

# VIRGINIA ANNUAL RECYCLING SUMMARY REPORT

*Calendar Year 2013*



**October 2014**

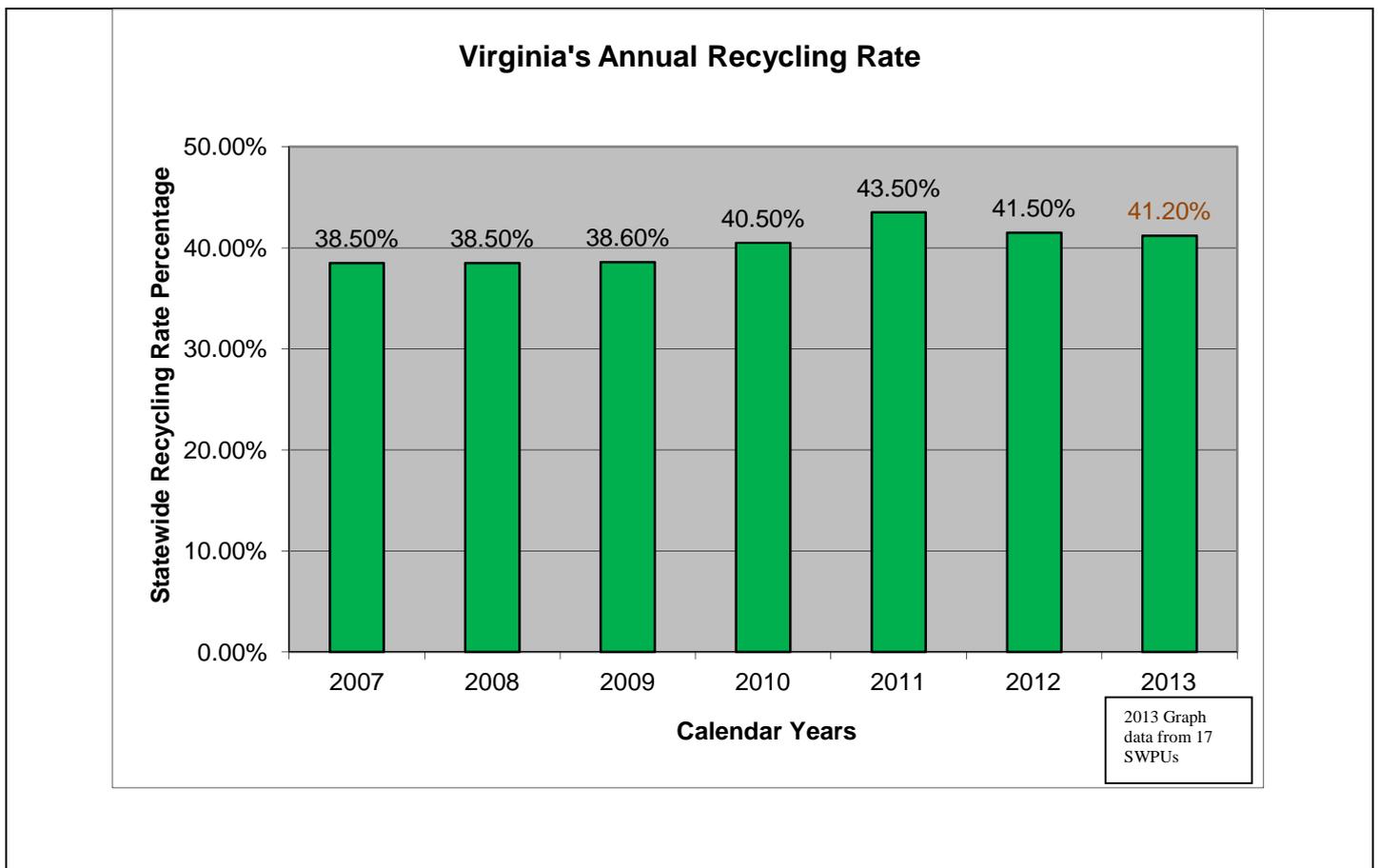
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## Virginia's State Recycling Summary for Calendar Year 2013

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year 2013. DEQ has reviewed 42 submitted reports. This summary report was compiled from the recycling data submitted by 17 out of 71 solid waste planning units (SWPUs) for 2013; only those SWPUs with populations above 100,000 were required to report for 2013. The data represent recycling information from 113 Virginia cities, counties and towns.<sup>1</sup> Recycling rate reports were also submitted by 25 SWPUs that were not required to report for 2013. The data are included in the data table for reference. In some cases, reported data were adjusted for consistency with the Virginia solid waste planning regulation (9VAC20-130 *et seq.*).

