



## Environmental Benefits of Recycling

*It's just right to recycle.*

Recycling is good for the environment, human health and the economy. And it all starts with you.

The recyclables that you place in your curbside bin or take to the drop-off center begin a ripple effect of benefits. To start with, recyclables have value. By turning waste into valuable raw materials, recycling creates jobs, builds more competitive manufacturing and adds significantly to the nation's economy (see the "FYI: Economic Benefits of Recycling" fact sheet).

Recycling also promotes the sustainable use of our natural resources. Recycling saves energy. Recycling reduces pollution. Recycling, in short, is working.

There are many environmental and health benefits associated with recycling according to the National Recycling Coalition.

- **Recycling reduces the need to build landfills and incinerators.** Typically, no one wants a landfill or incinerator built in his or her community.
- **Recycling saves natural resources.** When one ton of steel is recycled, for example, 2,500 pounds of iron ore, 1,400 pounds of coal and 120 pounds of limestone are conserved. Recycled paper supplies more than 37 percent of the raw
- **Recycling reduces or eliminates pollution by reducing the need to extract, move and process raw materials.** In the United States, processing minerals contributes almost half of all reported toxic emissions from industry, sending 1.5 million tons of pollution into the air and water each year. Recycling can significantly reduce these emissions. Recycling results in a net reduction in 10 major categories of air pollutants and eight major categories of water pollutants.
- **Manufacturing products from recycled materials saves energy.** It takes 95 percent less energy to make aluminum from recycled aluminum than it does to make it from virgin materials. It takes 60 percent less energy to make recycled steel, 40 percent less to make recycled newspaper or recycled glass, and 70 percent less energy to make recycled plastics. These savings far outweigh the energy created as a by-product of incineration or disposing of the materials in a landfill.
- **Recycling helps reduce our reliance on foreign oil.** Recycling helps by saving energy.

materials used to make new paper products in the U.S. Without recycling, this material would come from trees.

### It's just right to recycle.

Waste prevention and recycling can result in significant reductions in greenhouse gas emissions.

South Carolina recycled 1,063,521 tons of municipal solid waste in fiscal year 2010 (July 1, 2009 to June 30, 2010). This results in an environmental impact equivalent to: eliminating emissions from the energy use of 253,112 homes for one year; removing annual emissions from 544,720 passenger cars; or conserving 337,578,732 gallons of gasoline.




- **Recycling reduces greenhouse gas emissions.** Recycling helps reduce greenhouse gas emissions (e.g., carbon dioxide and methane) that may contribute to global climate change by (1) decreasing the energy needed to make products from virgin materials and thereby reducing the burning of fossil fuels (2) reducing emissions from landfills and incinerators, which are major sources of methane gas emissions and (3) slowing the harvest of trees thereby maintaining the carbon dioxide storage benefit provided by trees. A national recycling rate of 30 percent reduces greenhouse gas emissions as much as removing nearly 25 million cars from the road for one year.

- **Recycling stimulates the development of green technology.** Recycling allows for and encourages the development of more environmentally friendly products. The vast supply of low-cost recyclables from local collection programs has spurred many businesses to develop cutting-edge technologies and products. Waste tires, for example, are used in many applications including rubberized asphalt for paving roads.

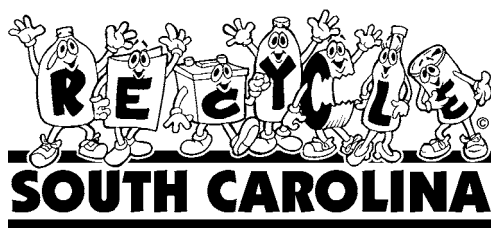
Didn't think you could make a difference? If you recycle, you do.

*Remember, it's just right to recycle.*



## New Uses for Old Tires

South Carolina is a national leader in using tires to make rubberized asphalt through the work of the Asphalt Rubber Technology Service (ARTS) housed at Clemson University. ARTS is funded through a grant provided by the S.C. Department of Health and Environmental Control. For more information about ARTS, visit [www.ces.clemson.edu/arts](http://www.ces.clemson.edu/arts).



**Office of Solid Waste  
 Reduction & Recycling**  
 1-800-768-7348 • [www.scdhec.gov/recycle](http://www.scdhec.gov/recycle)

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