



2023 Campus Race to Zero Waste Case Study Virginia Wesleyan University

Contact information:

Elizabeth Malcolm
Professor of Ocean and Atmospheric Sciences
Director of Sustainability
Virginia Wesleyan University
757-233-8751
emalcolm@vwu.edu

Skyler Lattuca
Facilities Management, Greer Environmental Sciences Center Gardens Horticulturist
Virginia Wesleyan University
slattuca@vwu.edu

Focus of case study:

Virginia Wesleyan University implemented a composting program at the campus' dining facility.

Detailed description of campaign or effort:

Composting for post-consumer food waste has been a commonly proposed program at Virginia Wesleyan University (VWU) for years. There was a small-scale vermicompost that collected pre-consumer vegetative waste in the Boyd Dining Center, the only dining facility on campus, that has been ongoing since the early 2010s. Efforts only diverted about 20 lbs. of food waste each week and never gained traction. Utilizing data collected from VWU's 2020 and 2021 Campus Race To Zero Waste (CR2ZW) efforts, a new plan to expand that setup was devised.

In 2020, VWU generated roughly 16,500 lbs. of waste every week, of which 71% was landfilled and 29% recycled. In 2021, total waste generation was the same but with 76% landfilled and 24% recycled. About 66% of landfilled waste is sourced from 3 dumpsters on campus, all servicing the dining hall, which produces mostly compostable waste. The implementation of a composting program that utilizes both pre and post-consumer food waste is the first step towards greatly reducing VWU's production of municipal solid waste.

The latest effort started with a student project focused on addressing the excessive amount of food waste being generated by the dining hall. Senior Abigail Mahoney, a student of the Batten Honors College, contacted various stakeholders within the dining hall staff and Skyler Lattuca, the Campus

Horticulturist, who was managing the existing compost program. The new goal was to begin collecting food waste disposed of by the students rather than the waste generated in the food preparation process. This required a composting setup that could handle larger volumes of waste and a way to separate compostable waste to avoid contamination.

Months prior, a proposal to allocate unused areas of campus for composting yard and paper waste was accepted by the campus administration, providing the space necessary to expand this project. Mahoney reached out to the student environmental club on campus, Marlins Go Green (MGG), who funded the construction of new vermicompost bins to store four times more food waste than the initial design. Dr. Elizabeth Malcolm, the VWU Director of Sustainability, assisted in deciphering what types of food waste are best suited to compost at the site. Jessica Wilson, the acting Vice President of MGG, then helped coordinate a volunteer effort to educate students in the dining hall about how to compost. After a week of guided composting, the education stopped to test its effectiveness.

Planning steps & timeline to implement:

- Approval
 - The Campus Horticulturist developed a proposal to allocate land on campus for the expansion of an existing compost setup, which gained approval from the VWU Associate Vice President and Senior Vice President. (January 2022)
 - The senior honors student, Abigail Mahoney, developed a food waste reduction project for her senior capstone project. (October-December of 2022)
 - Met with Campus Horticulturist to discuss the viability of implementing a compost bin in the campus dining hall. (October 2022)
 - Met with Tim Lockett, the General Manager of Sodexo Dining Services, who agreed to the placement of the bin. (November 2022)
 - Met with the campus environmental club, MGG, to organize funding and further requirements to make the bin operational. (November 2022)
 - Met with Sodexo Dining Services to clarify funding. (December 2022)
 - The Campus Horticulturist developed a detailed budget for the composting site expansion that MGG submitted to VWU Student Activities for funding approval. (Winter 2023)
- Preparation (Winter 2023)
 - MGG met with the VWU Director of Sustainability about what types of organic waste would be best fit to compost.
 - MGG developed signage and social media posts.
 - The Campus Horticulturist and his interns built the composting site.
 - MGG and the Campus Horticulturist developed a compost transportation schedule.
- Action (March 2023)
 - The compost collection bin was placed in the cafeteria.
 - MGG reevaluated educational strategies.

- MGG developed and implemented a compost educator schedule with MGG and volunteers from the Marlins Business Conference.

Resources and stakeholders involved:

Budget:

The composting bin was donated by students. VWU Student Activities approved \$113.50 for MGG to purchase the materials needed to expand the existing composting site. Sodexo Dining Services agreed to supply compostable bags for collection.

Support:

The VWU Director of Sustainability supported this effort by assisting in project evaluation. The Campus Horticulturalist and his interns built the composting site infrastructure, assisted with waste transportation, and managed the composting site. MGG members developed signage, social media posts, and a volunteer plan for student education and waste transportation. The Batten Honors College, Wesleyan Engaged, and Student Activities reposted education information on social media and/or in their email updates. The business department supported the effort by gathering more volunteers and requesting a presentation on MGG that highlighted campus compost efforts at the Marlins Business Conference.

Describe the results of this campaign component:

This effort served as an inspiration for students to fulfill their potential to bring about change. The effort further increased education about food waste through articles written by the campus newspaper and Sodexo's corporate marketing team that both highlighted the new composting program. Students who volunteered as composting educators reported hearing students tell their peers to properly dispose of compostable items. Wesleyan Engaged expanded on the effort by starting a composting bin for coffee grounds in their office. In addition, senior honors student, Abigail Mahoney, won second place in the Louis and Prudence Ryan Prize for Excellence in Research for her leadership in the program. MGG won the Best Collaborative Program during the VWU Student Leadership Awards. Furthermore, this composting effort has the potential to increase VWU's rating with the Association for the Advancement of Sustainability in Higher Education. Thus far, the system as a whole increased VWU's composting rate by roughly 500%, diverting about 20 lbs. of waste each day. In the weeks following the guided composting, contamination rates remained minimal, hitting a peak of 5%, proving to be a massive success.

What would you do differently in the future?

In the future, MGG plans to create a composting committee to increase volunteer engagement with the composting program and to ensure project continuation. MGG also plans to collaborate with the Campus Horticulturalist on the expansion of the compost site to handle more waste, as the infrastructure was filling faster than expected. In addition, MGG is in the process of collaborating with Student Activities to include a compost educational program in freshman orientation to increase diversion rates. A lid for the composting bin will be purchased to decrease contamination. Furthermore, MGG plans to propose training for the dining staff on what to compost to increase diversion and

decrease contamination. Research into the potential implementation of a composting program for campus events and student residential life will also be conducted.

What advice would you give to another college that wanted to do a similar effort?

Prioritize an in-person representative to guide students through how to compost during the transitional period. MGG concluded after the first day of composting that signage was not enough to educate students on what can be composted, as the bin was filled with non-compostable waste. Thus, the team reevaluated and developed a schedule for a volunteer to educate and remind students of how to compost during dining hall hours. This educational outreach program lasted for one week and found significantly less contamination.

For composting facilities that cannot handle meat, dairy, or oil, create signage catered to what can be composted in your cafeteria. In the future, MGG will create new signage specifically catered to what is compostable at our cafeteria. For example, the “no” section of signage would include the commercially compostable coffee cups and ice cream wrappers that were commonly found in the compost bin.

Photos and graphics:



Flyers used in social media posts.
Created by Cecelia Aten and Jessica Wilson.

Picture of the compost collection bin in
the cafeteria with signage.