

Cardinal Green

The Sustainable Stanford Quarterly Newsletter

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In This Issue

This fall, the Office of Sustainability reached into new territory with campus-wide conservation campaigns. Throughout 2011, we will showcase information about easy ways to conserve resources and bring different topic areas into focus. We want to make conservation opportunities more transparent for the entire campus, and explore how both technological and individual decisions contribute towards sustainability. Campaign outreach includes contextual messaging, specific tips, educational webinars, and recognition of groups and individuals to create greater institutional and individual awareness about new and existing programs in energy, water, waste, and purchasing. Conservation results will be tracked to determine the added effect of campus-wide education and outreach. Our first Be Cardinal Green campaign, [Turn Off For Break](#), targets the 2010 Winter Closure and we hope you will take the recommended individual actions before you depart.

In this newsletter, we feature additional educational materials related to the Energy and Climate Plan, New Student Orientation, Stanford Dining initiatives, and a higher level of student participation in sustainability activities. Emphasis on behavioral programs will continue during winter quarter with the return of CEE/ES 109: Greening Buildings and Behavior. The course topics address the challenges of institutionalizing sustainability and prepare students for sustainability work opportunities on campus and beyond. Almost three years into the program, and having held on to the "Overall College Sustainability Leader" title granted by the Sustainable Endowments Institute three years in a row, we are looking forward to a deeper presence of sustainability and efficiency in all aspects of campus life. We hope you enjoy this issue, and as always, we welcome your suggestions.

Happy Holidays!

[Fahmida Ahmed](#), Associate Director, Office of Sustainability



Turn Off for Break: Sustainable Stanford Launches Campus-Wide Campaign

Previously voluntary, winter closure became mandatory in 2003 through a program administered jointly by the Department of Sustainability and Energy Management and Zone Management. It targets a two-week shutdown of building heating and ventilation systems, as well as custodial services. The cumulative net energy cost savings since 2001 total \$1.97 million!

This year Sustainable Stanford launched a campus-wide [Turn Off For Break](#) campaign to increase the visibility of winter closure. An open invitation webinar on November 18 explained important changes to the university's program. Subject matter experts within the Department of Sustainability and Energy Management led the discussion and reviewed the 2010 procedures and goals. New program features include an increased emphasis on individual action and building-level recognition and awards. A [recording of the short webinar](#) is publically available and suitable for distribution to all building occupants.

Stanford Maintains "Overall College Sustainability Leader" Title on Sustainable Endowments Institute Survey

For the third consecutive time, and the fourth time in the last five years, Stanford received an "A-" grade on the [Sustainable Endowments Institute's](#) College Sustainability Report Card. As such, Stanford joins 51 other schools as Overall Campus Sustainability Leaders out of the 322 surveyed institutions. Stanford earned straight "A" grades in the following topic areas: administration, climate change and energy, food and recycling, green building, student involvement, transportation, investment priorities, and shareholder engagement. The "A" in climate change and energy represents an improvement over the "B" earned in that category last year, and recognizes the formalization of the university's [Energy and Climate Plan](#), among other energy conservation programs. The [full survey responses](#) for all participating institutions can be found online.

Stanford Presents Sustainability Highlights at AASHE 2010 Conference

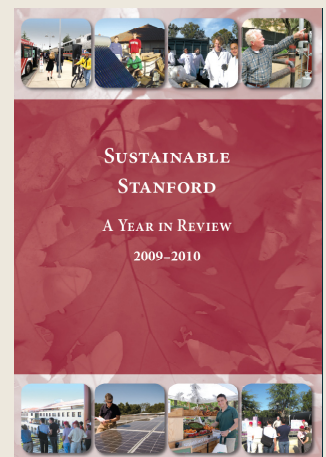
Stanford's sustainability programs and successes were well represented at the Association for the Advancement of Sustainability in Higher Education (AASHE) 2010 Conference in October. Members of the Department of Sustainability and Energy Management offered six presentations during the three-day conference, all of which will be publically available at the AASHE Resource Center later this month.

