



Waste Wise 2005 Annual Report



F O R G I N G A H E A D

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WasteWise: Helping to Achieve National Recycling Goals

EPA has taken a leadership role in waste management by setting a national goal to achieve a 35 percent recycling rate by 2008. WasteWise efforts are vital to achieving this ambitious goal. In the past 10 years, more than 1,800 WasteWise partners have committed to waste prevention, recycling, and buying/manufacturing recycled products. WasteWise creates a strong waste reduction ethic within business, nonprofit, and government sectors that will be essential to achieving the 35 percent goal.



EPA has identified several key waste streams to increase the recycling rate from 31 percent in 2003¹ to 35 percent in 2008. These materials, which have been historically targeted by WasteWise partners, include organic materials, paper, and primary packaging and containers. In 2004, WasteWise partners moved the country closer to a 35 percent recycling rate by:

- Recycling more than 1.75 million tons of organic materials
- Recycling more than 1 million tons of paper



EPA's Resource Conservation Challenge: Success Through Flexibility

EPA's Resource Conservation Challenge (RCC) is about changing behaviors to increase the amount of waste material recycled and reused. This national effort focuses on finding more flexible, yet effective ways to conserve natural resources and energy. It relies on volunteers coming together to accomplish a greater goal. Using existing economic incentives, RCC programs, including WasteWise, are moving the nation toward the next generation of pollution prevention. Participants preserve and protect the environment by committing to:

- Reduce more waste
- Reuse and recycle more products
- Buy more recycled and recyclable products
- Reduce toxic chemicals in waste

¹ U.S. EPA, Municipal Solid Waste in the United States: 2003 Facts and Figures, <http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm>

Many WasteWise partners go above and beyond the traditional municipal solid waste streams by targeting the beneficial use of secondary materials—coal combustion products, construction and demolition debris, and foundry sand—which are also targeted materials for recovery under the Resource Conservation Challenge. These activities can include anything from using coal ash as a replacement for cement in concrete to salvaging building materials during deconstruction for use in new construction. In 2004, WasteWise partners recycled more than 147,000 tons of construction and demolition debris.



Another waste stream that WasteWise partners have included in their waste reduction programs is electronics. Recently, electronics waste, or e-waste, has emerged as a bigger problem as new technology rapidly replaces older electronics. EPA is targeting electronics waste through programs like the Federal Electronics Challenge and Plug-In To eCycling to foster a life-cycle approach including reuse and recycling.

WasteWise partners have heeded to the call to help capture more old electronics items; through reuse, donation, and recycling programs, they are giving these electronics a new lease on life. In 2004, WasteWise partners recycled more than 3.7 million pounds of computers.

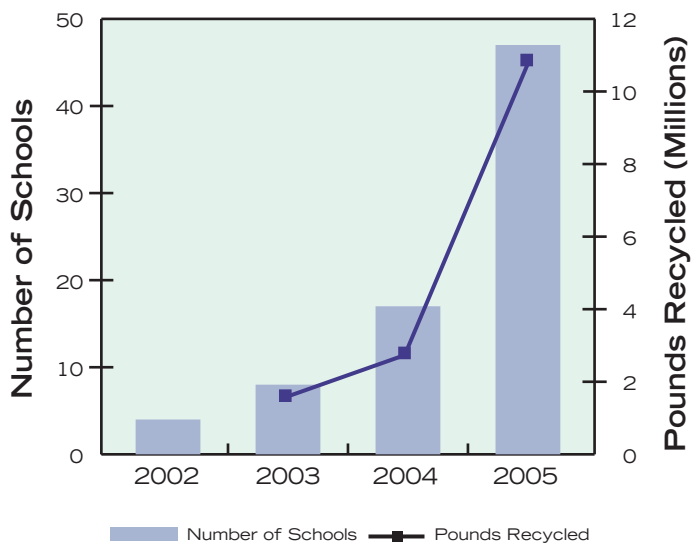
Using Competition to Make Recycling Fun: The Exciting Success Story of RecycleMania

Among WasteWise's partners are Ohio University and Miami University of Ohio. Both prominent Ohio universities, the two schools have a natural rivalry: they compete in recruitment, and each school's students snicker at the mention of the other school's name. In 2001, recycling coordinators at the two universities devised a way to tap into this competitive spirit to increase recycling on the two campuses. They developed a contest, "RecycleMania," to see which school could recycle the most materials per capita during a 10-week period. Thus, they used the energy of competition to reach audiences that might normally turn a deaf ear to environmental messages and to infuse excitement into waste reduction.

