

Waste Reduction Goal Task Force
BRIEFING PAPER
For
Overview of Other Region IV States' Waste Reduction Goal

National:

The U.S. Environmental Protection Agency's Resource Conservation Challenge (RCC) has developed the 40% Recycling of Municipal Solid Waste Action Plan. This is a national action plan that lays out a framework or road map for increasing the rate of municipal solid waste recycling and helping the country meet a national goal of 40% percent. It identifies targeted waste streams and proposes 2011 goals for each of the targeted streams (see below). EPA expects the plan will create a national culture that emphasizes recycling and will help build the infrastructure that successful recycling programs demand.

The Government Performance and Results Act (GPRA) mandates that each year through 2011, EPA maintain the national average MSW generation rate at not more than 4.5 pounds per person per day. By 2011, EPA's goal is to increase recycling of the total annual MSW produced to 40 percent from the 31 percent rate in 2002.

These goals would be met through the following increases in recycling in key waste categories:

Paper and paperboard: An increase in the recovery of paper and paperboard products from 36.7 million tons in 2001 to 44.1 million tons in 2011 (an increase in recycling of total paper/paperboard materials from 44.9 to 53.8 percent).

Food waste: An increase in the recovery/diversion of food waste from .7 million tons in 2001 to 1.28 million tons in 2011 (an increase in recycling from 2.8 to 5.0 percent).

Yard trimmings: An increase in the recovery/diversion of yard waste from 15.8 million tons in 2001 to 16.8 million tons in 2011 (an increase from 56.5 to 60.0 percent).

Paper folding cartons: An increase in the recovery/diversion of paper folding cartons from .48 million tons in 2001 to .8 million tons in 2011 (an increase from 8.7 to 14 percent). These figures are included in the paper and paperboard figures above.

Wood packaging: An increase in the recovery/diversion of wood packaging from 1.25 million tons in 2001 to 2.0 million tons in 2011 (an increase from 15 to 24 percent).

Plastic wraps: An increase in the recovery/diversion of plastic wraps from .17 million tons in 2001 to .5 million tons in 2011 (an increase from 6.6 to 19 percent).

Beverage containers (Aluminum, plastic & glass): An increase in the recovery/diversion of beverage containers from 2.93 million tons in 2001 to 4.36 million tons in 2011 (an increase from 26 to 40 percent).

EPA Region 4:

The Region 4 States seek to coordinate their measurement strategy across the Region for the measurement/reporting of waste reduction and recycling data. Quarterly meetings have been held since the beginning of 2009 with representatives from all States and the EPA Region 4 office. These discussions have included consideration of how Re-TRAC can be adapted to accommodate the data standardization required to accomplish consistent measurement and reporting. Emerge (Re-TRAC) intends to develop and implement a set of standardized data tracking templates to help users collect, manage, analyze, and report all information related to solid waste and recycling/diversion programs operating within their jurisdictions and/or operations. This comprehensive data tracking system would be built on an integrated series of data management templates that would collect a core set of consistent information (data fields) from users within each sector.

Templates are going to be developed initially for the following sectors:

1. Public Sector – The “ecosystem” of municipal, County, and State governments
2. Universities and colleges
3. Businesses and other organizations

Over time, tailored templates will likely be developed for additional subsectors including hotels, event venues, manufacturing operations, etc. Until the time that these additional templates have been developed, businesses and organizations in these sub-sectors will use the more generic business/organization template.

Alabama

Alabama law requires that cities and counties develop and adopt comprehensive solid waste management plans. These plans must address how local governments will meet the statewide 25% waste reduction and recycling goal. Alabama law also requires all state agencies, K-12 public schools, and state universities and post secondary schools to implement their own recycling programs. The Alabama Legislature recently passed the Solid Wastes and Recyclable Materials Management Act on April 15, 2008, which requires that the Alabama Department of Environmental Management (ADEM) establish a percentage goal for recycling by October 2009. Recent legislation approving a fee for every ton of waste landfilled will help Alabama develop a recycling program and improve state recycling efforts. To assist in developing Alabama's recycling efforts, ADEM will provide grant funds to assist local governments in implementing or enhancing programs designed to recycle, reuse, and recover materials. Of the revenue generated by this, 25 percent is allocated exclusively for grants to local governments and non-profit organizations. This allocation is projected to provide a substantial increase in funding for recycling programs across Alabama.

