

Virginia Annual Recycling Rate Report

Calendar Year 2011 Summary



October 2012

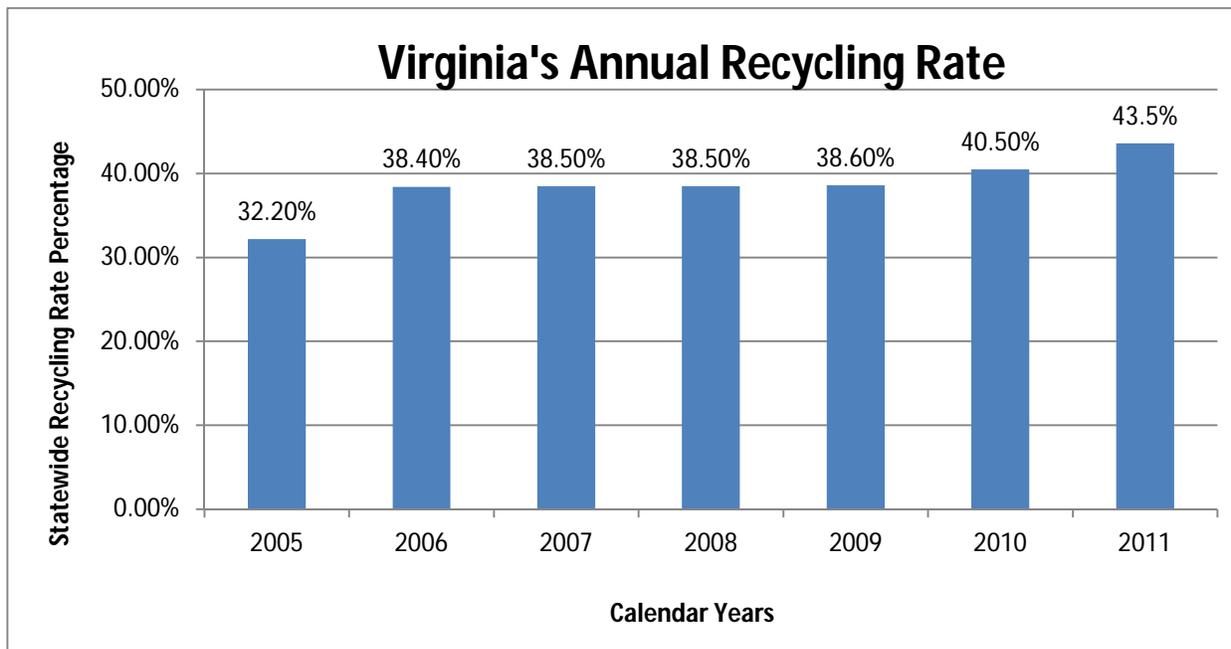
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Virginia's Statewide Recycling Rate for Calendar Year 2011

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year (CY) 2011. The data for this summary report was compiled from the reports submitted by the 71 solid waste planning units (SWPUs) for CY 2011, and represents recycling information from 324 Virginia cities, counties and towns.¹ In some cases, reported data was adjusted for consistency with the Virginia Solid Waste Planning Regulation (9 VAC 20-130 et. seq.).

Virginia's calculated recycling rate for CY 2011 is 43.5%. All but one of the Solid Waste Planning Units met or exceeded their respective required recycling rates for CY 2011. This achievement reflects well upon the commitment made by Virginia localities to promote and support recycling over the last twenty-three years.



Statewide Recycling Rate Data – 3-year summary

2011 - 3,988,266 tons of material recycled or reused, and 9,226,177 tons of solid waste generated (calculation includes + .25% for source reduction initiatives)

2010 - 3,469,747 tons of material recycled or reused, and 8,628,975 tons of solid waste generated (calculation includes + .25% for source reduction initiatives)

2009 - 3,490,151 tons of material recycled or reused, and 9,098,045 tons of solid waste generated (calculation includes + .23% for source reduction initiatives)

Areas Reporting Highest Rates – CY 2009 – CY 2011

¹ Virginia Code §10.1-1411 was amended by legislation introduced during the 2012 General Assembly and requires annual recycling rate reporting by each SWPU or locality with a population of greater than 100,000 persons according to the most recent United States census. Each SWPU or locality with a population of 100,000 or less according to the most recent United States census must submit a recycling survey report once every four years.

