
U.C. SANTA BARBARA

CAMPUS SUSTAINABILITY PLAN

FEBRUARY 2008

Sustainability

“Meeting the needs of the present generation, without compromising the ability of future generations to meet their own needs.”

~United Nations Brundtland Report, 1987

EXECUTIVE SUMMARY

Background

In 2005, Chancellor Henry Yang charged the Campus Planning Committee (CPC) to develop a comprehensive sustainability plan for the campus. CPC appointed a sub-committee to undertake this task, chaired by Associate Vice Chancellor, Campus Design and Facilities. The Subcommittee retained the services of *Brightworks Northwest* to help prepare the plan and lead a series of four full-day workshops. A group of approximately 75 individual “change agents” comprised of students, staff, and faculty were trained in the sustainability framework known as The Natural Step in fall 2005. These same individuals collaborated with campus sustainability staff to produce the components of a Campus Sustainability Plan and associated working plan for implementation. The process brought together students, staff, faculty, and community members; it has generated a great deal of energy and momentum, and increased fundamental awareness of UCSB’s sustainability potential and the steps necessary to achieve this goal.

The Plan

The Campus Sustainability Plan is a dynamic document intended to provide a roadmap for major steps toward achieving sustainability over the next 20 years. Nine functional areas have been identified (Academics and Research, Built Environment, Energy, Food, Landscape/Biotic Environment, Procurement, Transportation, Waste, and Water) and campus groups have developed a series of recommendations, goals, objectives and benchmarks over a one, five, and twenty year timeframe. The goals developed by each functional group are interconnected and consistent with the University of California Office of the President (UCOP) sustainability goals that were recently placed in the revised UCOP Green Building and Clean Energy Policy. A summary of each functional group’s long-term vision follows; more detailed descriptions are provided in the body of the Campus Sustainability Plan. UCSB’s objectives for each vision include the development and utilization of emerging technologies while balancing economics with social and environmental impacts.

The Vision

The University of California – Santa Barbara is positioned both within the UC System and nationally to take a leadership role in the integration of sustainability into higher education learning, discovery and operations. Current initiatives include significant accomplishments in the greening of campus structures, purchasing, and facility maintenance operations, as well as accountability for overall greenhouse gas emissions. In addition to these largely operational initiatives, UCSB has recently undertaken the drafting of a campus sustainability plan, which will provide a vision for long term comprehensive sustainability through a series of action items designed to meet specified targets in the 9 functional areas of campus. The plan provides a clear linkage between campus operations and academic experience of UCSB undergrad and graduate students, as well as faculty research direction development, and community stewardship.

PREVIOUS ACHIEVEMENTS

Sustainable practices have been ongoing at the University. See Table 1 and 2 below for examples of cost savings and benefits from these practices.

Table 1: Examples of Current Sustainable Practices: Benefits Estimate

Project Description	Total cost	Total rebates and grants	Estimated Utility savings per year	Estimated Financial savings per year	Payback in years	Estimated Total CO2 savings per year
Upgrade lighting at 50+ buildings to T8 bulbs, other lighting upgrades (2001-2003) ⁴	\$922,000	\$345,616	3.4 million kWh	\$380,000	1.5	2.8 million lbs.
Install 12 waterless urinals in Girvetz Hall (12/2004) ⁵	\$12,096 (inclusive of labor)	\$1800	780,000 gal. potable water	\$4,000	2.94	N/A
Solar hot water systems (residence halls & apartments) (installed 1984, on-going savings)	\$1.5 million	\$400,000 So. Cal Gas \$1.1 million Micro-Utility	65,000 therms (average)	> \$60,000	Immediate	0.7 million lbs.
Housing reclaimed water installation	\$344,250	N/A	12 million gal. Potable water	\$47,484.00	7.2	N/A

⁴ The lighting work was based on actual room by room lighting audits: number of fixtures; lamps; watts per lamp before and after with considerable delamping in buildings. Hours were based on SCE guidelines. Project was field verified by SCE before we received the rebate.

In addition these numbers do reflect any decrease in KWH from decreasing the thermal load in air conditioned buildings.