Florida

A new statewide recycling goal of 75% by the year 2010, which was passed during the 2008 legislative session (Section 403.7032, Florida Statutes). Recycling Florida Today, Spring/Summer 2008 Newsletter, <http://www.recyclefloridatoday.org/publications/RFTSprSum081.pdf>

The 2008 Florida Energy Bill (House Bill 7135) created Section 403.7032, Florida Statutes, which establishes a new statewide recycling goal of 75% to be achieved by the year 2020. While Florida's

existing recycling program has a strong foundation, several barriers must be addressed before this goal can be achieved.

According to data presented in the *Florida 2006 Solid Waste Annual Data Report*, approximately 35 million tons of solid waste was disposed in Florida during 2006, representing a 52% increase since 1998. On average, Floridians are throwing away almost 8 pounds of waste per day per capita, which is approaching two times the national average of 4.6 pounds of waste per day per capita. In 1988 Florida established a 30% recycling goal for all counties over 100,000 population, but has yet to reach the goal statewide. Of the 35 million tons discarded, Florida recycled approximately 8.57 million tons, representing a recycling rate of 24%. Table 3 provides a breakdown of the tons collected and recycled for commonly recycled materials in Florida from FY2006. Weight-to-volume conversion factors were used to estimate the volume of recyclable materials collected and recycled in Florida for FY2006. Glass recycling prices in Florida are substantially lower than in other states due to the abundance of sand. Therefore, Florida has focused efforts on portions of the waste stream where substantial amounts of material still await recovery. Florida 2006 Solid Waste Annual Data, http://www.dep.state.fl.us/waste/categories/recycling/SWreportdata/06_data.htm Florida also utilizes 13 waste-to-energy plants that converted approximately 4 million tons of waste to energy, which represents approximately 11% of the waste stream.

Georgia

In 2005, Georgia did away with its percent waste reduction goal and went with a statewide goal to limit waste disposed to 5.0 pounds per person per day by 2012. Specifically spelled out in this goal were individual goals for the following four commodities: glass (0.140 lbs/person/day), paper (0.850 lbs/person/day), metal (0.186 lbs/person/day) and plastic (0.530 lbs/person/day). A waste characterization study was conducted in 2005 to determine what materials were available to be recycled from the waste stream. Future studies will be conducted in 2012 and 2017. Each county is not required to meet this goal; however, each local government is required to offer some recycling options to its citizens. Currently the state average is 6.5 pounds per person per day.

According to the Georgia Environmental Protection Division's (GA EPD) *Solid Waste Trust Fund Status Report* for FY2007, approximately 17.4 million tons of solid waste were disposed in Georgia in 2007. Greater than 12.5 million tons (approximately 72%) of this waste were transported to municipal landfills. Of the remaining 4.9 million tons, 4.2 million tons were transported to construction and debris (C&D) landfills and approximately 0.2 million tons were transported either to other landfills or to waste-to-energy facilities. In 2004, 2.23 pounds of the 6.42 pounds of material disposed in municipal landfills per day per capita were composed of glass, paper, metal, and plastic. Simply removing these commonly recyclable materials from the waste stream would result in an approximately 34% reduction in tonnage of waste disposed in area municipal landfills. While there is strong infrastructure in place to recycle many recyclable materials, such as plastic and paper, the infrastructure required to address other materials such as food waste is in an infant stage of development.

Kentucky

In 2002, Kentucky did away with its 25% waste reduction goal. Currently in effect is a statewide goal to achieve 35% recycling, determined on a real-time basis, by 2010. Only major items

recycled by the public (metals, paper products, plastics & glass) are considered. In 2006, Kentucky had a statewide recycling rate of 27%. Individual counties are not required to meet this goal.

