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Important dates:

- Sept. 22 Autumnal equinox
- Sept. 26 PGE Human Centric Lighting seminar
- Oct. 1 PGE Understanding Demand Response Workshop
- Oct. 21 Green Award nominations available ★
- Oct. 25-27 Home & Remodel Show at Oregon State Fairgrounds
- Nov. 3 Daylight savings time ends
- Nov. 5 Election day
- Nov. 11 Veterans Day
- Nov. 12 Sustainability Summit ★
- Nov. 28 Thanksgiving

Turning trash into treasure

Sustainable actions save money & materials

The Oregon State Penitentiary has found unique ways to save energy, recycle and reuse materials and become more self-sufficient—all while saving money. Not an easy task at a facility with more than 2,500 people, strict security measures and challenges unlike any other businesses’.

Consider the fact that the 147-year-old facility currently has 439 staff and houses about 2,100 inmates in various units such as the infirmary or mental health housing. Everything leaving the site has to be searchable—so, for example, bins of cardboard or metal headed to recycling centers must be checked to be certain an inmate is not hiding in them. And while some paper products have been replaced with reusable plastic, there are certain situations where paper products are necessary for security reasons.



Oregon State Penitentiary was EarthWISE certified in 2012. Three other Department of Corrections facilities have since been certified.

In addition, the penitentiary’s challenges are so unusual that turning to another business for an answer is not an option. For example, OSP has an inordinate amount of waste not typically seen in other businesses: denim. Inmates wear denim, and when the denim wears out, it gets thrown out. But since 2012, Capt. William Bellman, along with other Oregon Correctional facilities, have been stockpiling denim and other fabric materials in hopes that the material will make its way into wall insulation or industrial rags. Inmates are also working on manufacturing duffel bags out of the old jeans—to replace plastic bags—for inmates who are moving inside the facility.

Despite the challenges, Oregon State Penitentiary received its EarthWISE certification in June 2012.

Staff implemented a comprehensive metal recycling program so that tin cans and

metal from broken machinery and old televisions would go to Cherry City Metals. The annual scrap metal sale averages \$16,000. It easily paid for a \$4,600 fenced and covered recycling area installed in November 2012.



In 2012, 20,000 pounds of fresh produce was grown on site.

The cost savings are even greater, however, because the program also eliminates garbage from the waste stream. In the past, scrap metal—along with scrap wood, yard debris and plastics—was tossed. The state penitentiary saves about \$12,000 a year by not throwing those items out.

The agency purchased a wood chipper so that branches could be ground up and added to leaves and other yard debris in compost piles and then used in garden plots or other landscaped areas. The compost piles also handle vegetable waste from the kitchen.

Garbage waste was also reduced by replacing some paper cups and disposable plastic items with reusable plastic products. Not only has the agency seen a reduction in garbage of 15,000 pounds per month but it has saved \$9,237 by not having to purchase those paper products. The garbage bill has been reduced by \$7,860 a year.

Other innovative waste reduction strategies have shown a cost savings. One is to reduce the use of plastic bags, at a cost of 22 cent each, by reusing the plastic bags that food products such as onions, rice and potatoes come packaged in. Reusable Rubbermaid totes take the place of plastic bags to haul out food waste.

Since vegetable and fruit waste is being diverted to compost piles, penitentiary staff looked for ways to compost the rest of the food waste. With the help of a Marion County grant, OSP purchased an Earth tub composting system. The agency bought another one, and it hopes to receive a grant for six more that will handle all food waste and napkins. The composting program will likely eliminate 3 to 4 tons of food waste heading to the garbage a month.

The food waste generated at the Oregon State Penitentiary is not all store bought—in fact, in 2012, 20,000 pounds of fresh produce was grown on site and used for meals. The food was valued at \$10,000.

This year, four garden plots plus the greenhouse will grow garlic, tomatoes, cucumbers, zucchini and jalapeños. Sustainability efforts extended to the growing infrastructure: inmates designed and made tomato cages from old fence wire.

Light-emitting diodes (LED) have been another sustainability-minded addition to the penitentiary. All of the external lights (491 fixtures) on the property have been converted to LED lighting with timers and sensors added, resulting in a 60 percent power reduction.

Inside, all of the fluorescent lights have been converted to more efficient T8 lights.

Staff from throughout the facility, with the help of the Green Team, continues to make suggestions for cost savings and increased sustainability—ideas that have added up to more than \$55,000 in annual savings.



Captain Bill Bellman led the EarthWISE certification efforts at OSP.

Time to recertify already?

These EarthWISE businesses just did



Modern Building Systems, Inc.



