



North Carolina State University - 2019 RecycleMania Case Study

NC State University: Paper Towel Composting in Residence Halls

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2. Focus of Case study

Develop a student-driven paper towel composting program for campus residence halls to improve waste diversion and create life-long sustainable knowledge and habits for students.

3. Detailed description of campaign component:

When students returned to live on campus in the Fall 2017, they were met with an unexpected feature in the residence hall room restrooms: paper towel dispensers. This change created an influx of waste that could be diverted through composting and education.

The focus of this project is the development of a student-driven paper towel composting program for campus residence halls. While planning began in 2017 by the Zero Waste Wolves (student organization), it wasn't until 2018 when funding and support were acquired to begin a pilot in the Spring 2019. The residence halls of Bragaw (761 residents) and Metcalf (407 residents) were initially selected as the pilot locations. However, due to the popularity of the program, the program soon expanded to Wood Hall (470 residents) and Wolf Ridge Apartments (1,000 residents). The goal of the pilot was to improve student education about composting paper towels and increase student involvement by providing composting supplies.

Beginning in January 2019, ten (10) student education events were organized, utilizing the Hall Council's, Zero Waste Wolves' and Waste Reduction & Recycling's social media platforms to market the events and promote composting awareness. During each educational interaction, students learned that paper towels could easily be composted at their hall's Pizza Box Composting Dumpster. Students were also shown how easy it was to collect & compost the paper towels using the supplies provided (bolded items denote supplies provided):

- a. Place a **command-hook** near their paper towel dispenser in their restroom
- b. Hook a **reusable bag** to the hook (which acts as a support) and insert a **brown paper bag** (the liner)
- c. Place a **sticker** on your dispenser or mirror to remind how/to compost their paper towels

- d. Placed used paper towels in the bag; when full, carry out using the brown paper bag and dispose of in the nearby Pizza Box Composting Dumpster.
- e. Pick-up an **extra paper bag** on the hall's service desk or reuse a bag from a grocer.
- f. Re-insert into reusable bag and continue composting!

4. Planning steps & timeline to implement:

- October 2018:
 - Submit Application to the Sustainability Fund FastTrack Grants which awards \$1,000 to student organizations (Sustainability Fund monies come from student fees: allocated by a student-led board)
- December 2018:
 - Received funding from the Sustainability Fund
 - Purchased materials, including command hooks, reusable bags, brown paper bags, and informative stickers
 - Created marketing materials and workshop presentation
 - Begin contacting Resident Directors
- January 2019:
 - Continue contacting Housing Staff and Hall Student Councils
 - Meet with Staff & Councils regarding implementation of the program to finalize dates for educational events
 - Jan. 24- Metcalf Event & Bragaw Event
 - Jan. 31- Metcalf Event & Bragaw Event
- February 2019:
 - Receive request from Wolf Ridge Apartments to host paper towel composting events
 - Feb. 7- Host Wolf Ridge Residence Apartments Event
 - Feb. 20- Host Wolf Ridge Residence Apartments Event
 - Conduct weekly visual scans of composting dumpsters to check engagement (Bragaw/Metcalf only)
- March 2019:
 - Email a Google Form survey to collect feedback from students who attended events & took supplies
 - Conduct weekly visual scans of composting dumpsters to check engagement (Bragaw/Metcalf only)
 - Receive request from Wood Hall Residence to host paper towel composting events
 - Mar. 6- Host Wood Event
 - Mar. 19- Host Wolf Ridge Event
- April 2019:
 - Email Google Form to request feedback on program
 - Conduct weekly visual scans of composting dumpsters to check engagement (Bragaw/Metcalf only)
 - April 4- Host Wolf Ridge Event
 - April 17- Host Wolf Ridge Event
- May 2019:

- Analyzed data collected from surveys & report to Sustainability Fund Board & interested groups

5. Resources and stakeholders involved

This program was planned and implemented by the Zero Waste Wolves, an NC State recognized student organization. Program support includes the following campus departments:

- University Housing Staff (Resident/Apartment Directors)
- University Housing Hall Councils (student led councils in charge of planning events)
- University Housekeeping (Housekeeping Zone Managers)
- Waste Reduction & Recycling (the Zero Waste Wolves student organization is housed under this campus department; WRR also manages the Pizza Box Composting Dumpster program)

\$1,000.00 in funding for the supplies given freely to students was obtained through the Sustainability Fund FastTrack Grant in December of 2018. *(Please note that an application for funds was submitted in the Spring of 2018, but denied- the Zero Waste Wolves persevered though!)*

Budget for Paper Towel Composting Program

Item	Quantity	Cost
Duro Brown Printed 100% Recycled Shopping Bag with Handles	300	\$57.99
Command Hooks, medium, 3lb weight capacity	200	\$119.94
Value Grocery Totes (reusable bags)	200	\$519.32
Informative Stickers	200	\$57.51
Duro Brown Printed 100% Recycled Shopping Bag with Handles	300	\$57.99
Command Hooks, medium, 3lb weight capacity	50	\$39.98
Informative Stickers	200	\$57.57
Informative Stickers	200	\$57.51
	TOTAL:	\$967.75

6. Describe the Results of this campaign component

a. General results

Through the paper towel composting program, we were able to create an easy way for students to be introduced to the concept of composting by highlighting a single item that is used by students every day. This sparked an interest around campus to further paper towel composting to other resident halls & apartments. This also helped inspire students to begin composting more than paper towels, but also food scraps!

