

# **The Virginia Annual Recycling Rate Report**

**Calendar Year 2007 Summary**

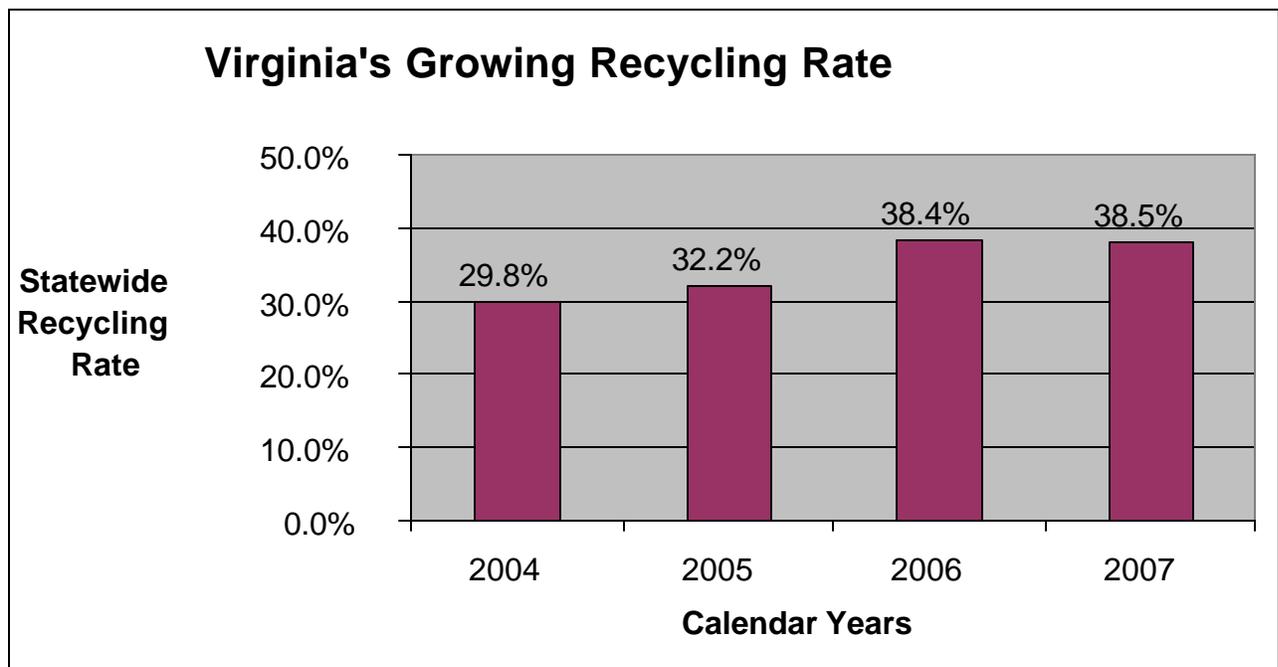


**November 2008**

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## VIRGINIA'S STATEWIDE RECYCLING RATE FOR CALENDAR YEAR 2007

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year (CY) 2007. The data for this summary report was compiled from the reports submitted by the 74 solid waste planning units (SWPUs), and represents recycling information from 325 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.).



### Statewide Recycling Rate Data - Summary

**2007** – 3,637,933 tons of material recycled or reused, and 9,526,959 tons of solid waste generated (calculation includes +.27% for source reduction initiatives)

**2006** - 3,700,487 tons of material recycled or reused, and 9,706,554 tons of solid waste generated (calculation includes + .3 % for source reduction initiatives)

**2005** - 2,757,442 tons of material recycled or reused, and 8,554,784 tons of solid waste generated

**2004** - 2,688,200 tons of material recycled or reused, and 9,016,087 tons of solid waste generated.

### Areas Reporting Highest Rates

Higher recycling rates were reported in the more densely populated areas of the state. For CY 2007, these areas reported a total of 3,112,011 recycled tons, or 85 % of all recyclables collected, and had a calculated average recycling rate of 39.9 %. These areas include:

<u>Area</u>	<u>Recycling Rates by Year</u>			
	<u>CY 2007</u>	<u>CY 2006</u>	<u>CY 2005</u>	<u>CY 2004</u>
Bristol Area	31.4%	37.8 %	39.4 %	40.6 %
Roanoke Area	32.9%	29.6 %	33.9 %	32.3 %
Lynchburg Area	40.7%	39.1 %	32.8 %	31.7 %
Northern Shenandoah Valley	35.8%	28.8 %	26.0 %	29.7 %
Fredericksburg Area	46.5%	40.4 %	30.6 %	28.8 %
Richmond Area	53.0%	46.3 %	45.2 %	44.6 %
Northern Virginia	35.4%	33.4 %	32.0 %	32.8 %
Hampton Roads	43.3%	50.9 %	36.1 %	29.8 %

### Trends Observed in CY 2007 Reports

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

- Overall tonnage materials reported (PRMs, MSW Disposed, MSW generated) decreased 2% from CY 2006 levels.

As a subset of these categories, the commodity capture rates changed as indicated:

- Paper 0.5 % decrease from CY 2006 level
- Metals 8 % increase from CY 2006 level
- Plastics 60 % increase from CY 2006 level
- Glass 13 % increase from CY 2006 level
- Commingled 1.3 % decrease from CY 2006 level



## **Solid Waste Management Planning and Recycling Action Plans**

DEQ continues to review the required Solid Waste Management Plans (SWMPs) submitted by the SWPUs for completeness, including locality or regional recycling program information. For the plans already reviewed and in which the SWPU has reported less than the required 15 % or 25 % recycling rate, DEQ will require a Recycling Action Plan (RAP) to identify specific elements of the recycling program that will be changed or improved in order for the SWPU to reach its 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.

### **Recycling Data Clarification**

The Technical Advisory Committee (TAC) studying changes in the recycling requirements as a component of the *Regulations for Solid Waste Management Planning* (<http://www.deq.virginia.gov/waste/wastereg130.html>) due to the 2006 legislation requested this clarification be included in the annual report:

*“Due to the complexity and difficulty in obtaining data, this report reflects the best efforts of the planning units to represent recycling in Virginia”*

In addition, the TAC is on record encouraging the reporting of recycling data by all sectors in order to make these numbers as representative of the actual condition as possible:

*“Entities engaged in the collection, processing and marketing of recyclable materials should provide data for incorporation into the recycling rate calculation, when requested by the planning unit”.*

## Calculated Recycling Rates for CY 2007

### Recycling Rates and Data

REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
<b>Statewide Totals</b>	<b>38.5 %</b>	<b>3,637,933</b>	<b>9,526,959</b>
Accomack County SWPU	21.3	11,707	52,230
Alexandria (City) SWPU	21.8	45,449	208,311
Alleghany Highlands SWPU	33.2	11,197	28,222
Amelia County SWPU	22.7	1,977	8,719
Amherst County SWPU	26.5	9,164	34,535
Appomattox County SWPU	39.0	5,252	12,934
Arlington County SWPU	40.3	102,827	255,752
Augusta –Staunton-Waynesboro SWPU	29.3	42,606	145,476
Bath County SWPU	15.1	850	5,626
Bedford (City) SWPU	47.2	4,435	9,401
Bedford County SWPU	41.7	29,240	73,719
Botetourt County SWPU	11.7	15,215	38,235
Bristol (City) SWPU	31.4	8,881	28,239
Brunswick County SWPU	12.8	3,110	24,296
Buckingham County SWPU	16.1	1,493	10,562
Campbell County SWPU	26.7	16,863	63,057
Caroline County SWPU	23.5	3,366	14,293

