



University of Oregon Campus Operations, Growing Sustainability

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Message From Campus Ops Sustainability Work Group

Keep sending us your feedback! We want to know what you're doing, what you see others doing, and what you'd like to see in our articles!

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Green Roofs

Green roofs are becoming increasingly popular because of their environmental and economic benefits. Green roofs can be used to grow fruits, vegetables, herbs and flowers, and increase wildlife habitat. They also reduce costs of heating and cooling the building by adding protection from temperature fluctuation, as well as acting as sound insulation and increasing the life span of the roof. Green roofing can also reduce storm water runoff, and filter pollutants out of rainwater and air. Rooftop ponds also can be created to treat gray-water.

Green roofs are covered with vegetation and soil on top of a waterproof barrier that protects the building from damage. Here at UO, the Lillis Business Complex has a green roof that filters run-off contaminants. This roof is part of the reason Lillis received the LEED (Leadership in Energy and Environmental Design) Silver Certification.

Other universities are also beginning to use green roof technology, including University of Virginia, University of Pennsylvania, and Michigan State, among others.

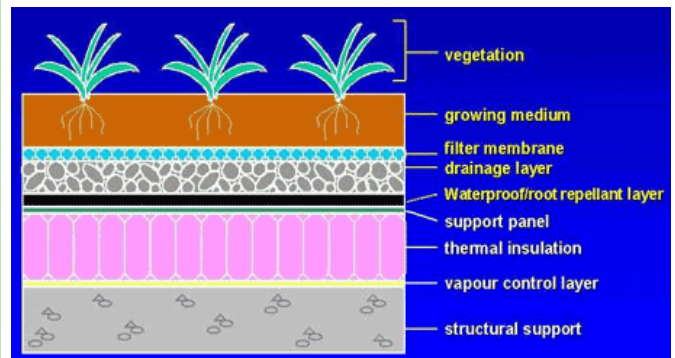
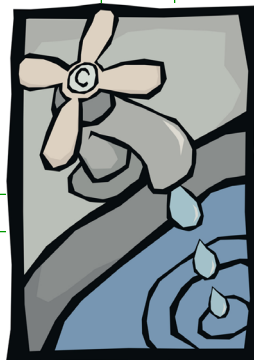


Diagram from:

http://www.greenroofs.org/index.php?option=com_content&task=view&id=26&Itemid=40

Sustainability Tips

- ⇒ Turn off the tap when you are brushing your teeth, washing dishes, etc.
- ⇒ Fill up a reusable container and put it in the refrigerator instead of running water until it gets cold if you want cold drinking water.
- ⇒ Find ways to reduce the amount of water you use by reusing water when you can- water used to rinse fruits and vegetables or from a fish tank can be used to water plants.
- ⇒ Use a refillable bottle or glass as your water glass, instead of using a separate one for each glass of water throughout the day.
- ⇒ Contact F.S. Customer Service at 6-2139 to report any dripping faucets you see.



Monthly Facts

- ⇒ A typical bathroom sink uses 11 gallons/minute when the faucet is turned on. A dripping faucet can waste up to 2,000 gallons of water a year.
- ⇒ The average person in the United States uses anywhere from 80-100 gallons of water per day. Flushing the toilet actually takes up the largest amount of this water.
- ⇒ One flush of the toilet uses 6.5 gallons and the average family of four uses 881 gallons of water per week, just by flushing the toilet.
- ⇒ The United States uses about 346,000 million gallons of fresh water every day.
- ⇒ 80% of water is used for irrigation and thermoelectric power.

<http://www.allaboutwater.org/water-facts.html>

Power Up - ReCardio

On May 11 this year the Student Recreation Center held a kick-off celebration for the new ReCardio devices that draw power from exercise performed on elliptical machines.

One 30 minute work out produces 50 watts of energy, enough to power an incandescent bulb for 45 minutes, a compact fluorescent bulb for 2.5 hours, or a laptop for one hour. Converting the energy produced into electricity will also reduce the excess heat produced, lowering air conditioning costs during hot weather.

