### For more information:

### **Energy and Transportation**

Flexcar- www.flexcar.com

US Department of Energy- www.eere.energy.gov

#### **Green Building**

The United States Green Building Council- www.usgbc.org

City of Portland's Office of Sustainable Development- <a href="http://www.green-rated.org/default.asp">http://www.green-rated.org/default.asp</a>

### **Organic Food and Farming**

The Food Alliance- www.foodalliance.org

Portland Community Gardens-

http://www.parks.ci.portland.or.us/Gardens/Community/CommunityGardens.htm

Food For Thought Café- http://www.upa.pdx.edu/SP/

#### **Protecting Wildlife**

National Wildlife Federation- www.nwf.org

#### Water

City of Portland, Bureau of Environmental Services- http://www.portlandonline.com/bes/

Regional Water Providers Consortium- www.conserveh2o.org

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# **SUSTAINABILITY**

### At Portland State University



### A Self-Guided Tour

Follow this self-guided tour to discover the work PSU is doing to create a more sustainable campus.

www.pdx.edu/sustainability

### **Sustainability Tour**

### Summer 2006

Welcome to sustainability at Portland State University. Whether you are a newcomer to campus or have been here everyday for years, we hope you enjoy following this tour to learn more about our commitment to sustainability and environmental stewardship. We suggest giving yourself about an hour to complete the tour. If you have any questions or comments about the sites on the tour please contact Dresden Skees-Gregory, Sustainability Coordinator.

Campus Map
Food for Thought Café
PSU Recycles!
Sodexho Food Service
Cob Oven and Dialogue Dome4
Park Blocks Native Plants
Helen Gordon Child Development Center4
SW 12th Ave. Green Street
PSU Community Garden5
Epler Hall5
Epler Hall Rainwater Harvesting5
Millar Library Cob Bench6
Community Recreation Field6
Energy Efficiency – Outdoor Lighting6
Native American Student Community Center6
The Broadway Housing Building7
Engineering Building
PSU Bike Co-op
Urban Center and University Plaza8
Presidential Residence Backyard Habitat8
Contacts and Resources9

passes, and discounted parking rates for carpoolers. TAPS also coordinates PSU's the Bike Co-op, where for a small co-op membership fee, members are offered a convenient location for purchasing parts and making repairs. These options reduce pollution and create a more pedestrian friendly cityscape. Since 2003, non-single occupancy vehicle trips to campus have increased by 28 percent.

## Urban Center and University Plaza SW 6th Avenue and Mill Street



The Urban Center Building is home to the College of Urban and Public Affairs and also contains retail space occupied by the PSU Bookstore, Pizzacato, and Seattle's Best restaurants. The building's environmentally friendly features include a design that maximizes natural light, and leaving concrete ex-

posed to lessen the amount of materials needed for building construction.

University Plaza is a public transportation hub for the University District, earning it the reputation of being the "gateway to PSU". The Streetcar goes through the Urban Plaza and it is adjacent to the Tri-Met transit mall. Future plans for the plaza include an indoor bike station and an extension of the MAX yellow line to run through the plaza.

## Presidential Residence Backyard Habitat Off campus

The Presidential Residence is home to the President and the site of University events. Located in suburban Portland, the Presidential Residence is certified by the National Wildlife Federation as a Backyard Wildlife Habitat. It contains a birdbath as a water source, as well as both naturally available foods and supplemental feeders. The area provides food and



habitat for birds such as chickadee and finches, which have been spotted in the area. In the future the backyard habitat will continue to grow and provide for additional native bird species.

contains classrooms and a computer lab. Sustainable design elements of this building include the use of sustainable wood products, natural day-lighting and an elaborate "Sky Catcher" roof-top garden that features tribal medicinal and ceremonial plants. The garden roof is open to visitors between 9AM and 5PM Monday through Friday.

