

# Sustainability and Environmental Awareness

## Creating a greener future

*Western Washington University has long been a leader in environmental education. Today, WWU continues that leadership as one of the nation's top purchasers of 100-percent green power in higher education.*

*Meanwhile, people throughout campus, including those in housing, dining, the arts, teacher education and the sciences are striving to learn more about sustainability and use their knowledge to help the planet.*

### **WWU among higher education's top green power users**

In August, Western ranked eighth on the Environmental Protection Agency's Green Power Partnership Top 20 Colleges and Universities for purchasing green power. WWU was also the only university in the state on the list. Western buys 100 percent of electrical energy, 40 million kilowatt hours, from green sources and has been buying green power since 2005 when a student-approved fee was implemented. In the Pacific Northwest, only Oregon State University purchases more kilowatt hours of renewable energy than WWU.

### **Housing and Dining Services take green seriously**

Dining Services took on several notable sustainability efforts in 2008-09 including:

- Enhanced relationships with local vendors. New additions included dairy products from Lynden-based Edaleen Dairy, sushi from Bellingham's WasaBee Sushi, and bagels from Seattle-based Mostly Muffins, which uses Shepherd's Grain flour, Food Alliance Certified and sustainably grown in Washington State.
- A shift to "tray-less" meals in the dining halls all summer, on weekends during the school year, and during Earth Week, significantly reducing waste.
- A shift to compostable cups and packaging, and the implementation of customer-side composting at the Viking Union Market and the Atrium.

### **University Residences cut energy consumption**

Students participating in University Residences' "Go for the Green" campaign, a joint effort between the Resident Resource Awareness Program and Office of Sustainability, achieved a 20%



**During a stop on the Hydrogen Road Tour, WWU student Matt Moroney debates with General Motors representatives Carolyn Normandi, far left, and Michael Johnston the merits of the hydrogen engine. Moroney is an advocate of electrically powered vehicles. A fleet of alternative-fueled cars were on display in Red Square that day.**

reduction in electricity use, a 9% reduction in water use, and a 2% reduction in natural gas use. Through programming, petitions and signed pledges, students' changes in behavior amounted to the conservation of more than 265,000 kilowatt-hours of electricity and 1 million gallons of water, resulting in a savings to the university of almost \$30,000.

### **Convoy of alternative-fueled vehicles stop at Red Square**

Students and faculty at Western Washington University's Vehicle Research Institute helped organize a stop of the Hydrogen Road Tour in Red Square in June. About a dozen alternative-fuel vehicles, most powered by hydrogen fuel cells, were displayed in Red Square alongside vehicles built by the VRI that run on a variety of fuel sources including biomethane, natural gas and solar power. WWU's Vehicle Research Institute investigates cutting-edge alternative power sources for use in transportation, from biomethane derived from dairy waste to solar power. Western is one of only two universities in the country, along with Cornell, competing in next year's Progressive Automotive X-Prize, a \$10-million contest to build a 100-mpg automobile ready for mass production.

### **Teachers gather to discuss 'education for sustainability'**

The Sustainability Education Summer Institute offered teachers, teacher educators and administrators an opportunity to learn more about "education for sustainability" and to develop strategies to integrate sustainability education into the curriculum, school operations and education policies. The institute, the first such event to take place on the west coast of the United States, was sponsored by Woodring College of Education, Washington State Office of the Superintendent of Public Instruction, the Russell Family Foundation, and the Environmental Education Association of Washington. Scholarships for teachers to attend the sold-out institute were made possible by a gift from the Weyerhaeuser Foundation. Woodring College of Education is the first teacher preparation program to include a focus on the conversation between sustainability and the education of K-12 students.

### **WWU honored for green power purchases**

Western Washington University was one of three Washington state colleges that were nationally recognized for significant green power purchases to offset energy consumption, according to the Environmental Protection Agency. Western purchased 40 million kilowatt-hours of green power, leading the pack in the commitment to sustainability. The College & University Green Power Challenge Championship, a part of EPA's Green Power Partnership, tracks green power purchasing by colleges and universities across collegiate athletic conferences. By purchasing green power, these universities reduce the environmental impact associated with conventional electricity use.

