



Sustainability Programs February 23, 2011

Waste Management

SBCC continues to meet and exceed the State required thresholds for waste management and recycling through the various programs and procedures established at all college facilities. SBCC's most recent 2009 State Agency Waste Management Annual Report indicated that the college operations only generated 1.9 lbs of waste per employee per day. This amount is far under the mandated 4.4 lbs of waste per employee per day target. Examples of college programs that help support this achievement include:

- recycling of C&D waste from construction projects
- new recycling receptacles throughout classrooms and offices purchased by the Zero Waste grant through the student led Center for Sustainability
- Composting program for cafeteria food waste supported by the City of Santa Barbara and Allied Waste
- student education on the positive impacts of waste reduction by the Center for Sustainability
- adequate receptacles located strategically throughout all campuses for ease of proper waste disposal

Food Services

SBCC's food service operations support the instructional programs of the School of Culinary Arts and provide excellent on-campus dining options for students, faculty and staff. Having this opportunity to reach a large campus population, the food services program has begun evaluating the possibility of partnering with local sustainable gardens. Tapping into this local sustainable resource would not only provide educational opportunities on sustainable food harvesting and production but would also support local businesses. Food service programs have also continuously evaluated and tested alternative plastic products made from natural biodegradable materials such as potatoes and corn, and have also discouraged the use of to-go containers for those dining on site.

Transportation

SBCC annually updates its Transportation Demand Management Plan (TDMP) as required by the California Coastal Commission. This document outlines all transportation related services and provides the college the opportunity to continually improve programs that will reduce emissions from car trips, provide ride sharing opportunities, address parking issues and provide opportunities for those driving electric vehicles or carpooling such as additional parking stalls and building adjacent parking stalls. Examples of programs the college currently supports are Vanpools, carpool only parking lots and the MTD student bus pass program. Programs under development include bus stop improvements, charging stations for electric vehicles via solar panels and expansion of the number of carpool parking stalls. Additionally, the college is partnering with Traffic Solutions and the Community Environmental Council in support of a dynamic ridesharing grant that will utilize information technology to efficiently match riders and drivers in real time using smartphone technology.

Capital Improvement Projects

The Measure V local bond that voters passed in June 2008 included energy efficiency and sustainability among the goals of the bond. Several of the maintenance projects included in the bond address these aspects, such as the installation of native landscaping throughout the east campus, replacement of existing plumbing fixtures with low-flow fixtures, partnering with utility companies to ensure efficient designs and specifying sustainable materials such as carpet tiles in minor remodels. Although the new School of Media Arts (SoMA) building, which was included in Measure V, was postponed indefinitely, the design of the project was evaluated at the silver or gold level by the Leadership in Energy and Environmental Design (LEED) program of the United States Green Building Council. The college has utilized the documentation associated with this project as the template for developing guidelines. Additionally, the LEED certification goal of the SoMA project required the development of green cleaning and green site maintenance plans, both of which can be utilized in obtaining LEED certification for Existing Building Operations & Maintenance (EBOM).

Energy Efficiency Projects

Projects completed and under way include:

Lighting and Lighting Controls

1. Phase 1, 2 & 3 – Upgrade existing fixtures from T-12 to T-8, install controls, replace incandescent fixtures and replace appropriate EXIT signs in all buildings on Main Campus, Schott Center and Wake Center.
2. La Playa Stadium Lighting – Upgrade stadium lighting to improve energy efficiency and minimize spill light and glare

Chiller Retrofits – Campus-wide project to replace existing units showing declining performance and poor efficiency. Existing units were all at the end of their expected life time and replacement would improve energy efficiency and lower electricity costs for the District. Additionally, project improved system capacity and lowered O&M expenditures. Locations include Humanities, Occupational Education, Student Services, Interdisciplinary Center and the Administration Building.

Boiler Retrofits – Existing boilers served the building heating or hot water systems. Existing units were beyond the end of their life cycle and required excessive upkeep and repair by Maintenance staff. Replacing units has improved capacity and reduced natural gas consumption. Locations include Hotel/Restaurant/Culinary, Student Services, Humanities and Campus Center.

Additional Measures

1. Vending Misers – Install 34 devices on refrigerated vending machines throughout the Main Campus to reduce power usage. Vending Miser is operated via the use of an occupancy sensor, internal and external thermostats and programmable timer.
2. Heaters in Hotel/Restaurant/Culinary – replace 3 existing units with new Sterling heat/vent units
3. Photovoltaic Project – Install carport structures with photo voltaic panels at 3 surface parking lots on West Campus to generate approximately **200kW** of power. This project is estimated to provide approximately 30% of the West Campus or 10% of the overall campus power needs.

In addition to the estimated energy savings in the chart below the expected Utility Company rebates are estimated at \$1.9 million.

Energy Conservation Measure	Annual Energy Savings in kWh or therms	Projected Annual \$ Savings	Expected Equipment Life (Years)
Chiller Replacements (6)	715,900	\$ 114,544	25.0
Phase 1 Lighting & Controls Campus Wide	1,180,000	\$ 188,800	6.0
Phase 2 Lighting & Controls Campus Wide	379,962	\$ 60,794	6.0
Stadium Lighting	70,080	\$ 11,213	10.0
Boiler Replacements (3)	49,740 therms	\$ 49,740	30.0
Vending Misers	142,000	\$ 22,720	5.0
Photovoltaic Project	500,000	\$ 90,000	25.0
Heaters	19098 Therms	\$ 19,098	30.0
Energy Management System	697,982 kWh & 25,463 therms	\$ 94,301	
Total	3,685,924 kWh's/94,301 Th	\$ 651,210	



City of Santa Barbara

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While the City had been considered a leader in environmental issues for many years, the Council formally created a sustainability program in 2006 to coordinate project efforts in different departments. Since that time, lead environmental program staff and Green Team staff committees developed plans and implemented projects to achieve the City's environmental goals. A Council Sustainability Committee meets monthly to guide the City's sustainability efforts, receive updates on key projects and programs, and make policy recommendations to Council.

In the initial years, a key program goal was protecting and enhancing the environment in City services and operations. Staff in all departments implemented new methods and practices to reduce energy use, conserve water, prevent waste, recycle, reduce paper use, and purchase recycled content materials. Once best practices were established in City operations, the program's focus broadened to projects, programs, and policies in the community.

The attached 2010 Sustainability Achievement Report highlights the City's leadership in the areas of energy management, waste prevention, and water quality, conservation, and habitat restoration. In addition to the City's accomplishments, the report shares the success of community organizations, local businesses, and residents that are protecting the environment and saving money in the process.