



National Wildlife Federation®
CAMPUS
ecology®

**University of California Santa Barbara
Santa Barbara, California
Spring 2008, Building Design**

BACKGROUND

Campus Profile

The University of California Santa Barbara (UCSB) is a four-year, public institution situated on 1,000 acres of California coastline. The school supports approximately 18,000 students and 1,000 faculty. More than 200 undergraduate and graduate degrees are offered through the College of Creative Studies, College of Engineering, College of Letters and Science, the Donald Bren School of Environmental Science & Management and the Gevirtz Graduate School of Education. Popular majors include biology, business economics, psychology, political science, communications and English. UCSB is well known for being a top-notch research institution; it boasts five Nobel laureates and is home to 12 national centers and institutes, including eight that are sponsored by the National Science Foundation.

UCSB has been dedicated to sustainability for quite some time. Energy conservation projects started in the late 1990s and quickly evolved to green building efforts beginning in 2002, with Leadership in Energy and Environmental Design (LEED) for New Construction (NC) Platinum certification of Donald Bren Hall. In 2004 the Chancellor made a recommendation for all new buildings to achieve LEED-NC Silver certification, and in 2007 widespread student support for The Green Initiative Fund (TGIF) cemented the movement across campus.

Contacts

Perrin Pellegrin
Sustainability Manager
Phone: 805-893-2661, ext. 2208
Email: perrin.pellegrin@dcs.ucsb.edu

GOALS AND ACCOMPLISHMENTS

Goals

In 2005 UCSB tackled sustainable operations and received LEED for Existing Building (EB) certification at Girvetz Hall. The project addressed operations and management of the building and resulted in major resource savings. It became obvious that the number of older existing buildings on campus presented a big opportunity for reducing the campus environmental footprint. Based on the success at Girvetz, in 2007 UCSB strengthened its partnership with the United States Green Building Council (USGBC) and was given the opportunity to pilot a new Portfolio Program under which several existing buildings can be certified at the same time based on campus-wide policies. The goal of the UCSB Portfolio Program is to certify 25 existing buildings under LEED-EB Silver in five years—or 25 by 2012!

Accomplishments

As of spring 2008, the Portfolio Program is well underway. Around 25 campus-wide credits have been documented and approved by the USGBC meaning that all 25 Portfolio buildings will have about 25 base points to start from in working toward LEED-EB Silver. Campus-wide credits generally follow campus-

National Wildlife Federation • Campus Ecology • 2008

wide policies regarding site maintenance, materials purchasing, recycling and waste management, alternative transportation, green cleaning, energy conservation, systems monitoring, preventative maintenance and more.

Building-specific points are now being addressed on a building-by-building basis; the UCSB Recreation Center marked the first success under the Portfolio Program by receiving LEED-EB Silver in May 2008. The Recreational Center project was a huge accomplishment, involving minor retrofits with water-saving devices like low-flow faucets and dual-flush toilets, improvements in sustainable purchasing, and a revamp of the recycling and waste management program. Energy conservation projects were also initiated as part of the LEED-EB certification, including a 133-kilowatt solar installation planned for summer 2008 and solar thermal hot water for the two large swimming pools in 2009.

Another new feature that stemmed from the Recreational Center project is the Green Building Tour. Permanent placards are placed strategically around the building, and occupants use a map to navigate through the tour stops. Each placard discusses a different aspect of the LEED certification, addressing retrofits or policies that were implemented to achieve specific credits. The tour is designed to be self-guided, but can also be used as an educational tool. To date, several in-house design teams, local architects and engineers, the local USGBC chapter and a student group of Emerging Green Builders have all participated in tours led by LEED documentation staff. Case studies of LEED-certified buildings were also initiated with the Recreational Center project and have proven to be an invaluable tool (see attached). Case Studies are used as part of Green Building Tours, at promotional community events, and they placed on the web.

