Virginia Annual Recycling Rate Report

Calendar Year 2012 Summary



November 2013

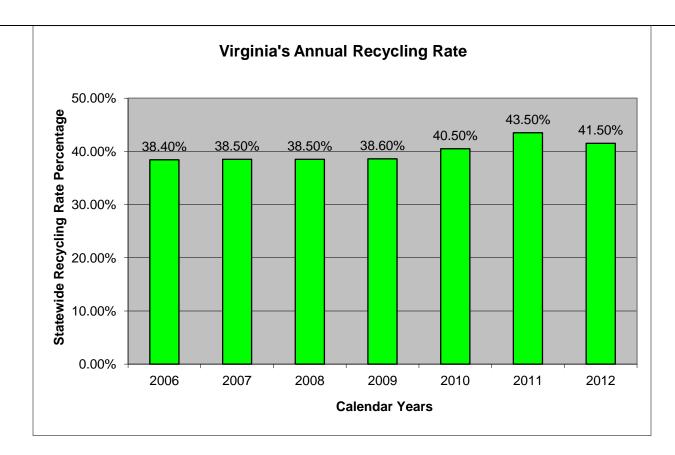
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Virginia's Statewide Recycling Rate for Calendar Year 2012

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year 2012. This summary report was compiled from the recycling data submitted by the 71 solid waste planning units (SWPUs) for 2012, and it represents recycling information from 324 Virginia cities, counties and towns.¹ In some cases, reported data were adjusted for consistency with the Virginia solid waste planning regulation (9VAC20-130 et seq.).

Virginia's calculated recycling rate for 2012 is 41.5 percent. All but one of the solid waste planning units met or exceeded their respective required recycling rates for 2012. This achievement reflects well on the commitment made by Virginia localities to promote and support recycling over the last 24 years.



Statewide Recycling Rate Data - 3-year summary

2012 – 3,891,565 tons of material recycled or reused, and 9,446,080 tons of solid waste generated (calculation includes + 0.25% for source reduction initiatives)

2011 - 3,988,266 tons of material recycled or reused, and 9,226,177 tons of solid waste generated (calculation includes + 0.25% 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 + 0.25% for source reduction initiatives)

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 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 – 2010-2012

As in previous years, higher recycling rates were reported in the more densely populated areas of the state. For 2012, these areas reported a total of 3.48 million recycled tons, or 86 percent of all recyclables collected, and had a calculated recycling rate of 43.7 percent. These areas include:

Calculated Regional Recycling Rates by Y	/ear		
<u>Area</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Bristol Area	36.3%	35.0%	43.0%
Roanoke Area	37.6%	42.5%	37.7%
Lynchburg Area	31.3%	38.8%	33.7%
Northern Shenandoah Valley	41.6%	39.1%	39.7%
Fredericksburg Area	55.9%	56.5%	54.1%
Richmond Area	57.4%	57.7%	55.5%
Northern Virginia	47.3%	44.5%	40.9%
Hampton Roads/Tidewater Area	35.7%	44.6%	39.3%

Trends Observed in 2012 Reports

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

- Principal recyclable materials* (PRMs) increased about 3 percent.
- Credits* decreased by 21 percent.
- Municipal solid waste* (MSW) disposed of increased by 6 percent.

As subsets of the PRM category, the reported commodity capture rates from 2011 to 2012 changed as indicated for the following (note increase in single-stream collections reported):

•	Paper	+	2.1 percent
•	Metals	-	2.0 percent
•	Plastics	-	11.8 percent
•	Glass	+	34.9 percent
•	Commingled	+	14.4 percent (also called single-stream collections)
•	Yard waste	-	4.0 percent
•	Waste tires	+	1.3 percent
•	Electronics	-	6.2 percent
•	Batteries	+	10.6 percent

^{*} PRMs, credits and MSW disposed of are defined on Pages 8 and 10 of this report.

Mandated Recycling Rate Results

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

Year (% meeting rate)	# Reports	<u>>=25%</u>	> <u>15% but <25%</u>	Less than 15%
2012 (98.6%)	71	49	21	1
2011 (98.6%)	71	47	23	1
2010 (100%)	71	52	19	0

Pursuant to Virginia Code § 10.1-1411.D, each SWPU is required to achieve a minimum 25 percent 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 a minimum 15 percent recycling rate. Using this two-tiered recycling mandate standard, all SWPUs met or exceeded their minimum mandated recycling rate in 2009 and 2010, and only one jurisdiction did not meet its mandated recycling rate in both 2011 and 2012.

