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**Look For
Free Paper
Reduction
Stickers
Inside!**

Closing the Loop with Recycled Products

Recycled products, now part of the mainstream, often match or exceed the quality of products manufactured from virgin materials. From carpeting to copy paper, fencing to flashlights, recycled products are in the marketplace to stay.

Questions and Answers

QUESTION: What is a recycled product?

ANSWER: It's a product made from materials that have been set aside and collected for recycling.

QUESTION: Why buy recycled? (and why should my company care?)

ANSWER: There are three good reasons.

1. When you buy recycled products, you create markets for the materials used to make those products. The end result is a reduction in the need for landfill space. Setting up a recycling program is only the first step in the three-part process we call recycling. Step two is the reprocessing of recyclable materials into new products. And step three is the purchase of these new products by businesses like yours.
The third step "closes the loop." By purchasing recycled products, your business helps to create a market for those products, which in turn creates demand for recyclable materials and makes the collection and reprocessing steps financially viable.

2. Products made from recycled materials require less processing than those made from virgin materials that have been extracted from natural resources. Compared to making products from extracted or virgin materials, the manufacturing process for recycled-content products often:
 - Uses less water
 - Reduces energy use
 - Creates less pollution
3. What goes around comes around. Exhaustion of the earth's natural resources is everyone's problem. Businesses rely on the natural resources in our environment to supply raw materials—and these resources are being depleted at an alarming rate. Responsible purchasing practices are an easy and effective way to demonstrate stewardship of the environment.

QUESTION: What can we do?

ANSWER: There are a number of easy strategies to help close the recycling loop.

- **Take control:** Survey the products that your business buys, making note of which products contain recycled content and which products don't. How can you tell? Ask your supplier or check the office supply catalog.
- **Don't be afraid to ask:** Almost all office supply stores carry recycled products. Check with your favorite *story continues inside*



From bottles containing beverages to tiles supporting foot traffic, recycled glass displays its versatility.



Closing the Loop with Recycled Products

continued from front page

office supply store for the product you need. Many suppliers offer whole sections in their catalog that list nothing but recycled products. If your vendor values your business, they will carry the recycled products you request.

- **Change your company's purchasing or procurement policy:** Require your business to purchase recycled products whenever possible — or whenever the cost of the recycled product is the same as or less than the cost of a non-recycled product.
- **Call King County Green Works at 206-296-8800:** We can send you a sample procurement policy and a sample letter to a vendor requesting recycled products.

QUESTION: What to buy?

ANSWER: There are a wide range of recycled products, but we'll note some common ones here.

- **Recycled-Content Paper:** Getting recycled-content paper is easy. All major paper mills produce recycled paper, giving businesses many choices for high quality, reasonably priced stationery and photocopy paper. Other paper products such as file folders, paper towels and even tissue paper are also available with recycled content.
- **Automotive Products:** Use re-refined oil and antifreeze in vehicles, especially in your delivery or service fleet. Purchase retread tires for large vehicles, vans and delivery trucks.

- **More Ideas:** Almost any product that your business uses is available with recycled content, including: plastic and rubber products; construction and landscaping products; remanufactured carpeting; tiles made of recycled glass; and plastic lumber.

For Help

Check the sidebar on page 5, or call King County Green Works at 206-296-8800 for tips on finding local vendors of recycled products.

We also have access to a national database of manufacturers that offer a wide variety of recycled products. We can search this on-line guide by product, material, company, brand name and location. You can then contact the manufacturer to find local retailers.

If you are a large business and would like to subscribe to the Recycled Product Guide, call 800-267-0707 or check out the web site at www.recyclingmarkets.net. A subscription that includes a printed copy of the guide plus access to the database costs \$215 per year. ☺