Virginia's annual recycling rate for 2013 as reflected by the graph below is based only on data from the required reports submitted by the 17 SWPUs with populations above 100,000. The recycling summary rate is 41.2 percent. Based upon previous years' reporting, it is estimated that the submitted data from these 17 SWPUs represent approximately 85 percent of materials collected for recycling in Virginia.



<sup>1</sup> Virginia Code §10.1-1411 was amended by legislation introduced during the 2012 Session of the Virginia General Assembly and requires annual recycling rate reporting by each SWPU or locality with a population of greater than 100,000 according to the most recent U.S. Census. Each SWPU or locality with a population of 100,000 or less according to the most recent U.S. Census must submit a recycling survey report once every four years. Planning units in this latter category will next report in 2017 for calendar year 2016.

## Areas Reporting Highest Rates

Historically, higher recycling rates have been reported in the more densely populated areas of the state. These areas are represented primarily by the 17 SWPUs with populations over 100,000.<sup>1</sup> These areas include:

Calculated Regional Recycling Rates by Year			
<u>Area</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Bristol Area	36.3%	36.3%	35.0%
Roanoke Area	35.4%	37.6%	42.5%
Lynchburg Area	38.9%	31.3%	38.8%
Northern Shenandoah Valley	40.4%	41.6%	39.1%
Fredericksburg Area	46.3%	55.9%	56.5%
Richmond Area	57.4%	57.4%	57.7%
Northern Virginia	46.0%	47.3%	44.5%
Hampton Roads/Tidewater Area	33.5%	35.7%	44.6%

## Mandated Recycling Rates

Pursuant to Virginia Code § 10.1-1411.D, each SWPU is required to achieve and maintain a minimum 25 percent annual recycling rate *unless*:

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

SWPUs meeting these criteria are required to achieve and maintain a minimum 15 percent recycling rate.

## Solid Waste Management Planning and Recycling Action Plans

DEQ continues to review the required solid waste management plans 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 percent or 25 percent recycling rate, DEQ will require that a recycling action plan 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 for the SWPU to achieve its mandated recycling rate.

A recycling action plan requires a commitment by the SWPU to provide resources necessary to improve its program, as well as a timeline for achieving the program elements. The plan 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 plan elements is required until the SWPU meets its minimum required recycling rate. This process has been utilized in the past to help bring certain SWPUs into compliance.

## **Recycling Success Stories (information as provided by localities)**

Loudoun County: The county converted its public recycling center program consisting of nine sites countywide from a dual stream to single stream collection process and replaced 32 roll-off containers with 98 front-end-loading dumpsters. The new system allows each recycling collection site to be completely emptied on one trip rather than performing multiple trips and transporting roll offs back and forth across the county, and has reduced costs by 33 percent. The return on investment for the new containers is 10 months.

City of Portsmouth: In 2013, blue carts started showing up on curbs throughout the city, filled to the brim with plastics and cans and paper. The city had doled out carts, but its curbside recycling program had not yet kicked off. People were just that eager to recycle. A year later, the city's curbside recycling program proved far more popular than city officials expected. Half of the city's households are recycling, more than double the number that did so before the city stopped curbside pickup in October 2003. Since August 2013, residents have recycled 4,961 tons of plastics, cans, glass and paper, a nearly six fold increase from the past decade, when the city offered only drop-off sites for recycling. The city bought a fourth recycling truck and ordered a fifth to keep up with the demand. Most of the city's bulk trash, including furniture and tree limbs, previously went to the landfill. But now that the city is recycling any bulk waste it can, 75 percent of the waste collected over the past year didn't go to the landfill. That has changed the expected life of the landfill to 100 years, from the 20 to 30 years that was previously estimated. The city plans to expand the program to the commercial sector, first focusing on downtown businesses that use the city's trash service.

City of Alexandria: Alexandria has a pilot food waste composting collection at its four farmers' markets every weekend in the city. The program is diverting about 1 ton of food waste per week.

Prince William County: Prince William Recycles Day, which was held on October 19, 2013, featured "Billy B" and drew a record 850 participants. The county re-branded the "Too Good To Waste Place" in 2013 as the "Donation Place" at the Prince William landfill. During FY14 the facility was successful in re-purposing 581,470 pounds of materials that would have otherwise been disposed of as trash.

## Calculated Recycling Rates for 2013

Solid Waste Planning Unit Recycling Rates and Data – SWPUs required to report are highlighted in yellow

REPORTING ENTITY (Solid Waste Planning Units)	2013 Recycling Rate* (%)	2013 Total Recycled Tons (PRMs + Credits)	2013 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
State Totals	41.2	3,219,528 tons	7,835,848 tons
Accomack County SWPU	not required to report		
Alexandria (City) SWPU	48.8 *	90,075	184,339
Alleghany Highlands SWPU	not required to report		
Amelia County SWPU	15	1,096	8,442
Amherst County SWPU	25.3	7,249	28,617
Arlington County SWPU	51.1 *	164,314	273,150
Augusta –Staunton-Waynesboro SWPU	38.9	57,565	147,860
Bath County SWPU	not required to report		
Bedford County SWPU	42.1 *	26,641	66,382
Botetourt County SWPU	19.1	3,895	20,350
Bristol (City) SWPU	not required to report		
Brunswick County SWPU	not required to report		
Buckingham County SWPU	not required to report		
Caroline County SWPU	not required to report		
Carroll-Grayson-Galax SWPU	19.9	6,716	33,730
Central Virginia Waste Management Authority SWPU (counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan and Prince George; cities of Richmond, Hopewell, Colonial Heights and Petersburg)	58.4	570,998	1,484,058
Craig County SWPU	19.2	567	2,947
Culpeper County SWPU	not required to report		
Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell counties)	31.7	23,068	72,776
Danville (City) SWPU	45.5	12,033	26,426
Fairfax (City) SWPU	58.4	31,783	54,443
Fairfax County SWPU	48.2 *	518,577	1,121,788
Falls Church (City) SWPU	62.9 *	8,288	13,815
Fauquier County SWPU	43.0	35,776	83,285
Floyd County SWPU	18*	2,814	13,816
Franklin County SWPU	33.4	17,871	53,495
Gloucester County SWPU	not required to report		
Greater Rockingham SWPU	31.1	23,018	73,923
Harrisonburg (City) SWPU	not required to report		
Herndon (Town) SWPU	43	10,799	25,108
Highland County SWPU	not required to report		
King George County SWPU	not required to report		
Lee County SWPU	not required to report		

REPORTING ENTITY (Solid Waste Planning Units)	2013 Recycling Rate* (%)	2013 Total Recycled Tons (PRMs + Credits)	2013 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
State Totals	41.2	3,219,528 tons	7,835,848 Tons
Loudoun County SWPU	36.9	126,365	342,267
Louisa County SWPU	not required to report		
Lunenburg County SWPU	15.8	2,530	16,011
Madison County SWPU	37.1	2,641	7,127
Manassas (City) SWPU	41	16,698	40,734
Manassas Park (City) SWPU	27.9	3,563	12,792
Martinsville (City)/Henry County SWPU	not required to report		
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)	35.4 *	176,672	229,415
Mount Rogers PDC SWPU (counties of Bland, Smyth, Washington and Wythe)	26.8	19,818	74,037
Newport News (City) SWPU	41.2 *	79,740	189,388
New River Resource Authority SWPU (counties of Pulaski and Giles; city of Radford)	24.6 *	26,893	109,363
Northampton County SWPU	not required to report		
Northern Neck PDC SWPU (counties of Lancaster, Northumberland, Richmond and Westmoreland)	not required to report		
Northern Shenandoah Valley Regional Commission SWPU (counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	40.4	91,019	225,457
Nottoway County SWPU	15.9	2,383	17,186
Orange County SWPU	17.9	3,781	17,126
Patrick County SWPU	not required to report		
Pittsylvania County SWPU	not required to report		
Prince Edward-Cumberland County SWPU	not required to report		
Prince William County SWPU	40.5 *	223,142	532,558
Rappahannock County SWPU	not required to report		
Rappahannock Regional Solid Waste Management Board SWPU (Stafford County and city of Fredericksburg)	49.2	78,413	166,065
Region 2000 (counties of Nelson, Appomattox and Campbell; cities of Lynchburg and Bedford)	38.9	121,541	312,317
Roanoke (City) SWPU	34.6	22,757	65,726
Roanoke County SWPU	not required to report		
Rockbridge – Lexington – Buena Vista SWPU	not required to report		
Salem (City) SWPU	38.9	13,462	34,582
Scott County SWPU	not required to report		
Southeastern Public Service Authority SWPU (counties of Isle of Wight and Southampton; cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk and Virginia Beach)	33.5 *	585,553	1,749,123

