



VIRGINIA ANNUAL RECYCLING SUMMARY REPORT

CALENDAR YEAR 2018

NOVEMBER 2019

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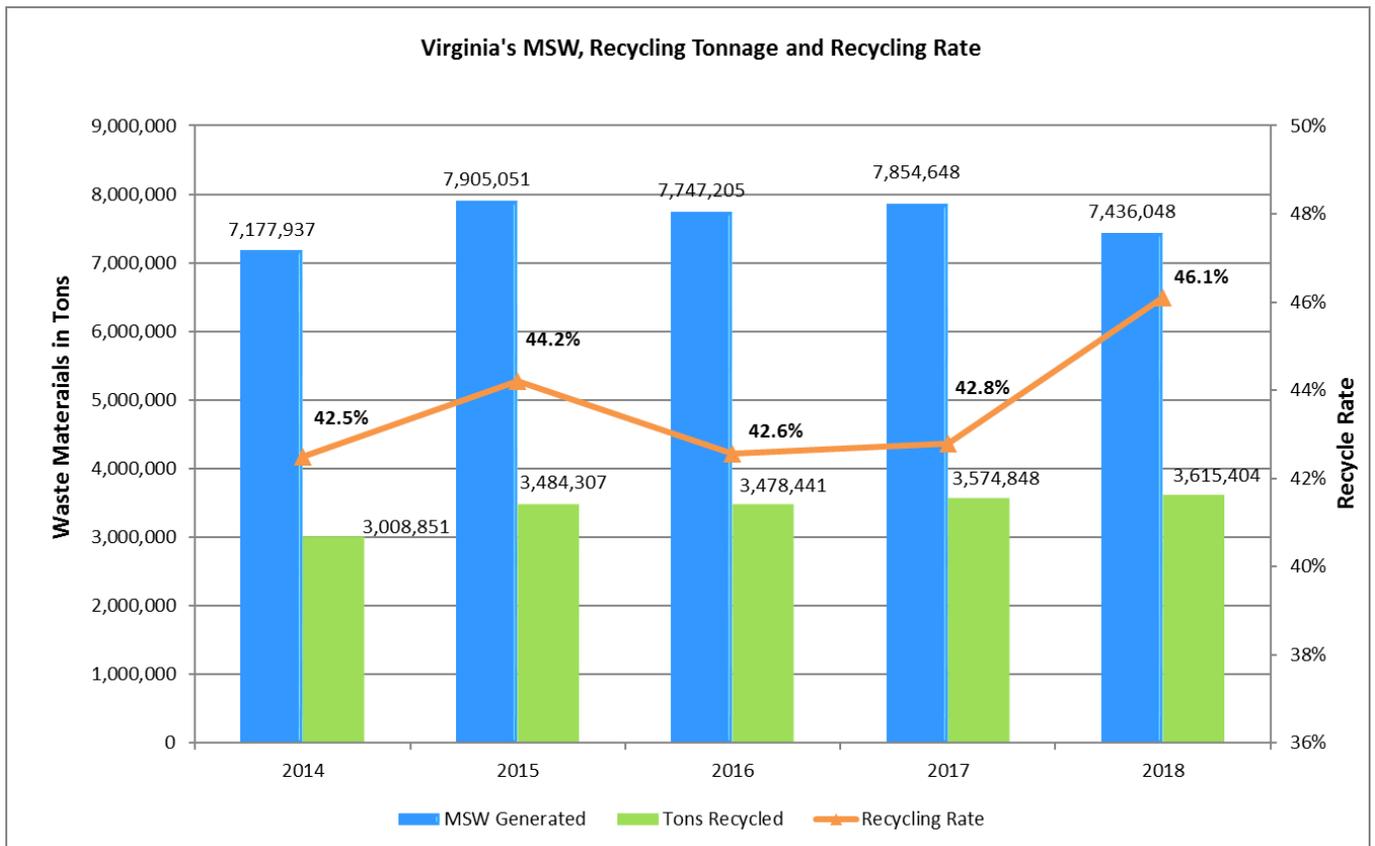
Executive Summary

The calendar year 2018 Annual Recycling Rate reporting by Virginia Solid Waste Planning Units (SWPUs) with populations above 100,000¹ established a calculated recycling rate for Virginia of 46.1%. This calculation included credits for solid waste reused, non-municipal solid waste (MSW) recycled, recycling residues, and source reduction programs. This rate was based on the data submitted by the 17 SWPUs required to report for 2018.

