBJECTIVES
1. Increase student, faculty and staff engagement on campus natural lands through research, stewardship, and informal and formal learning.	Support >150 student interns and >500 volunteers actively engaged with stewardship, ecological research, and environmental education projects on the main campus each year. Engage >5,000 students in >35 formal undergraduate courses annually in educational, research, and/or stewardship activities on campus natural lands. Assess and create tracking systems for campus natural land use to set a baseline of current use. Actively pursue funding opportunities for permanent staff and operational resources to implement critical stewardship programs and initiatives that 1) support instruction and research; 2) support environmental compliance and protect sensitive species and habitats; and 3) enhance community safety and responsible enjoyment of campus natural areas.
2. 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.	Create and implement a Landscape Management Plan for UCSC's main campus that includes a Fire and Vegetation Management Plan (FVMP) and Invasive Species Management Plan (ISMP). These plans will implement effective habitat and sensitive species management and restoration and establish priorities for specific projects.
3. 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.	Develop and begin implementing an academic plan centered on increasing the use of campus natural lands for education, research and outreach.

Key Metrics

Academic Use of Campus Natural Lands



2012-13 Proportion of Campus Mapped for Invasive Species



Scope and Purpose

Increase education, research and conservation activities in the UCSC campus natural areas while supporting sustainable land, habitat, and watershed management practices.

Procurement

Sustainable Purchasing



With UCSC's Procurement Services, the Green Purchasing Working Group (GPWeG) promotes sustainable purchasing campuswide. Through broad outreach and collaboration, GPWeG works to increase environmentally preferable purchases and encourage behavior change, including the elimination of unnecessary purchases of goods and services.

A highlight of the 2010-13 CSP cycle was the launch of the Green Purchasing Guide on UCSC's Financial Affairs webpage. The guide was a major factor in the campus's 71% increase in

EPP purchases since 2009 and in the consensus to reduce office supply deliveries from 10 to six per week. GPWeG's 2012 Provost's Sustainability Intern (PSI) developed a "greenwashing" awareness program that will be made available to the entire campus community.

Over the next three years, GPWeG will expand its education efforts to increase products flagged as EPP in CruzBuy by 5% over 2012; encourage use of 100% post-consumer waste (PCW) paper; expand EPP office supply purchases to 150% of 2012 figures; and create and implement a life-cycle cost analysis tool for campus buyers. The group

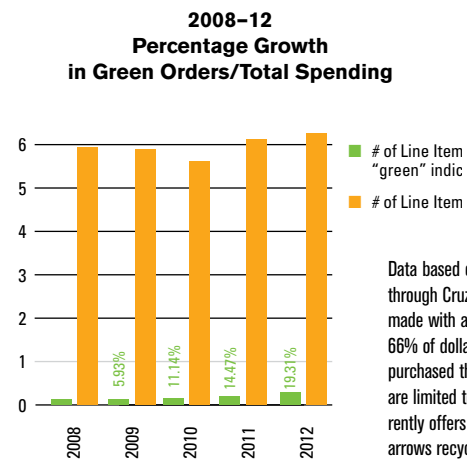
will identify and initiate one new ongoing communication avenue per quarter (through fiscal year 2015) and create a campuswide EPP awareness and adoption program. To better track supply chain sustainability efforts, GPWeG will develop a method for benchmarking suppliers' sustainability profiles, incorporating performance metrics that exhibit suppliers' progress toward more sustainable business operations.

Our vision for UCSC in 2020 is a zero-waste community that incorporates life-cycle environmental impacts into product purchasing. New goods will be purchased only when necessary, with existing materials reused whenever possible.

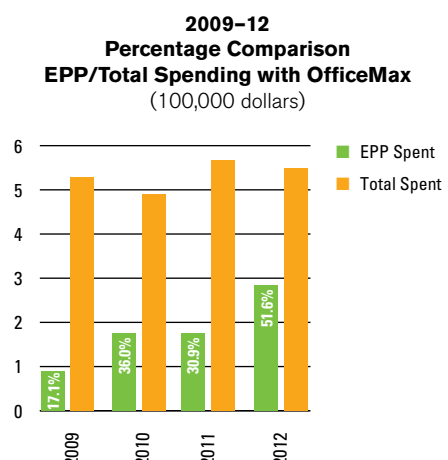
¹"Greenwashing" refers to marketing schemes that present a skewed or inaccurate picture of a product's sustainability or environmental qualities.

