WasteWise Communities

Introduction to WasteWise Communities

WasteWise Communities is a campaign in support of local governments to reduce residential municipal solid waste and its impact on climate change. Residential waste reduction, an important part of the WasteWise program, is crucial to combating the impacts of solid waste on climate change. In 2006, the U.S. Environmental Protection Agency estimated that approximately 60 percent (150 million tons) of the 251 million tons of trash generated in the United States came from residences.

Waste prevention and recycling conserve valuable natural resources, including:

- **LAND**, by diverting waste from landfills;
- **WATER**, by minimizing water-intensive production processes; and
- **TREES**, for paper products and the other "disposable" materials we use in our daily lives.

Waste reduction also helps to mitigate global climate change. Every stage of a product's life cycle—extraction, manufacturing, distribution, use, and disposal—contributes directly or indirectly to climate change. WasteWise works with municipalities to decrease greenhouse gas (GHG) emissions by providing tools and resources that help communities seeking economically viable solutions that reduce waste and the impacts of climate change.

www.epa.gov/wastewise
(800) EPA WISE (372-9473) • wastewise@icfi.com

Communities in Action

Municipalities across the country are successfully connecting residential solid waste reduction and climate change mitigation. Below are some proven successes of various programs implemented by WasteWise partners around the country.

Austin, TX — Achieving Zero Waste and Carbon Neutrality

The city of Austin has set a goal for all city operations to be carbon neutral by 2020. Solid waste management presents Austin with both a challenge and an opportunity to achieve this goal. The city began a Pay-As-You-Throw (PAYT) program in 1992, under which residents pay for trash collection based on how much they throw away. The program has been a huge success; more than 71 percent of residents participate voluntarily, and between 2005 and 2006, the city's annual disposal rates dropped by 120 pounds per person. In 1999, Austin mandated commercial recycling for businesses with more than 100 employees. To date, affected companies have recycled 400,000 tons of material.

Not one to rest on its laurels, the city recently piloted a single stream recycling program. The program is more convenient for residents, resulting in increased diversion rates using fewer city recycling trucks in less time and lowering the GHG emissions from fuel consumption. The city is also developing a plan for zero waste by 2040, following the target of the United Nations Urban Environmental Accord. To encourage innovation, the city launched the Zero Waste Challenge in 2008. Individuals, businesses, and organizations can join and track their waste reduction efforts online. Judges rate entries based on creativity and ingenuity, as well as on the impact of the changes on waste output.[1]

Breathe in the Fresh AIRE of Arlington County, VA

The Arlington Initiative to Reduce Emissions (AIRE) plans to reduce the Arlington County Government's GHG emissions by 10 percent between 2000 and 2012. AIRE is a partnership between businesses, residents, and government to reduce emissions in various ways, including the increase of waste reduction.

The flow of solid waste in Arlington County accounts for 3 percent of its GHG emissions (i.e., the 3 percent only accounts for the disposal stage of the full product lifecycle impact and does not include the much greater emissions arising from product manufacturing and use). To reduce this number, the county reaches out to its residents and businesses, encouraging the 4Rs: reduce, reuse, recycle, and rebuy. Residents take the "Green Living Challenge"[2] and use cloth grocery bags and reusable mugs. They leave grass clippings on their lawns to decompose (a practice known as grasscycling) or compost in their backyards. Businesses also participate, meeting a requirement to recycle at least the top two materials they generate.