Introduction

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year 2018. DEQ has reviewed 43 submitted reports. The data on these reports represent recycling information from 117 Virginia cities, counties and towns.¹ Recycling rate reports were also submitted by 26 SWPUs that were not required to report for 2018.

Virginia's annual recycling rate for 2018 as seen on the graph below is based only on data from the required reports submitted by the 17 SWPUs with populations above 100,000.



¹ 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 2021 for calendar year 2020.

Based on these reports, the state recycling rate is 46.1%, an increase from the CY2017 report. The 17 SWPUs reported recycling 2,663,343 tons of principal recyclable materials (PRMs), 952,061 tons of credits (includes recycling residue, reused solid waste, and non-MSW recycled) and disposal of 3,820,645 tons of MSW.

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 that meet the criteria above are required to achieve and maintain a minimum 15 percent recycling rate.

Solid Waste Management Planning and Recycling Action Plans

The Virginia Department of Environmental Quality (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. All SWPUs are required to maintain or exceed the mandated recycling rate for their jurisdiction(s). 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 developed and submitted as an amendment to the SWPU's solid waste management plan. Visit [DEQ's recycling webpage](#) for additional information.

State Recycling Rate Calculation for CY2018

Seventeen recycling rate reports, representing 117 Virginia localities, were received pursuant to the requirements of § 10.1-1411 of the Code of Virginia. The chart represents data only from the 17 SWPUs required to report for CY 2018. This represents a return rate of 100 percent of the required reports. Totals for these reports are presented below:

PRM Material	Tons Recycled
Paper	620,860
Metal	758,696
Plastic	14,285
Glass	13,499
Commingled	354,665
Yard Waste	536,863
Waste Wood	201,648
Textiles	13,670
Waste Tires	32,594
Used Oil	31,651
Used Oil Filters	1,751
Used Antifreeze	2,981
Batteries	15,038
Electronics	6,883
Inoperative Motor Vehicles	3,793
Other	54,466
Total PRM in Tons	2,663,343

Credits	Tons Recycled
Recycling Residue	29,149
Solid Waste Reused	372,963
Non-MSW Recycled	549,949
Total Credits	952,061

MSW Disposed	Tons
Household Waste	2,857,251
Commercial Waste	908,951
Institutional Waste	54,383
Other	60
Total MSW Tons	3,820,645

Source Reduction Credit Average	0.94%
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State Final Recycling Rate Calculation:

The recycling rate is calculated using the following formula:

$$\left(\frac{\text{PRM} + \text{Credits}}{\text{PRM} + \text{Credits} + \text{MSW Disposed}} \right) \times 100 + \text{Source Reduction Credit} = \text{Final Recycle Rate}$$

Using the PRMs, credits and MSW disposed tonnage totals above, the state recycling rate is calculated as:

$$\left(\frac{2,663,343 + 952,061}{2,663,343 + 952,061 + 3,820,645} \right) \times 100 + 0.94\% = \mathbf{46.1\%} *$$

*The final state recycling rate has been adjusted so that the aggregate of all credits does not exceed five percentage points of the base recycling rate.