In the years since, RecycleMania has developed into a phenomenon in college and university waste reduction initiatives. The competition has expanded to include schools from across the country and has proven to be a remarkably successful vehicle for creating excitement around recycling. Says Ed Newman, one of the founders, "Understandably, college students tend to pay more



RecycleMania Results



attention to their social life and academics than their personal solid waste management. RecycleMania is an attempt to blend these together and move recycling higher up on the importance hierarchy.” In 2002, four schools participated, followed by eight the next year, then 17. RecycleManiacs now include schools of all types and sizes, from small liberal arts colleges to large state universities.

Through its College and University Campaign, WasteWise partnered with RecycleMania in 2004 to further expand and enhance the competition. As a result, 47 colleges and universities participated in RecycleMania 2005 and recycled more than 10.4 million pounds of materials—equivalent to removing approximately 3,480 passenger cars from the road for one year. By increasing awareness of waste reduction issues and increasing recycling collection on college campuses, RecycleMania helps to advance EPA’s 35 percent national recycling goal.

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WasteWise partners of all types can adapt the model of RecycleMania to their efforts to create greater awareness of waste reduction issues and improve recycling collection. Several partners have already used interdepartmental or interfacility competitions to enhance their efforts. Although a contest will only last a certain amount of time, the increased awareness continues throughout the year.

For more information on RecycleMania, please visit www.recyclemaniacs.org.

Working Toward Greenhouse Gas Emissions Reductions

By participating in the WasteWise program and implementing waste reduction activities, nearly 1,800 partners have committed to reducing their impact on global climate change. In 2004, through waste prevention and recycling activities, WasteWise partners reduced greenhouse gas emissions by more than 8,157,800 metric tons of carbon equivalent.² That's the equivalent of taking every car in the Washington, D.C., metropolitan area off the road for more than an entire year.

The WasteWise program has developed a plethora of tools and resources to assist partners in communicating the climate-waste message to management, employees, and the general public. WasteWise produced many of these tools in response to feedback from partners that they needed more assistance to understand and communicate the climate-waste link. Some of these new tools and resources include:

- **Climate partner forums.** This one-hour teleconference provides partners with information about the WasteWise Climate Campaign, how to reduce their climate footprint through waste reduction, and how to use Climate Campaign tools. In addition, guest speakers are on the calls to share stories on climate successes. Partners can listen to a recording of the call via the WasteWise Web site.
- **Don't "Waste" Your Chance to Do Your Share: How to Reduce Your Climate Footprint.** This document helps partners understand the climate-waste connection, and educate management, employees, and the general public.



- **Climate Profiles.** The Climate Profile is an individualized tool provided to every partner that reports annual data to WasteWise on the past year's waste prevention and recycling efforts. It converts



those numbers into greenhouse gas emissions reductions, and in turn presents those reductions in terms of 6 real-life equivalencies (e.g., number of cars removed from the road annually and number of tree seedlings planted).

² This figure represents the amount of carbon equivalent reduced as estimated by EPA's Waste Reduction Model (WARM) based on annualized data reported by WasteWise partners in 2004. By publishing this statistic, WasteWise does not claim credit for this reduction in greenhouse gas emissions. EPA is currently working on a methodology to better document the results of the WasteWise program and greenhouse gas reductions attributable to WasteWise efforts.



Waste Wise
2005
Award Winners

Hall of Fame

EPA congratulates the 2005 WasteWise award winners! In particular, EPA recognizes the three 2005 Hall of Fame inductees: Anheuser-Busch Companies, Inc.; South Carolina Department of Health and Environmental Control; and United States Postal Service Northeast Area. These organizations join previous Hall of Fame inductees including Eastman Kodak Company; General Motors; King County, Washington; Public Service Enterprise Group; and Virco Mfg. Corporation.



ANHEUSER-BUSCH COMPANIES, INC.



Let's raise a toast to the men and women at Anheuser-Busch who are busy "Brewing a Better Environment," as their environmental campaign is called. Since joining WasteWise as a charter member in 1994, Anheuser-Busch has achieved a companywide 97 percent recycling rate and received six WasteWise awards for its waste reduction efforts.



As one of the world's largest recyclers of aluminum beverage containers, the Anheuser-Busch Recycling Corporation recycled 804 million pounds of cans in 2004—more than 125 percent of the number of cans that the company's breweries use to package their products.

