



# The Sustainable Business Bulletin

*Marion County Public Works – Environmental Services EarthWISE Business Program*

## Paper or Plastic? Is “going green” really green?



Which is greener, disposable plastic water bottles or stainless steel containers? There are more considerations than you might think!



Americans buy about 28 billion plastic water bottles every year.

One in nine of those bottles gets recycled.

Eight in ten will end up in a landfill.

It takes about 17 million barrels of oil to make all of these plastic bottles

Most of us have heard the debate over paper or plastic at the checkout stand and have learned that reusable containers make the most environmental and economic sense for both businesses and consumers. But it's worth more exploration: how environmentally friendly are “green” products?

The following are excerpts from a New York Times article- “How Green is my Bottle?” by Daniel Goleman and Gregory Norris, that highlight many of the factors that affect whether a product or process is truly green.

“Consider, for example, this paragon of eco-virtue: the stainless steel water bottle that lets us hydrate without discarding endless plastic bottles. Using a method called life cycle assessment, we have evaluated the environmental and health impact of a

stainless steel thermos — from the extraction and processing of its ingredients, to its manufacture, distribution, use and final disposal. There were some surprises. What we think of as “green” turns out to be less so (and, yes, sometimes more so) than we assume.

### Extraction Process:

Producing stainless steel requires a global supply chain involving more than 1,400 steps, each with its own impact on the environment. The ores have to be processed to extract useful metal. This usually involves energy-intensive heating, a process that not only requires enormous amounts of fossil fuel but also releases greenhouse gases, carcinogens, particulates and toxic materials into the air, water and soil.

### Manufacturing:

Making stainless steel—which requires the processing of nickel and chromium ores—results in about 10 times more pol-

lution than regular steel. But if the steel mills use recycled iron, instead of newly mined pig iron, the environmental and health impact can be reduced by 10 to 15 percent.

### Distribution:

The good news: shipping the bottle from a factory in Asia in a tightly packed cargo container, plus a few hundred miles by truck, adds only 1 percent to 5 percent to the environmental burden. The bad: the heating, cooling, lighting and ventilation of the store where you buy the bottle could have nearly as much of a negative effect on the environment as producing the bottle itself.

### Disposal:

Steel lasts forever; so disposal probably comes the day you lose the top. Try to ensure that the discarded bottle finds its way to a steel recycler—not just a landfill where it could sit for centuries. By recycling stainless steel you return not only steel but nickel

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Where does it all go?



To receive an application for the fall 2009 Master Recycler class contact:

Bailey Payne  
Recycling Coordinator  
bpayne@co.marion.or.us  
503-588-5036 ext. 5991



Eight weeks of classroom instruction with a variety of community experts takes place on Thursday nights.



Saturday field trips give participants a first hand look at ways to deal with solid waste in Marion County.

Master Recycler Class - Would your employees benefit?

Marion County's Master Recycler Class is part of a community waste reduction and recycling education project. Participants in the course receive over 30 hours of comprehensive

training that can keep key employees up to date on important issues regarding solid waste management reduction and recycling .

Marion County Environmental Services will be hold-

ing a first ever fall class this upcoming September. Classes run for eight weeks and include three Saturday field trips and are limited to 25 participants. See side bar for more information about registration.

*Paper* continued from previous page and chromium alloys to the production chain, reducing the need to mine and process more of these essential ingredients. These benefits are well worth the impact of transporting the steel back to the mill for recycling.

**Use:** If you wash your stainless steel water bottle in a dishwasher that uses a half-liter of electrically heated water, 50 to 100 washes can result in the same amount of pollution that was caused by making the bottle in the first place. Washing it in cold water still demands electricity to pump the water and chemicals to treat it— but the cost is tiny in comparison.

**So, is stainless steel really better than plastic?**

One stainless steel bottle is obviously much worse than one plastic bottle. Producing that 300-gram

stainless steel bottle requires seven times as much fossil fuel, releases 14 times more greenhouse gases, demands the extraction of hundreds of times more metal resources and causes hundreds of times more toxic risk to people and ecosystems than making a 32-gram plastic bottle. If you're planning to take only one drink in your life, buy plastic.

But chances are buying that stainless steel bottle will prevent you from using and then throwing away countless plastic bottles. And think of the harm done to the environment by making more and more plastic — the electricity needed to form polyethylene terephthalate resin into bottles, the fossils fuels burned to produce this electricity, the energy used and emissions released from mining the coal and converting crude oil to fuel, and on and on.

What it comes down to is this: if your stainless steel bottle takes the place of 50 plastic bottles, the climate is better off, and if it gets used 500 times, it beats plastic in all the environment-impact categories studied in a life cycle assessment.

It's important to keep in mind that the 21st century has inherited from the 20th (and sometimes the 19th) manufacturing processes and industrial chemicals that were developed when no one knew — or cared that much — about environmental damage. But even though climate change demands urgent ecological action, this crisis also offers vast entrepreneurial opportunities; we need to re-invent everything with an eye to protecting the planet.