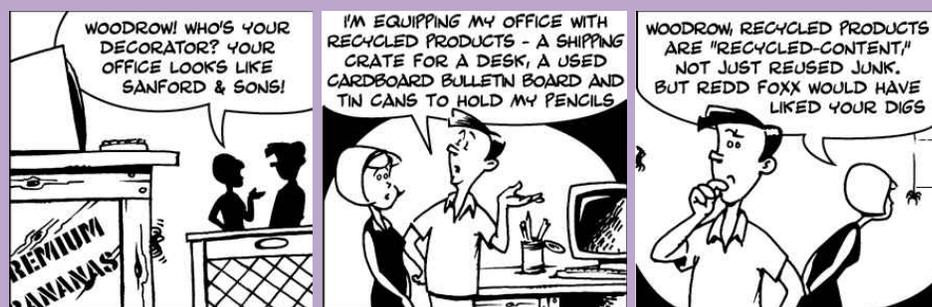
SAVING Resources SAVING Money

Buying recycled laser cartridges is smart business

Back in 1991, King County initiated a recycled-content procurement policy that included laser cartridges. Working with AMS Laser Supply, last year King County purchased 4,765 cartridges, including everything from ink-jet cartridges to fax and other toner cartridges. The cost was approximately \$155,500, or 66 percent less than the costs of new cartridges — a savings of \$300,000. For more information, look up www.metrokc.gov/procure/green/tonercart.htm.

Dumped on at the Office

A humorous look at the misadventures of a wasteful office worker



The moral of the story—Recycled products are now mainstream, with options that work and look as good as new products made from virgin materials. See our cover story to find out more!

Toilet Technology

Replacing existing high-flow fixtures with water-conserving fixtures can save businesses up to 50 percent on water used for toilets, sinks and showers.

Low-flow toilets

Low-flow toilets consume 1.6 gpf (gallons of water per flush). Older fixtures average 3–4 gpf, with some using as much as 5 gpf. South Seattle Community College reduced water and wastewater costs by 40 percent by installing low-flow fixtures in all restrooms in 18 buildings.

No-Water Urinals

Bellevue Community College (BCC) saves an estimated 45,000 gallons and \$433 per urinal annually due to the no-water urinals installed in one building. Sewer cost savings are estimated to be even higher.

The fiberglass fixture uses no water and catches waste in removable filters with an odor-stopping 'blue seal' liquid. Once waste passes through the seal, it continues into the building's main sewer system. The liquid is replenished once a week, and the recyclable filters are replaced every few months.

Used over 600 times per day an average of six days a week, the new fixtures at BCC have no reported overflow, clogging or odor problems. Overall

savings are significant when cost savings for

water, sewer and lowered maintenance (due to decreased blockage, overflow and cleaning) are added up.

Rebate and incentive programs

Incentive financing and rebates are available to help businesses with up-front costs of installing efficient fixtures. (See "Keeping Your Head Above Water" on this page for more details.)

Simple solutions save \$\$

Easy ways to reduce water usage—and costs—include locating leaks and making sure existing fixtures were properly installed. One leaky toilet can cost a business up to \$75 per day. And improperly installed flaps or flush valves can transform a "low-flow" model into one that uses up to 5 gpf.

Keeping Your Head Above Water

How important is water? Water covers 80 percent of the earth's surface, makes up two-thirds of the human body, and 70 percent of the brain. But fresh water is less than 3 percent of the global total, much of it trapped in glaciers, icecaps or deep in the Earth.

So how critical is water to business? Manufacturing, processing, cleaning, cooling, and irrigating require massive amounts of water. Here are a few facts that drive the point home:

- Every day, U.S. businesses and residents use more than 380 billion gallons of water, or approximately 1,668 gallons per person.
- 39,000 gallons of water are needed to manufacture the average domestic automobile.
- Producing a typical fast-food lunch—hamburger, french fries and a soft drink—uses 1,500 gallons of water. This includes the water to produce the soda and the water to grow both the potatoes and the grain for feeding the cattle.

All that water requires a huge commitment of natural resources and a substantial wad of cash. So conservation makes sense on a number of levels.

Financial Incentive Programs

Most King County businesses are eligible for grant and rebate programs to help pay for water-efficient fixtures and other water conservation practices. Local utilities, including Seattle Public Utilities and their purveyor partners across King County, offer financial incentives via the Water Smart Technology Program.

This program provides rebates on water conservation technologies such as low-flow toilets, air-cooled commercial ice machines and commercial resource-efficient washers for laundromats and apartments. Businesses may also be eligible for additional water conservation incentives, including landscape and irrigation system assessments. Check the sidebar on page 4 for resources.

Cost Savings

How much can you save? Cost savings can range from hundreds to literally hundreds of thousands of dollars.