Some users are excited and empowered knowing their physical movement is creating electricity, while others don't notice. The Rec Center hopes to introduce more ReCardio devices in the future, however these devices work best on ellipticals and other machines that require less electricity than machines like treadmills.

The idea to capture energy produced by elliptical machines was first proposed by students at the Ecological Design, and the Rec Center, with support from the UO Sustainability Office and EWEB.

Natural Cooling

As the weather heats up and moves into summer, it is important to remember the energy costs of cooling buildings. Air conditioning can use up to one sixth of the electricity used in the United States, and heating and cooling systems emit over a half billion tons of carbon dioxide each year. Heating and cooling systems also produce about 12% of sulfur dioxide and 4% nitrogen oxide emissions in the US, which contributes to acid rain.

One way to reduce cooling costs during summer months is to shade sunny windows with light-colored fabric drapes or outside shade screens that reflect and block heat.

However, these methods are often unnecessary in Eugene, where the average temperatures for summer months are in the 80s. Simply using a fan and an open window for ventilation can reduce heat in your workspace. Also, dress for summer weather to avoid the need for air conditioning.

Enjoy the sunny Eugene weather as much as possible while it's here!



Thumbs Up/Thumbs Down

What's going on in sustainability around the world!



UC Irvine's Shut the Sash campaign encourages students in labs to close fume hoods after working in labs, to prevent energy being wasted through vents. A closed fume hood saves up to 50,000 lbs of CO₂ per year.



Episcopal Bishops on the West Coast urge their church members to stop using bottled water because of its damaging effect on the environment.



Mercury Emissions into the air have been linked to contamination in fish in a new study that explains the process and spread of mercury across the ocean.



Walmart is working on developing a **Sustainable Product Index Labeling System** for all products. This cutting edge action will pave the way for other companies to implement this and help consumers consider sustainability when purchasing.

Let us know your Thumbs Up/Thumbs Down!

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Sustainability Superstar of the Month:

Pauline Conway

Pauline practices sustainability in all aspects of her life, including work. At home, she conserves water, uses reusable shopping bags, purchases organic food, and unplugs appliances that aren't in use. She carools to work from her home. At work, Pauline turns off her lights and computer when leaving her desk. She recycles everything and considers whether packaging is recyclable when purchasing products. Pauline is happy to help others recycle, too!

We appreciate what you do, Pauline, both for our planet and to encourage and inspire those around you!



Water

The Exterior Team has set a **10% water reduction goal** for next year. The team uses Maxicom, a watering system that monitors weather and moisture in the soil to distribute water more effectively than former systems that water based on set schedules. The group hopes to further reduce water use in the future.

New buildings being built on campus incorporate storm water treatment and gray water systems. **Gray water** is non-industrial wastewater produced during washing and is different from black water, the water from toilets. Gray water can be reclaimed and used in irrigation, toilets, and even ice rinks.

Gray water systems can require a lot of work to install in older buildings, but there are ways to reuse some gray water produced at home, like using a bowl of water to rinse fruits and vegetables, then using it water plants or using nutrient-rich water from fish tanks to water plants. EWEB offers tools and tips for reducing water use at home and work: <http://www.eweb.org/content.aspx/735d1a11-0e2c-4853-b823-145e9e4a5747>



Refilling Stations

Thanks to Zone A and B, and everyone else who made this possible, for the new refilling spouts that have been added to drinking fountains around campus: Greg Haider, Ernie Svennson, Bill Kasper, Paul Blancher, Ron Stockman, Brad Lorenz, and Mike Anderson!

You can now easily refill water bottles in Klamath, Lawrence, Friendly, Willamette and four spots in the EMU. More are coming in Oregon, Klamath and Huestis.

This is a great start to moving away from bottled water use as a campus and hopefully one day there will be a spout in every building.

Bottled water is more expensive, less regulated, and produces more waste than tap water- ditch disposable plastic water bottles and go refillable!