

# Executive Summary

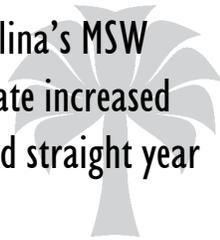
This report provides a comprehensive overview of the amount of solid waste generated, disposed of and recycled in South Carolina for fiscal year (FY) 2012 (July 1, 2011 to June 30, 2012) as required by the S.C. Solid Waste Policy and Management Act of 1991 (Act) – S.C. Code of Laws § 44-96-60.

Two specific types of waste – municipal solid waste (MSW) and total solid waste (TSW) are defined and measured. As required by the Act, the focus of this report is on MSW.

The amount of MSW generated (disposed of plus recycled) was 4,164,976 tons. Of that amount:

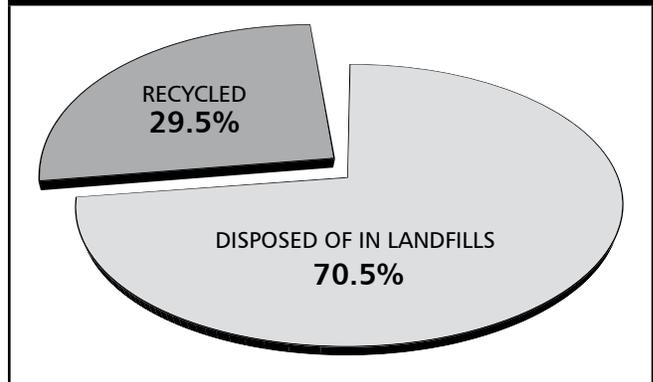
- 1,229,100 tons (29.5 percent) were recycled; and
- 2,935,876 tons (70.5 percent) were disposed of in MSW landfills (including MSW generated in South Carolina, but disposed of out of state).

**South Carolina's MSW recycling rate increased for the third straight year in FY12.**



- The per capita MSW recycling rate increased slightly. On average, each South Carolinian recycled 1.44 pounds per person per day (p/p/d) in FY12 – up from 1.39 p/p/d in FY11.
- On average, each South Carolinian recycled more than 525 pounds of MSW in FY12.
- Electronics recycling jumped from 5,726 tons in FY11 to 9,258 tons in FY12 – about a 62 percent increase.
- Local governments reported earning more than \$13 million from the sale of recyclables in FY12 and more than \$59 million since FY07.
- The amount of MSW disposed of in FY12 fell nearly 130,000 tons (more than 4 percent) from the previous FY's total of 3,065,806 tons.
- MSW per capita disposal fell for the seventh consecutive year from 4.5 p/p/d in FY05 to 3.4 p/p/d/ in FY12.

**CHART 1.1: MSW Management in South Carolina**



Here are additional data indicators from FY12.

- The amount of MSW recycled increased 56,332 tons (about 5 percent) in FY12.
- The state's MSW recycling rate improved for the third straight year from 22.1 percent in FY09 to 29.5 percent in FY12.

## Recycling Rate Equation

The equation below is used for calculating the MSW and TSW recycling rates.

$$\text{RECYCLING RATE (\%)} = \frac{\text{AMOUNT RECYCLED}}{\text{AMOUNT GENERATED}} \times 100$$

\*Generated = Recycled + Disposed Of

## What is the definition of MSW?

MSW has many definitions across the country. South Carolina – in the 2000 amendment to the Act – voluntarily adopted the U.S. Environmental Protection Agency’s (EPA) definition of MSW as part of an effort to standardize the definition among the states to encourage consistency in reporting and comparison of recycling data.

South Carolina defines MSW as the combined residential, commercial/institutional and industrial (office/packaging) waste generated. This includes paper, cans, bottles, food scraps, yard trimmings, packaging and other items. It does not include industrial process waste like scraps and

South Carolina’s MSW disposal rate fell for the seventh consecutive year.

