

Cardinal Green

VOLUME 8
SUMMER 2010

The Sustainable Stanford Quarterly Newsletter



In this issue...

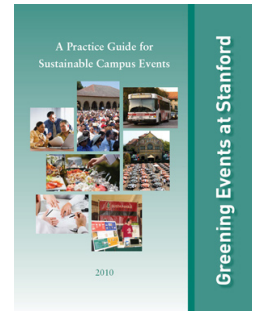
Summary	1
Stanford in Princeton Review's Green College Guide	1
Climate Change Featured in Walk the Farm 2010	2
BLSP Rollout Update	2 - 3
Increase Your Green Fluency	2
SSS Curriculum Update	3
Stanford Receives SCUP Award	4
First Student-Run Farm	4
Green Move-outs	4
Bike to Work Day Numbers	5
Drive Alone Rate Drops to 48%	5
Bike to Work Day a Success	5 - 6
Green Fund Issues	6

For submissions contact:
Production: Elsa Baez - elsab@stanford.edu
Primary Author: Jiffy Vermynen - jiffy.vermylen@stanford.edu
Design: Terri Fitzmaurice - <http://sustainable.stanford.edu>

In This Issue

Welcome to Cardinal Green's academic year-end issue. We have great news on program outreach, awards, and Stanford's continued focus on sustainability in all aspects of campus operations and living.

We are particularly excited about [Greening Events at Stanford](#), a guidebook authored by various Stanford programs and departments that will help event planners execute more environmentally sustainable events. Topics provide information on food choices, catering, zero waste, communication, transportation, and post-event considerations specific to Stanford. A master checklist provides a comprehensive resource for event organizers.



Don't forget to check out the feature story on how the Stanford Drive-Alone Rate dropped even further down to 48% this year.

This summer we will be hosting presentations at various events, continuing with the Building Level Sustainability Program at Mitchell and Braun, welcoming the freshmen class with [A Student's Guide to Sustainable Living](#), submitting surveys for third-party evaluations, and focusing on strategic partnerships.

As the academic year ends, we want to thank all of you for the partnership and support that continues to strengthen our programs. Enjoy this issue.

Fahmida Ahmed
Associate Director, Office of Sustainability
sustainable.stanford.edu

Stanford Included in USGBC/Princeton Review's Green College Guide

Stanford is included in The Princeton Review's first ever Guide to 286 Green Colleges, produced in partnership with the U.S. Green Building Council (USGBC) and released on Earth Day 2010. The Energy and Climate Plan, A Student's Guide to Sustainable Living, and the CEE/ES 109 Green Buildings and Behavior course were a few of the new items Stanford highlighted in this year's survey response. The Princeton Review specifically praises Stanford's Transportation Demand Management program and building-level energy conservation programs in the half-page profile. The [Guide to 286 Green Colleges](#) is free and available to the public.



Climate Change Featured as Walk the Farm 2010 Theme

Stanford's Bill Lane Center for the American West selected climate change as this year's theme for Walk the Farm, an annual 21-mile hike through Stanford lands. The twelve hour journey started and ended at Y2E2, wound its way to Jasper Ridge Biological Preserve by way of the Dish, Felt Lake, and Web Ranch, and returned to campus via the Stanford Linear Accelerator, Sand Hill Road, and Campus Drive Loop. The group stopped regularly to hear presentations describing the effects of climate change on Stanford lands as well as the university's response. Jiffy Vermilyen, Sustainability Coordinator, summarized the [2009 Energy and Climate Plan](#) at the cogeneration facility and highlighted high-performance building design at



Bill Lane Center Executive Director Jon Christensen leads the Walk the Farm group



Professors Bob Tatum (center right), David Kennedy (right), and other Walk the Farm participants pause near the Central Energy facility as Jiffy Vermilyen (center) summarizes the Energy and Climate Plan

the Knight Management Center construction site. Also from the Department of Sustainability and Energy Management, Marty Laporte, Associate Director of Utilities for Water Resources & Environmental Quality, discussed the potential impact of climate change on Stanford's water supply and requirements. For more information, please visit the Stanford News recap of [Walk the Farm 2010](#).

BLSP Rollout Continues

After successful Building Level Sustainability Program (BLSP) pilots in 2009 and a strong performance during the CEE/ES 109 course over winter quarter, BLSP rollout continued this spring in Mitchell and Braun, as well as Building 24 at SLAC. The Office of Sustainability welcomed Frances Ellerbe and Eli Pollack, our new student sustainability coordinators, who have quickly become indispensable to BLSP implementation and success. Both students worked closely with the building occupants to craft a targeted green action menu for the School of Earth Science buildings and are actively laying the groundwork for the June 7th official launch. Mitchell and Braun results will be published this fall.

