

Green Pastures

CAL POLY POMONA

**Good Bye 2010,
Hello 2011!**
A Year in Review

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A Publication of the Green Campus Program at Cal Poly Pomona



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What is the Green Campus Program?

The Alliance to Save Energy's Green Campus Program empowers college students to be tomorrow's energy efficiency leaders. Currently on 16 universities and colleges and employing over 75 interns each year, the program engages students in building pathways to green careers, realizing measurable energy savings, infusing energy and energy efficiency concepts into academic curricula, and promoting energy efficiency awareness. Green Campus interns work closely with faculty, staff, administrators, and other students to engage them in energy efficiency projects.

For more information please visit our website:

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On the Cover

Rain barrels that function as fish farms, stand ready to collect water in one of New Orleans' community gardens (see page 5). photo courtesy of Krishna J. Hernandez-Pruhs.

Above

The original Kellogg horse stables at Cal Poly Pomona (circa 1926).

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WHAT'S NEW?

Go Green & take the "Buck the Juice"
Sustainability Pledge TODAY!

Visit our website for details:
www.GreenCampusCPP.org



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Creating an Energy-Efficient World



The Alliance to Save Energy's Green Campus Program is funded by the ratepayers of California under the auspices of SCE, SDGE, PG&E, and Sempra Energy



Photo Above: In 2010, Green Campus welcomed two new interns to the team, Krisha J. Hernandez-Pruhs (second from left) and Crystal Huang (far right). They are pictured here with interns, Cynthia Joe (left) and Andrew Coyne (center).

Green Campus 2010: A Year in Review

By Cynthia Joe

Green Campus interns say farewell to 2010, a productive year with various projects across the Cal Poly Pomona campus. Here's an overview of what we have accomplished in the past 12 months:

Green Commons

Intern Andrew Coyne began working on this project in April 2010 with the goal of improving dining efficiency at the Los Olivos Dining Commons. With the assistance of Los Olivos Operations Manager Patrick McCoy and Energy Services manager George Lwin, Andrew conducted an lighting audit in the main dining area. In September, he completed a recommendations report detailing changes Los Olivos could adopt to save energy. Among these are:

- (1) Turn off the bank of lights near the windows during the hours of 10am and 4pm (resulting in annual savings of **2,800 kWh** or **\$375**)
- (2) Retrofit all 32W fixtures with 28W or 25W fluorescent lamps (resulting in annual savings of 28W lamps: **2,200 kWh** or **\$300**; 25W lamps: **5,500 kWh** or **\$750**)
- (3) Delamping excess lamps (combined with lamp retrofit, resulting in annual savings 28W lamps: **10,500 kWh** or **\$1,400**; 25W lamps: **12,300 kWh** or **\$1,500**)

Coyne will be presenting his report to Los Olivos staff in February and hopes to continue with a second phase of the Green Commons project in the Los Olivos kitchen, focusing on electricity, water, and gas!

ENV 1000

Designed as a spin-off of the ongoing Sustainability Pledge campaign, interns Brandon Ro and Cynthia Joe began working on this project during late Summer 2010 to promote environmentally responsible choices

ENV 1000 Challenge

October 7th - November 26th



Above: The campaign poster for ENV 1000 created by Brandon Ro.

in the College of Environmental Design. Launched at the beginning of fall quarter, students, faculty, and staff were asked at tabling events and through e-mail blasts to help achieve a 1000 pledge college-wide goal. With the accomplishment of 1000 pledges, the Green Campus Program pledged to throw a pizza party for the entire College of ENV. After a 9 week run, Green Campus received 536 pledges which amounted to potential annual savings of approximately **4 million gallons** of water, **800,000 kWh** of energy, **\$160,000** and **3.9 million lbs** of greenhouse gas emissions. This equates to powering 215 homes for an entire year!

Exterior Walkway Lighting Audit

Retiring intern, Brandon Ro, worked on this project during summer 2010, conducting a campus-wide exterior walkway lighting audit. He documented the type of light bulbs that are currently installed (metal halide) and calculated savings in the future installation of induction lighting fixtures. In November 2010, Brandon produced a recommendations report detailing that induction lighting can last up to 100,000 hours, which is 5-13 times longer than a metal halide lighting fixture. Induction lighting also produces a higher light output while still using less energy than the metal halide lighting. One strategy Brandon Ro identified is replacing 456 existing 175-watt Kim metal halide light fixtures with 100-watt induction lamps and ballasts. This could help save over **200,000 kWh** of energy and **\$27,000** annually; this is close to a 50 percent reduction in energy consumption!