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 several SWPUs into compliance.

Recycling Success Stories (information as provided by localities)

City of Virginia Beach: Public Works Waste Management exceeded its goal to provide 10,000 townhome residents with 95 or 65-gallon recycling carts to replace 18-gallon open top bins. The project involved 71 neighborhoods and was completed in less than nine months, resulting in the delivery of 10,475 recycling carts. The response from residents has been overwhelmingly positive. In fact, 97% of all townhome residents offered recycling carts wanted them. Recycling participation in these communities is noticeable higher. With the increase in participation and cart capacity, Virginia Beach expects to increase recycling tonnage by about 2,800 tons per year which will reduce the annual cost of disposal by \$180,000.

City of Franklin: In the beginning of fiscal year 2012-2013 the Department of Public Works with the approval of the City Manager and City Council implemented a policy which required residents to separate their yard waste from household

waste. Previously all waste collected was taken to the Franklin SPSA Transfer Station then transported to a landfill. The cost for disposal to the City of Franklin was \$125.00 per ton. Beginning August 1, 2012 the collection of yard waste was separated from the household waste stream and taken to a local company, Green Waste Recycling LLC, for disposal at a cost of \$2.50 per cubic yard. After monitoring the cost for the remaining portion of the fiscal year, the City estimated the cost savings to be \$144,000. The policy change enabled the City to lower the garbage fees for residents and help the environment by not landfilling yard waste.

Henry County/City of Martinsville: Gateway Streetscape Foundation and the Department of Juvenile Justice Community Service workers removed more than 8 tons of trash from a former trucking company dump site between Jan. and April; including the removed of over 1500 illegally dumped tires from riparian areas (Oct.-April). Gateway partnered with Bridgestone Tires (One Team; One Planet) to responsibly recycle the spent tires collected.

Colonial Heights: A year after implementing a new trash and recycling program in the city, Colonial Heights has become the leader in the Richmond/Tri-Cities region for residential participation in curbside recycling. The volume of recycling shot up to 61% after residents were provided 96-gallon carts for recycling and only 68 gallon trash carts! By providing a much larger recycling cart, residents have been able to significantly reduce the amount of household trash to be collected, thereby reducing the need for (and cost associated with) the larger trash cart. In addition, a recycling rewards program was implemented incentivizing residents to recycle and earn discounts while dining out or shopping at local businesses. As a result, the city's 6,700 households recycled an additional 540 tons of materials than the previous year! And the City saved over \$200,000 while doing it!

King George County: King George County experienced a significant increase in the county's overall recycling participation with local figures hitting nearly 30 percent in 2012. The landfill is also doing its part by taking a number of products bound for the burial and reusing them. Items such as glass, tire chips and dead trees are being utilized for purposes such as road materials, mulches, SEEP repair and landfill cover, in turn saving money and extending the life of the landfill.

Arlington County: Arlington County's assist visit program is cutting edge within the region because it combines the compliance for recycling along with an outreach component that provides emphasis on education and assistance to approximately 1500 multi-family and commercial business properties annually. It combines person to person outreach with compliance enforcement. This strategy demonstrates an effective method proving that education can change behavior and providing high level service can result in higher recycling rates. After working with property managers and business owners, our assist program for the multifamily and commercial business sectors reached all time highs in 2012 by visiting all commercial and business properties. 85% of the properties were in compliance with the county's recycling requirements. This was 10% higher than before the start of the face-to-face assist visit program. This also resulted in the highest recycling rate for the multi-family and business sector being reported to the state for 2012.

City of Chesapeake: The City of Chesapeake's recycling participation rate has reached an impressive 76% with over 16,500 tons diverted annually. Participation in the Recycling Perks program, which launched its first City-wide program in Chesapeake, has grown significantly since it began in May 2011. Over 10,000 Chesapeake participants have redeemed nearly one million perks points. In addition to a successful recycling program, Chesapeake has taken the initiative to be the first municipality in the region to convert solid waste trucks to compressed natural gas (CNG). So far the City has 21 CNG solid waste trucks with plans to convert the entire fleet. The City also built its own CNG station which opened in September 2012.