Anheuser-Busch is reducing its can lid diameter, which is expected to save 20 million pounds of aluminum when fully implemented by 2006. Anheuser-Busch has also looked beyond its successful packaging reduction efforts and found innovative uses for byproducts of the brewing process such as nutrient-rich sludge and beechwood chips.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



The "Recycle Guys" encourage everyone to recycle—according to the South Carolina Department of Health and Environmental Control (DHEC), which developed the "Recycle Guys" in 1992, to promote recycling in South Carolina and nationwide. In 2004, DHEC recycled more than 541,100 pounds of recyclables—an increase of more than 80 percent per employee since 2001.

As a WasteWise endorser, DHEC recruits other organizations to join WasteWise, offers educational workshops, and provides



technical assistance through its Business Recycling Assistance Program (B-RAP), a partnership created to promote waste reduction, recycling, recycling market development, and buying recycled to businesses and industry statewide. In 2003, South Carolina became the first state to join the WasteWise States Campaign. DHEC also played an instrumental role in developing the South Carolina Resource Conservation Challenge to encourage taxpayer-supported organizations to conserve natural resources, protect the environment, and save money. Winner of seven awards since joining WasteWise in 2000, DHEC excels as both a partner and an endorser.

U.S. POSTAL SERVICE NORTHEAST AREA



The U.S. Postal Service Northeast Area is delivering a message: waste reduction is everyone's responsibility. By educating its postmasters and facility managers, the Northeast Area has reduced waste in its own facilities. It also sends this message every day to its customers through lobby recycling programs used by more than 20 million people who visit Northeast area post offices. The Northeast Area joined WasteWise in 1997, and has since achieved many waste reduction goals, winning six consecutive WasteWise awards for its efforts.

With 3,200 participating post offices, the production of waste paper is inevitable. The Northeast Area is continually making strides to reduce paper waste through waste prevention and recycling. In 2004, for example, internal change-of-address procedures were updated, preventing more than 3,000 tons of undeliverable mail, and discarded mail was collected in post office lobbies for recycling.

The Northeast Area recycled nearly 39,000 tons of materials in 2004, including mixed paper, cardboard, wood, plastics, and tires. In one year, the Northeast Area realized more than \$14 million in revenue from recycling and avoided purchasing costs of electronics and saved another \$2.6 million through avoided disposal costs.

2005 Partners of the Year

ENDORSER OF THE YEAR

New Jersey Department of Environmental Protection

The New Jersey Department of Environmental Protection (NJDEP) is spreading the WasteWise message through the New Jersey WasteWise Business Network, a public-private partnership devoted to helping the state's businesses and organizations reduce waste, recycle, and procure more recycled products. The *New Jersey WasteWise Bulletin*, a newsletter published several times per year, highlights key WasteWise messages, including the economic benefits of recycling, sustainability, and the climate-waste link. NJDEP also sponsored networking meetings, developed a recycled products directory CD that was distributed to more than 8,000 businesses and organizations, and provided targeted outreach to new businesses. See <www.recyclenj.org> for sources of recycled products in New Jersey.

PARTNER OF THE YEAR

College/University:

University of Oregon Campus Recycling Program

With approximately 23,500 people on campus, the University of Oregon generates significant quantities of waste. Hence the student-founded Campus Recycling Program, which strives to make recycling and waste prevention a priority. Organized in 1989, the program began with 160 paper collection sites. Today, it has greatly expanded—currently employing 45 students and five full-time staff members—to collect numerous materials at more than 1,500 sites throughout the campus. During the 2003–2004 school year, the campus diverted 48 percent of its waste through recycling.

Federal Government:

U.S. Postal Service—Dallas District

A new partner in 2004, the U.S. Postal Service—Dallas District quickly joined the ranks of WasteWise's most impressive partners. In fiscal year 2004, the Dallas District collected nearly 7,500 tons of mixed paper and another 360 tons of cardboard. Undeliverable mail and mixed office waste paper were transported—using existing transportation routes—to central hubs for recycling. These efforts alone generated more than \$319,000 in revenue and saved the Dallas District an additional \$245,000 in trash hauling costs.

Large Business: Canon U.S.A., Inc.

Canon begins to analyze the environmental impact of products at the beginning of the product cycle. Programs include energy-efficient manufacturing processes, developing energy-efficient products, using a greater amount of recycled materials, creating a copier toner cartridge collection and return program, and eliminating hazardous substances. At Canon U.S.A., the company extends the life of products through its remanufacturing and recycling programs. In 2004, more than 230,000 products were refurbished, remanufactured, resold, or reused internally.