GOALS	OBJECTIVES
1. Increase the number of Environmentally Preferred Products (EPP) the campus purchases.	<p>Increase products flagged as Environmentally Preferred Products in CruzBuy by 5% from 2012 figure by end of FY 2016.</p> <p>Identify competitive pricing for 100% post-consumer waste 8.5x11 white multi-purpose printing and copy paper to provide an incentive for increased campuswide use.</p> <p>Increase EPP office supply purchases by 150% from 2012 figures by end of FY 2015.</p> <p>Create and implement a life-cycle cost analysis tool for campus buyers by end of FY 2016.</p>
2. Educate the campus community through effective outreach and collaboration to institutionalize sustainable procurement practices.	<p>Ensure Environmentally Preferred Product training is part of CruzBuy training and that responsibility for doing so is a stated performance objective for the CruzBuy help desk.</p> <p>Use the Staff Human Resources Learning Management System platform to share Environmentally Preferred Product information.</p>
3. Engage suppliers to develop strategies that promote sustainable procurement practices within the supply chain and measure those suppliers to agreed standards.	<p>Develop and utilize tool for benchmarking suppliers' sustainability profile by spring 2015.</p> <p>Incorporate metrics that capture suppliers' progress toward more sustainable business practices and operations.</p>

Key Metrics



Data based on the number of line items ordered through CruzBuy and does not include purchases made with a procard or direct payments. In FY2012, 66% of dollars spent for goods and services were purchased through CruzBuy. The "green" indicators are limited to what SciQuest—our CruzBuy host—currently offers which include EnergyStar, the chasing arrows recycling symbol, a tree, or what suppliers have identified as being environmentally preferable.



Scope and Purpose

Reduce, reuse, and recycle; provide and promote sustainable alternatives in the procurement of goods and services; and leverage UCSC's market influence to realize the university's sustainability vision.

Transportation

Sustainable Access and Circulation



UCSC's geographic size, topography, and limited access routes present daily transportation challenges for students, faculty, and staff. The campus is dedicated to promoting efficient, equitable, and sustainable access and circulation to all facilities, while reducing transportation-related environmental impacts and associated greenhouse gas (GHG) emissions.

UCSC Transportation and Parking Services (TAPS) has actively promoted sustainable transportation practices for decades¹, greatly reducing single-occupancy vehicle (SOV) use. Currently 61%

of all person-trips to and from campus employ sustainable transportation practices. Traffic counts for 2011–12 show a reduction in traffic to 1997 levels.

Efforts to reduce fossil fuel use by UCSC's vehicle fleet reveal a more complex issue. While total fossil fuel use increased 2.8% between 2009–12, this reflects expansion of the Commuter Vanpool program and Campus Transit services—sustainable transportation measures that reduce SOV use. Fuel use by all other fleet vehicles declined by 4.4% during this period.

Despite these achievements, the campus remains heavily reliant on fossil-fueled transportation. The

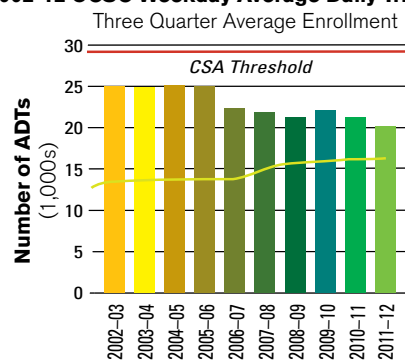
campus is committed to reducing vehicle trips and GHG emissions by expanding alternative fuel use, human-powered travel, and non-SOV commute modes. However, current funding models are inadequate to sustain campus transit services and subsidies of existing commuter access programs, and do not support major transportation infrastructure improvements. Achieving UCSC's vision of a truly sustainable and fuel-efficient transportation system will require an effective funding model that integrates large-scale planning, public and private investments, and extensive educational outreach to promote changes in individual behavior.