Calculated Recycling Rates for 2012

Solid Waste Planning Unit Recycling Rates and Data

REPORTING ENTITY (Solid Waste Planning Units)	2012 Recycling Rate* (%)	2012 Total Recycled Tons (PRMs + Credits)	2012 Total MSW Generation Tons (PRMs + Credits + MSW disposed)	
Statowido Totale	41 F	3,891,565	9,446,080	
Statewide Totals	41.5	tons	tons	
Accomack County SWPU	32.5	11,257	34,656	
Alexandria (City) SWPU	488 *	86,420	177,876	
Alleghany Highlands SWPU	24.5	4,830	19,748	
Amelia County SWPU	15.5	1,209	7,806	
Amherst County SWPU	27.1	7,937	29,331	
Arlington County SWPU	51.1*	166,302	276,238	
Augusta –Staunton-Waynesboro SWPU	33.3	49,597	149,154	
Bath County SWPU	18.6	869	5,228	
Bedford County SWPU	42.9	28,164	68,907	
Botetourt County SWPU	18.5	3,775	20,408	
Bristol (City) SWPU	36.3	7,615	20,977	
Brunswick County SWPU	15.2	900	5,939	
Buckingham County SWPU	17.1	1,636	9,566	
Caroline County SWPU	19.5	2,192	11,233	
Carroll-Grayson-Galax SWPU	18.6	6,157	33,045	
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)	57.4	583,209	1,015,673	
Craig County SWPU	19.9	621	3,128	
Culpeper County SWPU	26.4	6,453	24,469	
Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell counties)	31.3	23,602	75,830	
Danville (City) SWPU	48.3	13,215	27,350	
Fairfax (City) SWPU	57.4	31,085	54,192	
Fairfax County SWPU	51.3	647,458	1,312,967	
Falls Church (City) SWPU	69.3	10,365	15,390	
Fauquier County SWPU	43.9 *	43,002	93,546	
Floyd County SWPU	15.1 *	2,016	12,571	
Franklin County SWPU	31.	16,896	50,901	
Gloucester County SWPU	25.6	9,386	36,603	
Greater Rockingham SWPU	27.3	24,323	88,967	
Harrisonburg (City) SWPU	32.3	16,145	49,995	
Herndon (Town) SWPU	48.7	13,688	28,107	
Highland County SWPU	15.2	252	1,659	
King George County SWPU	44.7 *	43,211	51,103	
Lee County SWPU	22.9	4,397	19,209	

REPORTING ENTITY (Solid Waste Planning Units)	2012 Recycling Rate* (%)	2012 Total Recycled Tons (PRMs + Credits)	2012 Total MSW Generation Tons (PRMs + Credits + MSW disposed)	
Statewide Totals	41.5	3,891,565	9,446,080	
Laudaura Cauratu SWIDLI		tons	tons	
Loudoun County SWPU	34.5	114,413	331,194	
Louisa County SWPU	27.3 *	10,883	39,253	
Lunenburg County SWPU	15.2	2,413	15,920	
Madison County SWPU	25.4	1,603	6,308	
Manassas (City) SWPU	40.5	18,644	46,029	
Manassas Park (City) SWPU	25.9	2,451	9,452	
Martinsville (City)/Henry County SWPU	32.0 *	39,712	93,057	
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)	31.0 *	39,661	97,901	
Mount Rogers PDC SWPU (counties of Bland, Smyth, Washington and Wythe)	27.8	25,554	91,827	
Newport News (City) SWPU	38.0 *	150,148	262,061	
New River Resource Authority SWPU (counties of Pulaski and Giles; city of Radford)	27.4 *	34,767	116,920	
Northampton County SWPU	27.1	4,081	15,054	
Northern Neck PDC SWPU (counties of Lancaster, Northumberland, Richmond and Westmoreland) Northern Shenandoah Valley Regional	21.2	9,563	45,121	
Commission SWPU (counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	41.6	107,987	259,842	
Nottoway County SWPU	14.6 **	2,304	18,337	
Orange County SWPU	18.1	2,881	15,927	
Patrick County SWPU	31.6	3,839	12,139	
Pittsylvania County SWPU	34.3	16,214	47,332	
Prince Edward-Cumberland County SWPU	18.7	6,438	34,401	
Prince William County SWPU	41.3 *	217,414	521,055	
Rappahannock County SWPU	23.2	1,360	5,862	
Rappahannock Regional Solid Waste Management Board SWPU (Stafford County and city of Fredericksburg)	49.4	68,506	144,414	
Region 2000 (counties of Nelson, Appomattox and Campbell; cities of Lynchburg and Bedford)	31.3	107,379	343,168	
Roanoke (City) SWPU	34.1	22,245	65,322	
Roanoke County SWPU	42.3	30,834	72,911	
Rockbridge – Lexington – Buena Vista SWPU	41.1	13,551	32,969	
Salem (City) SWPU	51.7	24,351	47,105	
Scott County SWPU	15.8	2,292	14,520	
Southeastern Public Service Authority SWPU (counties of Isle of Wight and Southampton; cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk and Virginia Beach)	31.8 *	613,109	1,796,607	