The program also received recognition via social media (Waste Reduction & Recycling, @NCStateRecycles) and was nominated for a Sustainability Award hosted by the Sustainability Office.

In March, NC State’s student news ran an article featuring the program:

Student Club, university initiatives aid culture of waste reduction

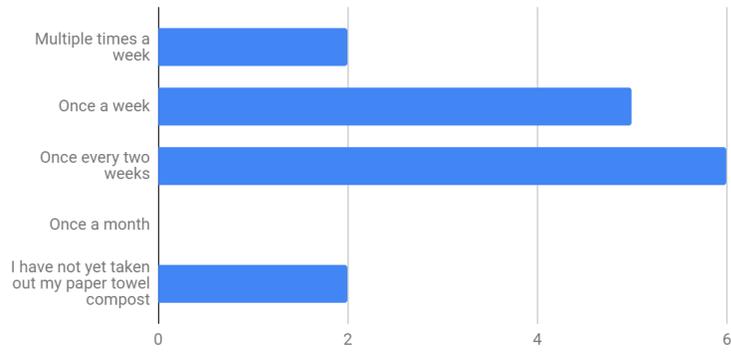
http://www.technicianonline.com/news/article_eddf1d28-5106-11e9-a074-879fede9fe70.html

b. Specific measurable impact figures, if applicable

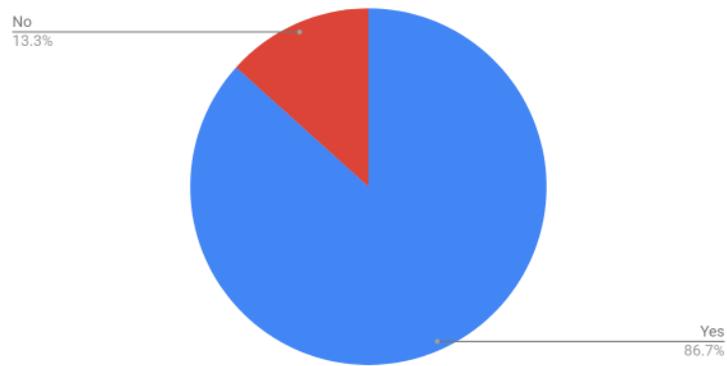
Surveys

From the 10 hosted events, we had 25 students submit their emails for contact. We used these emails to send out a **mid-semester survey**. Here are the highlights from the 15 respondents:

How often are you disposing of your paper towel in the compost dumpster?

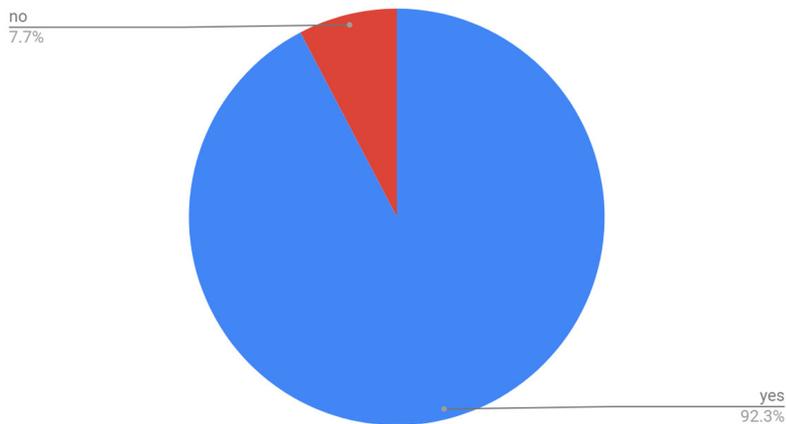


Do you find that composting your paper towels helps lower trash levels in your bathroom?



We also sent out an **end-of-semester survey**. Here are the highlights from the 10 respondents:

Would you participate in the program again?



What improvements would you make?