The Sheraton Seattle Hotel and Towers converted 39 ice machines from water-cooled operation to air-cooled models, reducing water consumption by more than 5.2 million gallons a year. Their original investment of \$208,000 has paid a big return. As water and sewer rates have escalated, the initial annual savings of \$21,000 realized by the hotel in 1993 has grown to over \$60,000 per year.

The Sheraton also worked with Seattle Public Utilities to replace five "roto-clone" exhaust fans that use water to filter air as it leaves the building. Waterless replacement fans reduced consumption by 9.5 million gallons per year, saving the hotel \$72,000 annually.

Every business sector can save dollars and resources with water conservation strategies. The EPA's Water Alliance for Voluntary Efficiency (WAVE) helps businesses reduce water consumption by 15–30 percent by providing water management software, technical support and free publicity.

The Business of Water Conservation

“When the well’s dry, we know the worth of water.”

—Benjamin Franklin, *Poor Richard’s Almanac*, 1746

Basic principles and tips:

1 Reduce and conserve water

- Increase employee awareness. Install signs promoting water conservation in key locations such as restrooms and kitchens. Insert reminders in emails, memos and newsletters.
- Check water supplies for leaks; repair dripping faucets and leaking toilets. Ask landscape and irrigation contractors to periodically check irrigation systems. For hidden leaks, businesses can contract with leak detection consultants. They are relatively easy to find on the Internet, and are also listed in the Yellow Pages under “Plumbing Contractors” or in some books under “Leak & Pipe Locating.”
- Promote water-efficient landscaping, called xeriscaping, through the use of native plants, drought resistant vegetation, mulching, proper irrigation, and minimal use of turf and ornamental plants.

2 Install water efficient fixtures and systems

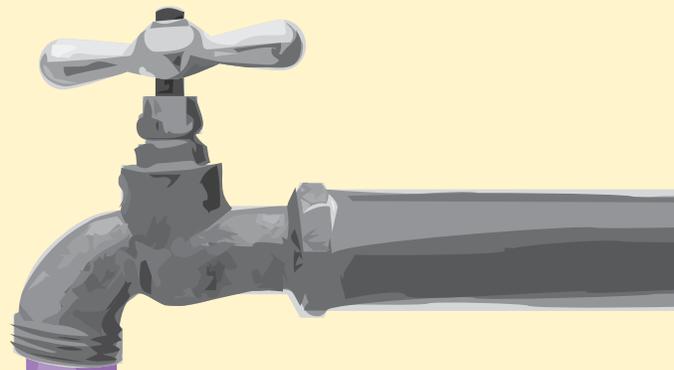
- Replace older toilets with low-flow models. Each new unit can save at least \$120–\$180 annually on water and sewer bills.
- Use water-saving devices such as spring-loaded levers and motion sensors on faucets and toilets.

- Install low-flow aerators on faucets and other fixtures.
- Replace water-cooled refrigeration and ice machines with air-cooled systems.
- Use drip irrigation systems instead of sprinklers. Install rain sensors that automatically turn off irrigation systems on wet days.

3 Reuse water

- Utilize treated wastewater or reclaimed water for other industrial uses, and for landscape or agricultural irrigation.
- Reuse water for aesthetic purposes such as fountains or waterfalls.
- Recycle water for the same application for which it was originally used, such as the water used in cooling systems or car washes. For example, high-pressure car washing systems typically use 300–400 gallons per car. In most systems, almost all water is recaptured and recycled back to the pressure tank after each use.

Ben Franklin understood the importance of water. Perhaps it’s appropriate that his portrait appears on the \$100 bill. It’s a great inspiration when planning your water conservation strategies. ☺



EXAMPLE

King County’s Department of Natural Resources and Parks practices what it preaches.

As part of its Water Reuse Program, King County wastewater treatment plants use reclaimed water for internal plant operations and landscape irrigation, saving 6 million gallons of water per year. Other water conservation strategies include regular audits of water use and purchasing water-conserving washing machines in housing operated by King County Housing Authority. For more information, see list of resources below.