REPORTING ENTITY (Solid Waste Planning Units)	2012 Recycling Rate* (%)	2012 Total Recycled Tons (PRMs + Credits)	2012 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Statewide Totals	41.5	3,891,565 tons	9,446,080 tons
Southern Crater Region SWPU (counties of Dinwiddie, Greensville, Surry, and Sussex; city of Emporia)	22	18,903	86,065
Southside Regional PSA SWPU (counties of Charlotte, Halifax and Mecklenburg)	19.2	10,854	56,586
Spotsylvania County SWPU	44.6 *	39,570	75,201
Tazewell County SWPU	19.4	14,054	72,531
Thomas Jefferson PDC SWPU (counties of Albemarle, Fluvanna and Greene; city of Charlottesville)	37.8	81,971	216,782
Vienna (Town) SWPU	59.5	15,788	26,541
Virginia Peninsulas Public Service Authority SWPU (counties of Essex, James City, King and Queen, Mathews, Middlesex and York; cities of Hampton, Poquoson and Williamsburg)	30.0	123,756	412,390
Vinton (Town) SWPU	62.4	6,047	9,691
Wise County SWPU	32.7	17,847	54,533
STATEWIDE TOTALS 2012	41.5	3,891,565	9,446,080
	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 five percent maximum percentage allowed for credits to the base recycling rate calculated by a solid waste planning unit. A two 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.

^{**} SWPU calculated recycling rate is below the fifteen percent rate required by statute and regulations.

Recycling Rate Report Summary

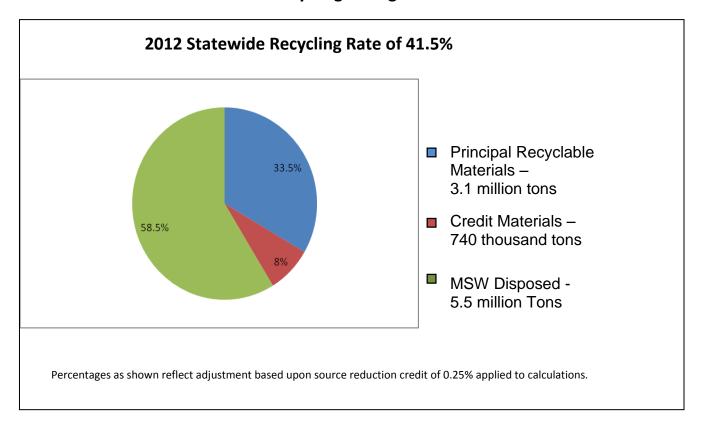
Virginia Solid Waste Planning Units Reporting Rate Information for 2012

Seventy-one recycling rate reports, representing 324 Virginia localities and every SWPU, were received. This represents a return rate of 100 percent. Totals for all reports are presented below:

Principal Recyclable Material (PRM) in tons					Total MSW Disposed	in tons
Paper	780,700	Credits			Household Waste	4,508,365
Metal	768,517	Recycling Residue	21,096			
Plastic	38,062	Solid Waste Reused	587,459		Commercial Waste	834,585
Glass	36,814	Non-MSW Recycled	132,288			
Commingled	454,448	TOTAL CREDITS (C) (Tons)	740,842		Institutional Waste	90,126
Yard Waste	686,950					
Waste Wood	182,303				Other:	121,349
Textiles	18,500					
Waste Tires	53,956				TOTAL MSW (M) (Tons)	5,554,515
Used Oil	52,346	2% Source Reduction Credit	9 entities, equaling 0.25% overall			
Used Oil Filters	3,981					
Used Antifreeze	3,686				CY 2012 Calculated State Recycling Rate	
Auto Bodies	1,544	((P+C)/(P+C+M) x 100) + Source Reduction Credit (3,891,565/9,446,080)X100)+0.25%		41.5%		
Batteries	24,888					
Electronics	7,876					
Other:	36,152					
		(rounding of individual data entries may affect sums in Totals)				
Total PRM (P) (Tons)	3,150,723					

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

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.