Calculated Recycling Rates for CY2018

REPORTING ENTITY (17 Solid Waste Planning Units required to report annually)	2018 Recycling Rate	2018 Total Recycled Tons (PRMs + Credits)	2018 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Alexandria (City) SWPU	47.9%	86,680	166,709
Arlington County SWPU	50.2%	105,836	207,854
Augusta-Staunton-Waynesboro SWPU	34.0%	54,151	153,403
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)	58.7%	651,132	1,105,494
Fairfax County SWPU	49.5%	583,887	1,199,781
Loudoun County SWPU	34.1%	184,648	457,222
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Towns of Blacksburg and Christiansburg)	33.5%	31,469	92,552
Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington and Wythe)	19.6%	15,139	77,082
Newport News (City) SWPU	57.0%	271,116	386,625
Northern Shenandoah Valley Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	49.4%	159,962	323,970
Prince William County SWPU	35.3%	239,506	577,694
Rappahannock Regional Solid Waste Management Board SWPU (Stafford County and City of Fredericksburg)	39.2%	86,848	216,110
Region 2000 (Counties of Nelson, Appomattox and Campbell; City of Lynchburg)	38.0%	121,124	318,795
Southeastern Public Service Authority SWPU (Counties of Isle of Wight and Southampton; Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk and Virginia Beach)	49.9%	703,987	1,322,297
Spotsylvania County SWPU	33.2%	68,773	191,099
Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna and Greene; City of Charlottesville)	36.6%	127,966	248,619
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King and Queen, Mathews, Middlesex and York; Cities of Hampton, Poquoson and Williamsburg)	29.3%	123,181	390,743
State Totals	46.1%	3,615,404	7,436,048

REPORTING ENTITY (26 SWPUs with populations 100,000 or less not required to report, but voluntarily reporting)	2018 Recycling Rate	2018 Total Recycled Tons (PRMs + Credits)	2018 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Amelia County SWPU	30.0%	3,428	12,261
Bedford County SWPU (Bedford County and Town of Bedford)	42.2%	35,573	88,572
Botetourt County SWPU	17.9%	3,057	17,109
Brunswick County SWPU	18.1%	2,437	13,439
Caroline County	34.1%	4,662	13,653
Carroll-Grayson-Galax SWPU	29.4%	11,330	38,497
Craig County SWPU	18.5%	509	2,758
Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)	33.0%	24,135	73,113
Danville (City) SWPU	43.5%	11,944	27,481
Fairfax (City) SWPU	52.0%	17,352	34,719
Falls Church (City) SWPU	57.3%	6,865	11,978
Fauquier County SWPU	38.5%	32,554	84,559
Floyd County SWPU	20.1%	2,933	14,583
Franklin County SWPU	37.6%	23,836	63,381
Greater Rockingham SWPU	30.6%	27,131	94,903
Harrisonburg (City) SWPU	26.9%	11,938	44,318
Herndon (Town) SWPU	40.4%	9,692	23,974
Highland County SWPU	15.1%	277	1,564
New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)	25.3%	20,517	79,871
Northampton County SWPU	24.2%	4,212	17,370
Rappahannock County SWPU	23.2%	1,176	5,066
Rockbridge-Buena Vista-Lexington SWPU	17.7%	10,746	50,382
Salem (City) SWPU	36.0%	9,139	25,400
Southern Crater Region SWPU (counties of Dinwiddie, Greensville, Surry, and Sussex; city of Emporia)	21.0%	6,698	31,854
Vienna (Town) SWPU	38.3%	9,888	25,788
Vinton (Town) SWPU	59.6%	5,402	9,068

All data is based on adjustments by DEQ for consistency with 9VAC-20-130-125, 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.