¹ See Transportation and Parking Services (TAPS) website, www.taps.ucsc.edu

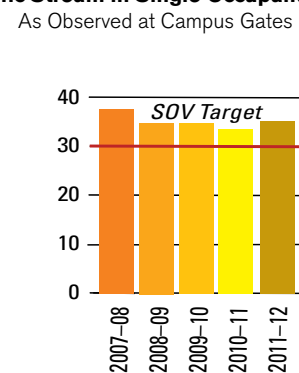
GOALS	OBJECTIVES
1. Reduce UCSC-related transportation impacts and associated GHG emissions including fleet fuel use, air travel, commute, service/delivery and electric vehicle (EV) charging stations.	Maintain average daily trips to UCSC main campus below levels defined by Comprehensive Settlement Agreement (CSA). Reduce CO2 emissions from 2009–10 levels for campus fleet vehicles by 15%, (excluding emissions from vanpools and campus transit). Determine baseline for air travel emissions and set target reduction goals. Reduce campus transportation's reliance on fossil fuels.
2. Promote and increase use of non-Single Occupancy Vehicle (SOV) transportation modes for travel to and from campus.	Decrease person-trips to and from main campus using SOV autos from 35% to 30% by 2016.
3. Promote and increase reliance on human-powered transportation modes for on-campus travel.	Determine baseline for on-campus travel modes by campus transportation survey and set target for future reductions.
4. Research, develop, and test new funding model and sources for transportation services, programs, and infrastructure that support the campus sustainability vision.	Conduct research and pilot-test development of an alternate funding model based on transportation-related GHG emissions, parking, and transportation costs.
5. Provide opportunities for the campus community to increase understanding and engage in sustainable transportation activities.	Develop internships or other educational links to academic interests related to transportation.

Key Metrics

2002-12 UCSC Weekday Average Daily Trips (ADTs)



% of UCSC Traffic Stream in Single Occupant Vehicles (SOVs)



Scope and Purpose

To provide and promote effective, equitable, and sustainable access to and around campus facilities.

Waste Reduction

Reducing Campus Waste



Since UCSC's first pilot recycling program in 1989, the campus has developed a variety of reuse, recycling, and composting systems to save energy, natural resources, and landfill space. UCSC's Grounds Services self-hauls 90–95% of the campus's landfill waste, construction waste, recycling, green waste, and compost. In Fall 2011, the Landfill and Solid Waste Diversion Task Force conducted UCSC's first-ever campuswide waste assessment and is developing initiatives to reach the UC goal of Zero Waste (100 percent diversion) by 2020.

Analysis of campus trash dumpsters found that three potentially divertable materials—food scraps, compostable paper towels, and mixed recyclable paper—constituted nearly half the volume of overall discards, with paper towels accounting for 33%. Based on these findings, the campus pursued initiatives to remove paper towels from residence halls; standardized outdoor recycling containers and labeling; and either closed residence hall trash chutes or converted them to recycling chutes.

The campus has installed scales and load-tracking software on refuse trucks, and built a conveyor system to maximize recycling value. A change in recharge-rate

calculations to include capital equipment enabled the campus to purchase its first CNG refuse truck.

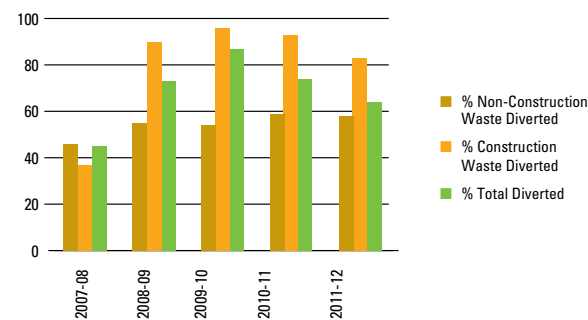
Active student involvement has been key to campus waste reduction initiatives such as a pilot reusable dishware system for events, a Zero Waste Event Planning Guide, and polystyrene (aka "Styrofoam") collection from science labs.

UCSC will build on these accomplishments over the next three years, expanding campuswide outreach to promote changes in behavior that reduce waste. The campus will also pursue additional operational improvements and innovative ways to fund waste management infrastructure.