Water Conservation Resources

American Water Works Association

www.waterwiser.org

800-926-7337

EPA’s Water Alliance for Voluntary Efficiency (WAVE)

www.epa.gov/owm/water-efficiency

202-564-0623

King County Department of Natural Resources and Parks Water Reuse Program

<http://dnr.metrokc.gov/WTD/reuse>

206-296-8361

Saving Water Partnership

www.savingwater.org

Includes links to water purveyors throughout King County

206-684-SAVE (684-7283)

Seattle Public Utilities Water Smart Technology Program

www.ci.seattle.wa.us/util

206-684-5883

a closer look at

Recycled Paper



Mixed paper can take on new form as a cardboard box.



For more Information...

General Recycled Products

King County Green Works Program
206-296-8800

King County Environmental
Purchasing Program
www.metrokc.gov/procure/green

The EPA's list of products and
recycled-content recommendations
epa.gov/cpg/products.htm

California Integrated Waste
Management Board (recycled
product database)
www.ciwmb.ca.gov/RCP

Recycled Paper

Conservatree
www.conservatree.com
415-721-4230

Recycled Products Purchasing
Cooperative (RPPC)
www.recycledproducts.org
800-694-8355

WHY BUY RECYCLED PAPER?

A better question would be: "Why not?" *Recycled paper* has caught up with *virgin paper* in terms of quality, availability and, in many cases, cost. (*Italicized words are defined in the pullout below.*)

As to "why?", here are two good reasons.

1. Buying recycled paper supports recycling programs that divert waste paper from landfills. In King County, 30 percent of all non-residential waste is comprised of office paper and other paper products such as cardboard. When businesses buy recycled paper, they stimulate demand for the waste paper that is used to make recycled paper.
2. By purchasing recycled paper, businesses also reduce the amount of wood, water and energy that would otherwise be used to make paper. As we continue to deplete natural resources and energy sources, each business must become part of the solution.

"BUT THEY'RE ONLY TREES"...

Yes, but how many trees? You might be surprised. It takes 24 trees to make each ton of uncoated, non-recycled office paper. A "tree" is defined as a mix of hardwoods and softwoods, 40 feet tall, six to eight inches in diameter. A pallet of copier paper—40 cartons, 400 reams—weighs roughly 2,000 pounds, or one ton.

Think about it: your business consumes 24 trees each time it uses a pallet of virgin office paper, which happens much quicker than you might think.

Terms to Understand...

Recycled paper or recycled-content paper: paper products made with paper that has been collected and set aside for recycling.

Virgin paper: finished paper products made from trees. No recycled content.

Pre-consumer recycled paper: finished paper products made from clean paper scraps salvaged from paper mills and businesses

WHAT TO DO?

Here are some general guidelines for your business to follow as it makes the switch to recycled paper.

- **Purchase only paper containing at least 30% post-consumer content.** This is the standard minimum procurement requirement for every department of the federal government. Virtually all office paper can legally be labeled "recycled," since even virgin paper mills recycle their *pre-consumer* scraps. It's important to purchase paper with a high percentage of *post-consumer* content, since our goal is to conserve resources by removing paper from the waste stream.
- **Shop around!** Now almost all large and small office supply vendors carry recycled paper, but if they don't carry the paper you need, ask them to stock it or find other suppliers. To negotiate the best price for recycled paper, work with your supplier to obtain a long-term contract and be flexible about delivery requirements.

Consider buying paper through the Recycled Products Purchasing Cooperative (RPPC). Members of this nonprofit group realize substantial discounts for orders of 20 cases or more of paper. Membership is free and the purchasing process is simple. (See contact information to the left.)

Call King County Green Works at 206-296-8800 for help locating recycled paper. ☺

that manufacture paper products. These are the scraps that didn't make it into a final product the first time around. Almost all paper contains some pre-consumer recycled paper.

Post-consumer recycled paper: finished paper products made from paper that has served its intended purpose and been collected from businesses and households for recycling.

So what is Green Works?

King County Green Works is a waste prevention and recycling assistance program for businesses. It is sponsored by the King County Solid Waste Division along with partnering suburban cities. If your business needs help reducing waste, locating recycled-content products or finding recycling vendors for office waste, contact our business assistance team. We can also provide information and referrals on energy and water conservation.

King County Green Works Newsletter is a quarterly publication written and produced by the King County Solid Waste Division. Inclusion of a business, product or service in this newsletter does not constitute an official endorsement or sponsorship by the Solid Waste Division or King County. Please send us your questions, story ideas or other suggestions and comments.