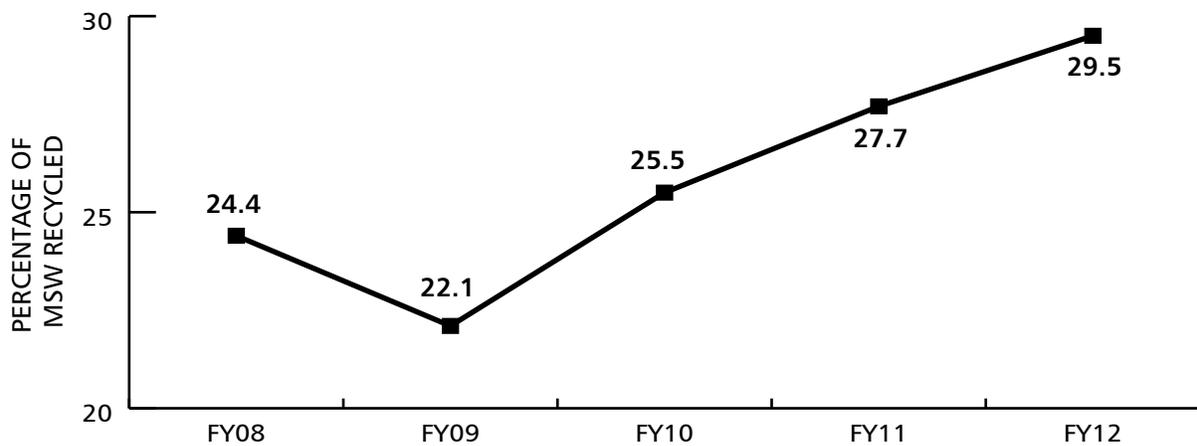


by-products from the manufacturing process, construction and demolition (C&D) debris, automobile bodies, agricultural waste, combustion ash, mining waste and sewage sludge as well as hazardous, infectious and radioactive waste.

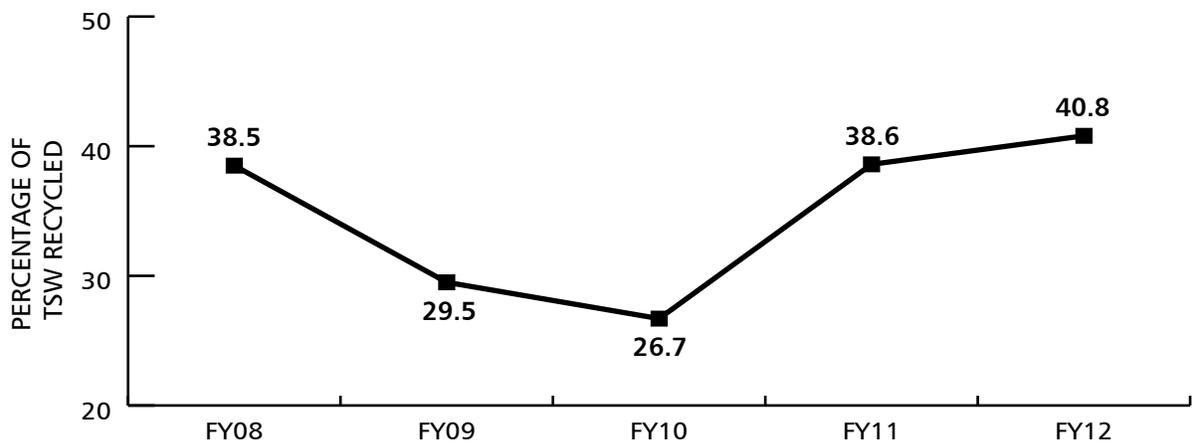
Material that South Carolina has added to the state’s measured recycling rate include: tire-derived fuel; yard trimmings used as boiler fuel; and used motor oil (from do-it-yourselfers only).