As in previous years, higher recycling rates were reported in the more densely populated areas of the state. For CY 2011, these areas reported a total of 3.48 million recycled tons, or 87% of all recyclables collected, and had a calculated recycling rate of 46.3%. These areas include:

Calculated Regional Recycling Rates by Year

<u>Area</u>	<u>CY 2011</u>	<u>CY 2010</u>	<u>CY 2009</u>
Bristol Area	35.0 %	43.0 %	41.7 %
Roanoke Area	42.5 %	37.7 %	42.1 %
Lynchburg Area	38.8 %	33.7 %	32.0 %
Northern Shenandoah Valley	39.1 %	39.7 %	36.5 %
Fredericksburg Area	56.5 %	54.1 %	51.4 %
Richmond Area	57.7 %	55.5 %	52.8 %
Northern Virginia	44.5 %	40.9 %	37.2 %
Hampton Roads/Tidewater Area	44.6 %	39.3 %	36.5 %

Trends Observed in CY 2011 Reports

In reviewing the statewide totals from the recycling rate reports, the following trends were observed:

- Principal Recyclable Materials* (PRMs) increased about 14%;
- Credits* increased by 20%; and,
- Municipal Solid Waste* (MSW) disposed increased by 1.5%.

** PRMs, Credits and MSW disposed are defined on Page 9 of this report.*

As subsets of the PRM category, the reported commodity capture rates from CY 2010 to CY 2011 changed as indicated for the following: (note increase in single-stream collections reported)

- Paper + 5.7 %
- Metals + 17.4 %
- Plastics + 55.0 %
- Glass + 4.8 %
- Commingled + 39.5 % (also called single-stream collections)
- Yard Waste + 31.8 %
- Waste tires - 9.4 %
- Electronics +35.0 %

Mandated Recycling Rate Results

Since 1991, the reporting entities (SWPUs) have worked to improve their programs to meet the required recycling rates:

<u>Year (% meeting rate)</u>	<u># Reports</u>	25% or 15% to # below mandated		
		<u>Greater</u> 25%	<u>Recycling rate</u>	
CY 2011 (98.6%)	71	47	23	1
CY 2010 (100%)	71	52	19	0
CY 2009 (100%)	71	51	20	0

Pursuant to Virginia Code § 10.1-1411.D, each SWPU is required to achieve a minimum 25% recycling rate *unless*

- its population density is less than 100 persons per square mile, or
- its civilian unemployment rate is 50% or more above the state wide unemployment average.

SWPUs meeting these criteria are required to achieve a minimum 15% recycling rate. Using this two-tiered recycling mandate standard, all SWPUs met or exceeded their minimum mandated recycling rate in both CY 2009 and CY 2010, with only one not meeting its mandated recycling rate in CY 2011.

Solid Waste Management Planning and Recycling Action Plans

DEQ continues to review the required Solid Waste Management Plans (SWMPs) and any updates submitted by the SWPUs for completeness, including locality or regional recycling program information. If at any time the SWPU reports less than the required 15% or 25% recycling rate, DEQ will require that a Recycling Action Plan (RAP) be submitted as an amendment to the SWPU's Solid Waste Management Plan to identify specific elements of the recycling program that will be improved in order for the SWPU to achieve its mandated recycling rate.

A RAP requires both a commitment by the SWPU to provide resources necessary to improve its program, as well as a timeline for achieving the program elements. The RAP must be adopted by the administrative governmental board(s) for all localities covered by the Solid Waste Management Plan, and then approved by DEQ. Regular reporting on the progress made on the RAP elements is required until such time as the SWPU meets its minimum required recycling rate. The RAP process has been utilized in the past to help bring several SWPUs into compliance.