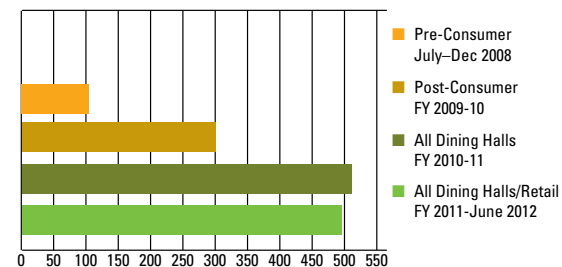
GOALS	OBJECTIVES
1. Develop and implement campus-wide education, outreach and behavioral change initiatives to improve waste reduction practices among UCSC community members.	<ul style="list-style-type: none"> Develop waste reduction training for campus staff utilizing the campus' online Learning Management System. Create a centralized and comprehensive website link that clearly communicates recycling, composting, and waste disposal resources and locations across campus. Develop formalized procedures for supporting, promoting, and tracking zero waste events¹ modeled on existing Catering Services practices.
2. Identify and pursue opportunities for operational infrastructure improvements that will increase waste diversion.	<ul style="list-style-type: none"> Create tracking systems for all material streams and establish a centralized location for waste reduction data. Increase efficiency of current recycling, compost, and other resource recovery initiatives through the creation of a material processing facility on campus. Explore opportunities to expand the current Dining Services compost collection infrastructure to serve a greater portion of the campus, including reporting on the viability of creating an on-campus or local composting facility. Explore the viability of creating a location on campus where items can be traded and re-used among students, faculty, and staff across campus. Evaluate the current fee structure and identify sustainable sources of funding to increase staff capacity for waste reduction education and material management.

Key Metrics

2007–12 by Fiscal Year Campus Waste Diversion



2008–12 Dining Hall Compost Diverted from Landfill Trucked to Compost Facility



Scope and Purpose

Create, develop, and implement programs and strategies to reduce waste on the UCSC campus.



¹ A Zero Waste event at UCSC is defined as a one-time program that is planned in a way to reduce waste as much as possible by making conservative procurement decisions, communicating with collaborating parties and vendors about allowable materials, and including composting and recycling collection the day of the event to minimize trash production.

Water

Sustainable Water Use



Water delivered to the campus from the City of Santa Cruz comes entirely from local sources that are vulnerable to drought periods, and it is therefore a precious and limited natural resource. UCSC uses about 6% of the total area water demand and serves as the largest single water customer in the city's water service area.

Water use on the main campus has steadily declined by 21% since 2005, despite an overall increase in student

enrollment. Water use fluctuates by season and weather patterns, but overall campus reductions have been accomplished through three primary measures: 1) retrofits of high-flow plumbing fixtures; 2) education and outreach to the campus community; and 3) adjustments and monitoring of facility operations.

In pursuit of UCSC's overall vision of sustainable campus water demand, the campus is developing model sustainable water systems, reducing consumption through education and outreach, and

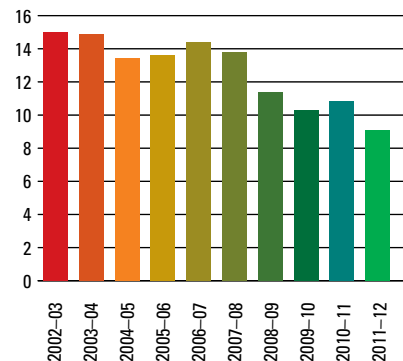
exploring non-potable sources. A key goal is to reduce average annual potable water use on the main campus by 20% from a baseline figure of 206 MGY¹. Additionally, the campus will continue research to identify and apply new technologies and improvements that reduce water consumption and/or increase efficiency. An important element of this ongoing effort will be student-directed programs that implement educational campaigns to promote behavioral change and reduce water consumption.

¹ MGY=million gallons per year. This figure is based on a calculated average from the years 2002-2007 and uses the term "UCSC campus" to include UCSC's main campus, the Marine Science Campus, and facilities at 2300 Delaware Avenue. Because of ongoing campus growth, maintaining potable water consumption at or below this level entails significant water conservation.

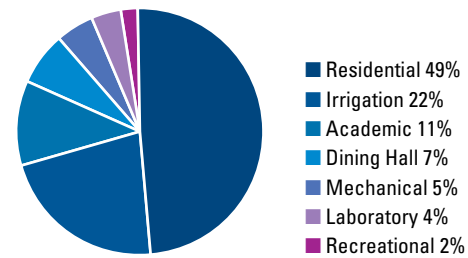
GOALS	OBJECTIVES
1. Research, identify, and apply new technologies and improvements that reduce campus water consumption and/or increase efficiency.	<p>Initiate three pilot projects that explore and examine non-potable supply options by 2016.</p> <p>Increase water use efficiency by 5% through: 1) detecting leaks; 2) replacing old meters; 3) installing meters where necessary.</p> <p>Decrease weighted campus user demand by 5–10%.</p> <p>Develop and maintain a Water Action Plan that identifies the campus's long-term strategies for achieving sustainable water systems.</p>
2. Implement ongoing student-directed effective educational campaigns to effect behavioral change and reduce water consumption.	<p>Develop a system to provide timely data and feedback on water use to the on- and off-campus community.</p> <p>Create and administer fundamental water management training for campus community utilizing Learning Management System by end of FY 2014.</p> <p>Incorporate water education into residential programs for new students.</p>