LEED-EB documentation is being prepared for Bren Hall, which is striving for Platinum to uphold its current Platinum NC certification. In addition, staff members in almost all Portfolio buildings have been educated via personal presentations with general information about the LEED program, the green building efforts on campus and their role in the upcoming LEED-EB certification for their building. Support from most departments is strong, and many are taking on the challenge of more ambitious LEED credits to achieve additional points toward their certification. The Facilities Management and Custodial staff has also been educated about the LEED program—a crucial step toward success of the Portfolio as this staff carries out most of the sustainable operations that form the backbone of the LEED-EB program.

Challenges and Responses

Undertaking documentation of campus-wide credits is a huge task. Two primary sustainability staff members were initially charged with that task, and in order to maintain their other duties, it became clear that additional help was necessary. A graduate student intern was hired at 10–20 hours per week, and many student assistants were used to help perform building audits and obtain data for LEED documentation.

Because the LEED program encompasses many aspects of building design, construction and operation, a big challenge has involved pulling information from a wide variety of entities on campus. Fortunately, because the LEED certification effort was centered at Facilities Management and had the support of the Chancellor, most entities were happy to share information. Finding the source of that information, however, took time. Now that the first few certifications have been secured, documentation and processes from those efforts can be used as templates for future projects.

ENGAGEMENT AND SUPPORT

Leaders and Supporters

Sustainability Manager Perrin Pellegrin led the effort on LEED certification at UCSB. Beginning with the LEED-NC Platinum at Donald Bren Hall and then moving to Facilities Management for widespread campus sustainability efforts, Perrin's role was the major source of leadership. LEED-EB projects also required support from campus engineers, custodial and trades staff members and building managers. At the Recreational Center, Assistant Director Gary Jurich played a key role in garnering support for LEED-EB certification.

Funding and Resources

To date, more than \$75,000 has been spent on LEED certification-related retrofits and initiatives. Because LEED-EB addresses operations and maintenance of existing buildings, however, most projects were wrapped up in existing funding sources, and ultimately resulted in dollars saved due to resource conservation.

Community Outreach and Education

Community involvement in LEED certifications on campus has been minimal, as most work is done in-house to reduce costs. However, the successes at UCSB serve as case studies for projects throughout the community and region. The case study documents and Green Building Tours, as well as the sustainability website, provide detailed information about UCSB's sustainable efforts, and they will continue to be used as educational tools.

Campus Climate Action: Your School's Carbon Footprint

Several LEED projects involve purchase of renewable energy credits, primarily from wind generation. Additionally, solar PV and solar thermal installations are planned for the Recreational Center in the very near future. Energy conservation efforts have reduced UCSB's carbon emissions to the tune of over 10 million pounds. UCSB is very aware of the concern of climate change and, aside from LEED, is participating in California Climate Action Registry by documenting and third-party qualifying greenhouse gas emissions on a yearly basis.

National Wildlife Federation's Campus Ecology® Program

NWF's Campus Ecology Program played a role through collaboration with other universities and providing resources and lessons learned. UCSB participated in a webcast offered by the Campus Ecology Program, and our former Energy Manager was part of an NWF panel discussing climate change and energy conservation. UCSB hosted this webcast and students, staff, faculty and deans attended the webcast.

CLOSING COMMENT

At UCSB, we are using LEED certification as a way to address sustainability in the built sector. While we realize that LEED has its drawbacks, we feel that third-party verification of green building practices provides impetus and justification for ambitious green projects. We are using LEED as a driver for change at UCSB, because the robust program addresses the entire life cycle of the building and most aspects of campus operations. From green site maintenance to green cleaning, from energy and water conservation to renewable energy generation, from alternative transportation to waste management, LEED addresses a large bulk of sustainable issues. The program also allows UCSB to address low-hanging fruit first and to gain recognition for these efforts, thereby opening the door for funding and support for more complicated, but worthwhile, efforts down the road.