⁵ See waterless urinal cost benefit at:
http://sustainability.ucsb.edu/_client/pdf/water_conserve/waterless_CBA1.pdf

Table 2: Sustainability Indicators

	2000-1	2001-2	2002-3	2003-4	2004-5	2005-6	2006-7
Number of total LEED registered projects	1	1	2	3	5	7	35 ⁶
Number of total LEED certified projects	0	0	1	1	2	3	3
Percent of total campus waste diverted from landfill (recycled or reused)	43.55	46.96	44.16	43.43	54.22	53.53	53.25

UCSB Sustainability Mission Statement

The University of California, Santa Barbara is committed to global leadership for sustainability through education, research, and action.

Goals and Objectives

Over the next 20 years the campus will strive to:

Academics and Research - Promote education and research on the social, economic, and environmental impacts of sustainability by building community, student, faculty, and staff awareness.

Built Environment - Create superior places to study, work and live that enhance the health and performance of building occupants through sustainable planning, design, construction, operations, retrofits and biomimicry.

Energy - Strive to a climate neutral⁷ campus through energy efficiency, conservation, on-site generation and strategic procurement of clean and renewable energy.

⁶ UCSB was one of 4 universities to join the portfolio program

⁷ UCOP's definition for climate neutrality means that the University will have a net zero impact on the Earth's climate. This can be achieved by minimizing GHG emissions as much as possible and using carbon offsets or other measures to mitigate the remaining GHG emissions.

Food - Strive to a local and organic closed loop food system by observing sustainability criteria for all food purchasing, preparation and service, cleaning, waste disposal, and purchase of equipment and supplies.

Landscape/Biotic Environment - Protect and maintain the natural campus environment through restoration, preservation, and education while enhancing the campus as a classroom. This includes recreational areas, building landscapes and native habitat.

Procurement - Employ efficient procurement strategies, processes, and systems for the acquisition and responsible use of resources in a manner that supports a “triple bottom line” of economy, society, and environment.

Transportation - Develop transportation strategies that reduce fuel use, air pollution and carbon dioxide emissions while providing opportunities for alternative transportation including bicycle and pedestrian infrastructure.

Waste - Reduce and ultimately eliminate waste streams on campus with the ultimate goal of a net zero waste campus through implementation of “cradle to cradle” processes and practices.

Water - Reduce potable water use while protecting and conserving all water resources within the campus watershed through implementation of efficiency measures, collection technologies, re-processing and re-use.

Plan Implementation

The Associate Vice Chancellor for Administrative Services will have responsibility for the Plan’s implementation, working with existing staff in areas of campus sustainability along with the The Green Initiative Fund (TGIF) Manager/Sustainability Coordinator.

Campus Sustainability Plan: 2007 Recommendations

The Plan recommends the Chancellor appoint a Campus Committee for Sustainability with the following charge:

- Advise and make recommendations on sustainability initiatives and to help prioritize and monitor the campus sustainability plan goals.
- Advise and make recommendations on allocations of available funding resources.
- Advise the Chancellor and Vice-Chancellors on matters of campus sustainability.
- Provide guidance in the creation and fostering of alliances.

Suggested membership for the Committee includes representatives from each Vice Chancellor, Executive Vice Chancellor, Assistant Chancellor Budget and Planning, Intercollegiate Athletics, Academic Senate, Chancellor Staff Advisory Committee (CSAC), academic department and

ORU managers, Associated Students (AS), Graduate Students Association (GSA), Residential and Housing Association and a community member. The Committee would be co-chaired by a representative from the Academic Senate and the Associate Vice Chancellor for Administrative Services.

The plan recommends that throughout the organization sustainability coordinators be identified, trained, and have the sustainability responsibilities incorporated into existing and/or new job descriptions. The actual mechanism and fiscal impact to achieve this recommendation needs to be analyzed and coordinated with the Human Resources Office.

The Plan also recommends that the campus establish a program budget to be used to promote the goals and achieve the objectives contained in the Campus Sustainability Plan. Priorities for use of this funding will be set by the Campus Committee for Sustainability.

Given the dynamic nature of the Plan, the Associate Vice Chancellor's Office and Committee will perform regular monitoring of activities, provide recommendations undertaken to achieve the Plans goals and objectives, and make annual update/progress reports to the campus.