Key Metrics

Main Campus Annual Water per Weighted Campus User



Fiscal 2011-12 Main Campus Water Usage by Category



Scope and Purpose

To research, develop, and implement programs and strategies that minimize potable water use on the UCSC campus.

Community Partnerships for Sustainability

UC Santa Cruz is a strong and vibrant community, and it is also an active part of the broader regional community. Sustainability knows no boundaries, and UCSC is dedicated to pursuing partnerships that mesh campus sustainability work with related initiatives throughout the region. Working together, we are identifying and addressing common issues, sharing information, and maximizing resources. As UCSC moves forward with implementation of CSP 2013-16, the campus will continue to explore additional partnership opportunities.



Community sustainability partnerships include:

Green Business Certification Program www.cityofsantacruz.com/index.aspx?page=820

The Monterey Bay Area Green Business Program assists businesses to go above and beyond environmental compliance by providing free technical assistance for environmental issues, and then recognizes and promotes their efforts to the community. All UCSC Dining facilities, as well as the McHenry Library Global Village Café, have been certified through this program.

Greenwharf greenwharf.soe.ucsc.edu

The Greenwharf Project is a collaboration between the City of Santa Cruz and UCSC. We have two aims: to educate the public about sustainable energy, and to develop renewable energy sources to power the Santa Cruz Municipal Wharf.

Climate Action Compact

sustainability.ucsc.edu/governance/committees/climate-action-compact

A regional agreement to collaboratively take action on climate change.

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

sustainability.ucsc.edu/ideass

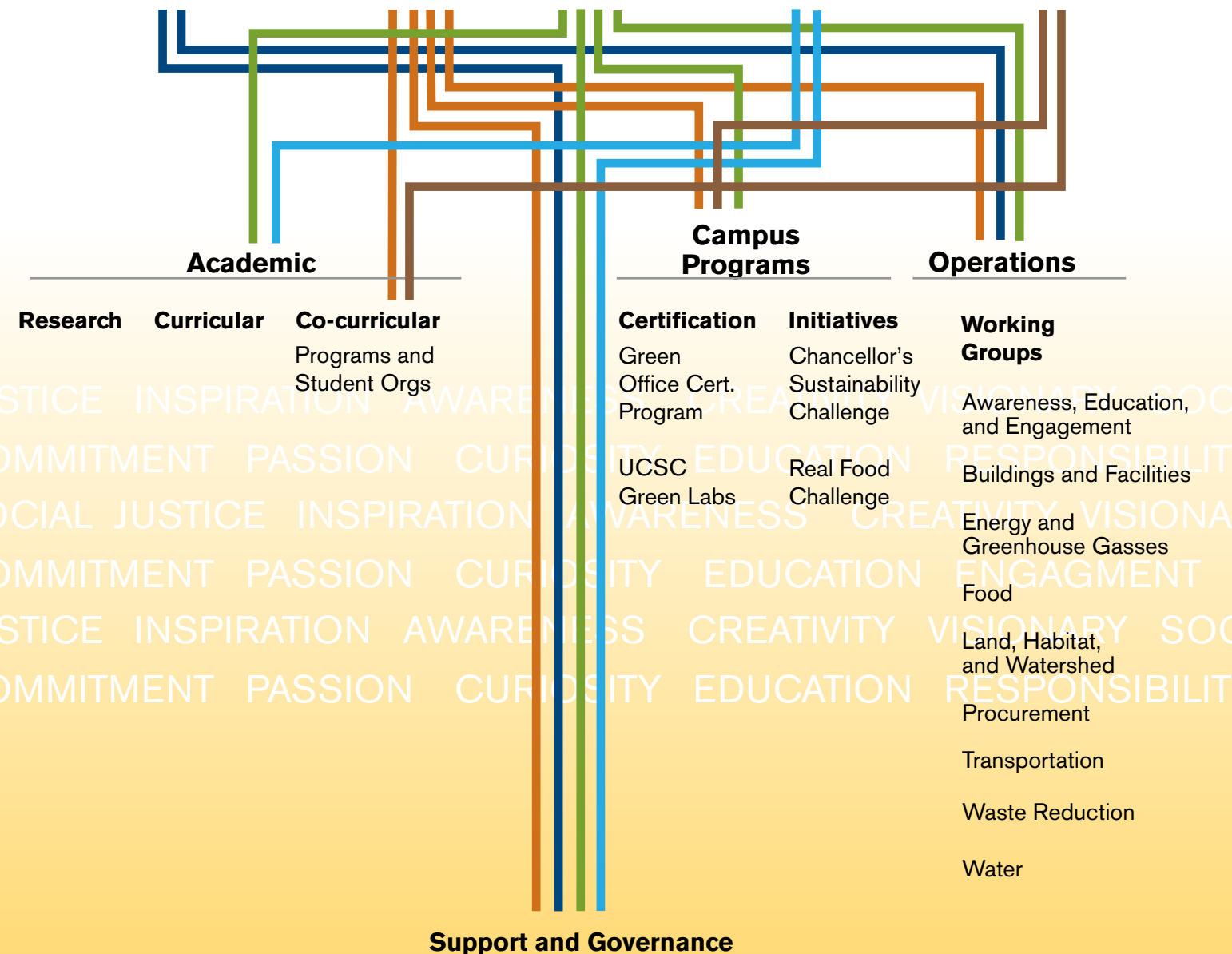
Multiple IDEASS projects have taken place through the community including the Bicycle Environmental Quality Index in which students are conducting research through Santa Cruz to identify bicycle infrastructure hazards and opportunities, as well as a student-led lighting retrofit and student-learning opportunity at Watsonville High School.