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2009 – 2010 YEAR IN REVIEW Published

[Sustainable Stanford — A Year In Review: 2009-2010](#)

is now available online. The report was produced by the Office of Sustainability as one of the many deliverables that make sustainability a tangible part of the Stanford experience. Beyond an annual report, the publication catalogs the many efforts within a large campus that contribute to a steady pulse of sustainability milestones and accomplishments.

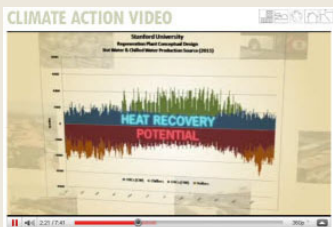


New Video Explains Energy and Climate Plan

Sustainable Stanford released a [video overview](#) of the university's [Energy and Climate Plan](#).

In addition to a historical perspective of Stanford's environmental stewardship, the video highlights the technical differences between Stanford's existing cogeneration plant and the proposed heat recovery plan and facility. The potential associated savings in operating costs and greenhouse gas emissions are also discussed.

Visit the Sustainable Stanford website to see the [Energy and Climate Plan video!](#)



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Behavior Matters: Program Results from Stanford, MIT, and Cornell

- Showcased pilot results from the BLSP
- Offered lessons learned regarding scalability and resources
- Invited discussion on best practices to achieve behavioral change



Climate Action Implementation on Research Campuses: Lessons from Large-Scale Energy Projects

- Summarized Stanford's Energy and Climate Plan via the new Climate Action video
- Reviewed key sustainability metrics for the Stanford campus
- Provided a status update on the Central Energy Plant Optimization Project



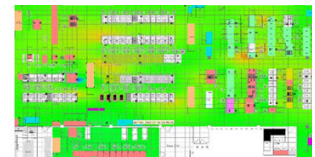
Sustainable Transportation at Stanford University: The Role of Transportation Demand Management (TDM)

- Highlighted the success of the TDM Program in reducing drive-alone commuters to 48% of university employees (down from 72% in 2002)
- Explained synergistic effects of multiple incentive programs that cut across different populations
- Presented the successful strategies that keep Stanford's peak-hour trips below 2001 traffic counts and commute-related carbon emissions below 1990 levels



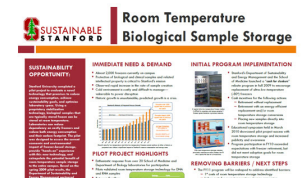
Driving Down Energy Use While IT Load Increases

- Highlighted the impact of IT equipment on energy usage, particularly in Data Centers and server rooms
- Presented "10 Steps" to increase datacenter efficiency
- Showcased Stanford's success stories at Forsythe and in satellite server rooms



Room Temperature Biological Sample Storage

- Described the space and energy demand generated by low-temperature freezers
- Reviewed the success of the Room Temperature Biological Storage pilot project
- Summarized the initial Cash for Clunkers program and the next steps for FY11



Y2E2: Built to Conserve, Inspire, and Teach

- Reviewed programmatic goals for Y2E2 as a living laboratory
- Presented performance results to underscore the building's success
- Explained the significance of Y2E2's impact on subsequent high performance building projects



Sustainable Stanford Expands Presence During New Student Orientation Activities

Numerous fairs during New Student Orientation (NSO) provided an opportunity for students and their families to interface with the university's programs and services. This year Sustainable Stanford increased its presence with tables at five NSO events: the Residential Advisor Resource Fair, the New Student-Athlete Orientation, the Parent's Resource Center, the Graduate Orientation Activity Lunch and Information Event (GOALIE), and the School of Engineering Student Services Fair. Student interest at the events was strong, particularly at GOALIE, where many requested descriptions of the Energy and Climate Plan and took away information on Smart Strips and Desktop Power Management. Freshmen and their parents frequently mentioned having received the updated [Students' Guide to Sustainable Living at Stanford](#), which Dean Julie Lythcott-Haims distributed to the class of 2014 electronically in August.



Bicycle Program Registers 1,550 Bikes During NSO—Dorm Safety Challenge in Full Swing

by Lisa Kwiatkowski and Ariadne Scott, Parking & Transportation Services

When 1,695 new undergraduates arrived at Stanford University in September, including 243 new student athletes, Stanford's bicycle program was ready. Designated a "Gold Level Bicycle Friendly Community" by the League of American Bicyclists, Stanford's bicycle program registered 1,550 bikes during the five-day New Student Orientation events.

