



Virginia Polytechnic Institute Recycling Rate Report Calendar Year 2024

Contact Information

Reporting Solid Waste Planning Unit: Virginia Tech

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Summary: In 2024, several projects were completed on Virginia Tech's campus, including the demolition of Randolph Hall to pave the way for Mitchell Hall, the completion of the Undergraduate Student Life Building (USLB), Hitt Hall, and renovations to the War Memorial Gym and Lane Stadium. These projects significantly impacted our campus waste and recycling statistics. Although our single-stream and food waste numbers remained largely unchanged, our tracking system for waste and recycling efforts improved the accuracy of our other data.

Virginia Tech achieved a 52% recycling rate and an 89% waste diversion rate (the percentage of waste kept out of the local landfill) for 2024. These figures represent an increase from last year and move us closer to our Climate Action Commitment Goal #7.

This report is the result of data collected from our recycling and solid waste facilities and other campus stakeholders. I certify that I have personally examined and am familiar with the information submitted in this form. Based on my inquiry of the individuals immediately responsible for obtaining the information, I believe that the submitted data is true, accurate, and complete.

Teresa Sweeney
Authorized Signature

Waste and Recycling Manager
Title

3/21/25
Date

PART A: Recycling Rate Calculation - Using the formulae provided below and the information reported on Pages 3, 4, and 5 to calculate your recycling rates.

Step 1: $[(PRMs) / (PRMs + MSW Disposed)] \times 100 = \text{Base Recycling Rate } \%$

$$\begin{array}{ccccccc} \boxed{5843} & / & \boxed{5843} & + & \boxed{6630} & \times 100 = & \boxed{47} \% \\ \text{TONS} & & \text{TONS} & & \text{TONS} & & \end{array}$$

Step 2: CREDITS calculation

a. Total Recycling Residue	<u>0</u>	tons
b. Total Solid Waste Reused	<u>271</u>	tons
c. Total Non-MSW Recycled	<u>36,414</u>	tons
CREDITS	<u>36,445</u>	tons

Step 3: $[(PRMs + CREDITS) / (PRMs + CREDITS + MSW Disposed)] \times 100 = \text{Adjusted Recycling Rate \#1}^*$

$$\begin{array}{ccccccc} \boxed{5843} & + & \boxed{36445} & / & \boxed{5843} & + & \boxed{36443} & + & \boxed{6630} & \times 100 = & \boxed{87} \% \\ \text{TONS} & & \text{TONS} & & \text{TONS} & & \text{TONS} & & \text{TONS} & & \end{array}$$

Step 4: ☐ Source Reduction Credit does not apply; or

☒ Adjusted Recycling Rate #1+2% SRP Credit=Adjusted Recycling Rate #2*

$$\boxed{87} \% + 2\% = \boxed{89} \%$$

Step 5: Final Recycling Rate* for Solid Waste Planning Unit = $\boxed{52} \%$

* Total credits resulting from Steps 3 and 4 may not exceed 5 percentage points above the Base Recycling Rate achieved by the Solid Waste Planning Unit.

PART B: DATA

Part I: Principal Recyclable Materials (PRMs): Report only PRM material generated within the reporting SWPU and recycled, NOT imported PRMs for recycling.

PRM TYPE	RECYCLED AMOUNT (TONS)
Paper	494
Metal	1644
Plastic	255
Glass	0
Comingled (also known as Single Stream)	138
Yard/Wood Waste (composted or mulched)	3000
White Goods	4
Tires	7
Used Oil	9
Used Oil Filters	0.14
Batteries	7
Electronics	13
Fluorescent Bulbs & Ballasts	246
Waste Cooking Oil	10
TOTAL PRMs	5843 (PRMs)
(Enter Total on Page 2, Step 1)	

Listing of sources for PRM data

1. Solid waste facilities from Virginia Tech which MSW disposed/recycled data was collected:
 - a. Waste & Recycling – Facilities
 - b. Non-Capital Construction - Facilities
 - c. Capital Construction & Renovations - Facilities
 - d. Dining Services - Division of Student Affairs
 - e. Housing & Residence Life – Division of Student Affairs
 - f. Environmental Health & Safety
 - g. Fleet Services – Parking & Transportation
 - h. _____
 - i. _____
2. Other facilities/operations (not included in #1 above) from which MSW disposed/recycled data was collected:
 - a. Montgomery Regional Solid Waste Authority (MRSWA – Christiansburg, VA
 - b. YMCA at Virginia Tech – Blacksburg, VA
 - c. Campus Kitchens Food Donation Program – VT Engage – Blacksburg, VA
 - d. _____
 - e. _____
 - f. _____
 - g. _____
 - h. _____
 - i. _____