REPORTING ENTITY (Solid Waste Planning Units)	2013 Recycling Rate* (%)	2013 Total Recycled Tons (PRMs + Credits)	2013 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
State Totals	41.2	3,219,528 tons	7,835,848 Tons
Southern Crater Region SWPU (counties of Dinwiddie, Greensville, Surry, and Sussex; city of Emporia)	not required to report		
Southside Regional PSA SWPU (counties of Charlotte, Halifax and Mecklenburg)	not required to report		
Spotsylvania County SWPU	42.0 *	74,114	163,585
Tazewell County SWPU	not required to report		
Thomas Jefferson PDC SWPU (counties of Albemarle, Fluvanna and Greene; city of Charlottesville)	39.9	145,359	294,911
Vienna (Town) SWPU	not required to report		
Virginia Peninsulas Public Service Authority SWPU (counties of Essex, James City, King and Queen, Mathews, Middlesex and York; cities of Hampton, Poquoson and Williamsburg)	29.0	100,264	345,532
Vinton (Town) SWPU	48.9	3,594	7,344
Wise County SWPU	not required to report		
CY 2013 Calculations	41.2	3,219,528	7,835,848
<b>The calculated recycling rate is based only on data from the indicated 17 SWPUs required to report for CY 2013 as highlighted in yellow.</b>	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 percent maximum percentage allowed for credits to the base recycling rate calculated by a solid waste planning unit. A 2 percent source reduction credit has been added to the calculated recycling rates for those planning units with a documented source reduction program.

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 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.

Municipal Solid Waste (MSW) disposed: Municipal solid waste delivered to sanitary landfills or incinerators for disposal.