Receive King County Green Works Newsletter by email

Cut down on waste and receive the newsletter via email. We'll send it to you in Portable Document Format (PDF) that's read with Adobe's Acrobat Reader; a free software download available on the Internet. Just send your email address, name, and company name to our email address below.

This material will be provided in alternate formats upon request.

To contact us:

Phone: 206-296-8800

Email address: greenworks.swd@metrokc.gov

Website: www.metrokc.gov/greenworks

Fax: 206-296-4475 • TTY Relay: 711

What's up with the Stickers?

King County is sticking with the business community. Inside this newsletter, you'll find stickers to help you promote paper reduction in your business.

Place a "Two Sides Are Better Than One" sticker on your copier, printer or computer monitor to serve as a reminder to double-side or to reuse the back side.



Here are four simple actions you can take to save paper and conserve resources:

- Perform edits on screen.
- Make fewer copies — print only what you need.
- Make copies double-sided.
- Use more of the page by formatting wider text and narrower margins.

So stick it to waste.

You'll save money on paper, save space in your file drawer...and save time at the copier refilling the paper trays.

What Have We Here? We at King County Green Works—producer of this newsletter—take pride in putting into practice what we preach. This newsletter is printed using soy-based inks on French Paper Company's Speckleton Basics—Pepper Off-White—an acid and chlorine free 100% post-consumer non-deinked recycled paper.



Return Service Requested

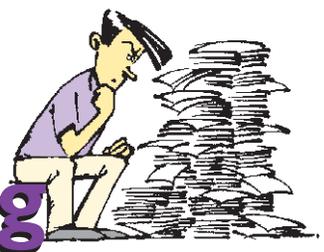
PRSR STD
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Seattle, WA
Permit No. 14146

King County
Department of Natural Resources and Parks
Solid Waste Division
201 South Jackson St, Suite 701
Seattle, WA 98104-3855



The Do-It-Yourself Business Guide to:

Lean & Green Printing and Copying



...or "How to free yourself from the paper avalanche"

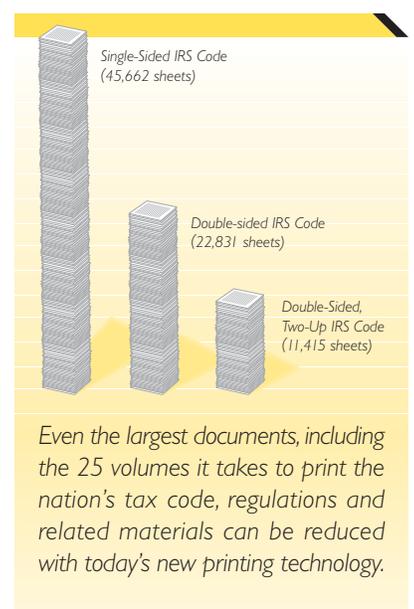
There are two sides to every sheet of paper. Unfortunately, in business we frequently use just one.

Just think. If you consumed groceries in the same wasteful manner, you would quite literally discard half of every loaf of bread, pot roast and gallon of milk purchased. In short order, the increased cost, extra trips to the store and mountains of wasted food would be overwhelming.

At the office we face similar consequences of waste—increased paper costs, extra trips to the office supply store or paper supply room, and more filing and paper shuffling.

Computers were supposed to reduce reliance on office paper. But as printers and copiers have become faster and more efficient, office

workers actually are using more, rather than less paper. But technology provides an answer to this paradox of paper waste. It's called duplexing, which means double-sided your copies.



Many manufacturers produce machines that offer duplexing as a standard feature. If you own an older machine, your technician may be able to install an upgrade and have you up and double siding in no time.

Another feature on many newer copiers is image reduction. Basically, image reduction involves printing two or more pages on one side of paper. While printing "two up" may make some documents difficult to read, it is a great way to archive documents and reports that are not needed on a daily basis. A simple way to do this is to attach a sign to your copier describing this feature and how best to use it. For tips and instructions on image reduction, check the operators manual or ask your copier service staff for instructions.

To find out more, contact your preferred office equipment vendor, or visit www.metrokc.gov/greenworks.

