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## Sustainability Update

*Scott Hewitt and Willem Van der Pol*

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The University has a long history of energy conservation going back to the seventies. Currently we are one of the most efficient CSU campuses with regards to energy use. We have installed very efficient computer controlled irrigation systems campus wide. The latest building additions to our campus were all LEED accredited or equivalent. Our waste management practices are such that we have exceeded AB75 requirements for the last five years. We have at least 53 courses in 14 different departments that incorporate sustainability. By having satellite campuses and online courses, we have reduced transportation.

We are in the midst of an energy conservation project, investing well over \$30 million to lower our energy use and carbon footprint. The project includes the construction of a cogeneration facility and the overhaul of the HVAC systems in our older buildings. We are in the design phase of constructing a Photo Voltaic car port style installation on the roof of the Nutwood Parking Structure. We are participating in the SCE Demand Response Program, and we are fine-tuning our Energy Management System and our Energy Information System.

The Ad Hoc Sustainability Committee (faculty-based) presented a report to the Academic Senate in December of 2007 recommending that a Sustainability Task Force look into three areas: raising awareness and building capacity, incorporating sustainability throughout the curriculum, and institutionalizing sustainability. The Task Force has split into three sub-committees to focus on these three areas this fall. In the meantime, the Sustainability Study Group (administrator/staff-based) met this summer and hopes to submit its recommendations to President Gordon in October.

We are going to explore new technologies (fuel cells, geothermal) as possible alternative sources for energy. We will be implementing Executive Order 987 and Assembly Bill 32, requiring campus wide participation. We will continue with the construction of photo voltaic installations. The campus is studying the possibility of including PV roof installations on Student Housing phase 3 and Parking Structure 4. Our Student Housing and Child Care Center projects will aim for LEED Silver accreditation.

The carbon footprint of the University is dominated first by transportation and second by building energy. Particularly transportation is of concern because we don't have much leverage getting people to use alternate forms of transportation. We need to work with other entities in our region and work on these problems in a collective manner. We can no longer assume that we are on an island. We also need to take a serious look at how we use our facilities. Currently we have long periods of time with many spaces empty while we're using energy to heat and cool them. We need to consider changing our schedules and work habits so that we use the buildings more effectively and efficiently. This may also help defer the need to build extra facilities to accommodate growth. The discussion about growth must consider sustainability as an important parameter.

A small survey was undertaken to obtain ideas to make Academic Affairs more sustainable. Those ideas were to:

- have more online classes;
- incorporate sustainability into more of our classes;
- make sustainability a GE requirement,
- put class handouts and syllabi on Blackboard instead of having paper copies;
- switching to a 4-day schedule (less energy usage) or a 7-day schedule (need to build fewer buildings and parking structures);
- provide forms and documents online and routing signatures online (change of grade forms, grad checks, grant proposal signoffs, and so forth);
- load the RTP portfolio on line; and

- send announcements by email, not in hard copy (better yet, send all announcements via email).

Please provide us with your ideas about how our campus can be more sustainable and more efficient.

**Dr. Scott Hewitt** is a professor of chemistry. He and his research students study how hydrocarbons



react in air (smog), combustion systems (incinerators), archeological samples (Olmec tar), and biological samples (aging). Scott is an avid Titan baseball fan and mountain ultrarunner. He currently serves as Chair of the Academic Senate.

**Willem Van der Pol** was born and raised in the Netherlands. After finishing his electrical



engineering studies in The Hague he went to work for Morrison-Knudsen in Delft and then went on to work for a major flower auction as a facilities manager. He immigrated to the US in 1985 with

his wife and three children and his first employment was with the Museum Of Contemporary Art in Los Angeles. Willem started at Cal State Fullerton in 1986 as the Work Control Center Coordinator and became the Associate Director of the Physical Plant in 1989. He became Director in 1999 and in that role he oversees Custodial and Landscape Services, the Building Trades and Logistical Services.



## Useful Sustainability Websites

- [www.ucsusa.org](http://www.ucsusa.org) (Union of Concerned Scientists)
- [www.energystar.gov](http://www.energystar.gov)
- [www.usgbc.org](http://www.usgbc.org) (Green Building Council)
- [www.dsireusa.org](http://www.dsireusa.org) (Database of State Incentives for Renewables and Efficiency)
- [www.hybridcenter.org](http://www.hybridcenter.org) (UCS HybridCenter Website)
- [www.climatestar.org](http://www.climatestar.org) (Climate Star)
- [www.letmeplay.com/reuseashoe](http://www.letmeplay.com/reuseashoe) (recycling shoes)

## Sustainability Fast Facts

- Every ton of recycled paper saves almost 400 gallons of oil, three cubic yards of landfill and seventeen trees.
- Americans consume six times more energy than the world average.
- The energy saved from one recycled aluminum can will operate a television set for three hours.
- As many as 17 trees are required to make one ton of paper.
- The energy saved from recycling one glass bottle will light a 100-watt bulb for four hours.
- The average American produces 1,609 pounds of waste each year. Recycling, composting and reuse can cut that waste stream by up to 75%.
- Source: New York University Sustainability, Available at <http://www.nyu.edu/sustainability/about.sustainability/fast.facs.html>