<b>REPORTING ENTITY</b>	<b>CY 2007 Recycling Rate* (%)</b>	<b>CY 2007 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
<b>Carroll-Grayson-Galax SWPU</b>	<b>20.7</b>	<b>7,846</b>	<b>37,990</b>
<b>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)</b>	<b>50.3</b>	<b>544,756</b>	<b>1,028,494</b>
<b>Craig County SWPU</b>	<b>23.9</b>	<b>919</b>	<b>3,848</b>
<b>Culpeper County SWPU</b>	<b>33.8</b>	<b>15,322</b>	<b>45,273</b>
<b>Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)</b>	<b>39.5</b>	<b>33,782</b>	<b>85,492</b>
<b>Danville (City) SWPU</b>	<b>31.6</b>	<b>10,855</b>	<b>34,325</b>
<b>Fairfax (City) SWPU</b>	<b>39.5</b>	<b>18,419</b>	<b>46,655</b>
<b>Fairfax County SWPU</b>	<b>37.7</b>	<b>487,997</b>	<b>1,365,361</b>
<b>Falls Church (City) SWPU</b>	<b>53</b>	<b>6,760</b>	<b>13,257</b>
<b>Fauquier County SWPU</b>	<b>28</b>	<b>35,990</b>	<b>124,168</b>
<b>Floyd County SWPU</b>	<b>14.5</b>	<b>2,121</b>	<b>13,454</b>
<b>Franklin County SWPU</b>	<b>32.4</b>	<b>16,281</b>	<b>50,310</b>
<b>Gloucester County SWPU</b>	<b>30.3</b>	<b>15,232</b>	<b>50,210</b>
<b>Greater Rockingham SWPU</b>	<b>27.4</b>	<b>15,114</b>	<b>55,071</b>
<b>Harrisonburg (City) SWPU</b>	<b>30.5</b>	<b>20,085</b>	<b>65,806</b>
<b>Herndon (Town) SWPU</b>	<b>44.7</b>	<b>12,918</b>	<b>28,711</b>
<b>Highland County SWPU</b>	<b>21.3</b>	<b>459</b>	<b>2,161</b>

<b>REPORTING ENTITY</b>	<b>CY 2007 Recycling Rate* (%)</b>	<b>CY 2007 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
King George County SWPU	15.8	47,599	65,282
Lee County SWPU	12.2	2,887	23,752
Loudoun County SWPU	31.5	93,985	298,559
Louisa County SWPU	26.9	7,367	27,349
Lunenburg County SWPU	11.5	1,526	13,221
Lynchburg (City) SWPU	41.1	112,613	242,022
Madison County SWPU	27.8	2,788	10,046
Manassas (City) SWPU	37.7	27,500	72,991
Manassas Park (City) SWPU	7.8	500	6,439
Martinsville (City)/Henry County SWPU	32.1	32,495	101,182
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)	30.1	34,794	115,639
Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington, and Wythe)	29.7	29,314	98,767
Newport News (City) SWPU	31	147,665	301,221
New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)	23.1	19,806	85,277
Northampton County SWPU	28.8	5,309	18,424
Northern Neck PDC SWPU (Counties of Lancaster, Northumberland, Richmond and Westmoreland)	20	10,556	52,747
Northern Shenandoah Valley Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	37.7	105,024	293,058