- *Having a more thoroughly developed system, for distribution of materials as well as continued use of them throughout the semester.*
- *It would be nice if eventually it would just be a part of the buildings, and janitorial staff would collect it along with trash and compost it accordingly. Now I don't mean rushing it into action. I mean getting it so we change the system of trash clean up so it includes composting the paper towels. And I mean to make it as easy and quick as possible for the janitorial staff to take care of. It's also worth considering hand dry towels; but student health should be contacted to ensure best cleanliness practices/feasibility*
- *More compost dumpsters and have everyone in a suite participate.*
- *None, the only thing I could see that would need improvement is having an incentive to take the bags out. A few of my suitemates took the bag out but there were times when it was overflowing because no one was taking it out. But that might not be something you need to fix or are able to fix.*

Compost Dumpster Visits

Throughout the semester, we also made 20 site visits to the compost dumpsters located at Bragaw & Metcalf Residence Hall to check for paper towels. Please see the photos/graphics of our site visits for results.

Waste Audit

Waste Reduction & Recycling hosted a service in March 2019 and conducted a waste audit of Lee Residence Hall (749 residents) and Metcalf Residence Hall (407 residents). This waste audit provided an interesting comparison between residence halls with, and without, the composting education:

Lee: no- composting education, waste sample total: 89 pounds, % of sample that was paper towels: **41.6%**
Metcalf: yes- composting education, waste sample total: 61.4 pounds, % of sample that was paper towels: **23.62%**

7. What would you do differently in the future?

In the future, we would like to start the program during the Fall Move-In, and set up tables at the residence halls/apartments to distribute supplies for incoming students. This would help improve engagement to students who can't/don't attend sustainability themed events.

We would also coordinate the educational events to occur throughout the year, hopefully with greater marketing support from the Resident Directors and Hall Councils. It would also be helpful to incentivize students to attend the educational events, perhaps handing out reusable goods as prizes for attendees & program participants.

Also, currently at NC State University, students are in charge of disposing of their room trash & recycling, but Housekeeping is in charge of disposing of restroom trash (no recycling in restrooms). In the planning sessions of the program, Housing was unable to change the service agreements with Housekeeping to add this additional waste stream (compost).

Based on feedback from students, it would also improve participation if Housing/Housekeeping could:

- Provide compost bins or the hook/bag solution to every restroom within Housing
- Coordinate for Housekeeping to empty compost bins/bags from restrooms

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

We would recommend partnering with your Housing, Housekeeping, and Waste Management teams to coordinate a plan that could be implemented from a department level to ensure greater participation and compliance.

However, if that was not possible, stress to students other options of waste reduction- from purchasing reusable hand towels or the ease of composting paper towels (if compost available) with a simple bag.

9. Photos and Graphics

Social Media Example (via @zerowastewolvesncsu):

The graphic is a green square with a white border. At the top, there are four rows of paper towel rolls, each with a small green leaf icon on its side. Below the rolls, the text reads: "• ZERO WASTE WOLVES •", "PAPER TOWEL COMPOSTING PROGRAM", "Interested in becoming more sustainable? Come learn how to compost your paper towels!", "Dates: January 24 & 31", "Times: 5:30-6:30pm", and "Location: Bragaw Activity Room". There is a small green circular icon with a leaf and a recycling symbol in the bottom right corner of the graphic.

The screenshot of the social media post shows the profile of @zerowastewolvesncsu, the text of the post, and the interaction area. The text of the post reads: "zerowastewolvesncsu Are you a BRAGAW or METCALF resident???. Come check out how you can compost your paper towels through our new Paper Towel Composting Program. 🌱". The post is dated "15w" and "JANUARY 18".

Supplies (via @zerowastewolvesncsu)

The first screenshot shows a cardboard box containing a black tote bag. The bag has the text "CAUTION: COMPOSTING AT WORK" and "ZERO WASTE WOLVES CLUB" printed on it, along with a small green circular logo. The second screenshot shows a hand holding a box of Command brand "MEDIUM HOOKS WITH STRIPS". The box is red and yellow and features the text "Damage-Free Hanging Holds Strongly - Removes Cleanly". Below the box, there is a small black bag with a white hook and a strip of paper towel. The social media post text reads: "zerowastewolvesncsu GET READY!!!! Our supplies are officially here and we are kicking things off next week. 🌱 #composting #zerowastewolvesncsu #compostpapertowels #sustainablecollege #wastereduction". The post is dated "15w" and "JANUARY 18".



Results of Compost Dumpster Site Visit (via @zerowastewolvesncsu):



zerowastewolvesncsu • Following

conducted our first waste audit for the semester at @metcalfhallcouncil and @bragawhallcouncil who are piloting our paper towel composting program! We were super excited to see several bags of paper towels in the Composting dumpsters. Keep up the great work!!! Look out for more composting workshops to learn how you can make a difference in reducing waste on campus. #sustainabilityfund #zerowastewolvesncsu #papertowelcomposting #compostingcampuses #compost #zerowastecampus #ncsu

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Liked by nc_state_ecovillage and 26 others

FEBRUARY 8

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Photo of Waste Audit (Lee Hall), via WRR:

