Sustainability at Vanderbilt
The Three Spheres of Sustainability

Sustainability: “meeting the needs of the present generation without compromising the ability of future generations to meet their own needs”
How does SEMO help VU become more sustainable?

SEMO Activities:
• Directly manage campus solid waste and recycling programs
• Implement environmental behavior change awareness and educational programs for VU students, staff, and faculty in the areas of energy, water, procurement, operations, and transportation
• Produce annual greenhouse gas inventory report
• Respond to data inquiries and green ratings/scoring surveys
• Manage Environmental Advisory Committee
• Manages VU Green Fund process
• Provides general sustainability outreach through website, Facebook, newsletter, Instagram, and articles

In addition to Plant Ops, SEMO collaborates with:
• Campus Planning and Construction
• VUMC Facilities and Construction
• Procurement Services (green purchasing initiatives and RFP/contract review)
• VU Printing Services/Creative Services (green printing initiatives and FSC certification)
• Faculty groups (Center for Teaching, VIEE, CCRN, AM Studies)
• Frequent requests for tours and as guest speakers in classes and for student mentoring projects
• Student groups (SPEAR, AEC, OGSM, VGI, VIVA, Kefi) on green projects and events
• Administrative offices (HR, Commencement, Peabody, etc.)
• Athletics (greening operations and large events on campus)
Why Should You Care?

1. Financial Responsibility to the University
   • Saves money that can be spent on our core mission.
   • Sustainable practices extend the life of buildings on campus.

2. Responsibility to Students, Faculty and Staff
   • If they care, and the Chancellor cares, then we should care!
   • Improve health through reduced pollution.
   • Building and maintaining a more efficient, greener University is a positive for everyone involved.

3. Responsibility to the Environment
   • Saving and extending the life of finite natural resources.
What You Can Do

What YOU can do?

**REDUCE** the amount of materials your office consumes:
- Change copiers and printers to default to double-sided settings and program sleep modes.
- Use file sharing software and manage documents electronically whenever possible.

**REUSE**
- Buy paper, office products, toner cartridges, and furniture with recycled content

**RECYCLE** electronics, cardboard, paper, plastic, aluminum, and toner cartridges.

**CONSERVE ENERGY**
- Ask staff and students to turn off lights and computers when not in use. Use natural lighting
- Stress importance to lab staff of closing fume hood sashes when not in use.
- Moderate area temperatures to 75-78 deg F in summer and 65-68 deg F in winter.
As stated at [http://www.vanderbilt.edu/chancellor/initiatives/](http://www.vanderbilt.edu/chancellor/initiatives/)
SEMO facilitated formation of the Vanderbilt University Environmental Commitment Statement

Vanderbilt University is a local and global community leader committed to environmental stewardship, protecting natural resources, and enhancing quality of life while maintaining academic, medical, social, and economic productivity. Through proactive education, research, and outreach, we strive to:

- Develop and transfer knowledge, increase awareness, and promote lifelong learning about sustainability best practices for the benefit of stakeholders who comprise the Vanderbilt community (students, patients, faculty, staff, alumni, and visitors), as well as the broader Nashville, state, national, and global communities;

- Achieve the highest standards of sustainability through a process of environmental responsibility and accountability at every level of University activity; and

- Consistently implement, monitor, evaluate, and improve our process.
Reduce, Reuse, Recycle Makes Sense

COMPOSTING
Approximately 9,000 cubic feet of landscaping/leaf waste is composted annually by Grounds!

VANDY RECYCLES

Recyclables diverted from landfill!

- Paper
- Cardboard
- Aluminum
- Plastic
- Scrap metal
- Electronics/Computers
- Fluorescent Light Bulbs
- Batteries
- Glass
- Ink/Toner Cartridges
- Pens/Mechanical Pencils
Vanderbilt University
2015 Recycling Benefits

In 2015 Vanderbilt University recycled 4,244 tons of aluminum, cardboard, paper, scrap metal, plastic, glass, fluorescent, electronics, and toner cartridges and composted 98 tons of organics for a total of 8.7 million pounds of material, up 14.5% from the year before. As one of Vanderbilt’s recycling partners, Waste Management was responsible for over 3.5 million pounds of

These recycling efforts conserved the following resources:

77,657 Mature Trees were Saved
Representing enough saved timber resources to produce more than 92,175,100 sheets of newspaper

14,991 Cubic Yards of Landfill Airspace
Representing enough airspace to fulfill the municipal waste disposal needs for 19,292 people for one year

17,911,345 Kw-Hrs of Electricity from Recycling
Enough power to fulfill the annual electricity needs of more than 1,492 homes

9,166 Barrels of Oil
Representing enough energy to heat and cool more than 1,406 homes for one year

Avoided 14,098 Metric Tons (MTCO2E) of GHG Emissions
The recycling of these materials prevented these GHG emissions

26,667,900 Gallons of Water
Representing enough fresh water to meet the daily fresh water needs of more than 355,372 people

Vanderbilt University chosen in 2014 as TN Recycler of the Year by the Tennessee Recycling Coalition!
Campus Recycling

Over 2,100 recycling containers on VU main campus
Student-Powered Recycling

- Nine student workers service all residence hall recycling, 7 days a week.
- Supervised by Dejan Stjepanovic in SEMO.
- Students groups like SPEAR and WilSkills also aid in specialized recycling efforts like Rites of Spring and Athletics Recycling.