The county collects residential curbside recycling, including paper, cardboard, yard waste, bottles, and cans, and works with drop-off centers to handle other residential waste, such as electronics and clothing. Arlington processes residential yard waste into organic mulch, which is distributed back to residents. The county saves an average of $17 per ton from curbside recycling compared with trash disposal. In 2006, Arlington's curbside recycling diverted 9,380 tons of material from the waste stream. This initiative reduced GHG emissions by nearly 45,000 metric tons of carbon, equivalent to the annual emissions of 9,500 cars.[3]

[1] www.epa.gov/epawaste/partnerships/wastewise/events/agenda07.htm, www.ci.austin.tx.us/sws/default.htm

[2] www.arlingtonenvironment.org/pledge

[3] www.arlingtonva.us/portals/topics/Climate.aspx, www.mwcog.org/uploads/committee-documents/tFdZWVg20070517135145.ppt

Communities in Action

Recycling in Washtenaw County, MI

Washtenaw County includes businesses and organizations in its community-wide efforts to recycle through its voluntary Waste Knot Program. Waste Knot provides value-added education, organization-specific technical assistance, and community-wide recognition to more than 200 partner organizations that are taking extra steps toward excellence in waste reduction. Partners receive free support such as a waste audit and consulting services and free print media and radio advertising. They are also eligible for environmental excellence awards. Washtenaw lists partner businesses in an online directory organized by sector and location, so customers can choose to support sustainable businesses. Best of all, being a Waste Knot Partner makes good business sense. Partners have saved up to $120,000 per year through their individual waste reduction programs.[4]

Washtenaw County also offers a Web site with the latest information on solid waste, such as how to dispose of medications, electronics, and mercury-filled compact fluorescent light bulbs. The county holds cleanup days for residents to recycle materials such as furniture and appliances, which are not typically recycled curbside.

Residential Recycling in Fayetteville, AR

Fayetteville has collected residential trash under a PAYT program since 2003, charging residents based on the amount of trash that they throw away. This incentive has contributed to Fayetteville's residential recycling rate of 51 percent.[5] Residential curbside recycling includes mixed paper, newspaper, paperboard and cardboard, #1 and #2 plastics, aluminum, steel, and glass, in recycling bins made of 50 percent post-consumer recycled plastic. Residents bag yard waste, which the city collects for mulch and compost, and sells back to the community. Residents can drop off household hazardous waste for free, and electronics waste for a small fee. The city also provides recycling services to commercial entities.

WasteWise Partner Genzyme Corporation Works with City of Cambridge, MA, to Reduce GHG Emissions

Genzyme Corporation, a WasteWise partner since 2001, recently made impressive strides in waste reduction through its partnership with the city of Cambridge. Genzyme's Cambridge Campus recycles 32 percent of its waste, including paper, cardboard, plastic, metal, glass, toner cartridges, batteries, lamps, computer monitors, and refrigerators. Genzyme participates in Cambridge's business composting program, which provides collection of organic waste, and diverted 4,500 pounds of food waste in less than six months. Genzyme has mentored other companies and helped them replicate its program. In 2007, Genzyme's Cambridge Campus won a Cambridge GoGreen Business award for its innovative waste reduction program.[6]

Under the Cambridge Recycling Ordinance, businesses must develop and implement a recycling plan. Currently, Cambridge recycles about 33 percent of its solid waste. The city participates in the 40 percent Recycling Challenge through which institutions and businesses work to raise their recycling rates to 40 percent. Genzyme has been a strong participant in this business-community partnership.

[4] www.ewashtenaw.org/government/departments/planning_environment/dpw/wk_html

[5] www.accessfayetteville.org/government/solid_waste/index.cfm, www.epa.gov/epawaste/partnerships/wastewise/events/agenda07.htm

[6] www.epa.gov/epawaste/partnerships/wastewise/events/agenda07.htm, www.cambridgema.gov/TheWorks/departments/recycle/gogreen.html, www.cambridgema.gov/TheWorks/departments/recycle/index.html

Take Advantage of the Available Resources

EPA has developed a variety of resources (e.g., calculators, targeted programs, technical guidance) to assist municipalities seeking to reduce their waste stream and mitigate their climate impacts. To learn more about resources available to WasteWise members, visit the Benefits page on the WasteWise Web site.

- The **WasteWise Web Site** offers publications and information resources to assist you in the design, implementation, and tracking of your waste reduction efforts. **www.epa.gov/wastewise**

- EPA has developed several **Climate Change and Waste Calculators**, which are available online. EPA's WAste Reduction Model (WARM) translates waste reduction data into GHG emissions reductions data. EPA designed WARM to compare baseline waste management practices (source reduction, recycling, composting, landfilling, and combusting) to alternative waste management practices in order to capture waste reduction's impact on GHG emissions. The Durable Goods Calculator calculates GHG and energy savings from more effective management of appliance solid waste. The Recycled Content (ReCon) Tool examines the GHG and energy implications of purchasing products with higher levels of recycled content. **epa.gov/climatechange/wycd/waste/tools.html**

- **Local Government Tool Kit and Calculator**
  In an effort to help local governments analyze their current recycling program costs and test the effect of changing some aspects of the program on the overall program bottom line, EPA developed the Residential Recycling Program Calculator. **www.epa.gov/epawaste/conserve/tools/localgov**

- WasteWise creates personalized **Climate Profiles** for partners who submit their WasteWise annual reports. The Climate Profiles use data from WARM (see above) to provide user-friendly information on how partners' waste reduction programs translate into GHG emissions reductions. **http://wastewise.tms.icfi.com/plan/climate.htm**

- **Annual WasteWise & National Partnership for Environmental Priorities (NPEP) Conference** recognizes partners' achievements and creates an opportunity for networking, information sharing, and celebrating successes. To find more information on the upcoming conference, or view past WasteWise presentations by innovative community leaders. **www.epa.gov/wastewise/conf.htm**

- **The WasteWise Helpline** provides partners and endorsers with free technical assistance to help design, implement, report, and evaluate cost-effective waste reduction programs. You may contact the WasteWise Helpline at **(800) EPA-WISE** and **wastewise@icfi.com**.

- **Pay-As-You-Throw (PAYT)** programs charge residents for the collection of municipal solid waste—ordinary household trash—based on the amount they throw away. PAYT (also known as variable rate pricing or unit-based pricing) differs from traditional waste collection by treating trash services just like electricity, gas, and other utilities. Households pay a variable rate, which creates a direct economic incentive to recycle more and to generate less waste. EPA's PAYT program provides tools and resources available online. **www.epa.gov/epawaste/conserve/tools/payt/index.htm**

- **Full Cost Accounting (FCA)** is a systematic approach for identifying, summing, and reporting the actual costs of solid waste management. FCA takes into account past and future outlays, overhead costs, and operating costs. While cash flow accounting recognizes costs when cash is actually paid, FCA focuses on the flow of assets and recognizes costs as resources are used or committed, regardless of when money is actually spent. This focus on assets includes social and environmental costs typically excluded or "hidden" from accounting. **www.epa.gov/osw/conserve/tools/fca/questions.htm**

- **Resource Management (RM)** compensates waste contractors based on performance in achieving your organization's waste reduction goals, as opposed to traditional solid waste contracts, which compensate based on the volume of waste disposed. As a result, RM aligns waste contractor incentives with your own goals as you both explore innovative approaches that foster cost-effective resource efficiency through waste prevention, recycling, and materials recovery. RM is widely applicable in business, institutional, and municipal settings. More information, including a sample RM contract, can be found at the WasteWise Resource Management page. **www.epa.gov/osw/partnerships/wastewise/wrr/rm.htm**

- The **GreenScapes Program** provides cost-effective and environmentally friendly solutions for landscaping that preserve natural resources and prevent waste and pollution. GreenScapes is a free, voluntary EPA partnership that provides support to companies, government agencies, and nonprofits adopting GreenScapes activities into their landscaping practices. Web page to learn more about best practices and to use the GreenScapes calculators. **www.epa.gov/osw/partnerships/greenscapes/index.htm**

To learn how to join WasteWise, please visit the Web site at **www.epa.gov/wastewise**.
You may also contact the WasteWise Helpline at **(800) EPA WISE (372-9473)**
or email **wastewise@icfi.com**

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