### **Sustainability Institute considered**

Special Assistant for Sustainability George Pierce led a committee exploring fundraising possibilities for a Sustainability Institute. Such an institute would "Foster the collaborative, interdisciplinary education of critical thinkers who will lead, inspire and engage their communities toward sustainability," according to the committee's working vision statement. The institute could also play a key role in an upcoming comprehensive fundraising campaign.

### **WWU selects new supplier of renewable energy certificates**

Western selected the EarthEra Renewable Energy Trust as the university's new supplier of renewable energy certificates, following a competitive process in which bids were reviewed for their environmental merit using a methodology developed by Western students, faculty and staff. The EarthEra Trust was recently established by NextEra Energy Resources – formerly known as FPL Energy – which is the nation's leading operator of wind-generated

power plants. The FPL Group has received numerous awards for its leadership on environmental and climate initiatives. WWU plays a leading role nationally in the purchase of renewable energy. Following student approval of a fee that funds the purchase of 100-percent renewable energy, Western was recognized by the EPA as one of the nation's Top 25 Green Power Partners in 2005. Since that time, many other universities, agencies, and private companies have followed Western's lead and committed to support renewable energy by purchasing renewable energy certificates

### **WWU professor and student design sponge-like cleanup chemical**

Western Washington University graduate student Amy F. Gaudette and her advisor Chemistry Professor Mark Bussell collaborated with other chemists to design a new sponge-like material that could play an important role in environmental protection and clean-up. The material, a cobalt-molybdenum-sulfur chalcogel, may help remove mercury from polluted water, separate hydrogen from other gases and pull sulfur out of crude oil. In an article published in the scientific journal "Nature Chemistry," Gaudette, Bussell and researchers at Northwestern University reported that the cobalt-molybdenum-sulfur chalcogel is twice as effective at removing sulfur from crude oil as the material that's currently used. Chalcogels are a newly discovered family of materials comprised of random networks of metal-sulfur atoms with very high surface areas. The surface area of one cubic centimeter of cobalt-molybdenum-sulfur, for example, is approximately 10,000 square feet.

### **'Green' cleaners get honors**

The Academic Custodial Services department received an Honorable Mention for green cleaning and sustainability programs in the Universities category of the 2008 Green Cleaning Award for Schools and Universities, sponsored by American School and University magazine, The Green Cleaning Network and Healthy Schools Campaign. Academic Custodial Services has been a "green" department for the last five years and has been nationally recognized for being on the leading edge in the green-cleaning movement. The department has divested itself of petrochemical cleaning products and has begun using biodegradable and compostable trash liners with a goal of reducing the waste stream to zero in a few years.

### **WWU helps local company go green**

Bellingham-based Brenthaven, a manufacturer of backpacks, messenger bags and computer cases, began working with Western students and staff in January to drastically reduce the company's carbon footprint. A chance conversation between company founder Harvey Stone and Brad Smith, dean of Western's Huxley College of the Environment, got the ball rolling and put Stone in touch with Seth Vidaña of WWU's Office of Sustainability. Vidaña, along with WWU students Jayden Williams and Corey Havens began a plan in fall quarter 2008 to conduct a greenhouse-gas inventory and a climate action plan to reduce the company's impact and help it move toward its goal of carbon neutrality, with Huxley coordinating between the research team and the company.

### **Thomas studies carbon reduction education methods**

Huxley College of the Environment's Environmental Studies Colloquium included senior Andrea Thomas's examination of ef-

forts to educate the public about climate change. Thomas's senior thesis work, "Environmental Citizenship and Carbon Intensity: Evaluating the Carbon Masters Educational Program," evaluates the climate change education group known as Carbon Masters. Carbon Masters addresses the lack of educational programs available to the public that offer valid, proactive, constructive and informative tools to empower ordinary citizens to deal with the complex issue of climate change. Thomas used social science research methods to evaluate the Carbon Masters program to determine its effectiveness and potential for community-building. She also assessed the program's capacity to inspire change among residents of Bellingham and Whatcom County.