Campus Conservation Nationals: Compete to Reduce

In November 2010, Cal Poly Pomona participated in the first annual national housing energy competition. Coordinated by Lucid Design Group, the event was dubbed Campus Conservation Nationals "Compete to Reduce!" as 40 universities competed for first place energy savings in electricity and water. Interns Andrew Coyne, Krisha Hernandez-Pruhs, and Crystal Huang kicked off the competition with a movie night showing Wall-E. Afterwards, for the next three weeks, readings were collected from the dorms and suites and inputted into real-time energy usage tracking software on Lucid Design Group's "Dashboard" website. At the conclusion of the competition, Cal Poly Pomona beat out the rest of the California campuses in energy with an overall savings of 4.8%. This includes sister Green Campus schools UC San Diego, UC Irvine, UC Santa Cruz, and San Diego State. The savings equate to over 10,700 kWh, which saves nearly 7,400 pounds of emissions!

With the completion of these projects, Green Campus interns are very proud of the work they have accomplished in the past year. For 2011, we hope to see equally fruitful savings in the revival of Green Space, projects in an academic setting, and career building events. Thank you to all those who have supported Green Campus Program initiatives, with you our projects have been successful in achieving savings and reaching individuals to further energy efficiency campaigns!



Above: Images of the community gardens in New Orleans (courtesy of Krisha J. Hernandez-Pruhs).

Community Based Sustainability Rises up in the Crescent City

By Krisha J. Hernandez-Pruhs

As a student of Anthropology in Cal Poly Pomona's College of Letters, Arts, and Social Sciences, Green Campus intern Krisha Hernandez-Pruhs was able to attend the 2010 American Anthropological Association's annual national conference from November 17-21. This was made possible through the vigorous fundraising efforts of the campus club, the Anthropological Society, and was also supplemented by generous funding through the school's Administrative Fund, which supports student development activities. Below, Hernandez-Pruhs reflects on her experience in New Orleans.

The level of excitement that I had, in anticipation of attending a national conference for the field that I plan to spend much of my life in learning and practicing, was quickly surpassed, upon my arrival. As an Anthropology major who plans to focus on addressing environmental issues, I attended presentations that included relevant topics such as Climate Change and Resettlement, Greening New Orleans, Political Ecology of Environmental Commodities, and Sustainable Innovations. Additionally, I

enrolled in a tour entitled 'Farming the Crescent City Tour,' which was arranged by Pamela Broom of Women and Agriculture Network. This proved to be the highlight of the conference.

The tour took us to four different community gardens, one of which was a community garden established at a local public school in the Lower Ninth Ward. Each garden is managed in a different way, but all have the same purpose: food sovereignty and community-based sustainability in a post-Katrina environment. According to Ms. Broom, four years post-Katrina, the city still contains 47,000 vacant properties, as it sustained 80% city destruction. Through the development of urban farming locals, the residents who call New Orleans home have taken the time to imagine a new city that strategically utilizes sustainable urban agriculture at the core of their revitalization efforts. After taking into account the hardship and tragedy that had struck New Orleans residents, surely residents in cities such as ours can learn from their vision of a sustainable future. Consider joining a community garden in your area, or start one of your own! Envision a sustainable city and then take action just as our friends in Louisiana have, as they continue to farm the Crescent City!

Green Campus By the Numbers- Total Savings for 2010

| EVENT | QUANTITY | ENERGY (kWh) | WATER (gal) | CO2 EMISSIONS (lbs) | \$\$\$ |
|---------------------------------------|--------------|----------------------|----------------------|------------------------|------------------|
| CFL Distribution | 296 | 20,124 kWh | n/a | 24,606 lbs | \$2,817 |
| Buck the Juice Sustainability Pledge* | 852 | 1,292,816 kWh | 5,768,190 gal | 5,365,501lbs | \$281,820 |
| Exterior Walkway Lighting Assessment | n/a | 253,782 kWh | n/a | 173,587 lbs | \$34,261 |
| Green Commons at Los Olivos | n/a | 12,354 kWh | n/a | 19,555 lbs | \$1,730 |
| Campus Conservation Nationals | n/a | 10,774 kWh | n/a | 7,369 lbs | \$1,508 |
| Total Savings for 2010 | 1,148 | 1,589,850 kWh | 5,768,190 gal | 5,590,618 lbs | \$322,136 |

NOTE: *Includes ENV 1000 Challenge - projected yearly savings.

Cal Poly's Departments and Offices can now be a certified Green Space!

By Krisha J. Hernandez-Pruhs

The past many months have seen tireless planning and design efforts by Green Campus' veteran intern, Brandon Ro. Brandon began developing a program in 2010, called Green Space. This program is intended to assist administrative and college department offices in becoming more sustainable and to reduce their environmental impact. The program awards offices in their efforts toward a more sustainable workplace with a Green Space certification.

With the Green Space program, offices undergo an assessment process which includes an educational component, and an in-person check by a Green Campus intern. Having passed, that office may receive a Green Space certification. Furthermore, depending on which level of the point system that particular office has earned, they would obtain certification of Bronze, Silver, or Green. Bronze certification meets the Green Space prerequisites and 30 or more points. Silver certification meets the Green Space prerequisites and 35 or more points, while Green certification- our highest level of recognition in the Green Space program, meets the prerequisites and 40 or more points. There are a total of 50 achievable points.