Move-Out Waste Reduction

UCSC partners with the City of Santa Cruz to coordinate donation options and furniture pick-up for students who are moving out of off-campus housing at the end of the academic year.

Sustainability at UCSC

Administration Staff Students Faculty Community



JUSTICE INSPIRATION AWARENESS CREATIVITY VISIONARY SOCIAL
 COMMITMENT PASSION CURIOSITY EDUCATION RESPONSIBILITY
 SOCIAL JUSTICE INSPIRATION AWARENESS CREATIVITY VISIONARY
 COMMITMENT PASSION CURIOSITY EDUCATION ENGAGEMENT
 JUSTICE INSPIRATION AWARENESS CREATIVITY VISIONARY SOCIAL
 COMMITMENT PASSION CURIOSITY EDUCATION RESPONSIBILITY





Governance Structure

Chancellor's Executive Committee on Sustainability and Climate Change (ECS)

Committee on Sustainability and Stewardship (CSS)

Topic Working Groups

- Awareness, Education, & Engagement
- Buildings & Facilities
- Energy & Greenhouse Gases
- Food
- Land, Habitat, & Watershed
- Procurement
- Transportation
- Waste Reduction
- Water

Committee Charges

The Chancellor's Executive Committee on Sustainability and Climate Change (ECS) provides a forum for the Chancellor and Campus Provost/Executive Vice Chancellor to solicit advice and recommendations from senior campus leadership on implementation of policies and initiatives to integrate sustainability into instruction, research, public service, and campus life.

The Committee on Sustainability and Stewardship (CSS) offers recommendations and "topic area" expertise to ECS as it considers revisions to campus policies, procedures, and organizational structures to advance sustainability. CSS is a representation of the campus community, and offers an "on-the-ground" perspective of sustainability on campus.

Each of the nine topic area working groups actively implements the goals and objectives outlined in the Campus Sustainability Plan. The Working Groups recommend priorities and offer guidance to CSS on identifying priority projects.