According to the *2007 Kentucky Division of Waste Management Annual Report*, approximately 6.3 million tons of solid waste were disposed in Kentucky in 2006. Kentucky reports that the state's recycling rate has increased to 27%, which is only slightly below the national average of 28.5% and well above the southeast region average of 22%. On average, Kentuckians are throwing away 6 pounds of waste per day per capita, which is 30% higher than the national average of 4.6 pounds of waste per day per capita. Solid waste is both imported and exported across state lines. Kentucky recognizes the increasing importance of electronic waste and has already completed two demonstration site projects, which resulted in the creation of two permanent electronic waste drop-off locations. Kentucky Division of Waste Management, *Annual Report Fiscal Year 2007*, http://www.waste.ky.gov/NR/rdonlyres/EDA05B83-D438-42B6-A0FD-C9C082206576/0/Annual_Report_2007.pdf

Mississippi

Mississippi has a 25% waste reduction goal. By law, each county is required to have an "adequate strategy" established to meet this goal in their solid waste plans. These plans are required to be reviewed annually. However, no method is established for the measurement or enforcement of the goal.

According to the *2007 Report to the Mississippi Legislature on the Status of Recycling and Pollution Prevention in Mississippi*, approximately 10.7 million tons of solid waste were disposed in Mississippi in 2006. Details regarding recycling rates or volumes are not available, given that the state is not required to capture this information. However, the 2007 report demonstrates that 1.3 million people in Mississippi have access to a recycling program either through curbside pickup (20% of total population) or at drop-off facilities (25% of total population). The state has determined that waste management is a function of local governments and should therefore be handled primarily at that level. Mississippi Department of Environmental Quality, *2007 Report to the Mississippi Legislature on the Status of Recycling and Pollution Prevention* (January 8, 2008), [http://www.deq.state.ms.us/MDEQ.nsf/pdf/SW_MsLocalGovernmentRecyclingSurvey07/\\$File/MD%20EQ%20Status%20Report%202007.pdf?OpenElement](http://www.deq.state.ms.us/MDEQ.nsf/pdf/SW_MsLocalGovernmentRecyclingSurvey07/$File/MD%20EQ%20Status%20Report%202007.pdf?OpenElement)

North Carolina

Approximately 5.1 million tons of waste were recycled in North Carolina, representing a recycling rate of 43% however, the statewide 40% per capita goal continues to be the benchmark. According to the *2007 North Carolina Solid Waste Management Annual Report*, approximately 11.9 million tons of solid waste were disposed in North Carolina between July 1, 2006, and June 30, 2007. Greater than 8.1 million tons (approximately 69%) of this waste were transported to municipal landfills. Of the remaining 3.8 million tons, 2.5 million tons were transported to C&D landfills, 0.98 million tons were transported to private industrial landfills, 0.11 million tons were utilized at waste-to-energy facilities, and approximately 0.01 million tons was transported to other facilities. On average, North Carolinians are throwing away 5.56 pounds of waste per day per capita, which is 21% higher than the national average of 4.6 pounds of waste per day per capita (though the national data does not include C&D data). The North Carolina Department of Environment and Natural

Resources (NCDENR) estimates that each household has the potential to recycle up to 750 pounds of recyclable material per year. Currently, however, the average household only recycles 240 pounds of recyclable material per year, representing 32% of capacity. There is currently only one active waste-to-energy (WTE) plant in the state though NC does not support WTE.. North Carolina Department of Environment and Natural Resources, *North Carolina Solid Waste Management Annual Report* (July 1, 2006-June 30, 2007), http://www.wastenotnc.org/swhome/AR06_07/AR06-07.pdf

South Carolina

In October 2000, South Carolina amended its Solid Waste Act to reflect new state recycling and disposal goals. The recycling goal was changed to 35% of the MSW stream. The disposal goal was changed to 3.5 pounds of MSW per person per day. Both of these goals were to be met by FY05. The state did not reach either goal. SC Dept. of Health and Environmental Control have asked the Legislature to extend the deadline for meeting those goals until FY12.