Calculated Recycling Rates for CY 2011

Solid Waste Planning Unit Recycling Rates and Data

REPORTING ENTITY (Solid Waste Planning Units)	CY 2011 Recycling Rate* (%)	CY 2011 Total Recycled Tons (PRMs + Credits)	CY 2011 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Statewide Totals	43.5	3,988,266 tons	9,226,177 tons
Accomack County SWPU	30	9,866	32,845
Alexandria (City) SWPU	48.4 *	80,740	172,866
Alleghany Highlands SWPU	15.9	2,763	17,390
Amelia County SWPU	18.9	1,554	8,219
Amherst County SWPU	30	8,553	28,490
Arlington County SWPU	49.7 *	147,795	259,251
Augusta –Staunton-Waynesboro SWPU	30.8	43,331	140,862
Bath County SWPU	17.3	820	5,367
Bedford County SWPU	45.7	30,843	70,621
Botetourt County SWPU	16.5	3,053	18,512
Bristol (City) SWPU	35.1	8,494	24,229
Brunswick County SWPU	19.5 *	1,750	8,950
Buckingham County SWPU	17.6	2,027	11,504
Caroline County SWPU	17.1	2,064	12,094
Carroll-Grayson-Galax SWPU	30	10,764	35,840
Central Virginia Waste Management Authority SWPU (Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, Prince George; Cities of Richmond, Hopewell, Colonial Heights and Petersburg)	56.6 *	598,790	1,037,645
Craig County SWPU	17.5	524	2,999
Culpeper County SWPU	29.4 *	15,047	35,729
Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)	30.5	24,885	81,638
Danville (City) SWPU	44.7	11,220	25,128
Fairfax (City) SWPU	52.7	27,468	52,091
Fairfax County SWPU	47	571,118	1,268,881
Falls Church (City) SWPU	64.4	8,559	13,707
Fauquier County SWPU	39.1 *	35,702	89,543
Floyd County SWPU	20.2 *	2,847	13,084
Franklin County SWPU	30.7	16,224	52,787
Gloucester County SWPU	28.4	11,489	40,432
Greater Rockingham SWPU	33.3	24,861	74,646
Harrisonburg (City) SWPU	31.1 *	25,284	67,645
Herndon (Town) SWPU	45.5	12,476	27,421
Highland County SWPU	15.7	270	1,719
King George County SWPU	38.2 *	44,860	56,084
Lee County SWPU	19.8	3,084	15,614

REPORTING ENTITY (Solid Waste Planning Units)	CY 2011 Recycling Rate* (%)	CY 2011 Total Recycled Tons (PRMs + Credits)	CY 2011 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Statewide Totals	43.5	3,988,266 tons	9,226,177 tons
Loudoun County SWPU	34.4	113,256	329,677
Louisa County SWPU	23	4,656	20,222
Lunenburg County SWPU	15.2	2,411	15,843
Madison County SWPU	17.3	1,158	6,695
Manassas (City) SWPU	41	22,624	55,245
Manassas Park (City) SWPU	25.8	2,485	9,621
Martinsville (City)/Henry County SWPU	33.3	27,654	83,013
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)	38.7 *	51,126	109,165
Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington, and Wythe)	16	10,366	64,686
Newport News (City) SWPU	47.9 *	171,634	286,369
New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)	29.4	27,346	93,096
Northampton County SWPU	25.4	3,907	15,363
Northern Neck PDC SWPU (Counties of Lancaster, Northumberland, Richmond and Westmoreland)	23.6	11,760	49,849
Northern Shenandoah Valley Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	39.1	85,652	219,333
Nottoway County SWPU	13.3 **	2,096	18,495
Orange County SWPU	15.7 *	6,108	20,590
Patrick County SWPU	40.8	6,192	15,170
Pittsylvania County SWPU	33	14,628	44,391
Prince Edward-Cumberland County SWPU	17.3	5,027	29,105
Prince William County SWPU	40.7 *	214,251	511,575
Rappahannock County SWPU	24.8	1,501	6,043
Rappahannock Regional Solid Waste Management Board SWPU (County of Stafford and City of Fredericksburg)	54.5	94,296	179,547
Region 2000 (Counties of Nelson, Appomattox and Campbell, Cities of Lynchburg and Bedford)	38.8	128,739	331,914
Roanoke (City) SWPU	54.1	49,613	91,700
Roanoke County SWPU	33	20,680	62,664
Rockbridge – Lexington – Buena Vista SWPU	45.1	15,818	35,063
Salem (City) SWPU	53.6	25,537	47,673
Scott County SWPU	15.4	2,239	14,570
Southeastern Public Service Authority SWPU (Counties of Isle of Wight and Southampton; Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach)	36.3 *	772,088	1,700,110

REPORTING ENTITY (Solid Waste Planning Units)	CY 2011 Recycling Rate* (%)	CY 2011 Total Recycled Tons (PRMs + Credits)	CY 2011 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Statewide Totals	43.5	3,988,266 tons	9,226,177 tons
Southern Crater Region SWPU (Counties of Dinwiddie, Greensville, Surry, and Sussex; City of Emporia)	17.6 *	14,578	78,894
Southside Regional PSA SWPU (Counties of Charlotte, Halifax and Mecklenburg)	21.6	13,046	60,392
Spotsylvania County SWPU	41.2 *	38,338	78,402
Tazewell County SWPU	17.6	12,649	71,831
Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna, and Greene; City of Charlottesville)	33.8 *	55,757	163,639
Vienna (Town) SWPU	60.2	6,306	10,469
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King & Queen, Mathews, Middlesex, and York; Cities of Hampton, Poquoson, and Williamsburg)	32.3 *	136,066	418,414
Vinton (Town) SWPU	66.1	7,119	10,772
Wise County SWPU	32.5	20,340	62,650
STATEWIDE TOTALS CY 2011	43.5	3,988,266	9,226,177
	Recycling Rate %	Tons Recycled	Tons MSW Generation

* All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120, with a 5% maximum percentage allowed for credits to the base recycling rate calculated by a solid waste planning unit. A 2% source reduction credit has been added to the calculated recycling rates for a documented source reduction programs.