Key Policies that Guide Campus Sustainability

Policies & Mandates	
UC Policy on Sustainable Practices 2011	The UC Policy 2009 outlines how the entire UC system will improve its environmental performance. www.universityofcalifornia.edu/sustainability
Long-Range Development Plan (LRDP) 2005	The LRDP is a comprehensive framework for the physical development of the UCSC main campus and 2300 Delaware. www.ucsc.edu/lrdp
Comprehensive Settlement Agreement (CSA) 2008	The CSA is an agreement between the university, city, and county that allows the university to proceed with growth as outlined in the LRDP while identifying enforceable measures to address traffic impacts, conserve water, and provide housing for new students. www.ucsc.edu/lrdp/comprehensive-settlement.shtml
Coastal Long Range Development Plan (CLRDP) 2008	The CLRDP is a land-use blueprint for possible future development at the site of UCSC's Long Marine Laboratory. http://ppc.ucsc.edu/cp/projects/11407/cp/projects/11407/planning/clrdp08
Commitments & Pledges	
Climate Action Compact (CAC) 2007	The CAC is an agreement between the city, county, and university to collaborate on action to reduce greenhouse gas emissions in response to climate change. www.cityofsantacruz.com/index.aspx?page=1231
American College & University Presidents' Climate Commitment (ACUPCC) 2007	The ACUPCC is a commitment to take action to protect the climate signed by nearly 700 North American higher education institutions, including the entire University of California system. www.presidentsclimatecommitment.org
Campus Plans & Strategies	
UCSC Climate Action Plan (CAP) 2010	The CAP outlines how we will reach the climate targets and commitments in the UC Policy, the ACUPCC, and the CAC. http://sustainability.ucsc.edu
UCSC Water Action Plan (WAP) 2013	The WAP describes the campus' current water conservation initiatives and long-term plans for continuing to meet and exceed the UC Policy goals.
Blueprint for a Sustainable Campus (Blueprint) Updated Annually	The Blueprint is created by the attendees at the Annual Campus Earth Summit and is a guiding document for several UCSC student organizations, including the Campus Sustainability Council, the Student Environmental Center, and the Education for Sustainable Living Program. sustainability.ucsc.edu/get-involved/students/earth-summit-blue-print
Regulations	
Assembly Bill 32 Global Warming Solutions Act	AB32 includes a cap-and-trade program, which is an enforceable emissions cap that will decline over time. The State will distribute allowances, which are tradable permits, equal to the emissions allowed under the cap. If UCSC passes the 25,000 MTCO2e emissions level, we will become a regulated entity.
UCSC Campus Water Protection	Protection of water quality is mandated by the federal Clean Water Act, the state Porter-Cologne Water Quality Control Act, and other federal, state, and local laws, regulations, and ordinances. There are several regulatory documents detailing requirements specific to the campus, including the Storm Water Management Plan. policy.ucsc.edu/pdf/ehs0015.pdf

Monitoring and Reporting

UCSC reports to several entities annually to track progress toward Campus Sustainability Plan topic goals, the UC Policy on Sustainable Practices, climate goals, and sustainability accomplishments across campus that contribute to UCSC's strong performance among sustainability rating systems nationwide.

UCOP and Internal Reporting

UCSC reports campus progress on the UC systemwide policy goals to the UC Regents and the Office of the President on an annual basis on the following topic areas: Buildings, Food, Energy and Climate, Transportation, Waste and Water. Additionally, UCSC compiles an Annual Report to track internal progress on all Campus Sustainability Plan topic goals and objectives, as well as other sustainability initiatives campus-wide

- UCSC Annual Sustainability Progress Report (www.sustainability.ucsc.edu)
- UC Regents and Office of the President (www.sustainability.universityof-california.edu/policy.html)

Climate

Greenhouse Gas Emissions (scopes 1, 2 and 3) are voluntarily reported to The Climate Registry and the American College and University President's Climate Commitment. Following the passage of Assembly Bill 32 and development of the Cap and Trade regulation, UCSC also reports stationary source emissions to the California Air Resources Board (as well as the Environmental Protection Agency).

- The Climate Registry (www.theclimateregistry.org)
- ACUPCC (www.presidentsclimatecommitment.org/)
- CARB (California Air Resources Board) – Cap & Trade
- EPA (Environmental Protection Agency)
- Cap & Trade

National Ratings

UCSC has been recognized for its sustainability initiatives by both the Princeton Review and Sierra Club magazine.

- AASHE STARS Campus Sustainability Data collector (www.stars.aashe.org/)
- Princeton Review Guide to Green Colleges (www.princetonreview.com/green-guide.aspx)
- Sierra Club Cool Schools (www.sierraclub.org/sierra/201209/cool-schools/default.aspx)

Looking Forward

Thanks to broad involvement by the entire campus community, UC Santa Cruz has made impressive progress toward the goals of the first Campus Sustainability Plan (CSP 2010–13). This communitywide effort is changing how UCSC does things at every level—from administrative policy development, to the daily activities of individuals on the job, in residence halls and dining facilities, and in classrooms and research labs.