Based on a recent bicycle count, Stanford estimates there are 13,000 bicyclists on campus. To encourage bicycle safety, the bike program offers safety education and discounts, including discounted helmets at the Campus Bike Shop, a free bike safety repair station on campus, free bike safety classes and bike safety dorm road shows, and a free headlight for new students who register their bikes.



P&TS helps new students register bikes at tables during NSO events.

Credit: Ariadne Scott

This year, Stanford launched its first [Bike Safety Dorm Challenge](#). Undergraduate students who take Stanford's Bicycle Safety Quiz and pledge to follow the rules of the road and wear a helmet for every ride (even short trips) are entered in a drawing. The dorm with the highest percentage of participants will win a free charter bus to Lake Tahoe! The contest ended on Dec. 10, 2010. For more information, visit <http://transportation.stanford.edu/dormchallenge>.

More about Stanford's bicycle program and bike safety efforts can be found at <http://bike.stanford.edu>. Contact [Ariadne Scott](#) with any questions.

Coming Soon to a Bin Near You!

All recycling, composting, and trash bins on campus will soon receive updated signage. Designed by Stanford students Michael Turri and Purin Phanichphant as part of a 2009 Green Fund grant, revamped labels use pictures and clear wording to help users identify appropriate content for each receptacle. Consultation with Julie Muir and PSSI/Stanford Recycling Center, as well as extensive focus group testing, resulted in the versions of the signage that will be deployed across campus throughout 2011.



Sustainable Yard Sale Pilot Diverts 90% of Inventory



Students for a Sustainable Stanford (SSS) hosted a Sustainable Yard Sale on Wilbur Field the first weekend of this fall quarter.

Sale items were collected during the “Ditch that Dumpster” event held during move-out last June, and offered at a steep discount to incoming students.

More than 50 savvy shoppers arrived for the event opening and, in spite of the misty day, more than 80 people attended the event.

Based on the success, the students will make this an annual event.

GSB Wins “Green Project of the Year” Award

by Kathleen Kavanaugh, Graduate School of Business

The Silicon Valley Business Journal selected the Graduate School of Business’ new [Knight Management Center](#) as the “[Green Project of the Year](#)” in the private sector. The award recognizes the eight-building, 360,000 square-foot project for its deep commitment to sustainability, from the photovoltaic panels that will supply 12.5% of the Center’s annual electricity needs, to the 80% reduction in water use compared to similar campus buildings. The project is currently on track to receive an LEED-NC Platinum certification upon occupancy in March 2011, and will be the first LEED-certified space on campus.

Stanford Dining Hosts “Know Your Food Week”

by Matt Rothe, Sustainable Food Coordinator, Residential & Dining Enterprises

KNOW YOUR FOOD WEEK



“Know Your Food Week”, hosted by [Stanford Dining](#) from November 8 through 12, created a connection between Stanford students and the food they eat by engaging them in the history, origin, cultural importance, ecological impact and societal implications of their food. Know Your Food Week was kicked off with sustainable seafood, highlighted by guest chef Charlie Ayers, the first Executive Chef at Google. Tuesday focused on Marin Sun Farms’ grass-fed beef, Wednesday on Petaluma Poultry’s free-range organic chicken, Thursday on ALBA’s local and organic produce, and Friday culminated the week with the “Real Food” dinner. Several hundred students participated in the event by providing daily passwords to volunteers from the Stanford Farm Project, Students for a Sustainable Stanford, the Green Living Council, and others.

Coming Soon - RecycleMania 2011 Tournament

By Julie Muir, PSSI / Stanford Recycling Center

Game on! Everyone on campus can score points for Stanford during the ten-week RecycleMania competition simply by reducing waste, recycling, and composting. For the fifth time Stanford has entered RecycleMania, a nationwide recycling and waste prevention contest between colleges and universities. The official contest runs from February 6 to April 2, 2011, but there will be a two-week preseason beginning January 23 to solidify strategy and gear up for the stiff competition from Ivy League, PAC 10, and California schools.