Penelope's Chatroom



Dear Penelope,
I'm buying a new copier. I want to make sure I get one that uses as little energy as possible to benefit the environment and save on my electricity bill. What do I do?

—Kopy Kat

Dear Kat,
Look for resource-efficient office equipment with the Energy Star label. You can find it at the same place you purchased your current equipment. Large companies may want to use a dealer to buy or lease their equipment. Smaller businesses may prefer buying direct from an office supply retailer.

Dear Penelope,
I love my current copier (I'll call it the "Star Wars" brand) but it broke down and I need a new one. Do you think "Star Wars" makes copiers that duplex, etc.?

—Obi-Want To Copy

Dear Obi-Want,
Of course! R2D2 couldn't stand to waste paper. Besides, all major copier brands manufacture products with image reduction, duplexing and energy efficiency features. So if you favor one particular brand of copier or printer, you probably won't need to switch.

...and now it's time for...

LET'S MAKE A DUPLEX

Which door would you pick for lower paper costs, less filing, less paper shuffling and fewer trips to the paper supply store?

Single Side Everything 1	Print Double Sided 2	Double Sided & Two Up 3
------------------------------------	--------------------------------	-----------------------------------

Correct answer: Door number 3.

Woodrow's Quiz: ?



Q&A on Recycled Paper

Our intrepid office worker, Woodrow, poses questions the rest of us are too afraid to ask...

Q:

Recycling the paper you use at the office is the best way to help the environment, right?

A:

TRUE **FALSE** Although recycling paper reduces air and water pollution and dramatically cuts energy waste, reducing the amount of paper you use in the first place has greater impact on the environment and on your financial bottom line. Less paper used in printing and copying means less money spent on paper, toner and equipment maintenance. Simply put, every double-sided copy saves the company 50% in paper costs. And every print job never printed saves 100% in paper and equipment costs.

Q:

The paper you recycle at the office can be re-used an infinite amount of times. So if you're recycling, you are really not being wasteful, right?

A:

TRUE **FALSE** Paper cannot be recycled indefinitely. Many people believe that a pristine piece of office paper works its way down a "food chain" of sorts through the recycling process, eventually becoming a cardboard box or an egg carton. This is not the case. With the help of Chris Paulson, Woodrow traced the lifecycle of paper as it progresses through Smurfit-Stone, a national packaging and recycling company that has several operations in the Puget Sound region.

Paulson, General Manager of Smurfit-Stone's Renton receiving and sorting facility, explains. "The simplest way to envision the recycling process is to think of a cardboard box becoming part of another cardboard box, and a piece of letterhead becoming part of another piece of letterhead. In the recycling process, paper and water are put into a large blender. After being broken down into slurry, the mix is spread onto felts and fed through large dryers to remove moisture. Lastly, the paper is rolled onto a spool, wrapped and sent to a converting facility."

Paulson explained that each time paper is put through the pulper, the fibers break down and become shorter. The useful life

of most paper fibers is between seven and ten trips through the pulper. Shorter paper fibers produce weaker paper—that is why most "100% recycled" containers hold smaller loads such as granola bars or laundry detergent. When mills need to make stronger paper for their customers, they generally mix about 50% to 60% reclaimed paper with wood chips to give the end product a higher ratio of longer fibers. Recycling allows us to squeeze the most use out of every harvested tree, but reducing the amount of paper used in the first place is a much more effective means to lessen our impact on the planet.

The bottom line? When it comes to paper, reduce consumption first. Then recycle everything you consume. ☺

Reducing Unwanted Mail



How much time does your business waste handing out unwanted mail?

A recent study in a Seattle mail room showed that staff spent 25% of its time sorting junk mail—that's two hours every day! At just the minimum wage in Washington, that adds up to over **\$3,500** annually per mailroom employee.

Unwanted mail (a.k.a. direct mail) is a major source of paper waste. But you can do more than just recycle your "junk" mail. Take steps to reduce the waste at the source.

- Contact the businesses that market and sell their address lists; one major business list holder is Dun & Bradstreet. To make this request, call the Dun & Bradstreet Customer Service Center at 800-333-0505.
- Move into prevention mode. Ask everyone with whom you share your address to refrain from selling or sharing it.
- Get further information and examples. Check out King County's website at: www.metrokc.gov/greenworks.