Each award certification is recognized by the Green Campus program at Cal Poly Pomona for a total of two years. The offices who obtain certification are awarded a plaque to display in their office, which publically identifies their work space as a sustainable working environment. More information about the program can be found on our website: www.greencampuscpp.org. If you are a staff member and are interested in participating in the Green Space program, please contact Green Campus at www.greencampuscpp.org/contactus.htm. We look forward to assisting you in creating a more sustainable work environment at Cal Poly Pomona!



Interns Crystal Huang (left) and Krisha Hernandez-Pruhs (right) practice measuring lighting levels in the Facilities, Planning, and Management lunch room.

THIS YEAR, I WILL COMMIT TO AT LEAST 3 NEW WAYS TO REDUCE MY OWN ENVIRONMENTAL IMPACT... WASTE RECYCLE RECYCLED PAPER TO REDUCE MY OWN ENVIRONMENTAL IMPACT... USE REUSABLE UTENSILS CUPS DISHES PRINT BOTH SIDES OF THE PAPER PURCHASE FOOD FROM STORE SEASONAL & LOCAL PRODUCE EAT MORE ORGANIC FOOD BIKE TAKE THE STAIRS CARPOOL USE POWER STRIPS BRONCO LINK EAT LESS MEAT ENERGY BUCK THE JUICE! CFLs CLOTHESLINE WASH CLOTHES WATER TRANSPORTATION MINUTES TURN OFF POWER WHEN ESCHARGERS ETC NOT IN USE RYER USE A DRYING RACK BOTTLED WATER



Pledging for a Greener Tomorrow...

What is the Sustainability Pledge?

The Sustainability Pledge is designed to motivate and educate students to apply energy efficiency and sustainability to everyday living. Using a checklist of sustainable alternatives, pledgers can commit behavioral changes to five different categories: transportation, waste, water, food, and energy. Each person matters and together we can move towards a more sustainable future!

Get the Word Out!

- Involve the Campus
 - Housing Services
 - Academic Departments
 - Clubs/Campus Organizations
- Outreach
 - Online Pledge Sheet/Newsletter
 - Classroom Advocates
 - Tabling Events
 - College-Wide Campaigns



How Did We Do at CPP?

Since the implementation of the Sustainability Pledge, the Green Campus Program at Cal Poly Pomona has achieved over 1,000 pledges from students, faculty, and staff. With a greater emphasis on outreach and promotion of the pledge, this year's Sustainability Pledge Campaign yielded significant results along with the ENVI 1000 which targeted the College of Environmental Design. The following numbers represent potential savings since 2009 if all participants commit one full year to the pledge:

- 3,500,000 kWh in energy
- 9,500,000 lbs of greenhouse gas emissions
- 6,900,000 gallons of water
- \$800,000 in monetary savings

Learning by Doing

- The pledge allows everyone to commit to changes that they feel comfortable with
- Looking through the checklist inspires new ideas to live more sustainably
- Utilizes all levels of communication - Personal contact through tabling events and digital interaction through the website
- Easy to replicate and implement on different campuses
- Motivates and educates students on topics concerning energy efficiency and sustainability
- Shows that everyone can make a difference!



Green Campus at Cal Poly Pomona

The Green Campus Program has been active on the CPP campus since 2006 and continues to promote energy efficiency to students and the campus. Besides the Sustainability Pledge, other projects include:

- Green Commons - an energy audit at the Los Olivos Dining Commons. Several recommendations were made to save energy use such as using natural daylight to dine as well as retrofitting lamps to lower wattage.
- Parking Structure Energy Audit - Parking and Transportation Services adopted Green Campus' recommendations to dim many light fixtures and turn off lights from 12am to 6am. The structure now saves over 200,000 kWh and nearly \$30,000 annually.
- Green Space - an energy assessment and certification program for on-campus buildings, involving faculty and administrators. Green Space has evolved into a replicable do-it-yourself audit.



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Green Campus Summit 2011 Poster

By Crystal Huang

Every year all the Green Campus teams in California come together at the Alliance to Save Energy's Green Campus Energy Efficiency Summit. This year, the Summit was held at the Cal State Long Beach campus on January 29-31, and was a great opportunity for Green Campus interns to network with interns from other campuses, as well as faculty and staff stakeholders. During the three-day event, attendees learned about best energy efficiency practices through presentations, sessions, and guest speakers. The Green Campus teams also had an opportunity to present a project from their campus to other interns and various faculty and stakeholders in the form of a three by four foot poster. Green Campus CPP presented the Sustainability Pledge project at the Summit. The poster design represents the numerous ways a person can make a

difference through sustainability with the light opaque text making up the background. Other elements of the poster celebrate the success of spreading sustainability awareness throughout the Pomona campus with the Sustainability Pledge. The rolling hills and symbolic CLA, or "pointy", building also make up this poster representing that Cal Poly Pomona is in fact on its way to a more sustainable future. Stay tuned for our next newsletter for a full report about the Green Campus Summit!

Contact Us!

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