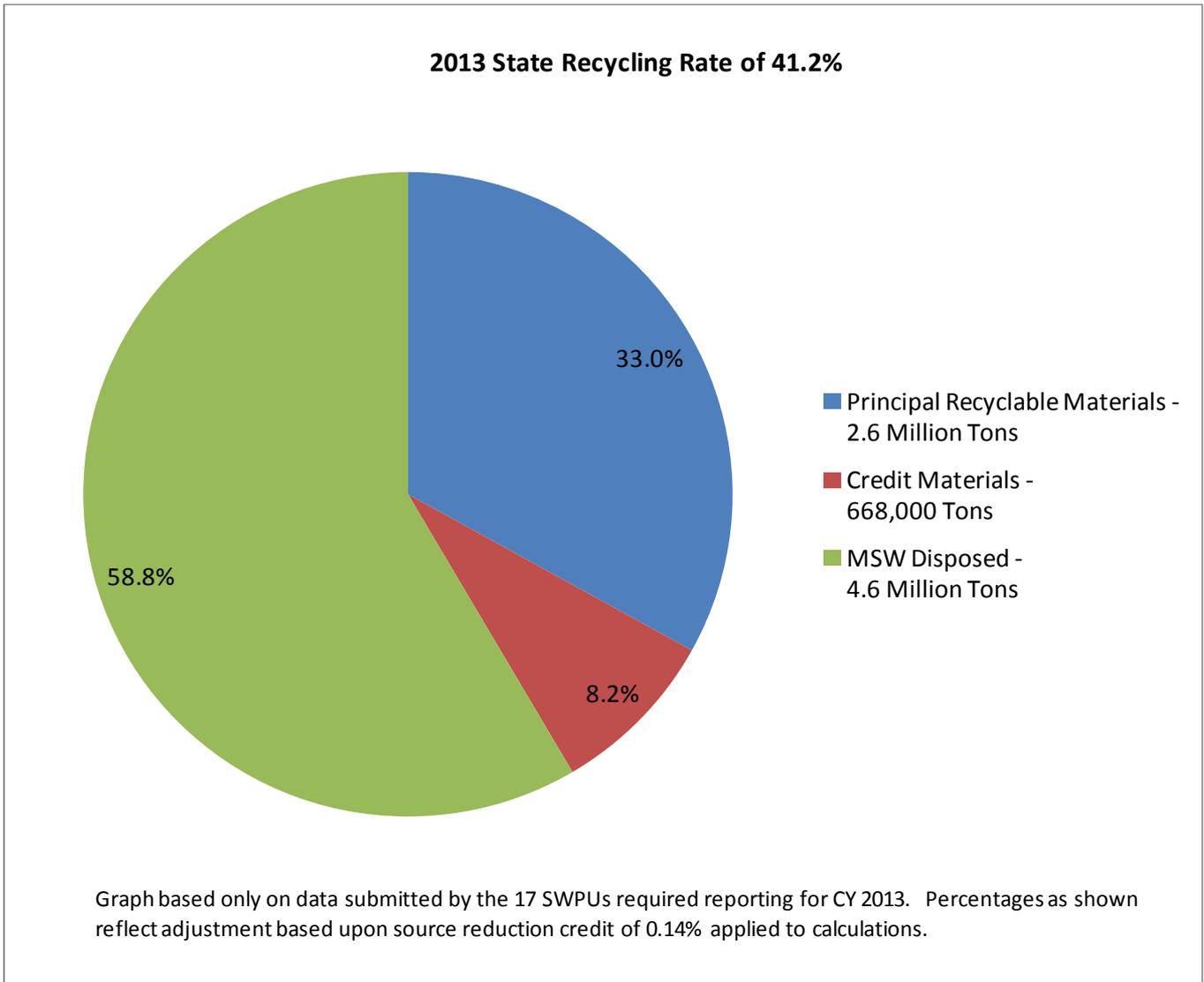
## Recycling Rate Report Summary – 2013

Seventeen recycling rate reports, representing 113 Virginia localities, were received pursuant to the requirements of § 10.1-1411 of the Code of Virginia. This represents a return rate of 100 percent of the required reports. Totals for these reports are presented below:

Principal Recyclable Material (PRM) in tons					Total MSW Disposed in tons	
Paper	661,290	<b>Credits</b>			Household Waste	4,508,363,9
Metal	524,603	Recycling Residue	29,710			
Plastic	23,262	Solid Waste Reused	443,594		Commercial Waste	622,167
Glass	26,011	Non-MSW Recycled	194,997			
Commingled	402,452	<b>TOTAL CREDITS (C) (Tons)</b>	<b>668,301</b>		Institutional Waste	46,720
Yard Waste	595,077				Other:	5,797
Waste Wood	136,870					
Textiles	18,977					
Waste Tires	51,519					
Used Oil	57,723,				<b>2% Source Reduction Credit</b>	5 entities, equaling 0.14% overall
Used Oil Filters	1,158				<b>CY 2013 Calculated State Recycling Rate*</b>	
Used Antifreeze	2,553					
Auto Bodies	636	<b>((P+C)/(P+C+M) x 100) + Source Reduction Credit</b> <b>(3,219,528/7,835,848)X100)+0.14%</b>			<b>41.2%*</b>	
Batteries	12,573					
Electronics	8,260					
Other:	20,223					
		<i>(rounding of individual data entries may affect sums in Totals)</i>				
<b>Total PRM (P) (Tons)</b>	<b>2,551,227</b>					

\* All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120. Chart represents data only from the 17 SWPUs required to report for CY 2013. Twenty-five SWPUs which were not required to report also submitted data for CY 2013. Using the data from all 42 SWPUs reporting would result in a calculated recycling rate of 40.7 percent.

## Recycling in Virginia



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 non-MSW recycled (includes construction and demolition material, ash and debris), and source reduction initiatives. Source reduction initiatives must be documented as a solid waste planning unit (SWPU) policy and promoted across the SWPU.

Municipal Solid Waste (MSW) disposed: Municipal solid waste delivered to sanitary landfills or incinerators for disposal.