<b>REPORTING ENTITY</b>	<b>CY 2007 Recycling Rate* (%)</b>	<b>CY 2007 Total Recycled Tons (PRMs + Credits)</b>	<b>CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)</b>
<b>Nottoway County SWPU</b>	<b>24.6</b>	<b>6,985</b>	<b>28,415</b>
<b>Orange County SWPU</b>	<b>21</b>	<b>5,695</b>	<b>26,874</b>
<b>Patrick County SWPU</b>	<b>34</b>	<b>4,476</b>	<b>13,160</b>
<b>Pittsylvania County SWPU</b>	<b>26.7</b>	<b>12,092</b>	<b>45,300</b>
<b>Prince Edward - Cumberland SWPU</b>	<b>17.4</b>	<b>4,716</b>	<b>27,152</b>
<b>Prince William County SWPU</b>	<b>38.6</b>	<b>191,340</b>	<b>498,260</b>
<b>Rappahannock County SWPU</b>	<b>17.9</b>	<b>1,652</b>	<b>9,224</b>
<b>Rappahannock Regional Solid Waste Management Board SWPU (County of Stafford and City of Fredericksburg)</b>	<b>44.8</b>	<b>78,742</b>	<b>175,753</b>
<b>Roanoke (City) SWPU</b>	<b>42.9</b>	<b>40,368</b>	<b>94,051</b>
<b>Roanoke County SWPU</b>	<b>28</b>	<b>17,362</b>	<b>66,728</b>
<b>Rockbridge – Lexington – Buena Vista SWPU</b>	<b>31.7</b>	<b>10,484</b>	<b>33,083</b>
<b>Salem (City) SWPU</b>	<b>34.1</b>	<b>11,346</b>	<b>33,243</b>
<b>Scott County SWPU</b>	<b>18.4</b>	<b>3,084</b>	<b>16,763</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>37.5</b>	<b>462,793</b>	<b>1,218,895</b>
<b>Southern Crater Region SWPU (Counties of Dinwiddie, Greensville, Surry, and Sussex; City of Emporia)</b>	<b>19.7</b>	<b>13,759</b>	<b>69,707</b>
<b>Southside Regional PSA SWPU (Counties of Charlotte, Halifax and Mecklenburg)</b>	<b>13.4</b>	<b>13,207</b>	<b>98,220</b>
<b>Spotsylvania County SWPU</b>	<b>32</b>	<b>31,266</b>	<b>97,651</b>

REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Tazewell County SWPU	20.4	13,762	67,417
Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna, Greene and Nelson; City of Charlottesville)	36.5	83,749	242,811
Vienna (Town) SWPU	52.6	5,838	11,108
Vinton (Town) SWPU	55.7	7,919	12,420
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King & Queen, Mathews, Middlesex, and York; Cities of Hampton, Poquoson, and Williamsburg)	44.9	352,144	687,964
Wise County SWPU	39.7	24,848	65,590
<b>STATEWIDE TOTALS CY 2007</b>	<b>38.5 %</b>	<b>3,637,933 Tons</b>	<b>9,526,959 Tons</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 may have been added to the calculated recycling rate for 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, and Non-MSW Recycled (includes construction and demolition material, ash and debris), and Source Reduction Initiatives.**

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

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# Recycling Rate Report Summary

## Virginia Localities Reporting Rate Information for CY 2007

**74 Recycling Rate Reports**, representing **325 Virginia localities** and every **Solid Waste Planning Unit** were received. This represents a return rate of 100 %. Totals for all reports are presented below:

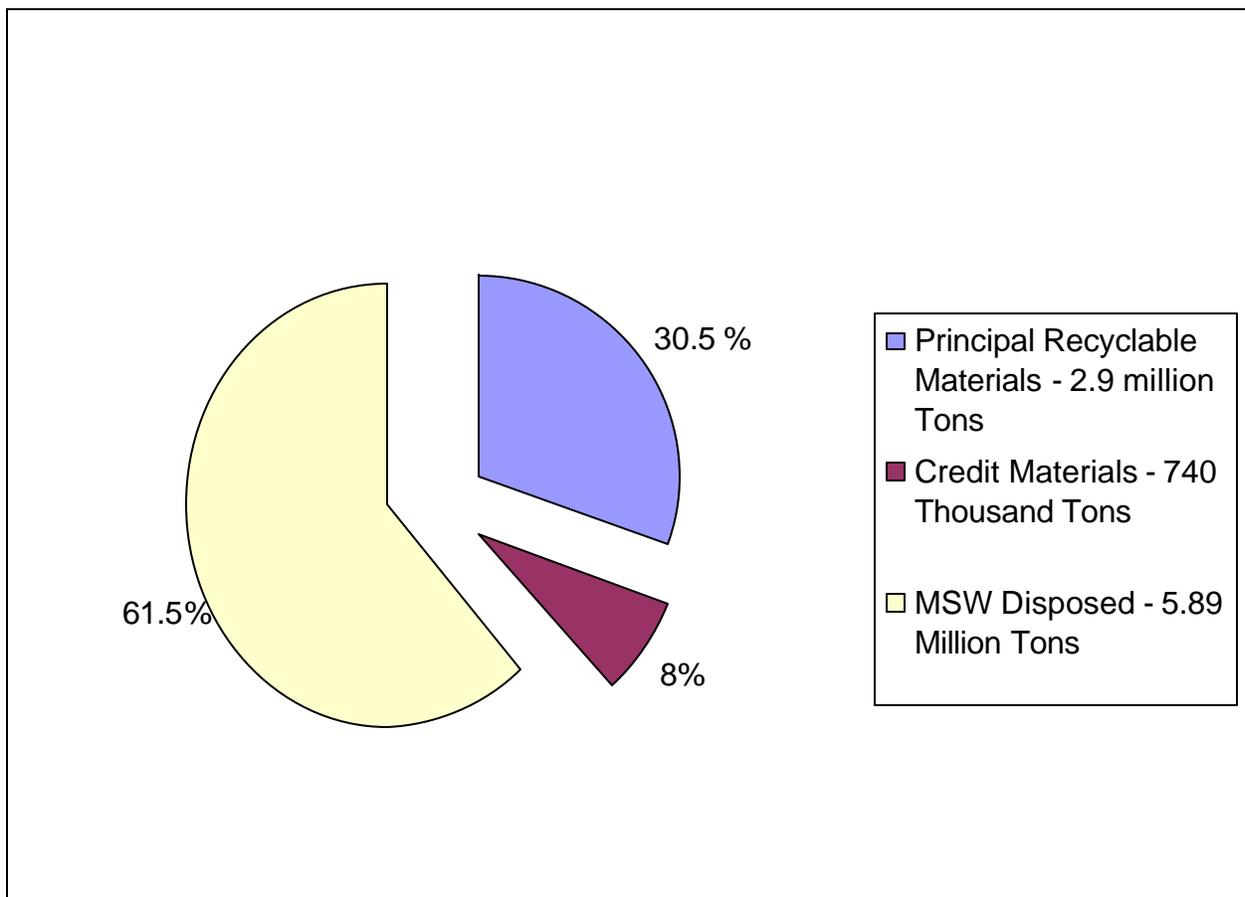
Principal Recyclable Material (PRM)			Total MSW Disposed	
Paper	917,852	<b>CREDITS</b> Recycling Residue                      8,327 Solid Waste Reused                      690,394 Non-MSW Recycled                      41,306 <b>TOTAL CREDITS                      740,027</b> <b>(C) (Tons)</b>	Household Waste	4,314,577
Metal	762,334		Commercial Waste	1,522,851
Plastic	48,450		Institutional Waste	50,736
Glass	44,268		Other:	863
Commingled	110,915		<b>TOTAL MSW (M) (Tons)</b>	<b>5,889,026</b>
Yard Waste	567,595	<b>2 % Source Reduction Credit</b> 10 entities, equaling .27% overall		
Waste Wood	232,092			
Textiles	24,684			
Waste Tires	66,384			
Used Oil	52,886			
Used Oil Filters	4,427			
Used Antifreeze	3,685			
Auto Bodies	8,241	$\frac{(P+C)}{(P+C+M)} \times 100 + \text{SR credit}$ $\frac{(3,637,933/9,526,959) \times 100}{.27\%}$	<b>State Recycling Rate</b>	
Batteries	17,163			<b>38.5 %</b>
Electronics	3,081			
Other:	33,850			
<b>Total PRM (P) (Tons)</b>	<b>2,897,906</b>			

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

# RECYCLING IN VIRGINIA, CY 2007

## Statewide Recycling Rate of 38.5 %

### MSW Management –Recycling and Disposal



**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)**

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