There are other states that vary further from EPA’s definition. Many states, when measuring their recycling efforts, count C&D debris, land-clearing debris, automobile bodies, industrial solid waste and even biosolids – thereby potentially increasing their

**CHART 1.2: South Carolina’s MSW Recycling Rate, FY08 to FY12**



**CHART 1.3 South Carolina’s TSW Recycling Rate, FY08 to FY12**



overall recycling rate. In contrast, South Carolina does not count any of that material in its measured recycling rate.

### What is the definition of TSW?

TSW includes MSW as well as C&D debris, process waste and any other material that is recycled instead of disposed of in a landfill. TSW provides a more comprehensive picture of all the material disposed of and recycled in the state.

### The TSW recycling rate improved to nearly 41 percent in FY12.

The amount of TSW recycled increased about 8 percent from 4.9 million tons in FY11 to more than 5.3 million tons in FY12.

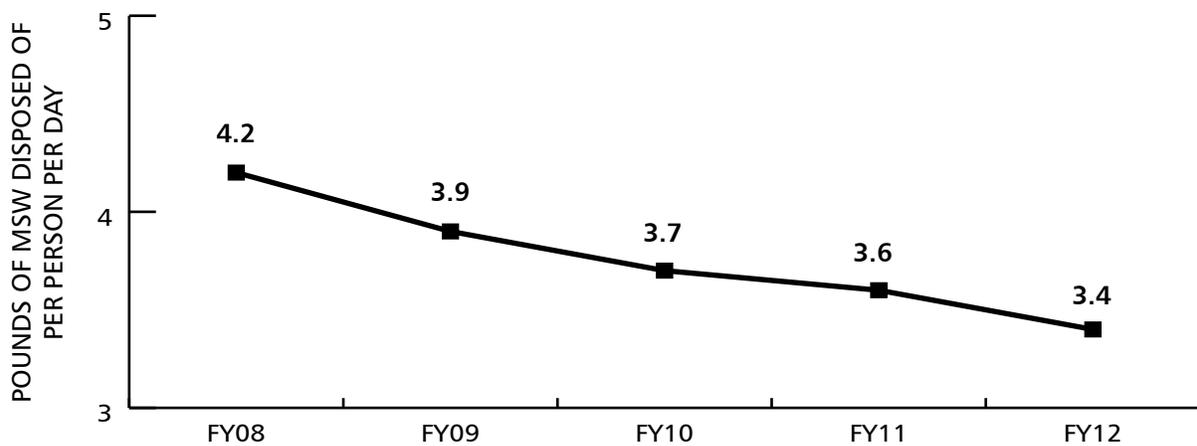
Of the 5.3 million tons recycled, the majority (72 percent) of the material was processing or manufacturing waste – scraps or by-products – that was put back into the process or taken off site for recycling. Of the TSW recycled, about 10,000 tons of sewage sludge was land applied.

Overall, the amount of TSW generated increased from more than 12.7 million tons in FY11 to more than 13 million tons in FY12. Despite this increase, TSW per capita disposal fell from 9.3 p/p/d in FY11 to 9.0 p/p/d in FY12.

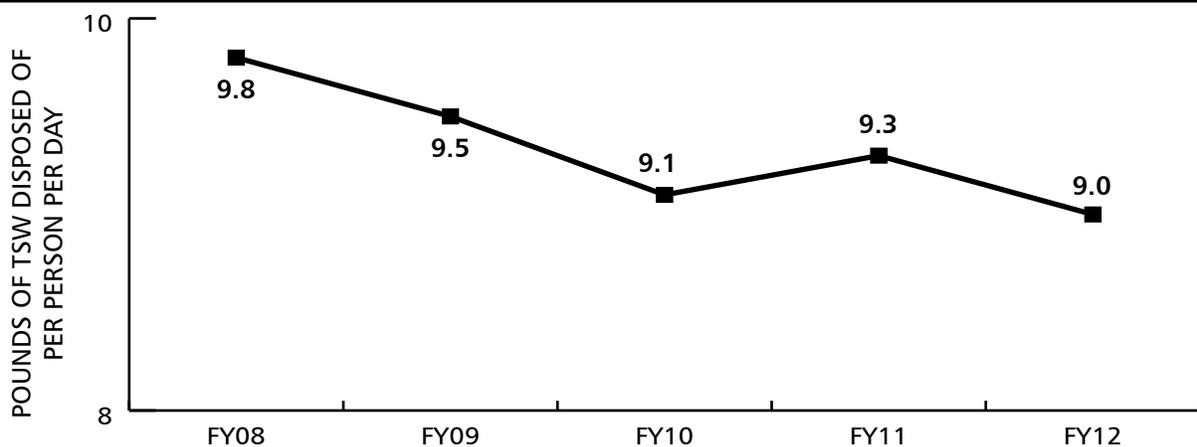
More than 5.3 million tons of TSW was recycled in FY12.