Local Government: Kitsap County, Washington

It was another successful year for Kitsap County, a WasteWise award winner for the past five years. Kitsap's unique waste reduction program collected more than 3,300 tons of material for recycling and saved more than \$260,000 in avoided disposal costs. Kitsap's success stems from several key program features, including a county-wide directive to annually identify and report on departmental activities to reduce waste and attend annual waste reduction trainings. Employees used the paperless Wa\$te Exchange to swap office surplus, rather than buying new products, and saved \$1,400 in the process.



Midsize Business: NEC Electronics America, Inc. Manufacturing Facility in Roseville, California

The test wafer is a key component of the waste reduction efforts at NEC Electronics America's manufacturing plant in Roseville. Composed of more than 99 percent silicon, test wafers are used to verify process parameters in the production of semiconductors. In 2004, the company saved more than \$360,000 by reusing wafers, eliminating the need to purchase approximately 36,000 new wafers and preventing the use of more than 4,000 pounds of virgin material. The company recycled another 1,115 pounds of wafers and purchased new wafers containing 100 percent recycled content. Overall, NEC Electronics America's manufacturing plant in Roseville has an impressive 78 percent waste diversion rate.



Nonprofit: The Colonial Williamsburg Foundation

The Colonial Williamsburg Foundation operates a 301-acre "living history museum" that recreates 18th-century Williamsburg, Virginia, and invites visitors to improve the future by learning from the past. A WasteWise partner since 1998, the foundation's 2004 efforts focused on increasing collection of recyclable materials including phone books, rags, batteries, paper, PET, and aluminum cans. In addition, the foundation recycled cardboard, wood, food scraps, and yard trimmings and thereby avoided nearly \$16,000 in disposal costs through its recycling program.

School/School District: Los Angeles Unified School District

Incorporating nearly 1,000 sites, the Los Angeles Unified School District (LAUSD) generates a wide variety of materials, including paper, food scraps, and electronics. To discuss new technologies and waste reduction ideas, LAUSD set up quarterly meetings with the city of Los Angeles and other nearby cities, the California Integrated Waste Management Board, and the Los Angeles Conservation Corps. In 2004, LAUSD recycled nearly 4,230 tons of textbooks and other mixed paper, plus 45 tons of computer equipment.

Small Business: Guardian Automotive—Ligonier Plant

Guardian Automotive—Ligonier Plant is proactively reducing waste in its facilities and has been honored by WasteWise for its outstanding efforts for each of the last six years. In 2004, the Ligonier Plant continued its program to recycle or reuse all glass not used in an end product. As a result, 714 tons of glass cullet were reused in plate glass, and another 11,326 tons were recycled. Another program that's rather unique to the Ligonier Plant is the razor blade collection—the company recycled more than 21,000 pounds of them in 2004.

State Government: Tennessee Department of Environment and Conservation

Through the State Employee Recycling Program (SERP), the Tennessee Department of Environment and Conservation educates the more than 24,000 state employees about waste reduction and recycling. SERP is active at 132 facilities in eight cities across the state, collecting about 10 materials for recycling at each site. The state's Green for Good Program collects some more unusual items for recycling or reuse, including eyeglasses, hangers, cell phones, and greeting cards.



Very Large Business: Verizon

As a leading provider of broadband and communication services, Verizon takes its environmental responsibility to its customers and communities seriously. The company's corporate policies ensure the highest standard of actions that minimize waste, conserve natural resources, and protect the environment. Last year, Verizon's commitment to waste reduction impacted the more than 128 million phone books it distributes worldwide. The company offered businesses the option of receiving directories on CD, which resulted in Verizon printing 482,000 fewer directories in 2004, and reducing paper use by 888 tons. Verizon's nationwide recycling programs have helped to recycle more than 104,000 tons of material.

2005 Gold Achievement Awards

Beneficial Use: Constellation Energy

In 2004, Constellation Energy's Generation Group maintained an ash reuse program at its Brandon Shores coal-fired power plant in Baltimore, Maryland. Through a partnership with Separation Technologies, LLC, a separator removes carbon from the fly ash to make it usable in concrete. The partnership has been so successful that, in 2004, storage space was increased by 35,000 tons and a second separator was added—allowing Separation Technologies to process and use most of the fly ash produced by the plant, some 140,000 tons in 2004.

Community Involvement, Organic Material Reduction, and Climate Change: The Walt Disney Company

Outstanding achievements in the areas of community involvement, organic material reduction, and climate change have earned The Walt Disney Company three Gold Achievement Awards.