According to the *2007 South Carolina Solid Waste Management Annual Report*, approximately 5.01 million tons of municipal solid waste was generated in South Carolina between July 1, 2006, and June 30, 2007. On average, South Carolinians are throwing away 4.4 pounds of MSW per day per capita, which is below the national average of 4.6 pounds of waste per day per capita. Approximately 10.9 pounds per day per capita of the total waste in South Carolina is recycled. South Carolina imports solid waste from a total of nine states and exports to two states. Of the 5.01 million tons generated, 1.55 million tons were recycled, representing a 31% recycling rate.

From FY06 to FY07, South Carolina reported a slight increase in the recycling rate (i.e., from 30.4% to 31%). South Carolina Solid Waste Management Annual Report FY 2007 According to the *2007 South Carolina Solid Waste Management Annual Report*, it is suspected that this increase is due to increased reporting capabilities in the state, including an online recycling report tool for private industry, and increased MSW recycling by the industrial and institutional sectors.

Tennessee

According to the Emerge's Re-TRAC subscription database managed by the Tennessee Division of Solid Waste Management, Planning, Reporting, and Waste Reduction approximately 14 million tons of solid waste were generated in Tennessee during 2007. Of the almost 14 million tons generated, Tennessee recycled 5.8 million tons, representing a recycling rate of 39% and diverted an additional 1.5 million tons from Class I landfills for a total recycling and diversion rate of 51% as allowed by Tennessee's waste reduction and diversion goal. On average, Tennesseans are throwing away 6.0 pounds of waste per day per capita, which is 30% higher than the national average of 4.6 pounds of waste per day per capita. These figures are elevated due to the methodology Tennessee uses to count disposal and diversion. Based on the information provided in the Emerge's database, Tennessee exports approximately 429,000 tons of solid waste, representing just over 3% of the waste stream. During 2007, five counties in Tennessee did not meet or exceed the established 25% reduction and diversion goal compared to the baseline per capita goal and are currently being qualitatively evaluated. Emerge's Re-Trac Subscription Database Recycling Report, <http://my.re-trac.com/Login.pm>

Table 1: Recycling Rates & Goals Reported in State Waste Management Reports, Average Tipping Fees Per Ton of MSW, and Per Capita Disposal.

State	MSW Recycling or Waste Reduction Goals (Date Established)	MSW Recycling Rates (Data Year)	Average Tipping Fee (per ton)*	Average Per Capita Disposal (lbs/person/day) National Avg. is 4.6 lbs/person/day
Alabama	25% (2009)	NA	\$27.01	Unknown
Florida	75 % (2008)	24% (2006)	\$36.42	8.0 ¹
Georgia	5.0 lbs/person/day by 2012	NA	\$33.07	6.5
Kentucky	35% by 2010	27% (2007)	\$32.87	6.0
Mississippi	25%	NA	\$26.81	Unknown
North Carolina	40%	43% (2007)	\$32.80	5.56
South Carolina	35% (2000)	30% (2007)	\$34.22	4.4
Tennessee	25% (2007)	52% (2008)	\$32.00	6.0 ²

Note: The definition of "recycling," and the way goals are worded, can vary across states. For example, some states consider waste-to-energy as recycling, others count diversion (sometimes only from one place to another), etc.

1 - Florida includes Construction and Demolition (C&D) Debris disposal in their total per capita disposal numbers, whereas most other R4 States only include MSW. C&D accounts for almost 25% of Florida's total Municipal Solid Waste (MSW) stream.

2 - Under the terms of the Solid Waste Management Act of 1991 (in TN), municipal solid waste planning regions were required to reduce the amount of waste placed into Class I landfills by 25% from a base year measurement taken in 1995. Tennessee is the only state which counts materials landfilled in class III & IV Construction and Demolition Landfills toward the 25% diversion goal, as they are considered "diverted" away from Class I landfills. For example, approximately 2,133,512 tons of material was diverted away from Class I to Class III and IV landfills in calendar year 2007 according to the regions' Annual Progress Reports.