## Broadway Building SW Jackson Street and SW 6th



The LEED Silver certified Broadway building contains 15,000 sq. feet of retail space on the ground floor, university classrooms and offices on the second floor, and eight floors of student housing. Environmentally friendly features include: an 18,000 sq. foot eco-roof, a climate responsive design to reduce the building's overall reliance on energy consumptive mechanical and

electrical systems, low-flow water fixtures which reduce water consumption, high performance window glass to increase energy efficiency, and less toxic room finishes. PSU estimates that Broadway Housing's use of low-flow fixtures, such as double-flush toilets and other conservation designs, will reduce water usage in the building by 20 percent. The Broadway received a 2005 BEST Award for Stormwater Management.



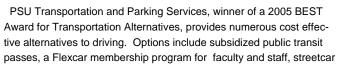
Broadway eco-roof

## Engineering Building SW 4th Avenue



This academic building is certified LEED Gold. In addition to featuring many of the sustainable design features as Epler Hall and The Broadway Building, this building showcases how natural systems can be used directly for both research and building operation. The building has a partially visible rainwater harvesting system that collects water for use in the hydraulics lab and for flushing toilets on the first floor. The building also pumps both hot and cold ground water to moderate the indoor temperature. This ground water heat-pump system saves energy and eliminates the need for a cooling tower.

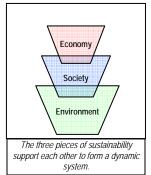
## PSU Bike Co-op University Center Building on Harrison St.





### **Background**

Sustainability is an approach to solving large, interconnected societal problems. There is a growing recognition that our ways of working and living depart significantly from the natural functioning of the earth. Humans are demanding more from natural earth systems than these systems will be able to provide for future generations.



There is no one true definition of sustainability, but here at PSU we describe sustainability in this way: Sustainability is

giving future generations the opportunity to enjoy productive and rewarding lives in a world in which our economy, environment, and social institutions prosper simultaneously. Picture a healthy environment that supports a thriving economy, strong families and vibrant communities, a place where all citizens are valued and engaged in governance. In this place, environment, social, and economic realms function as an interconnected dynamic system, not as separate parts. Using this approach it is hoped that a balance will be achieved for a healthier society.

### Sustainability at Portland State University

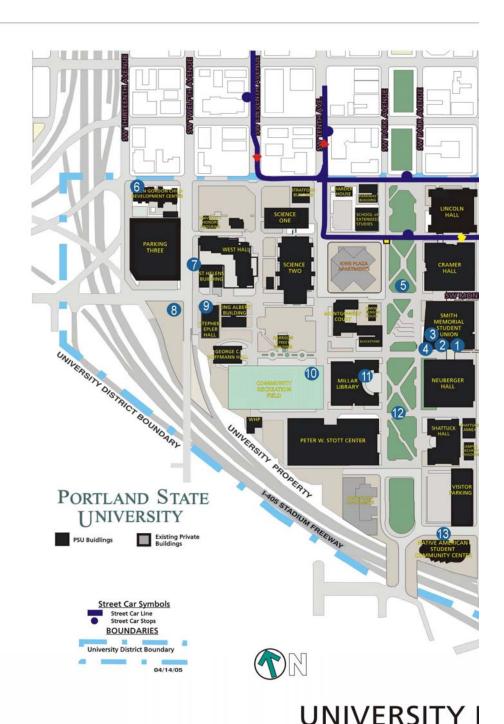
As a public institution, Portland State University (PSU) has a responsibility for public service and stewardship. This responsibility extends to the students we teach, the community we serve and the land we inhabit. PSU's commitment to sustainability is demonstrated by but not limited to the projects and sites on this tour. Sustainability is also important for aspects of campus you can't see such as community sustainability projects and academic programs related to sustainability. To learn more about sustainability at PSU please visit our website at <a href="https://www.pdx.edu/sustainability">www.pdx.edu/sustainability</a>.



This guide was produced by the PSU Sustainability Office in the Facilities and Planning Department.

Written & Designed By: David Amiton & Sarah Keirns

Excerpts taken from "Sustainability at Portland State University" by Janell Jures with graphic design by Patrick Meath.



floor of the building. In addition to reducing stormwater runoff, this system also conserves potable water.

