

October ~ November 2011

# weber green

Weber State University's Environmental Initiatives Committee –

## Our Mission

The Environmental Initiatives Committee shall help facilitate the modeling of best practices for economic and environmental sustainability at WSU. The committee shall serve as a local and state-wide source for scientifically based information and for leadership on environmental issues affecting Utah, the Wasatch Front, and WSU Campus Committees.

## Your Green Link

## news and information

### WSU earns bronze rating by STARS for sustainability on campus!

STARS, the national Sustainability, Tracking, Assessment & Rating System, is an innovative, voluntary, self-reporting framework by which colleges and universities can gauge progress toward sustainability and be recognized for that accomplishment. WSU made it a priority to track its sustainability progress by participating in the STARS program beginning September, 2010. It was rewarded with a bronze rating based on this year's report for its overall efforts in physical operations (e.g., energy conservation, sustainable dining, water conservation), curricular offerings (e.g., environmental studies major through the Bachelor of Integrated Studies program and environmental studies minor), and campus commitments (e.g., President Millner's signing of the Climate Action Plan). By continuing to implement improvements in sustainability, the university aims for silver and eventually platinum awards.

### WSU Goes Green: A Guide to Sustainability

A guide for healthier, more sustainable living is now available for the WSU campus community. Students in Geography 3060, spring 2010, began the project, and further work made it available at the August Block Party 2011. The guide provides information, tips, and resources related to energy conservation, air pollution and alternative transit, waste reduction and recycling, water conservation and water quality protection, and environmentally conscientious shopping. The guide is available online at [www.weber.edu/sustainability](http://www.weber.edu/sustainability) under "What can I do?" by clicking on the "How to Reduce your Impact" link. If you are interested in distributing the guide in your college, department, office, or program, please contact Dr. Alice Mulder in the Geography Department (ext. 6198) or Jenn Bodine in the Energy and Sustainability Office (ext. 6421).

### Students set out to design a wind- and solar-powered mobile generator

#### Multidisciplinary Mobile Elemental Power Plant (MEPP) Project

This year the College of Applied Science and Technology formed a senior project group of 23 students to manufacture an alternative power supply to be used for disaster relief and other harsh conditions. It is called Mobile Elemental Power Plant (MEPP). Students grouped into five sub-teams to complete the project over two semesters. The departments involved are Electronics Engineering Technology (EET), Design Graphics Engineering Technology (DGET), Mechanical Engineering Technology (MET), and Manufacturing Engineering Technology (MFET).

Students use their own disciplines to innovate subsystem designs with the goal of integrating the designs into a larger, fully operational system. This is a great opportunity for them to work in small groups communicating, solving problems, and otherwise collaborating with students from different academic disciplines to complete a project that uses renewable energy sources.

### Carbon offsets now available through WSU

Weber State University has made it possible to support clean air and reduce greenhouse gas emissions. The school has implemented a carbon offset payment program for institutional divisions and individuals alike. Across campus, each university division pays an offset fee to be used to fund campus energy-efficiency and renewable energy projects. In this first year, \$20,000 will be collected. Each division pays a portion of the \$20,000 based upon its airline travel expense in relation to the total amount of airline travel expense accrued by the university. WSU has committed to increasing this fee amount each year until it reaches \$100,000 collected in FY 2016.

If you as an individual are interested in offsetting your own carbon emissions (from travel or home energy use) you may pay into the fund. Go to [www.weber.edu/sustainability](http://www.weber.edu/sustainability) to calculate your carbon footprint and offset some or all of your annual carbon emissions by making a donation. Details available at [http://www.weber.edu/sustainability/carbon\\_calculator.html](http://www.weber.edu/sustainability/carbon_calculator.html).

### WSU is Idle Free campaign

Have you noticed any of the "Idle-Free" signs posted around campus parking lots? In an effort to curb greenhouse gas emissions, save fuel, improve air quality, and thus protect our health, Weber State is pushing for an Idle-Free campus. Idling delivers 0 miles per gallon in terms of gas consumption as it pollutes the air we breathe. Each day we Americans waste approximately 3.8 million gallons of gasoline by idling our cars. This needless activity produces some 40,000 tons of carbon dioxide daily.

Tests show that you need no more than 30 seconds of idling to circulate the engine oil before driving on very cold days. Any more time not only wastes fuel and produces gas emissions, it forces engines to run in an inefficient mode. Also, modern batteries and starters can easily handle extra starts.