### **Student travel desk at Buchanan Towers helped students find sustainable travel**

Western's Sustainable Transportation Office and University Residences combined efforts to start a student transportation info desk program in the Buchanan Towers residence hall. The desk was staffed by a student employee who was trained and supervised by the Sustainable Transportation Office, with funding from University Residences. The purpose of the short-term program was to help students get where they needed to go as cheaply – and greenly – as possible. The program began last November and continued through the end of spring quarter, 2009.

### **WWU agreement supports local food and sustainable food practices**

In March, Western signed a Memorandum of Understanding with Slow Food, an organization with more than 100,000 members in 132 countries, founded to bolster local food traditions and food production systems, enhance food choices, and protect farm production practices. The memorandum joins WWU and more than

130 colleges and universities worldwide in forming a network of collaboration and reaffirms WWU's commitment to resilient farm systems and practices, and obtaining quality agricultural food products that include small-scale production and economically, socially and ecologically sustainable practices.

### **Student explores ecotourism impact on Costa Rica**

As a part of the Huxley College Department of Environmental Studies Colloquium, recent graduate Brett Matulis gave a presentation on his master's degree work, "Reconstructing Nature Travel: Social-Nature and Equitable Ecotourism." Matulis contends that while ecotourism in Costa Rica may be seen as an environmentally and economically positive practice, it conceals uneven power relationships and leaves themes of social justice and equity unaddressed. Nature on the Osa Peninsula is increasingly being redefined as separate to Costa Rican society, Matulis argues, reconfiguring the society itself. Furthermore, he says, the entire process is controlled by an elite minority leading to a state of inequality supported by acceptance of new dominant ideas about nature in Costa Rica.

### **Panel explores renewable energy**

WWU's Students for Renewable Energy club hosted "Western, Wind Energy and Renewable Energy Credits: Setting a New Standard in Environmental Leadership," a panel discussion on the role of wind energy and renewable energy credits at Western. The Panel, held in November, included Dan Hagen, professor of economics, Ron Bailey, Facilities Management operations support manager, and Rose Woofenden, president of Students for Renewable Energy.

**AS Outback Farm hosts permaculture workshop**

Associated Students Outback Farm hosted a "Permaculture Design 101 Workshop" in February that included the basics of permaculture design, examples of where it has been implemented, and a hands-on design scenario. Permaculture is the practice of developing sustainable human habitats by following patterns found in nature. It promotes the conscious design and maintenance of productive systems, which have the diversity, stability and resilience of natural ecosystems.

**Western Gallery exhibit will explore artists' response to the environment**

The Western Gallery received a grant from the National Endowment for the Arts to curate an exhibition on the relationship between the art and environment of the Northwest. The exhibition will show how Northwest artists respond to eight environmental issues: growth management, waste management, mass production and consumption, transportation, preservation of wilderness and wetlands, biodiversity, climate change, and energy. The exhibition is curated by Sarah Clark-Langager, director of the Western Gallery, and John Olbrantz, director of the Halle Ford Museum at Willamette University. A catalogue with essays by the curators and Assistant Professor of Environmental Studies William Dietrich, a Pulitzer Prize winner, will accompany the exhibition opening in spring 2010.



**William Perigo, above, and the rest of Academic Custodial Services earned an Honorable Mention in the 2008 Green Cleaning Award for Schools and Universities. The department has practiced "green" cleaning the last several years.**

**Earth Day brings out WWU students and alums**

Students, alumni and members of the Bellingham community teamed up for Earth Day on April 18, to address environmental issues through community service. Before heading to their work sites, participants heard from Kayla Henson, co-coordinator of the Associated Students Environmental Center, and Eileen Coughlin, WWU's vice president for Student Affairs and Academic Support Services. This year's service-learning sites included Franklin Park, Padden Creek and the 20th Street right of way. Community-service activities included pulling ivy, invasive species removal, weeding, and other tasks.