CSP 2013–16 sets ambitious sustainability goals that build on this progress. Over the next three years UCSC will continue to refine and implement a shared vision of sustainability that encompasses nine key topic areas. The potential of the new Awareness, Education, and Engagement working group is especially exciting, as the group seeks to increase collaboration among sustainability programs related to student life, academics, research, and campus operations.

At the same time, UCSC will continue to develop and expand partnerships with the broader regional community of which the campus is an integral member. We will also strive to align the Campus Sustainability Plan with the student-led document, "Blueprint for a Sustainable Campus."

It is important to remember that the pursuit of sustainability is not a fixed process with a "done by" date—it is a new way of looking at all aspects of how

UCSC operates. As this process goes forward, the campus will continue to seek opportunities that incorporate new ideas, research, and technologies.

One of UCSC's biggest assets throughout this process has been the enthusiasm and commitment of the campus community, especially students. Students have historically been the driving force for the kinds of sustainability programs that are now being integrated into UCSC operations and policy. This broad participation by the campus community will remain a dynamic and creative source of inspiration and innovation as UCSC seeks even deeper institutional change.



Resources

Please join the movement to make the UCSC campus more sustainable! There are numerous ways to get involved. Visit the Sustainability Office website (www.sustainability.ucsc.edu) or check out the Annual Report for more information on annual progress.

Acknowledgments

The Campus Sustainability Plan 2013-16 became a reality through a collaborative year-long planning effort involving members of the topic area working groups, the sustainability governance committees, and campus student organizations, most notably:

- Working Groups: Awareness, Education & Engagement; Buildings and Facilities; Energy and Greenhouse Gases; Food; Land, Habitat and Watershed; Procurement; Transportation; Waste Reduction; Water
- Committee on Sustainability and Stewardship
- Chancellor's Executive Committee for Sustainability and Climate Change
- Student Environmental Center

We would like to thank the following campus community members for their active participation and involvement throughout the year-long planning process:

	Clark, Ross	Goldbart, Elan	Matthews, Sue	Schmelter, Jeff
Adlao, Damon	Collins, Dwight	Hall, Brett	McDade, Andrea	Shatney, Andrew
Aluffi, Mackenzie	Crowe, Catherine	Hesse, Andrea	McNulty, Jennifer	Sherman, James
Ang, Felix	Cunningham, Kathryn	Holl, Karen	Meseroll, Melina	Shugar, David
Attias, Chris	Dayton, Gage	Houser, Stephen	Miceli, Dan	Sifuentes, Alma
Auerbach, Thomas	Delaney, Peggy	Houston, Cori	Miller, Matt	Snyder, Silas
Barnes, John	Delemus, Justin	Hughey, Richard	Murphy, Donna	Soofi, Darya
Barnhorst, Sophie	Diamantopluouos, Theodore	Jain, Miten	Ortega, Josephine	St. Clair, Matthew
Behling, Diane	Dunne, Jim	Jeffries, Clint	Owings, Crystal	Streight, Collette
Berlin, Candy	Edberg, Roger	Jones, Alex	Pageler, Larry	Szeto, Andrew
Berlin, Scott	Erickson, Elida	Koch, Paul	Parr, Damian	Testoni, Patrick
Blunk, Dan	Exner, April	Konopelski, Joseph	Paul, Steve	Tramble, Rhonda
Bono, John	Fiack, Duran	Laird, Megan	Press, Daniel	Trask, Courtney
Buika, Teresa	Fiore, Nicole	Lallemand, Diane	Raak, Lacey	Umer, Shaz
Burns, Jim	Fitch, Dean	Latham, Sarah	Rice, Joyce	Vadakan, Vivan
Calerdine, Don	Frederick, Christian	Lay, Chris	Roe, Dave	Valerga, George
Carrillo, Camille	Galarneau, Timothy	Lee, Herbie	Sahni, Ashish	Velzy, James
Casey, Shauna	Gilbert, Greg	Lin, Elizabeth	Salameh, Henry	Webber, Kraig
Castro, Victor		Lippus, Katie	Salas, Victoria	Welte, Susan

Finally, a special thanks goes out to Vicki Bolam for coordinating the writing of the plan, to Lisa Nielsen and her team at University Relations for taking the lead on the design and layout of the document, and to Elida Erickson of the Sustainability Office for coordinating the logistics of drafting the plan.