At the annual Building Manager's meeting the Office of Sustainability shared all prior BLSP pilot results. The 2009 projects included Green 170, Arrillaga Alumni Center, and IT Services, and all experienced substantial energy bill and/or energy intensity reductions.

continued on next page

Increase Your Green Fluency

Water Footprint = the total volume of fresh water used to produce the goods and services consumed by an individual, community, or business

Similar in concept to a carbon footprint, calculating and tracking a university's water footprint is gaining traction in the higher education sustainability community. As we enter the dry season here on campus, be sure to check out Stanford's water conservation projects and accomplishments. For water conservation tips, visit the [SEM Water Conservation webpage](#).



continued from previous page

More than sixty candidate buildings have been identified for the program, and the Office of Sustainability is working with local green teams and student sustainability coordinators to expand the program rollout in 2010 and 2011. If you are interested in having your building participate, visit the [Sustainable Stanford website](#), review

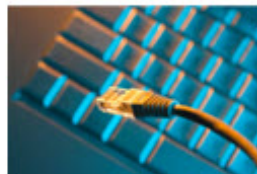
BLSP 2009 Pilot Results



Building 170
= 20% reduction in energy bill
= average kWhr/month saved 1,980



Arrillaga Alumni Center
= 8% reduction energy bill + water reduction
= average kWhr/month saved 10,650



IT Services (Department level)
= substantial reduction in energy intensity
= identified new projects
= average kWhr/month saved 3,224

the pilot results and toolkit in the public [BLSP documentation](#), and contact Jiffy Vermynen (jiffy.vermylen@stanford.edu) in the Office of Sustainability for a quick assessment regarding timing, budget and resources. Preparation is essential! We look forward to working with you on BLSP implementation soon.

SSS Curriculum Update

Building on a proposal launched earlier this year, [Students for a Sustainable Stanford](#) met last week with the Chairs of the Study on Undergraduate Education at Stanford (SUES) regarding the possible inclusion of “Sustainable Civilizations” into the existing General Education Requirements as an additional compliance path in the “Education for Citizenship” requirement. The student-led initiative gained traction with the Committee on Undergraduate Standards and Policy during the spring quarter and hopes to get on the docket for fall Faculty Senate meeting. Creating a structure where Stanford can provide both focused education for those interested in sustainability and appropriate exposure for newcomers to the field remains the initiative’s top priority. SUES is sympathetic to the Sustainable Civilizations initiative, calling it pragmatic and entrepreneurial, and will continue to work with SSS throughout the summer. Further development is expected in the fall.

Stanford Receives SCUP Merit Award



On April 27th, 2010, Stanford University received the Society for College and University Planning (SCUP) Merit Award for The Science & Engineering Quad, with Boora Architects – Planning for a District or Campus Component.

“SCUP, established in 1965, is a community of senior-level higher education leaders who are responsible for or involved in the integration of planning on their campuses, and of the professionals who support them. SCUP offers an awards program that recognizes excellence in planning, design, and implementation efforts of firms and institutions, as well as the achievements of individuals whose lives and passions involve higher education.” Visit the [SCUP website](#) for more information about the awards. Congratulations Stanford!

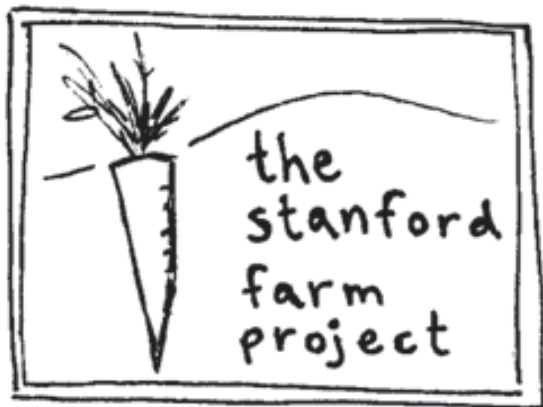
Stanford Students Propose First Two-Acre Student Farm Ever

by Heather Benz, Intern'10

Stanford students may soon have a new opportunity to get their hands dirty on a two-acre, student-run campus farm. The Stanford Farm Project and School of Earth Sciences have submitted a petition to create an “easily accessible student education farm.” Current on-campus opportunities for students interested in farming are limited. Stanford has a one-acre community farm but only one-eighth of it is dedicated to student education. Quarterly classes on organic gardening at the community farm are always filled beyond capacity and the Stanford Farm Project hopes a larger farm will help meet this demand.



“At the moment, students don’t have much access to the current farm; this would give students more of a chance to conduct research in agro-ecology,” explains Jenny Rempel, a farm supporter.



The student education farm would be a place for research and learning, and would be maintained by student interns and farming classes taught by Sarah Wiederkehr, the Stanford Farm Educator. Currently, the Provost and Department of Land Use and Environmental Planning

are looking into multiple potential locations across campus for the farm, and the Stanford Farm Project hopes that a farm will be created by 2011. We will keep you updated on the farm as it progresses!

Student Corner – Green Moveouts

by Heather Benz, Intern'10

Students for a Sustainable Stanford, in collaboration with Stanford Student Enterprises, and the ASSU, is sponsoring “Ditch that Dumpster,”



a green campaign that targets students moving out of dorms. Student volunteers will collect reusable items, such as clothing and electronics, at dumpsters where they would have been thrown away and resell the items to students at the beginning of fall quarter. The event allows students to share and reuse unwanted items, and spreads the message of sustainability to the wider Stanford community.