Experts agree that if you're stopped for more than 10 seconds (except in traffic), you'll save fuel, money, and pollution by turning off the vehicle and restarting it when ready to drive. Practice the 10-second rule: If you'll be waiting longer than 10 seconds, "turn the key and be idle free." After all, idling gets you nowhere. WSU parking permit holders may obtain a "WSU is Idle Free" removable sticker from the Parking Services office to spread the word and show support for clean air.

### WSU working to improve regional air quality

To help combat the winter air pollution problem along the Wasatch Front, WSU is participating in the Utah Division of Air Quality's PM2.5 work group. PM2.5s are the microscopic smog particles which accumulate during winter inversions and lead to the issuing of Red Air Alerts that indicate harmful levels of pollution. As part of the State Improvement Process mandated by the U.S. Environmental Protection Agency, WSU will work alongside other regional stakeholders such as Hill Air Force Base and local governments to identify strategies for reducing the severity of winter pollution levels and to help bring Utah into compliance with federal air quality standards in the next few years. We'll all breathe easier as a result!

### WSU's energy investments produce a higher rate of return than conventional investing

Weber State University's Green Revolving Fund was created in May, 2010, when the administration decided to fund campus efficiency projects (identified through an investment grade audit) via a \$5 million loan from the university's endowment. Other one-time funding came from grants, utility rebates, and university capital improvement monies to bring the fund up to \$9 million.

To ensure that the fund remains intact, it was agreed that as efficiency projects are completed and savings are realized, 75% of savings would be returned to the Green Revolving Fund and 25% would be deposited back into WSU's utilities budget each fiscal year. In fiscal year 2011, WSU generated \$527,222 in cost savings; it is projected that by 2015, WSU will see at least \$1 million in annual energy savings.

WSU's Green Revolving Fund has received significant attention from the Sustainable Endowment Institute and other colleges and universities for being innovative. In September WSU was invited to be a member of the founding circle of the Sustainable Endowment Institute's Billion Dollar Green Challenge. Other members of the founder's circle include the University of Arizona, Harvard, and Stanford. The Billion Dollar Green Challenge encourages nonprofit institutions to invest a combined total of one billion dollars in self-managed revolving funds to finance energy efficiency improvements. For more information on the challenge and to view WSU's profile, go to: <http://greenbillion.org/about/>.

### Students engaged in sustainable-related house design

Dr. Jeremy Farner's freshman-level, residential design class in the Engineering Technology Department has partnered with Nilson Homes and Bowman-Kemp to develop house plans that incorporate the Liv-space concept. The concept behind Liv-space is: if you compare costs of constructing a typical two-story home having an unfinished basement with those of a rambler having a finished basement, not only is it cheaper to build the latter, but the cost of ownership is significantly less. This is achieved by creating more efficient air flow from the main floor to the basement that lowers energy use. In the summer the cool air in the basement helps to offset the load placed on the air conditioning unit; in the winter the warm air from the main floor circulates through the basement to offset heating loads. The earth's geothermal property of maintaining a consistent temperature adds to the efficiency of human comfort controls. The window system that Bowman-Kemp manufactures is key for making the space below grade feel well lit and habitable. Students' goals are to provide super-efficient homes on the Layton bench, each for under \$200,000. They are required to put all bedrooms in a basement no larger than 850 square feet and are limited to 1000 square feet on the main level. A link to one student's design brief is: <http://liv-space.com/>.

### WSU to have a student chapter of the United States Green Building Council

Weber State is in the final process of establishing a student chapter of the United States Green Building Council (USGBC), called USGBC Students. The council is best known for developing the Leadership in Energy and Environmental Design (LEED) green building rating systems. According to the council, USGBC Students recruits, connects and equips the next generation of green building leaders by empowering them to transform their campuses, communities and careers. Representing college- and university-based groups of students, USGBC Students provides a way for hundreds of young leaders to come together and participate in hands-on green building experiences on their own campuses through service initiatives. USGBC helps students integrate sustainability themes into their coursework and advocate for sustainable university practices and policies.

### Upcoming Events

Save the date: Sustainability Conference at WSU March 7-8, 2012



***In the next newsletter watch for details about all the green features in the new dormitory and other renewable energy projects that have been installed on campus!***