Part II: Credits by Category (see Credits Worksheet, Page 5)

A. Recycling Residue – “Recycling residue” means the (i) nonmetallic substances, including but not limited to plastic, rubber, and insulation, which remain after a shredder has separated for purposes of recycling the ferrous and nonferrous metal from a motor vehicle, appliance, or other discarded metallic item and (ii) organic waste remaining after removal of metals, glass, plastics, and paper which are to be recycled as part of a resource recovery process for municipal solid waste resulting in the production of a refuse derived fuel. (§10.1-1400 of the Code of Virginia) (use only SWPU generation)

MATERIAL DESCRIPTION	FACILITY/OPERATION	TONS OF MATERIAL
_____	from _____	_____
_____	from _____	_____
_____	from _____	_____
TOTAL RECYCLING RESIDUE		0

(Enter Total on Page 2, Step 2a)

B. Solid Waste Re-Used

MATERIAL DESCRIPTION	RECYCLING METHOD	TONS OF MATERIAL
Furniture/Appliances	YToss? Program (Collected - Student Move-Out)	17
Food Donation Pgrm	Partnership w/Dining Services & VT Engage Grp	14
Surplus		240
_____		_____
_____		_____
TOTAL SOLID WASTE REUSED		271

(Enter Total on Page 2, Step 2b)

C. Non-Municipal Solid Waste (MSW) Recycled

MATERIAL DESCRIPTION	RECYCLING METHOD	TONS OF MATERIAL
Hokie Stone Gravel	VT Quarry Ops	11,254
Asphalt	Milled Asphalt from (USLB)	1,000
Masonry, Concrete, etc.	Construction Projects (Mitchell Hall/USLB, Lane Stadium, War Memorial)	24,160
TOTAL NON-MSW RECYCLED		36,414

(Enter Total on Page 2, Step 2c)

D: A credit of two (2) percentage points may be added to the Adjusted Recycling Rate #1

if the Solid Waste Planning Unit has implemented a Source Reduction Program (SRP). Examples of SRPs include Grass-cycling, Home Composting, Clothing Reuse, Office Paper Reduction (duplexing), Multi-Use Pallets, or Paper Towel Reduction. The SRP must be included in the Solid Waste Management Plan on file with the Department:

- SRP description:** Campus Kitchens Program is a partnership with VT Engage & Dining Svcs) Division of Student Affairs) to donate excess food to local community.
- SRP description:** YToss Program collects reusable items from our students in residence halls during Spring Move Out for sale in the Fall of the following year.
- SRP: description:** The Procurement Department's Sustainable Procurement Policy introduced in Spring 2020 and focuses on waste reduction at the front of the waste stream.

(Certify on Page 2, Step 4)

Exclusions: For the purpose of this report, the following materials are not considered solid wastes, and should not be included in any of the data categories utilized in calculating the recycling rate.

1. Biosolids – industrial sludge, animal manures; or, sewage sludge (unless composted)
2. Automobiles – unless part of the Inoperable Vehicle Program (DMV)
3. Leachate
4. Soils – contaminated soils, soil material from road maintenance
5. Household hazardous waste
6. Hazardous waste
7. Medical waste
8. Rocks or stone
9. Woody waste derived from land clearing for development, VDOT or easement tree trimming/clearing.

Part III: Total Municipal Solid Waste (MSW) Disposed** – Report only MSW generated within the reporting jurisdiction(s), NOT imported wastes or industrial wastes.

MSW TYPE	TOTAL AMOUNT of MSW DISPOSED (TONS)
Household	<u>5195</u>
Commercial	<u></u>
Institutional	<u></u>
Other (DO NOT INCLUDE INDUSTRIAL WASTES)	<u>1435</u>
TOTAL MSW DISPOSED	<u>6630</u>
	(Enter Total on Page 2, Step 1 and Step 3)

Note: MSW DISPOSED for the purpose of this report means delivered to a permitted sanitary landfill, delivered to a waste-to-energy facility, or managed at a transfer station for transport to a landfill or waste-to-energy facility.