Dumpsters will be staffed by students on June 9, 10, and 14.

Stanford Bike to Work Day 2010 By The Numbers



Riders at Stanford stations: 1,400

Riders who reported miles: 851

Miles biked: 2,039 miles

Average miles per trip: 2.4 miles

Carbon dioxide reduced: 1,937 pounds (879 kilograms)*

*The per mile emissions factor used for automobiles is 0.431 kg CO₂/mile (or 0.950 lb CO₂/mile). This is based upon an average passenger vehicle fuel economy of 20.4 mpg (2006 figure from US Bureau of Transportation Statistics).

Stanford's Drive-Alone Rate Drops to 48 Percent

by Lisa Kwiatkowski, Parking & Transportation Services

This just in: Stanford University's employee drive-alone rate dropped from 72 percent in 2002 to 48 percent in 2010. If all university commuters (employees and students) are counted, the drive-alone rate is even lower at 43 percent.

"Reaching this point where more than half of the university's commuting employees choose alternative transportation instead of driving alone is a major milestone for Stanford," said Brodie Hamilton, director of Stanford University Parking & Transportation Services. "The reduction in drive-alone commutes demonstrates a high level of commitment both from the university and from commuters. It's even more significant in the context of the 78 percent drive-alone rate for employee commuters in the County of Santa Clara."

Stanford has invested in a number of programs to encourage alternative transportation, including the [Commute Club](#), whose eligible members receive up to \$282 per year for not driving alone to Stanford, free transit passes for eligible employees, vanpool subsidies of \$200 per month, up to \$96 in Zipcar driving credit and free hourly rental car vouchers, among other incentives.



Photo credit: Miles Keep
Stanford Alumni Association staff, all Commute Club members

"As enticing as our programs are, the real credit goes to our commuters who are making the commitment each day to use alternative transportation instead of driving alone," Hamilton says. "We commend our commuters for their decision and encourage others to consider it, even on a part-time basis. Together, our commute decisions make a measurable difference, both for individual health and savings, as well as for cleaner air and protecting the environment. It's a win-win."

Over 1400 Join in Bike to Work Day at Stanford for a Green Commute

by Lisa Kwiatkowski, Parking & Transportation Services

On Bike to Work Day, May 13, 2010, more than 1,400 bicyclists rode to Stanford and stopped by one of nine Energizer Stations at Stanford University, Stanford Hospital and Clinics, and SLAC National Accelerator Laboratory sites. This represents a fifty-percent increase in participation compared to 2009 participants.

continued on next page



Photo credit: Miles Keep
Patrick Casey (foreground) and Angus Davol (by Marguerite) ride bikes in the shadow of Hoover Tower

continued from previous page

For every mile pedaled instead of driven, approximately one pound of CO₂ emissions was reduced. The miles recorded at all nine Energizer Stations at Stanford represented 2,039 miles not driven, resulting in an estimated reduction of 1,948 pounds of carbon dioxide emissions avoided in one day.



Photo credit: Ariadne Scott

Volunteers greeted more than 1400 cyclists who participated in Bike to Work Day at Stanford

Stanford's Bike to Work Day riders were encouraged to take the Stanford Bike Safety Pledge, where riders commit to follow the rules of the road and wear a helmet for every ride, even short trips. Through the month of May, National Bike Month, those who pledged were entered into drawings for a free bike, bike helmets, and bike lights.

More than 600 bicyclists have taken the Stanford Bike Safety Pledge to date, and the first 200 received a free bicycle bell. Those who

pledged on Bike to Work Day also received a free "I Bike — I Pledged" reflective sticker as a boost to visibility and a reminder about bike safely.

Bike to Work Day at Stanford was part of the San Francisco Bay Area's 16th annual Bike to Work Day, when an estimated 200,000 Bay Area commuters and students hopped on their bikes instead of driving their cars, choosing one of the greenest ways to get around. Participants received a canvas bike bag and goodies at participating Energizer Stations.



Photo credit: Ariadne Scott

Cyclists show support with chalk messages and by pledging to follow Stanford's safety rules

Green Fund Updates

by Elsa Baez, Sustainability Staff Assistant

The Solar and Wind Energy Project (SWEP) team kicked off two projects for this year's Green Fund program: Solar Water Heating Installation Project (S-WHIP) and Stanford University Solar Initiative (SUSI). The S-WHIP team installed a monitoring system to evaluate performance of the solar hot water system funded by the Green Fund 2008-2009. Data collection uses WiFi data loggers and an analysis routine was developed to include energy output and costs savings information. The team will use their project results to demonstrate a cost-effective solar hot water system and encourage its adoption on campus. Meanwhile, the SUSI group developed a GIS model of campus buildings indicating the best and most easily developed solar opportunities on campus. The team continues to acquire data via pyranometer siting and installation, conducts analysis to develop models, and is drafting a report to document background research and initial findings. Future joint efforts between the groups include sharing data and findings with the Stanford community and finding ways to optimize limited roof area most economically. For more information, visit the [SWEP](#) website.