Then again, some old solutions we shouldn't discount. Before stainless steel thermoses, before bottled water, we already had an eco-friendly method of getting water: drinking fountains."

## Spotlight on EarthWISE businesses

### Mahalo Air Conditioning

Salem- We work to reduce our customer's environmental impact and carbon footprint, which not only helps the environment but also results in long term



financial savings. Our goal is to meet your budget to install the most efficient, dependable system we can. We actively manage our oil and refrigerant waste to protect our air and drinking

water. We also separate and recycle all of our job waste. One year we were able to recycle nearly 100 tons of scrap steel and are striving to achieve a zero waste record.

[www.mahaloairco.com](http://www.mahaloairco.com)  
503-999-4417

### Oregon Community Credit Union

Salem- At Oregon Community Credit Union we've made a conscious decision to do business in ways that not only benefit our members, but also our community and the environment.

Here are a few of the things we're doing to be a more sustainable business:



- Recycle office waste and purchase materials with recycled content.
- Invest in energy efficient lighting, heating, and cooling.
- Donate time and money in statewide beautification projects.
- Offer employee incentives to bike, carpool, or use mass transit.

[www.OregonCommunityCU.org](http://www.OregonCommunityCU.org)  
503-588-2347

Do you know of a business or friendly competitor that might like to know more about the EarthWISE program? Have them give us a call, email, or check out our web site. It's all listed below:

Alan Pennington  
503-365-3188

or

[earthwise@co.marion.or.us](mailto:earthwise@co.marion.or.us)

or

[www.co.marion.or.us/PW/es/EarthWISE](http://www.co.marion.or.us/PW/es/EarthWISE)

## And some more of our new Earthwise members....

### Hillyer's Mid-City Ford



Woodburn- Hillyer's Mid City Ford, owned and operated by Leo Hillyer, was established in 1993. Because the Hillyer Ford family shares a love of the outdoors we wanted to find ways to protect Oregon's environment by reducing waste and recycling. Working with local recyclers, EarthWISE, and EcoBiz, we've been able to greatly reduce our waste stream while realizing a cost saving benefit that is much more than we anticipated. We hope that our efforts will be recognized by others in the automotive in-

dustry and encourage them to increase their sustainability efforts.

[www.Hillyers.com](http://www.Hillyers.com)  
503-981-4747

### T-Mobile



Salem- The Salem T-Mobile Call Center is greatly pleased to join other outstanding Marion County businesses in being EarthWISE certified. Our goal has always been to reduce waste, recycle more, use sustainable products, and conserve energy and water whenever possible. The net result of saving money, making the workplace safer, and lessening our environmental

footprint has a positive impact for all of us.

[www.t-mobile.com](http://www.t-mobile.com)  
503-851-1033

### Pacific Sanitation

Salem-In 2009, Pacific Sanitation began collecting cooking oil and anti-freeze in our curbside recycling program. We run bio-diesel in all of our trucks, and recently our office started using recycled paper for all of our route books. We are proud to be a Marion County EarthWISE certified business.

[www.mrtrashrecycles.com](http://www.mrtrashrecycles.com)  
503-393-1031



Want to join the discussion regarding the future of recycling and solid waste management in Marion County? There will be two public hearings on the proposed plan that will include a presentation and time for public input.

### Stayton

Thursday, June 11,  
6:30 pm  
Stayton Library  
515 N. First St.

### Woodburn

Thursday, June 18,  
6:30 pm  
Woodburn City Hall  
Council Chambers  
270 Montgomery St.

# EarthWISE Member Directory

**We welcome our new members\*!**



Marion County  
OREGON

## **Marion County Public Works – Environmental Services EarthWISE Business Program**

5155 Silverton Road NE  
Salem, OR 97305

Phone: 503-365-3188

Fax: 503-588-3565

E-mail:

[earthwise@co.marion.or.us](mailto:earthwise@co.marion.or.us)

## **Workplace Initiative for Sustainable Enterprise**

WE'RE ON THE WEB!

[HTTP://](http://www.co.marion.or.us/PW/ES/EARTHWISE)

[WWW.CO.MARION.OR.US/](http://www.co.marion.or.us/PW/ES/EARTHWISE)

[PW/ES/EARTHWISE](http://www.co.marion.or.us/PW/ES/EARTHWISE)

To learn more about the EarthWISE business assistance program, visit our website or give us a call. We're excited to work with you. If you would like to be added to the Sustainable Business Bulletin email list send an email to [earthwise@co.marion.or.us](mailto:earthwise@co.marion.or.us) with "add Sustainable Business Bulletin" in the subject box. To be removed from the list, put "remove" in the subject box.