**CHART 1.4: MSW Disposed of Per Person Per Day, FY08 to FY12**



**CHART 1.5: TSW Disposed of Per Person Per Day, FY08 to FY12**



**TABLE 1.6: Sources of MSW**

SOURCE OF MSW	TYPICAL EXAMPLES OF MSW
Residential (single- and multi-family homes)	Newspaper, clothing, packaging, cans and bottles, food scraps, yard trimmings, large appliances and consumer electronics
Commercial/Institutional (office buildings, retail establishments, hotels, motels, restaurants, schools, libraries, hospitals and prisons)	Books, cardboard, office paper, yard trimmings, food scraps, cans and bottles
Industrial (Office/Packaging) (not process waste)	Cardboard, plastic film, wood pallets, office paper and cafeteria waste (food scraps, cans and bottles)

**TABLE 1.7: S.C. Recycling Data by Fiscal Year (FY)**

	FY08	FY09	FY10	FY11	FY12 <sup>1</sup>
Total Solid Waste (TSW) Recycled in Tons	4,961,704	3,239,918	2,781,003	4,913,823	5,314,842
TSW Recycling Rate by Percent	38.5	29.5	26.7	38.6	40.8
TSW Recycled in Pounds Per Person Per Day (p/p/d)	6.1	3.9	3.4	5.8	6.2
Municipal Solid Waste (MSW) Recycled in Tons	1,084,926	912,961	1,063,521	1,172,768	1,229,100
MSW Recycling Rate by Percent	24.4	22.1	25.5	27.7	29.5
MSW Recycled in p/p/d	1.3	1.1	1.3	1.4	1.4

**TABLE 1.8: S.C. Waste Disposed of by FY**

	FY08	FY09	FY10	FY11	FY12
TSW Disposed of in Tons	7,938,036 <sup>2</sup>	7,789,143 <sup>2</sup>	7,602,701 <sup>2</sup>	7,824,312	7,696,559
TSW Disposed of in p/p/d	9.8	9.5	9.1	9.3	9.0
MSW Disposed of in Tons	3,367,422	3,226,412	3,113,365	3,065,806	2,935,876
MSW Disposed of in p/p/d	4.2	3.9	3.7	3.6	3.4

**TABLE 1.9: S.C. Waste Generated by FY**

	FY08	FY09	FY10	FY11	FY12
TSW Generated in Tons	12,899,740 <sup>2</sup>	10,983,364 <sup>2</sup>	10,383,703 <sup>2</sup>	12,738,135	13,011,401
TSW Generated in p/p/d	16.0	13.4	12.5	15.1	15.2
MSW Generated in Tons	4,452,348	4,139,373	4,176,886	4,238,574	4,164,976
MSW Generated in p/p/d	5.5	5.0	5.0	5.0	4.9

**TABLE 1.10: S.C. Population**

	2008	2009	2010	2011	2012 <sup>3</sup>
Population	4,428,393	4,494,435	4,576,446	4,625,364	4,679,230

**NOTES**

1. FY12 represents July 1, 2011 to June 30, 2012.
2. This number does not include the ash disposed of at Charleston County's Bees Ferry Landfill.
3. The population data used in this report reflects the most recent estimate available from the U.S. Census Bureau.