** SWPU recycling rate is below the 15% rate required by statute and regulations.

PRMs = Principal Recyclable Materials (paper, metal, plastic, glass, commingled materials, yard waste, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, inoperative automobiles, batteries, electronics and other)

CREDITS = Recycling Residues, Solid Waste Reused, and Non-MSW Recycled (includes construction and demolition material, ash and debris), and Source Reduction Initiatives. Source Reduction Initiatives must be documented as SWPU Policy and promoted across the SWPU.

MSW Disposed = Municipal solid waste delivered to sanitary landfills or incinerators for disposal.

Recycling Rate Report Summary

Virginia Solid Waste Planning Units Reporting Rate Information for CY 2011

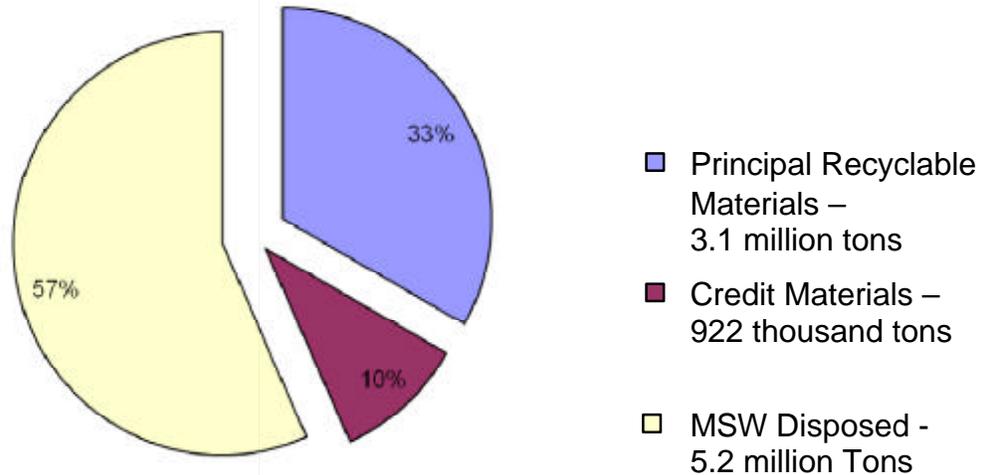
71 Recycling Rate Reports, representing 324 Virginia localities and every Solid Waste Planning Unit, were received. This represents a return rate of 100%. Totals for all reports are presented below:

Principal Recyclable Material (PRM)					Total MSW Disposed	
Paper	764,300	Credits			Household Waste	4,362,790
Metal	783,927	Recycling Residue	23,922		Commercial Waste	751,682
Plastic	43,174	Solid Waste Reused	777,563		Institutional Waste	101,579
Glass	27,286	Non-MSW Recycled	120,686		Other:	21,861
Commingled	397,298	TOTAL CREDITS (C) (Tons)	922,172		TOTAL MSW (M) (Tons)	5,237,911
Yard Waste	715,727					
Waste Wood	135,055					
Textiles	25,260					
Waste Tires	53,253					
Used Oil	51,434	2% Source Reduction Credit	9 entities, equaling .25% overall			
Used Oil Filters	1,760					
Used Antifreeze	4,981					
Auto Bodies	1,437					
		$((P+C)/(P+C+M) \times 100) + \text{Source Reduction Credit}$			43.5%	
		$(3,988,266/9,226,177) \times 100 + .25\%$				
Batteries	22,495					
Electronics	8,440					
Other:	30,268					
		<i>(rounding of individual data entries may affect sums in Totals)</i>				
Total PRM (P) (Tons)	3,066,094					

* All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120.

Recycling in Virginia

2011 Statewide Recycling Rate of 43.5%



Percentages as shown reflect adjustment based upon Source Reduction Credit of .25% applied to calculations.

PRMs = Principal Recyclable Materials (paper, metal, plastic, glass, commingled materials, yard waste, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, inoperative automobiles, batteries, electronics and other)

CREDITS = Recycling Residues, Solid Waste Reused, and Non-MSW Recycled (includes construction and demolition material, ash and debris), and Source Reduction Initiatives. Source Reduction Initiatives must be documented as SWPU Policy and promoted across the SWPU.

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