**Advantage Precast Inc.**— Keizer  
[www.advantageprecast.com](http://www.advantageprecast.com)

**Agri-Plas, Inc.**— Brooks  
[www.agriplasinc.com](http://www.agriplasinc.com)

**AJ's Auto Repair**— Salem  
[www.ajsautorepair.com](http://www.ajsautorepair.com)

**Bentley's Grill**— Salem  
[www.bentleysgrill.com](http://www.bentleysgrill.com)

**Carlson Veit Architects**— Salem  
[www.carlsonveit.com](http://www.carlsonveit.com)

**Cascade Baking**— Salem  
[www.cascadebaking.com](http://www.cascadebaking.com)

**CB|2 Architects**— Salem  
[www.cb2architects.com](http://www.cb2architects.com)

**Champog State Heritage Area**— St. Paul  
[www.oregonstateparks.org](http://www.oregonstateparks.org)

**Chiropractic Physicians, P.C.**— Salem  
503-378-0068

**Coldwell Banker Commercial Mountain West Real Estate**— Salem  
[www.cbcre.com](http://www.cbcre.com)

**Compex Two Computers**— Silverton  
[www.compex2.com](http://www.compex2.com)

**dalke construction, Inc.**— Salem  
[www.dalkeconstruction.com](http://www.dalkeconstruction.com)

**DeSantis Landscapes Inc.**— Salem  
[www.desantislandscapes.com](http://www.desantislandscapes.com)

**D & O Garbage Service, Inc.**— Salem  
[www.mrtrashrecycles.com](http://www.mrtrashrecycles.com)

**Dr. Holly Chamberlain D.D.S.**— Salem  
[www.hollychamberlainedentist.com](http://www.hollychamberlainedentist.com)

**Garten Services, Inc.**— Salem and Keizer  
[www.garten.org](http://www.garten.org)

**Green Acres Landscape, Inc.**— Salem  
[www.greenacreslandscapeinc.com](http://www.greenacreslandscapeinc.com)

**Hillyer's Mid-City Ford**— Woodburn  
[www.hillyers.com](http://www.hillyers.com)

**Kristin LaMont, Attorney at Law**— Salem  
[www.lamont-law.com](http://www.lamont-law.com)

**Lancaster Mall Operations**— Salem  
[www.LancasterMall.com](http://www.LancasterMall.com)

**Laura's Room by Room Renovation**— Salem  
503-999-4416

**Mahalo Air Conditioning Co.**— Salem  
[www.mahaloairco.com](http://www.mahaloairco.com)

**Marion County Public Works— Environmental Services**  
[www.co.marion.or.us/PW/ES](http://www.co.marion.or.us/PW/ES)

**Marion Recycling Center**— Salem  
[www.mrtrashrecycles.com](http://www.mrtrashrecycles.com)

**NORPAC Foods**— Stayton, Salem, Brooks  
[www.norpac.com](http://www.norpac.com)

**Oregon Center of Cosmetic and Family Dentistry**— Salem  
[www.ItTakesAnArtist.com](http://www.ItTakesAnArtist.com)

**Oregon Community Credit United**— Salem  
[www.oregoncommunitycu.org](http://www.oregoncommunitycu.org)

**Oregon Department of Energy**— Salem  
[www.oregon.gov/ENERGY](http://www.oregon.gov/ENERGY)

**Oregon State Capitol**— Salem  
[www.leg.state.or.us](http://www.leg.state.or.us)

**Pacific Sanitation**—Salem\*  
[www.mrtrashrecycles.com](http://www.mrtrashrecycles.com)

**Performance Health Technology**— Salem  
[www.phtech.com](http://www.phtech.com)

**Phoenix Grand Hotel**— Salem  
[www.phoenixgrandhotel.com](http://www.phoenixgrandhotel.com)

**Salem Public Library**— Salem  
[www.salemlibrary.org](http://www.salemlibrary.org)

**State of Oregon Salem Motor Pool**— Salem  
[www.oregon.gov/DAS/SSD/FLEET](http://www.oregon.gov/DAS/SSD/FLEET)

**Sabroso Company**— Woodburn  
[www.sabroso.com](http://www.sabroso.com)

**SAIF Corporation**— Salem  
[www.saif.com](http://www.saif.com)

**Saint Edward Catholic Church**— Salem  
[www.sainteds.com](http://www.sainteds.com)

**Salem Conference Center**— Salem  
[www.salemconferencecenter.org](http://www.salemconferencecenter.org)

**Spring Valley Dairy**—Salem\*  
[www.springvalleydairy.com](http://www.springvalleydairy.com)

**The Garden Angels**—Salem\*  
[www.TheGardenAngels.com](http://www.TheGardenAngels.com)

**T-Mobile**— Salem  
[www.t-mobile.com](http://www.t-mobile.com)

**Truitt Bros., Inc.**— Salem  
[www.truittbros.com](http://www.truittbros.com)

**United Way**— Salem  
[www.unitedwaymwv.com](http://www.unitedwaymwv.com)

**Willamette Ear, Nose, Throat and Facial Plastic Surgery, LLP**— Salem  
[www.entsalem.com](http://www.entsalem.com)

**Willamette Valley Fruit Company**— Salem  
[www.wvfc.com](http://www.wvfc.com)

**Wilshire Credit Corporation**— Salem

**Woodburn School District Offices**— Woodburn  
[www.woodburn.k12.or.us](http://www.woodburn.k12.or.us)