- Residence Hall Recycling
- Athletics Recycling
- Rites of Spring Recycling
Student-Powered Recycling

Award-winning student recycling education as created by students

https://www.youtube.com/watch?v=l6QDS5mnWPM
https://www.youtube.com/watch?v=zBn43D_U81I
Move In and Move Out Recycling

- Cardboard Crew/Move-In
- Earth Friendly Move Out
Special Event Recycling

Commencement Recycling & Strawberry Donation

SustainVU
Growing Responsibly
Reusing instead of Recycling!

- Mulch Donation to Radnor Lake
- Bicycle Donation to Edgehill Bike Club for kids
Specialized Recycling

- Metal Recycling
- Computer/E-waste Recycling
PLEASE HELP US RECYCLE CARDBOARD!
In July 2013, Metro Nashville banned cardboard from being placed in trash containers. Your help in complying with this new requirement is greatly appreciated!

Flatten cardboard and place it in the proper recycling location for your building, as shown below.

Near Recycling Bins
At Loading Dock
Cardboard Compactors at Commons Center, Rand, and College Halls
Cardboard Dumpsters at Branscomb, Carmichael Towers West, McGugin, & Chestnut

Please do not place cardboard in the trash.

If you need assistance, please contact the Sustainability and Environmental Management Office (SEMO) at 343-2784 or recycle@vanderbilt.edu.
Vanderbilt is now coal free!

Between 2005 and 2014, Vanderbilt University's GHG emissions have decreased by:

- 29% per 1,000 square feet of building space
- 24% per student
- 21% per person
- 41% per $1,000 research dollar
- 32% per inpatient day
- 55% per ambulatory visit

Vanderbilt converted its power plant to run on 100% natural gas and stopped burning coal on November 19, 2014! Here's a look at how things have changed.

Reduction of:

- 2,300 Trucks of coal delivered/year
- 105 million Pounds of coal burned/year
- 15 million Pounds of coal ash waste/year

Reduction in Air Pollutants:

- Hydrogen chloride: 100%
- Nitrogen dioxide: 50%
- Mercury: 20%
- Sulfur dioxide: 60%
- Carbon monoxide: 90%

The conversion of the power plant will reduce greenhouse gas (GHG) emissions by an estimated 40%.

For more information, visit www.vanderbilt.edu/sustainv
Water Conservation Efforts

Energy is used to pump and heat water throughout campus.

Water saved = energy saved!

Plumbing retrofits completed to over 3,500 water-saving bathroom fixtures, including 820 low-flow showerheads, conserving over 60 million gallons of water and saving over $300,000 each year.

VU Water Consumption

1.5 gpm pressure-compensated low-flow showerheads

Waterfree Urinals

Low-Flow, Dual-Flush Toilets

Sustain VU
Growing Responsibly
Energy Efficiency in New Construction and Major Renovations through LEED Certification

2008 and 2009 Governor’s Environmental Stewardship Award winner and 2010 recipient of two “Excellence in Development” Awards from the Urban Land Institute
Green Cleaning

Plant Ops uses:
– Green Seal Certified Chemicals
– J-Fill Dilution Systems
– Walk-off mats to keep interiors clean
– Paper products with recycled content
The SustainVU Website

www.vanderbilt.edu/SustainVU
SEMO's ThinkOne Website & Behavior Change

www.Vanderbilt.edu/SustainVU/ThinkOne
Earth Friendly Move Out – April 20-May 10

Vanderbilt’s Earth Friendly Move Out provides donation and recycling opportunities to keep large volumes of material out of landfills. The Office of Housing and Residential Education (CHARE) has multiple donation locations set up across campus that benefit a variety of non-profit charities. In addition to traditional material recycling options, you can drop off your personal unwanted or broken electronics, computers, and appliances in the specially designated areas. For donation and recycling area locations and more details, see the SustainVU website.

It’s hard to believe that the academic year is already coming to an end! Even though our students will be leaving campus, there are still many activities to attend in Nashville and many things to celebrate, including Air Quality Awareness Week, Bike to Work Day, and Vanderbilt’s inclusion in the Princeton Review’s Guide to 353 Green Colleges for the fourth year in a row! Don’t forget that Earth Friendly Move Out is underway, so donation and recycling locations have been expanded across campus. Additional information about the stories and events included in this newsletter are available on the SustainVU website and Facebook page. Good luck to our seniors graduating this month, and to all of our faculty and students on their summer plans!

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Email [SustainVU@vanderbilt.edu](mailto:SustainVU@vanderbilt.edu) to receive our monthly newsletter.

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THANK YOU!!!