Solid Waste Planning Units Not Reporting for CY2018

28 SWPUs with populations of 100,000 or less and not required to report for CY2018.

1. Accomack County SWPU
2. Alleghany Highlands SWPU
3. Amherst County SWPU
4. Bath County SWPU
5. Buckingham County SWPU
6. City of Bristol SWPU
7. City of Manassas SWPU
8. City of Manassas Park SWPU
9. City of Martinsville SWPU
10. City of Roanoke SWPU
11. Culpeper County SWPU
12. Gloucester County SWPU
13. King George County SWPU
14. Lee County SWPU
15. Louisa County SWPU
16. Lunenburg County SWPU
17. Madison County SWMP
18. Northern Neck PDC SWPU (counties of Lancaster, Northumberland, Richmond and Westmoreland)
19. Nottoway County SWPU
20. Orange County SWMP
21. Patrick County SWPU
22. Pittsylvania County SWPU
23. Prince Edward-Cumberland County SWPU
24. Roanoke County SWPU
25. Scott County SWPU
26. Southside Regional PSA SWPU (counties of Charlotte, Halifax and Mecklenburg)
27. Tazewell County SWPU
28. Wise County SWPU

Recycling Success Stories and Related Report Information

The information below was provided by localities or comes from web-based resources or other data sources.

Arlington County, City of Alexandria, Fairfax County, and Prince William County:

Fairfax County, Arlington County, Prince William County and the City of Alexandria have joined together to tackle the challenge of glass recycling by recovering and making beneficial use of glass in Northern Virginia by collecting source-separated glass in purple bins for better recovery. The glass gets crushed at Fairfax County's Glass Processing Center and the result is sand and gravel that could be used in various construction and landscaping projects. They have rolled out a joint press release and put together a map of all the drop-off sites. Here's a link to the press release from Fairfax County:

<https://www.fairfaxcounty.gov/publicworks/news/regional-approach-glass-recycling-leads-creation-purple-can-club>.

Prince William County:

The purple glass-only recycling bins at the Prince William County Landfill and Balls Ford Road Compost Facility are going better than expected. While there have been some incidence of contamination the glass has generally been very clean. Also, unlike the blue "single stream" bins, there are NO plastic bags which is likely due to the 8-inch restrictive openings on the glass cans. The program collected 10 tons during the first month and is now collecting about 26 tons of glass per month, which compares to 18 tons of glass recycled for all of CY2018. The program has been so popular, that Solid Waste department has received request for additional purple glass-only bins and is evaluating options for expanding the glass recycling program. The collected glass is being taken to Fairfax County for processing and Fairfax County is pleased with the quality of the glass. In addition, the Prince William Recycles Day event was a great success and was held at the Prince William County Landfill on Saturday, October 13, 2018. There were approximately 600 attendees which enjoyed tours of the county landfill, took in a magic show, played games, talked with exhibitors and viewed equipment on display. For more information about Prince William County's Recycling Program, please visit www.pwcgov.org/trashandrecycling.

Rappahannock County:

Rappahannock County is a unique oasis, 65 miles southwest of Washington, D.C., located on the fringe of the Northern Virginia metropolitan area. With a population of 7,252 (2018), Rappahannock County is a small community with more cattle than people. They pride themselves in having no stop lights in their County. However, with a small local government and limited staff, tracking recyclables is a difficult and time-consuming process. Thus, historically, Rappahannock only tracked as necessary to reach their recycling goal and rarely used local private sources for data. At the suggestion of DEQ, they began data collection from new areas and found that these simple, additional resources made a significant difference in their recycling rate for CY2018. Most encouraging is that these sources, that include fats, oils and grease recycling, have been present all along but not recognized in the past. They urge other localities to consider all resources when collecting recycling data.

Electronics Recycling:

Although not included in the state recycling rate report, computer manufacturers are required to report to DEQ the amount of electronics recovered through their recycling networks. For calendar year 2018, they reported 1,603,308 pounds (802 tons) of electronics recovered. For more information about this program, visit [DEQ's Electronics Recycling](#) webpage.

Private Sector Reporting:

Walmart and Target provided 2018 recycling data for their Virginia stores to DEQ. This information was made available to all SWPUs on DEQ's recycling webpage for inclusion in their recycling reporting. Their reports can be found on the [DEQ Litter Prevention and Recycling](#) webpage.