Barnwood Naturals



Travel Salem



NORPAC Plant 7 - Salem



NORPAC Recertifications



NORPAC Plant 6 & 8 - Salem



NORPAC Plant 5 - Brooks

Five Government agencies reach EarthWISE certification

EarthWISE staff would like to congratulate the following local agencies for working to achieve EarthWISE certification this summer:

- City of Salem Shops
- Oregon Department of Corrections Gath RoadRange
- Oregon Department of Corrections CDC Warehouse
- Oregon State Corrections Institution
- Salem Keizer Transit



Ask Mister Sustainability

Question: OK, for quite some time now it's been next to impossible to recycle plastic film. Is there someplace or someone who knows what's going on?

I wish I could send you to the "place" that could tell us what is in store with plastics collection but, unfortunately, there is none. Until the Chinese "Green Fence" drops or new markets emerge in other countries, there will be a squeeze on plastics recycling. Because almost all shipping goes between China and US, selling to other markets in Malaysia, Viet Nam, or Indonesia is problematic because shipping costs go way up, and since the margin is so thin it's usually not a profitable exchange. There just is not enough plastic manufacturing in North America to consume all the stuff that we toss.

But here is a potential scenario: according to local sources there are indications that the Green Fence may drop in November which will open the way for film plastics and many varieties of rigid plastics to find a market. However... that **MAY** not happen, which would leave us where we are today. And this story is not just about plastics; recycled paper markets are in the same boat—so to speak—because China is enforcing a fairly high threshold of clean material.

Are they being unfair to western vendors? Well, for years we've been sending them stuff that varied from pretty good to pretty contaminated. Why? Because it's easier to not pay for really clean sorts on the US end and just let them use their cheap labor to deal with it. But they've had enough of that bargain and are demanding - on a national scale - clean materials.

What a wake up call.

The good news is this should force the material sorts on our end to get better and cleaner. The bad news is that some sorting operations will go bust. However, there are still markets for clean material... and in the plastic world that's clear film, and rigid plastics 1 and 2 (mostly).

Of course the bottom line for all of us in the 3R business is to switch from disposables to durables whenever possible. It ain't rocket science.

Question: I hear a lot about going green, but it seems like green power is pretty expensive. Comments?

That's a good question to explore on another day. But let me leave you with this thought: if Wal-Mart, that mega-corp of cutthroat cost-cutting, can do it, there must be something to it.

Factoid Department

The grocery store plastic bag—the little bag that many folks love to hate—has now been banned in Los Angeles.

The City of Angels is the second largest city in the U.S. Important? That now means that 1/3 of the state of California will now live in areas where single-use bags are banned. That's over 13 million people.

Just for perspective: 46 of our 50 states have less population than that.

Like big numbers? The EPA tells us that Intel Corporation buys 100% of its electricity—1.9 billion kilowatt-hours—from green sources, making it the largest consumer of green energy in the US.

You know who's the 5th largest consumer of such energy? Wal-Mart. Who would have guessed?

It's said that the average American will throw away 600 times their weight during their lifetime. If you could save it up your offspring would inherit 90,000 pounds of trash.

The plus side would be that there would be no inheritance tax imposed.

In Marion County, nearly 40% of what we toss in the trash could have been composted. That would be stuff like food scraps and yard waste.

Free local training opportunities from PGE

Human Centric Lighting



- September 26, 2013
- 7:30 a.m. to 12:00 p.m.
- Chemeketa Center for Business & Industry
- 626 High St. NE
- Salem, OR 97301

Human Centric Lighting will be the next big step in lighting, maybe as significant as Edison creating the light bulb. Come to this half-day seminar and learn the many benefits of Human Centric Lighting which go well beyond energy savings. Human Centric Lighting refers to lighting that can improve circadian rhythms, mood, visual acuity, productivity, performance, energy savings and sustainability. These improvements can be maximized using new tunable LED technologies that adjust light spectrum and light levels at specific times of day.

Understanding Demand Response Workshop

- October 1, 2013
- The Salvation Army Kroc Corps Community Center
- 1865 Bill Frey Drive
- Salem, OR 97301

Interested in saving energy with the emerging smart grid? Learn how you can take advantage of the latest technology. Demand response generally involves reducing energy use at your facility for a small block of time, a limited number of days each year, in exchange for financial compensation. These programs are often automated and seamless for the end user. Attend and learn how you can benefit from PGE's **Energy PartnerSM** demand response program.

To **sign up** for a class or to get more information go to:

Call: 503 464 8020, and press 1 for "classes".

