

# **The Virginia Annual Recycling Rate Report**

**Calendar Year 2010 Summary**



**November 2011**

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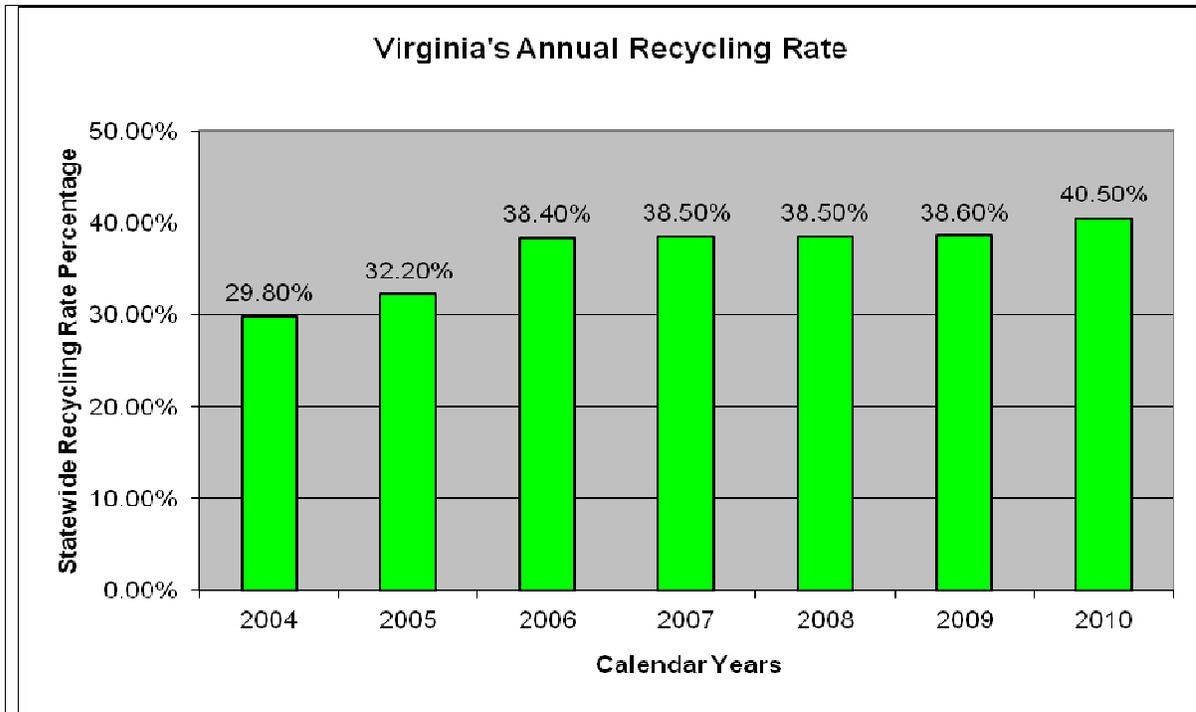
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# VIRGINIA'S STATEWIDE RECYCLING RATE

## FOR CALENDAR YEAR 2010

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year (CY) 2010. The data for this summary report was compiled from the reports submitted by the 71 solid waste planning units (SWPUs), and represents recycling information from 324 Virginia cities, counties and towns. 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 2010 is 40.5%. All Solid Waste Planning Units have met or exceeded their respective required recycling rates. This achievement reflects well upon the commitment made by Virginia localities to promote and support recycling over the last twenty-two years.



### Statewide Recycling Rate Data – 3-year summary

**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)

**2008** – 3,661,027 tons of material recycled or reused, and 9,542,428 tons of solid waste generated (calculation includes +.17% for source reduction initiatives)

### Areas Reporting Highest Rates – 2008-2010

Higher recycling rates were reported in the more densely populated areas of the state. For CY 2010, these areas reported a total of 2.99 million recycled tons, or 86 % of all recyclables collected, and had a calculated average recycling rate of 43 %. These areas include:

<b>Calculated Regional Recycling Rates by Year</b>			
<u>Area</u>	<u>CY 2010</u>	<u>CY 2009</u>	<u>CY 2008</u>
Bristol Area	43.0 %	41.7 %	39.5%
Roanoke Area	37.7 %	42.1 %	33.3%
Lynchburg Area	33.7%	32.0 %	34.0%
Northern Shenandoah Valley	39.7 %	36.5 %	33.5%
Fredericksburg Area	54.1 %	51.4 %	47.1%
Richmond Area	55.5 %	52.8 %	52.8%
Northern Virginia	40.9 %	37.2 %	37.1%
Hampton Roads/Tidewater Area	39.3 %	36.5 %	31.2%

### Trends Observed in CY 2010 Reports

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

- Principal Recyclable Materials\* (PRMs) increased about 1.2 %;
- Credits\* increased by 2.1 %; and,
- Municipal Solid Waste\* (MSW) disposed decreased by 8 %.

*\* PRMs, Credits and MSW disposed are defined on Page 8 of this report.*

As subsets of the PRM category, the reported commodity capture rates from CY 2009 to CY 2010 changed as indicated for the following: (note increase in single-stream collections reported)

- Paper - 0.2 %
- Metals - 14.7 %
- Plastics - 9.0 %
- Glass + 8.5 %
- Commingled + 96.8 % (also called single-stream collections)
- Waste tires - 3.6 %
- Yard/Wood waste + 3.9 %
- Electronics - 19.5 %

**Mandated Recycling Rate Results**

Over the last four years, the reporting entities (SWPUs) have worked to improve their programs to meet the required recycling rates:

<u>Year (% meeting rate)</u>	<u># Reports</u>	<u>25 % or Greater</u>	<u>15% to 25 %</u>	<u># below mandated recycling rate</u>
CY 2010 (100 %)	71	52	19	0
CY 2009 (100 %)	71	51	20	0
CY 2008 (97 %)	71 *	48	21	2
CY 2007 (89 %)	74	49	19	8

*\* The reduction in number of reports submitted is due to consolidation and re-alignment of SWPU membership.*

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 were required to achieve a minimum 15 % recycling rate. Using this two-tiered recycling mandate standard, 100 % SWPUs met or exceeded their minimum mandated recycling rate in both CY 2009 and CY 2010.

**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 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 - now all SWPUs are in compliance.

## Calculated Recycling Rates for CY 2010

### Solid Waste Planning Unit Recycling Rates and Data

REPORTING ENTITY (Solid Waste Planning Units)	CY 2010 Recycling Rate* (%)	CY 2010 Total Recycled Tons (PRMs + Credits)	CY 2010 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
<b>Statewide Totals</b>	<b>40.5</b>	<b>3,469,747 tons</b>	<b>8,628,747 tons</b>
Accomack County SWPU	28.5	9575	33,373
Alexandria (City) SWPU	41.4 *	83,950	213,021
Alleghany Highlands SWPU	20	5,626	19,329
Amelia County SWPU	21	1,572	7,489
Amherst County SWPU	33	9,980	30,257
Arlington County SWPU	39.7 *	178,044	337,649
Augusta –Staunton-Waynesboro SWPU	29.6	39,591	133,889
Bath County SWPU	28.3 *	1,599	6,084
Bedford County SWPU	43.9 *	28,360	67,697
Botetourt County SWPU	17.4	3,518	20,233
Bristol (City) SWPU	43	10,790	25,107
Brunswick County SWPU	27.8	4,043	14,542
Buckingham County SWPU	21.5	2,500	11,638
Caroline County SWPU	15.2	2,046	13,421
Carroll-Grayson-Galax SWPU	28.3	9,607	33,974
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)	55.5	560,604	1,010,435

<b>REPORTING ENTITY (Solid Waste Planning Units)</b>	<b>CY 2010 Recycling Rate* (%)</b>	<b>CY 2010 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2010 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
<b>Craig County SWPU</b>	<b>18.3</b>	<b>530</b>	<b>2,901</b>
<b>Culpeper County SWPU</b>	<b>27</b>	<b>7,268</b>	<b>26,907</b>
<b>Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)</b>	<b>30.8</b>	<b>24,086</b>	<b>78,085</b>
<b>Danville (City) SWPU</b>	<b>42.6</b>	<b>10,916</b>	<b>25,600</b>
<b>Fairfax (City) SWPU</b>	<b>52.3</b>	<b>26,218</b>	<b>50,095</b>
<b>Fairfax County SWPU</b>	<b>41.7*</b>	<b>472,646</b>	<b>1,190,609</b>
<b>Falls Church (City) SWPU</b>	<b>60.4</b>	<b>8,077</b>	<b>13,826</b>
<b>Fauquier County SWPU</b>	<b>35.3</b>	<b>29,939</b>	<b>84,764</b>
<b>Floyd County SWPU</b>	<b>19.7 *</b>	<b>10,170</b>	<b>21,186</b>
<b>Franklin County SWPU</b>	<b>30.5</b>	<b>16,140</b>	<b>52,969</b>
<b>Gloucester County SWPU</b>	<b>28.9</b>	<b>10,486</b>	<b>36,312</b>
<b>Greater Rockingham SWPU</b>	<b>35.6</b>	<b>28,761</b>	<b>80,782</b>
<b>Harrisonburg (City) SWPU</b>	<b>28.1 *</b>	<b>21,361</b>	<b>64,631</b>
<b>Herndon (Town) SWPU</b>	<b>41.7</b>	<b>10,691</b>	<b>25,651</b>
<b>Highland County SWPU</b>	<b>16.2</b>	<b>293</b>	<b>1,813</b>
<b>King George County SWPU</b>	<b>30.5 *</b>	<b>69,455</b>	<b>81,014</b>
<b>Lee County SWPU</b>	<b>20.3</b>	<b>3,951</b>	<b>19,428</b>
<b>Loudoun County SWPU</b>	<b>33.2</b>	<b>109,718</b>	<b>330,404</b>
<b>Louisa County SWPU</b>	<b>29.4</b>	<b>6,851</b>	<b>23,271</b>