## Peter W. Stott Community Recreation Field SW Harrison Street walking path at SW 10th Ave.

It may look like an ordinary turf field, but the Stott Center Community Recreation Field is made of 150,000 recycled athletic shoes! This is a great example of taking something out of the waste stream (old shoes) and giving the material another useful life. The shoes were collected in the Nike Reuse-A-Shoe program, which has donated over 120 of these surfaces around the world. The field is open to all community members and students at PSU.



## Millar Library Cob Bench PSU Park Blocks



This beautiful cob bench was a collaborative effort involving Freshman Inquiry and Senior Capstone students, as well as Portland-based nonprofit, City Repair Project. The tiered bench is comprised of a mixture of sand, clay, and straw similar to adobe, and is located beneath the Millar Library awning, where it will serve as a community gathering and study space.

## Energy Efficient Outdoor Lighting Throughout the South Park Blocks



Last year Portland State consumed enough electricity to power over 3000 average size homes in the Pacific Northwest. With electricity costs at nearly \$3 million annually PSU is taking advantage of a variety of opportunities to install more energy efficient lighting and equipment. The outdoor lights in the Park Blocks are one example of these upgrades. Not only are the lamps more energy efficient, they also restore a historical elegance to the South Park Blocks.

## Native American Center SW Jackson Street and SW Broadway



The Native American Student and Community Center provides a meeting place for Native Americans throughout the region to gather, celebrate cultural traditions and discuss community issues. The Center is used for conferences and meetings, and it also



Rooftop garden

One way to minimize this problem is to build what are called "green streets". Notice the areas between the street and sidewalk have been turned into landscaped swales that hold native plants. The plants and soil are a natural filtration system that absorbs water and filters out pollutants before they enter into our waterways.

## 8 The Community Garden SW 12th Ave. and Montgomery

PSU's community garden has a thirty year history and was recently reinvigorated by a dedicated group of students. Utilizing land previously occupied by the demolished Adeline Hall, PSU students doubled the size of the garden. The garden now includes close to 70 plots and raised beds, containing plants



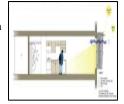
such as fruit trees, berries, bamboo, and a large herb garden. Brick pathways are in place to allow the garden to be enjoyed by people of varying degrees of physical ability. The garden provides an outdoor growing, learning, and community space for the students of PSU.

### 9 Epler Hall SW 12th Avenue and Montgomery



The Stephen Epler Residence Hall, Portland's first mixed-use LEED

(Leadership in Energy and Environmental Design) Silver building, is a good example of green design that works. Sustainability was a priority from the very beginning of the project and included in the demolition of the Birming-



ham Apartment Building, which Epler replaced. Tons of materials were salvaged, including 90% of the brick.

Epler Hall's climate responsive design captures the benefits of air, rain, and sunlight, and design features on each side of the building reflect its orientation to the sun. The north side has large oversized windows to let in as much light as possible, while the other sides have smaller windows and built in "solar shades" to offset the impact of the sun. This design reduces the building's overall reliance on energy consumptive mechanical and electrical systems.

#### **Epler Hall Rainwater Harvesting System**

The most prominent outdoor feature of Epler Hall is its rain water harvesting system, located in the plaza between Epler Hall and King Albert Hall. Water coming down from the roof enters into rock filled boxes, filters through river rocks, flows across the plaza, and enters into large planters boxes. From there the water goes through the soil to an underground water storage facility. This water is used for flushing the toilets on the first





#### **Tour Sites**

- Food for Thought Cafe
- 2 PSU Recycles!
- Sodexho Food Service
- Project Sustain Urth
- 6 Native Plants
- 6 Helen Gorden Child Development Center
- SW 12th Ave. Green Street
- 8 PSU Community Garden
- 9 Epler Hall
- Community Recreation Field
- Millar Library Cob Bench
- Efficient Outdoor Lighting
- 13 Native American Center
- The Broadway
- 15 Engineering Building
- Bike Co-op
- Urban Center and Plaza
- PSU President's Res. Backyard Habitat (off campus)