Email: PGE.Seminars@PGN.com

Web: PortlandGeneral.com/Classes

EarthWISE Member Directory

* Denotes new EarthWISE business

Automotive

AJ's Auto Repair, Inc.
Brooks Automotive
Hillyer's Mid-City Ford
Sanford Automotive

Construction

Advantage Precast, Inc.
Arbuckle Costic Architects, Inc.
Barnwood Naturals, LLC
Carlson Veit Architects, P.C.
CB | Two Architects
Cherry City Heating
Cherry City Remodeling
dalke Construction
Day Heating & Cooling
Fluent Engineering, Inc.
Jet Industries
LCG Pence Construction, LLC
Modern Building Systems, Inc.
Pence Northwest Construction, LLC
Studio 3 Architecture, Inc.

Education

Chemeketa Community College
Chemeketa Center for Business & Industry

Financial

FPS, Inc.
SELCO Community Credit Union

Food

Bentley's Grill
BrucePac - Silverton & Woodburn Plants
Cascade Baking
Jonathan's
Kerr Concentrates, Inc.
LifeSource Natural Foods
NORPAC Foods - Stayton, Brooks, & Salem Plants
Spring Valley Dairy
Truitt Brothers, Inc.
Willamette Valley Fruit Company

Government

Champoeg State Heritage Area
Marion County Dog Shelter
Marion County Public Works—Silverton Road Campus
OR Department of Administrative Services- 20 Buildings
OR Dept. of Corrections/Gath Road Range*
OR Dept. of Corrections/CDC Warehouse*
OR Department of Energy
OR Exposition Center
OR Dept. of Public Safety Standards & Training
OR Lottery
OR DAS - Salem Motor Pool
OR State Capitol
OR State Corrections Institution*
OR State Penitentiary
Salem Civic Center
Salem Fire Department
Salem Housing Authority
Salem - Information Technology
Salem Keizer Transit*
Salem - Public Works Willow Lake WPCF
Salem Shops*
Salem - Urban Development's Airport Division
Salem - Urban Development's Director's Office
Salem Public Library

Landscaping

DeSantis Landscapes, Inc.
The Garden Angels
Green Acres Landscape, Inc.

Medical

Holly Chamberlain D.D.S., L.L.C.
Chiropractic Physicians, P.C.
Miller Orthodontics
Rural Metro Ambulance
Willamette E.N.T. & Facial Plastic Surgery, LLP

Not For Profit

Assistance League of Salem - Daue House
Assistance League of Salem - Encore Furniture
Family Building Blocks
Garten Services, Inc.
Habitat for Humanity of the Mid-Willamette Valley
Marion-Polk Food Share

Not For Profit (Continued)

SAIF Corporation
Temple Beth Sholom
United Way of the Mid-Willamette Valley
Willamette Lutheran Retirement Home

Personal Services

Designer Cut
Phiz Spa

Professional/Services

AAA Cleaning Service - Metro, Inc.
ABC Window Cleaners & Building Maintenance
Allied Video Productions
Cascade Employer's Association
Collier Law
Compex Two Computers
Lancaster Mall Operations
Law Office of Eden Rose Brown
VanNatta Public Relations/Spire Management

Real Estate & Commercial Properties

The Epping Group/Creekside Corporate Center
First American Title Insurance Company
Pringle Creek Community
Sperry Van Ness Commercial Advisors
Wildwood | Mahonia

Recycling/Solid Waste

Agri-Plas, Inc.
Covanta Energy, Marion Facility
D & O Garbage Service Inc.
Loren's Sanitation & Recycling Services
Marion Recycling Center
North Marion Recycling & Disposal
Pacific Sanitation

Retail/Wholesale

Cook Stationery Co.
Habitat for Humanity ReStore
One Fair World

Tourism

Grand Hotel in Salem
Salem Convention Center
Travel Salem

Upcoming events of note: Save the Dates!

**Salem Keizer Sustainability Summit
November 12 from 8 a.m. to 3 p.m.
Keizer Civic Center**

Details available soon

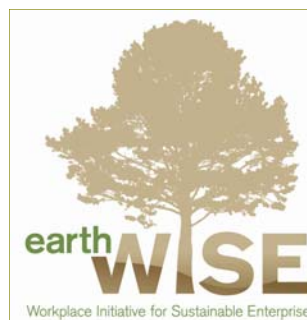
**5th Annual 2014 Green Awards
March 1 from 5 p.m. to 9:30 p.m.
Salem Convention Center**

In the meantime



Habitat for non-humanity?

**One creature's cast-off is another
creature's comfort.**



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