- **Community involvement.** *Environmentality* is a key part of Disney's outlook toward business growth and natural resource conservation. Disney employees help make guests, customers, local groups, and surrounding neighbors environmentally aware through educational outreach. For example, the Jiminy Cricket Environmentality Challenge educates 5th grade students, and Disney VoluntEARS support local environmental organizations.
- **Organic material reduction.** In an effort to take responsibility for its own waste, Walt Disney World Resort in Lake Buena Vista, Florida, diverted more than 5,600 tons of food scraps from its hotels and restaurants in 2004 to make compost for use both on and off site. Additionally, Disney promotes the reuse and recycling of grass and other yard trimmings. More than 13,500 tons of grass clippings were left to fertilize 10,000 acres of property at the resort.
- **Climate.** In 2004, the company reduced greenhouse gas emissions by more than 12,000 metric tons of carbon equivalent, which is equivalent to taking more than 9,700 cars off the road for one year.

Employee Education: Amgen

Amgen knows that educated employees are the backbone of a good waste reduction program. In honor of its 25th anniversary, Amgen published "25 Ways That You Can Make Every Day Earth Day at Amgen!" This fact sheet offers employees tips on preventing waste, recycling, buying recycled, and other environmentally friendly activities. With the company collecting more than 13,500 tons of material to recycle and preventing an additional 101 tons from entering the waste stream at the source, it's easy to see that Amgen's employee education program is a success.



Green Buildings: Sandia National Laboratories

Sandia National Laboratories is building green—and “Silver.” A new building at Sandia is registered with the U.S. Green Building Council for Leadership in Energy and Environmental Design (LEED) and has received “Silver” certification, the first such in New Mexico. To ensure diversion of construction waste, Sandia opened the Construction and Demolition Recycle Center to recycle surplus building materials from onsite construction projects. To promote green buildings, contractors are required to report waste prevention, recycling tonnage, and recycled content usage. Additionally, all new buildings at Sandia are required to be composed of more than 50 percent recycled content materials.

Green Purchasing: Lexmark International, Inc.

Lexmark International knows that for recycling to truly work, there must be a market for the recycled-content products. Lexmark contributes to the market for recycled goods by purchasing recycled-content materials in new construction and renovation projects, including wall, flooring, ceiling tiles, restroom partitions, and carpet. In addition, Lexmark uses recycled-content paper products at its headquarters in Lexington, Kentucky.

New Partner and Packaging Reduction: Limited Brands, Inc.

A dual award winner, Limited Brands has its priorities straight with its clear commitment to reducing waste. The company quickly became active in WasteWise and is being recognized for its efforts as a new partner. One of Limited Brands’ most successful waste reduction activities is its packaging reduction program. In 2004, Limited Brands established new design standards for cardboard boxes used for apparel merchandise, allowing multiple uses from a single box. This effort prevented 87 tons of cardboard from being discarded as waste and saved the company approximately \$215,000 in avoided purchasing costs. In another effort, Limited Brands changed the material used in product return kits from stores and prevented the need for 20,000 pounds of virgin material.

Paper Reduction: U.S. Government Printing Office

Charged with printing, binding, and disseminating information for the entire federal community, the U.S. Government Printing Office (GPO) sees a lot of paper in a year. However, GPO also has a 144-year history in reducing paper waste. Recycling paper waste since opening its doors in 1861, GPO recycled more than 4,500 tons in 2004. Continuing GPO’s waste prevention efforts, the Goal Sharing Program—a new program introduced in 2004 to encourage employees to make a positive difference at GPO through personal incentives—has set a goal to reduce paper waste by 15 percent. Within three months, employees saved more than \$28,000 by reducing production paper waste.

Product Stewardship: Herman Miller

Herman Miller’s Design for the Environment team is responsible for developing environmentally sensitive design standards for new and existing products. Each new product is evaluated on material chemistry, disassembly, and recyclability. The team’s star product is the Mirra task chair, first introduced in 2003. Following the “cradle to cradle” design protocol, the Mirra chair is made of 42 percent recycled material, contains no polyvinyl chloride (PVC), and is up to 96 percent recyclable.

Product Stewardship: Steelcase Inc.

Steelcase practices “life-cycle thinking” in its product design and development, considering the potential impact of all stages in a product’s life. To help customers determine what to do with unused furniture in an environmentally friendly manner, Steelcase created the Environmental Partnership Program. Working on a case-by-case basis with a national network of dealers, recyclers, resellers, and nonprofit agencies, Steelcase offers options for customers to reuse, recycle, or refurbish their surplus Steelcase furniture.



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