### DISTRICT

# Food for Thought Café Basement of Smith Memorial Student Union

Food for Thought Café is a student operated café serving organic coffee and specializing in vegetarian, vegan, and locally produced organic foods. It began when a group of students with a passion for sustainable food systems got together to talk about food systems and food service at PSU. They developed a business plan and worked with community partners to ensure the café's success. In addition to environmentally friendly food options Food for Thought Café generates less trash by serving food on reusable dishware and practicing pre— and post-consumer composting. Food for Thought also serves as a gathering place and often hosts guest speakers discussing sustainability and environmental issues.

# PSU Recycles! (Resource Management Contract) Bins located throughout campus and inside Food for Thought Café



Recycling bins are located throughout campus, including inside Food for Thought Café. Recycling on campus has grown tremendously in recent years thanks to PSU's innovative resource management contract, the hiring of a full time Resource Management Coordinator, and a dedicated crew of student workers. PSU's resource management contract promotes waste reduction and recycling through economic incentives to our waste

haulers and processors. The contract ensures that everyone benefits when PSU recycles and reduces waste.

The main goals of the program are to reduce the total amount of waste generated on campus and to reuse and recycle as much as possible from our waste stream. PSU Recycles! also coordinates an PSU ReUses!, an office supply exchange program for faculty, staff, and student groups. PSU ReUses! collects unwanted office supplies and redistribute them to others on campus. For more information visit http://www.pdx.edu/sustainability/psu\_recycles.html.

## 3 Sodexho Food Service Main Floor Smith Memorial Student Union

PSU's food service provider, Sodexho, is making sustainability strides with their food, waste management practices, and commitment to sustainability. Sodexho strives to purchase local, organic food, and their menus vary seasonally based on the availability of local ingredients. Purchasing food from local sources strengthens the regional economy, provides high quality fresh foods, and helps preserve the natural environment and landscape.

Sodexho reduces waste through their recycling efforts and their participation in the Portland Composts! program. Kitchen food scraps are collected separately from other wastes and transported off-site to be turned into compost. In addition, all events serviced by Sodexho catering feature fully compostable disposables such as napkins, coffee cups, and utensils.

# 4 Cob Oven and Dialogue Dome SW corner of Smith Memorial Student Union between Smith and Neuberger

This project was the first natural building on campus and was initiated by students. Constructed mostly of cob (a mixture of sand, clay, and straw similar to adobe) and refurbished local materials this project feature an herb and permaculture garden, a cob oven, and a dome shelter with an eco-roof.



The purpose of the structure is to build community and encourage conversations about sustainability issues by giving the campus community a sense of place. The cob oven and garden are used for baking by Food for Thought Café, and the dome structure functions as a meeting place and is used as a demonstration site for students to conduct research on natural building materials and structural design.

## Park Blocks Native Plant Garden Montgomery Street walking path



The South Park Blocks enhance PSU's campus by providing a green space and connection to nature within the confines of bustling downtown Portland. The trees provide shade, absorb carbon dioxide and pollutants, and naturally control stormwater runoff. As you are walking through the Park Blocks, notice the areas along the

north side of the Montgomery Street walking path. Instead of grass, which must be mowed, watered, and chemically treated to maintain its appearance, this area was planted with native plants such as sword ferns that require less watering and fewer pesticides & herbicides than conventionally landscaped areas.

# 6 Helen Gordon Child Development Center SW 12th & Market Street

The Helen Gordon Child Development Center is PSU's full-day infant/toddler, preschool and kindergarten program and laboratory, serving approximately 180 children aged six months to six years. The Center is registered on the National Register of Historic Places and was one of the earliest structures in America designed specifically as a daycare facility.



### 7 12<sup>th</sup> Ave Green Street East side of SW 12th Avenue between Montgomery Street and Mill Street



In Portland, stormwater runoff is a big environmental problem. When it rains, water falls on non-porous pavement, picks up pollutants such as dirt, antifreeze, and oil, and runs into pipes leading directly to our rivers and streams.