The competition will be tough! Last year Harvard edged out Stanford for the Gorilla Prize (highest total recycling tonnage) by just 50 tons, so the Stanford community will have to be dedicated to reclaim the title. Throughout the competition PSSI will document the weight of Stanford’s trash and recyclables (paper, cardboard, bottles and cans, and food waste) and report the totals to RecycleMania for online publication.

Stay tuned in 2011 for new publicity and an educational campaign!

Woods Institute's Top 10 List: How to Get Involved in Environment and Sustainability Research and Action at Stanford

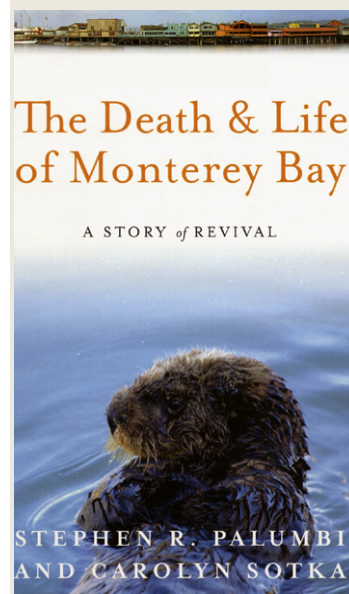
By Michael Murphy, Communications and Outreach Director, Woods Institute for the Environment

In October, the Woods Institute for the Environment held an informational reception for students. Co-Directors Buzz Thompson and Jeff Koseff kicked off the event with a welcome message featuring their perspective on the best ways students can get involved in the environment and sustainability at Stanford. The Wood's Institute "Top 10 List" is as follows:

1. Do research on an environmental problem. **Undergrads:** Receive a stipend through the Woods Institute [Undergraduate Interdisciplinary Research Program](#). **Graduates:** Apply for a [Stanford Interdisciplinary Graduate Fellowship](#) from the Vice Provost for Graduate Education.
2. Get to know environmental faculty.
3. Take at least one course about environmental problem solving. Enroll in courses on campus, at [Hopkins Marine Station](#), or through the [Bing Overseas Studies Program](#).
4. Consider majoring in or taking courses in Stanford's many environmental and sustainability departments and interdisciplinary programs.
5. Get involved with [Sustainable Stanford](#). Enroll in CEE/ES 109: "Creating a Green Student Workforce to Help Implement Stanford's Sustainability Vision," or apply for a [Green Fund](#) grant.
6. Participate in one of the many [environmental and sustainability student group](#) activities across campus.
7. Make a personal commitment to sustainability (whatever that means to you).
8. Look for opportunities to lead and/or collaborate with other students interested in environment and sustainability issues.
9. Become a [tour guide for the Y2E2 Building](#).
10. Apply for a Woods Institute [Mel Lane Student Program](#) grant and change the world with your project!

Winter Reading List

Looking for a good read over winter break? Stanford Professor Steve Palumi, a senior fellow at the Woods Institute for the Environment, recently coauthored a new book, *The Death & Life of Monterey Bay: A Story of Revival*, which presents a tale of environmental destruction and rebirth right in Stanford's backyard. Visit [Stanford News](#) to learn more about Professor Palumi and the story behind his book.



BLSP Intern Office Visits a Success

Congratulations to Office of Sustainability student intern Frances Ellerbe, who joined School of Earth Sciences intern Dave Luciano, to complete hundreds of office visits in Mitchell and Braun.

Starting with audits in October, the students identified opportunities for increased efficiency, and completed the following improvements in return visits and in cooperation with building management:

- 22 incandescent desk lamps replaced with CFLs
- 55 timers installed on printers
- 60 SmartStrips installed for occupants
- 17 offices volunteered for additional delamping
- Improved signage installed at all composting locations

Based on this success, office visits have now been incorporated as a best practice in the [Building Level Sustainability Program](#).

Recycling Efforts Ramp Up During Athletic Events

Story Contributed by Janine Corcoran, Cardinal Sports, LLC

Starting at the end of the 2009 football season, Stanford began promoting recycling with announcements on the scoreboard. Similar messaging occurred during softball and baseball games. This season the promotion expanded to men's and women's soccer and men's and women's basketball, as well as increased visibility during football games. A former student athlete created a video starring current student athletes to highlight the importance of recycling. The video aired during each home football game. At the USC game, Students for a Sustainable Stanford was hired collect recyclables from tailgating fans — the group of student volunteers collected more than 1500 cans and bottles! Furthermore, the student group hosted an educational booth inside the stadium.



Current student-athletes promote recycling in a short video shown during each home football game.

Holiday Brings Spike in One-Time Ride Postings

by Lisa Kwiatkowski, Parking & Transportation Services

Stanford's [free ridematching service](#) saw more than 120 new, one-time ride postings to and from nearby airports before and after Thanksgiving. In addition to [options for airport transportation](#), students, faculty, and staff could find a shared ride to Southern California and other parts of the state.

Stanford worked with Zimride to host an airport ridematching page that makes it easy for the Stanford community to find rides. P&TS provided students with sustainable transportation options for holiday travel, including shuttles, alternative airport transit guides, and alternative trip planning staff assistance.



STUDENT STORY: Record Number of Students Sign Green Living Pledge

By Angela Kwok and Graham Provost, Co-Presidents, Green Living Council

Encouraged by the 68 [Green Living Council](#) members represented over 35 on-campus residences, 554 students completed a [Green Living Pledge](#), an all-time participation record! Five residences surpassed 50% participation: Delta Delta Delta, Okada, Trancos, Larkin, and Soto! By signing the Green Living Pledge, students become aware of the many practices they can perform daily to reduce energy and/or water consumption and often reduce greenhouse gas emissions. Furthermore, by volunteering to participate in such activities, students are more likely to remember and follow-through on green actions. Paper copies of the pledge, placed on the doors of those who pledge, serve as additional reminders and create a social norm of environmental accountability in the student's residence.

In the winter quarter, Green Living Council will continue to host the annual Conservation Cup, a competition between residences to reduce energy and water use by the greatest percentage. Keep an eye out for more information about Conservation Cup, RecycleMania, and Green Screens shortly after winter break!

Green Living Pledge



*This year,
I pledge to:*

- Set my computer to sleep after 5 minutes
- Turn off the lights when I am the last to leave a room
- Turn off and unplug electronics when not in use
- Use a power strip to turn things off all at once
- Switch to a CFL for my lamp
- Keep windows closed when it's cold outside
- Take shorter showers
- Only do full loads of laundry and use "bright colors"
- Report water leaks to my Housing Supervisor
- Go trayless in the dining hall and reduce food waste
- Choose local, seasonal and organic foods when possible
- Cut down on my meat consumption
- Recycle - paper, bottles and cans, and other recyclables
- Try to borrow, lend, or buy used instead of new items
- Buy recycled paper products (notebooks, paper, etc.)
- Print double-sided
- Use reusable bottles and mugs instead of disposables
- Bring a reusable shopping bag; don't take a plastic one
- Use a cloth towel instead of paper towels
- Walk, bike, or use public transit instead of driving
- Carpool whenever possible

Signature (Post this on your door)
Enter your pledge online at glc.stanford.edu/pledge!

STUDENT STORY: Green Living Council Organizes 10/10/10 Global Work Party

By Angela Kwok and Graham Provost, Co-Presidents, Green Living Council

The [Green Living Council](#) hosted a series of events for [350.org](#)'s Global Work Party on 10/10/10, a Day to Celebrate Climate Solutions. The results of the photo shoot at Memorial Auditorium fountain were submitted to 350.org and have been added to a photo album from around the world in support of the goal to reduce carbon dioxide levels in the atmosphere to 350 parts per million. The group raised awareness about ways students can impact climate change during meals with presentations at Wilbur, FloMo, and Ricker Dining. Sustainable options include trayless dining, eating less meat and dairy, choosing local and organic foods, reducing food waste, and composting. The outreach efforts resulted in more than 150 students pledging to choose sustainable options while dining!.



STUDENT STORY: Students for a Sustainable Stanford to Offer Green Events Consulting for Student Groups

By Sharon Tan, Molly Oshun, and Judee Burr, Students for a Sustainable Stanford

For student leaders wondering how to organize green events without busting their budgets, Green Events Consulting (GEC) has the answers. [Students for a Sustainable Stanford \(SSS\)](#) and the Associated Students of Stanford University (ASSU) are working together on an exciting initiative to facilitate environmentally-friendly practices at student-hosted events.

GEC pairs Volunteer Student Organizations (VSOs) with trained student consultants who guide and advise VSOs on incorporating environmentally-friendly measures into event organization. GEC aims to increase the number of student-led campus events using environmentally sustainable practices and create a base of students who understand sustainability in practice. GEC focuses on 'greening' events in four principle areas: Food, Waste Disposal, Advertising, and Purchasing Practices. Student events accepted for participation in the GEC program will receive a special designation as "Green Events" and additional monetary support through the ASSU Undergraduate Senate.

With the support of Student Activities and Leadership, the ASSU, SSS, and campus administrators, GEC is currently in the process of matching its first group of 10 Green Events Consultants to campus VSOs. The first green events partnerships will begin operating after winter break and interested student groups are encouraged to contact GEC at stanfordgreenevents@gmail.com. In the future, GEC hopes to extend the service to all events, student-run and staff-coordinated, in pursuit of a greener campus community.

[Greening Events at Stanford](#), a guidebook for sustainable events, is a publically available resource to help planners of any function execute a more environmentally sustainable event.

ChemTracker System Reduces Laboratory Waste

by Robert Edgar, Training & Communications Specialist, Environmental Health & Safety

Environmental Health & Safety (EH&S) has developed a tool to help laboratories at Stanford minimize chemical waste, the [ChemTracker](#) online inventory system. A regulatory and university requirement, maintaining an accurate and up to date chemical inventory also reduces waste in the following ways:

- Minimizes unnecessary purchases of materials already in stock
- Allows labs to easily access EH&S's free [surplus chemical inventory](#) program
- Allows researchers who only need a small amount of material to more easily borrow some from another lab on campus

For privacy and security purposes, Chemtracker users are generally not allowed to see universal inventory. Upon request, however, EH&S can search the campus-wide inventory and help facilitate the sharing of chemicals. Some campus departments have also dedicated one local person to view the entire inventory for that department in order to help increase the material sharing.

For access and questions about the ChemTracker inventory system, contact Debbie Amoroso, Chemical Inventory Specialist at debbiel@stanford.edu, or Russell Furr, Manager of the Hazardous Materials Inventory Program at furr@stanford.edu.

STUDENT STORY: Sustainable Agriculture on the Farm

by Therese Costello, Class of 2012



Sustainable food is a hot topic on campus. A quick survey of the dining halls reveals Meatless Mondays, local, organic produce from ALBA Organics, and humanely raised meat selections. But what does it actually mean when a food item is termed sustainable? Students in Sarah Wiederkehr's course, ES/EES 180B: Principles and Practices of Sustainable Agriculture, have an opportunity to explore that question in the classroom and in the field. Students learn about the basics of small-scale, diversified production, covering topics from plant anatomy and nutrient cycling to pest management, irrigation, animal husbandry, and post-harvest processes such as packing, sales, and marketing.

Two lecture hours are supplemented by two hours of hands-on fieldwork each week, where students integrate classroom knowledge with real-world practice on the Stanford community farm. Field-based work highlights the complex interaction between variables and how those interactions can muddle theoretical clarity. In the end, class participants develop a nuanced understanding of the factors at play in categorizing sustainable agriculture.

A strict definition of sustainable food remains somewhat elusive, allowing different people to formulate their own value systems. For some, sustainable food is defined by food miles, the distance an agricultural product travels from farm to plate. For others, sustainable food is defined by growing practices like water conservation, nutrient, and pest management. Many combine these two metrics and some include social equity in the formulation of their personal definition. Through the ES/EESS class, students are provided with the tools to understand the relevant and current issues in sustainable agriculture. They are encouraged to think critically about the challenges facing the agriculture industry, and question the terminology used by others. Through hands-on experience, all participations form a deeper connection with the food consumed each day on campus.