<b>REPORTING ENTITY (Solid Waste Planning Units)</b>	<b>CY 2010 Recycling Rate* (%)</b>	<b>CY 2010 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2010 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
<b>Lunenburg County SWPU</b>	<b>16.6</b>	<b>2,449</b>	<b>14,726</b>
<b>Madison County SWPU</b>	<b>21</b>	<b>1,581</b>	<b>7,522</b>
<b>Manassas (City) SWPU</b>	<b>45.1</b>	<b>27,569</b>	<b>61,095</b>
<b>Manassas Park (City) SWPU</b>	<b>41.6</b>	<b>5,398</b>	<b>12,971</b>
<b>Martinsville (City)/Henry County SWPU</b>	<b>32.3</b>	<b>26,610</b>	<b>82,441</b>
<b>Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)</b>	<b>33.5 *</b>	<b>33,244</b>	<b>93,136</b>
<b>Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington, and Wythe)</b>	<b>24.6</b>	<b>17,911</b>	<b>72,792</b>
<b>Newport News (City) SWPU</b>	<b>32.4 *</b>	<b>134,604</b>	<b>254,626</b>
<b>New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)</b>	<b>29.2</b>	<b>25,836</b>	<b>88,370</b>
<b>Northampton County SWPU</b>	<b>25.1</b>	<b>3,604</b>	<b>14,381</b>
<b>Northern Neck PDC SWPU (Counties of Lancaster, Northumberland, Richmond and Westmoreland)</b>	<b>25.1</b>	<b>12,494</b>	<b>49,810</b>
<b>Northern Shenandoah Valley Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)</b>	<b>39.7</b>	<b>81,427</b>	<b>205,207</b>
<b>Nottoway County SWPU</b>	<b>16</b>	<b>3,077</b>	<b>19,264</b>
<b>Orange County SWPU</b>	<b>17.7 *</b>	<b>8,403</b>	<b>22,809</b>
<b>Patrick County SWPU</b>	<b>30.9</b>	<b>3,635</b>	<b>11,758</b>
<b>Pittsylvania County SWPU</b>	<b>31</b>	<b>14,139</b>	<b>45,670</b>
<b>Prince Edward - Cumberland SWPU</b>	<b>18.6</b>	<b>5,459</b>	<b>29,406</b>

<b>REPORTING ENTITY (Solid Waste Planning Units)</b>	<b>CY 2010 Recycling Rate* (%)</b>	<b>CY 2010 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2010 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
<b>Prince William County SWPU</b>	<b>37.1 *</b>	<b>178,584</b>	<b>460,147</b>
<b>Rappahannock County SWPU</b>	<b>25.1</b>	<b>1,521</b>	<b>6,052</b>
<b>Rappahannock Regional Solid Waste Management Board SWPU (County of Stafford and City of Fredericksburg)</b>	<b>56.8 *</b>	<b>104,948</b>	<b>191,458</b>
<b>Region 2000 (Counties of Nelson, Appomattox and Campbell, Cities of Lynchburg and Bedford)</b>	<b>32.3 *</b>	<b>112,609</b>	<b>330,491</b>
<b>Roanoke (City) SWPU</b>	<b>52.9</b>	<b>42,870</b>	<b>81,098</b>
<b>Roanoke County SWPU</b>	<b>27.3</b>	<b>15,578</b>	<b>57,163</b>
<b>Rockbridge – Lexington – Buena Vista SWPU</b>	<b>37.6</b>	<b>11,936</b>	<b>31,705</b>
<b>Salem (City) SWPU</b>	<b>51.3</b>	<b>23,529</b>	<b>45,824</b>
<b>Scott County SWPU</b>	<b>15</b>	<b>1,962</b>	<b>13,100</b>
<b>Southeastern Public Service Authority SWPU (Counties of Isle of Wight and Southampton; Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach)</b>	<b>31.8 *</b>	<b>498,514</b>	<b>1,238,072</b>
<b>Southern Crater Region SWPU (Counties of Dinwiddie, Greensville, Surry, and Sussex; City of Emporia)</b>	<b>18</b>	<b>13,676</b>	<b>76,055</b>
<b>Southside Regional PSA SWPU (Counties of Charlotte, Halifax and Mecklenburg)</b>	<b>15.7 *</b>	<b>8,666</b>	<b>55,138</b>
<b>Spotsylvania County SWPU</b>	<b>39.7 *</b>	<b>37,365</b>	<b>81,798</b>
<b>Tazewell County SWPU</b>	<b>19.7</b>	<b>13,296</b>	<b>67,544</b>
<b>Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna, and Greene; City of Charlottesville)</b>	<b>29.2 *</b>	<b>43,000</b>	<b>140,003</b>
<b>Vienna (Town) SWPU</b>	<b>54.5</b>	<b>5,230</b>	<b>9,592</b>

<b>REPORTING ENTITY (Solid Waste Planning Units)</b>	<b>CY 2010 Recycling Rate* (%)</b>	<b>CY 2010 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2010 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
Vinton (Town) SWPU	51.8	3,937	7,599
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King & Queen, Mathews, Middlesex, and York; Cities of Hampton, Poquoson, and Williamsburg)	29.1	119,943	412,711
Wise County SWPU	32.3 *	20,463	63,335
<b>STATEWIDE TOTALS CY 2010</b>	<b>40.5</b>	<b>3,469,747 tons</b>	<b>8,628,975 tons</b>
	<b>Recycling Rate %</b>	<b>Recycled</b>	<b>MSW Generation</b>

\* 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.

**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 2010

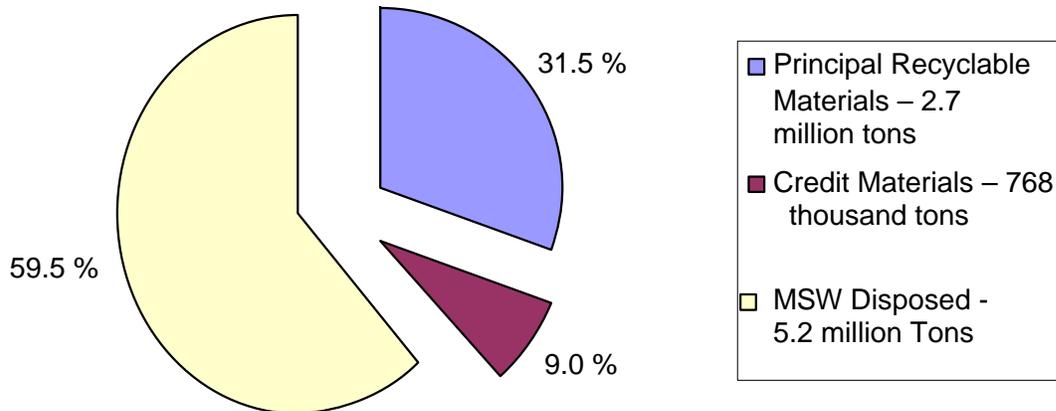
71 Recycling Rate Reports, representing 324 Virginia localities and every Solid Waste Planning Unit, were received. This represents a return rate of 100 %. Totals for all reports are presented below:

Principal Recyclable Material (PRM)		Credits			Total MSW Disposed	
Paper	723,267	Recycling Residue	19,009		Household Waste	4,217,894
Metal	667,558	Solid Waste Reused	670,776		Commercial Waste	834,789
Plastic	27,922	Non-MSW Recycled	78,515		Institutional Waste	91,952
Glass	26,042	<b>TOTAL CREDITS (C) (Tons)</b>	<b>768,300</b>		Other:	14,593
Commingled	284,869				<b>TOTAL MSW (M) (Tons)</b>	<b>5,159,228</b>
Yard Waste	543,219					
Waste Wood	238,084					
Textiles	17,690					
Waste Tires	58,761					
Used Oil	52,259	<b>2 % Source Reduction Credit</b>	9 entities, equaling .25% overall			
Used Oil Filters	2,269					
Used Antifreeze	4,784				<b>2010 State Recycling Rate</b>	
Auto Bodies	3,748	<b><math>((P+C)/(P+C+M) \times 100) + \text{Source Reduction Credit}</math></b> <b><math>(3,469,747/8,628,975) \times 100 + .25\%</math></b>				<b>40.5 %</b>
Batteries	27,642					
Electronics	6,242					
Other:	17,101					
		<i>(rounding of individual data entries may affect sums in Totals)</i>				
<b>Total PRM (P) (Tons)</b>	<b>2,701,447</b>					

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

# RECYCLING IN VIRGINIA

## 2010 Statewide Recycling Rate of 40.5 %



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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