



Appalachian State University

Contamination Control Case Study

Contact info

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Focus of Case study

The focus of this case study is to reduce contamination in dorm recycling and compost bins through targeted education, better signs and more convenient locations.

Detailed description of campaign or effort

At Appalachian State University, we strive to be leaders in sustainable efforts in our community. This cannot be accomplished without implementing useful information to support our campus on proper waste management. We focused mainly on targeting student housing waste contamination. In Fall 2021, Zero Waste Ambassadors noticed that many dorm halls waste bins were contaminated with items that were placed in the wrong place. From this, a plan was devised to educate students on how to recycle/compost following local guidelines. Initial data on each dorm hall was collected that highlighted contamination specific to that building and nearby disposal sites. Flyers directed towards each dorm hall on campus were created to convey the contamination spotted in the locality and identification of the closest garbage, compost, and recycling disposal sites (see below for reference flyers). Across the campus, the flyers were spread out to ensure all on-campus residents were aware of disposal sites and common contaminants. To collect results on the successes and failures of this project, we sent out questionnaires to all housing residents of the 2021-2022 year to collect their insight on our efforts.

Planning steps & timeline to implement:

November 2021

- Identified contamination problem in dorm waste receptacles

January 2022

- Surveyed campus dorms to locate the closest compost, landfill, and recycling bins
- Noted labeling and accessibility issues for dumpsters
- Noted common contaminants in recycling and compost bins and potentially divertable waste in landfill bins
- Used a spreadsheet to organize notes taken in the field and to serve as a basis for the creation of outreach material



February 2022

- Designed dorm-specific posters detailing the locations of the nearest compost, recycling, and landfill bins
- Designed posters instructing students of how to properly dispose of common contaminants

March 2022

- Implement posters in dorms by sending to all Resident Advisors and Resident Directors on campus

May 2022

- Receive feedback on how effective these posters were and collect pledges to reduce waste on campus
- Plan for future analysis on this study for the following semester

Resources and stakeholders involved:

The dorm audits do not require any budget. The Zero Waste Team walked to each landfill, recycling, and compost site to collect data. The Zero Waste Team was the biggest support and leader in this project. We used online resources including Canva Design and Google satellite images to create our visuals targeted for each specific dorm. Other stakeholders include the students living in the residence halls and the Office of Sustainability staff. Another important stakeholder group is the Resident Directors of each residence hall, along with the Eco Representative for each building. The RD and Eco Reps were in charge of implementing these new flyers and encouraging residents of the dorm to review the materials.

Describe the Results of this Campaign Component

Our results are complicated. The end of the school year hindered our ability to accurately obtain the results of our flyer distribution. By the time the ambassadors had time to go back and receive results on our case study, there were no points where data could be accurately collected. From this point forward, we focused on increasing awareness and preparedness for the upcoming semester. We received a message from Coordinator for Student Leadership in Student Housing inquiring on how we can better promote these flyers and sustainable living in the dorms. From our case study, we have opened the door for more discussions on sustainable living in the dormitories. A google form was sent to students about whether they believe these flyers will be of aid to them and pledging to reduce their waste contamination. We are still gathering information and hope to use this feedback to better program our Fall 2022 strategy.

The Zero Waste team gained important information about how to conduct wide scale waste audits and formulate ideas on waste management. The team will continue this project into the next semester and build on it with results post flyer distribution, innovating new ways of education, and feedback from campus faculty, students, etc.

What would you do differently in the future?

We wanted to collect data on contamination in waste bins after the flyers were implemented. This can be done in the following year after the flyers have adequate time to be noticed by students and lasting impact can be measured.



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

We suggest assigning your best graphic designers to be in charge of making clear signs for prevention of contamination in landfill/recycling for the dorms. We strongly encourage getting dirty on the job and fully sorting through the trash/recycling to best keep record of contamination. This effort is best for the first few weeks of classes. As students begin assimilation to college life, this information will help guide their waste habits and help them locate their nearest waste streams.

Photos and Graphics



Example of an image captured while scouting dorms. This image clearly shows the contamination and lack of interest from students. With proper understanding and bin identification, we knew this contamination could be reduced by a lot.

Doughton Hall
Where does your trash go?

LANDFILL
From the front door, turn left and then make another left towards Legends. Landfill is in the green dumpster. You can also access from the basement.

RECYCLING
Located right next to the landfill dumpster. Easiest access is from the basement exit.

COMPOST
The closest compost site to Doughton Hall is behind the landfill and recycling. Here you can dispose of your food scraps.



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This is an example of a flyer created to help students identify the nearest landfill, recycling, and compost sites to their dorm. Here, we have written out full walking directions from the front door of the building to the waste disposal site closest to them. We also included an aerial map as well. We also wanted to highlight composting (in the circle) to remind students of the opportunity to reduce their food waste. We have multiple composting sites around campus, students just need to be informed where they are.



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ITEMS THAT DO NOT GO IN RECYCLING!

PIZZA BOXES
Pizza boxes can be composted. Grease cannot be recycled.

PLASTIC BAGS
Plastic grocery bags can be properly recycled at the Office of Sustainability, located at the bottom of East Hall

CONTAMINATED RECYCLABLES
All recyclables must be clean and free of food or waste residue

Don't put recycling in plastic grocery bags or trash bags!



This is an example of another set of flyers designed to target specific recycling mistakes and how to avoid them. We noticed a lot of contamination from pizza boxes, plastic bags, and dirty recyclables. This was a main focus for this campaign as this is one of our biggest obstacles in reducing contamination. These flyers will be distributed with the target-audience flyers for each dorm. We wanted unity among the graphics to indicate a relationship with our office and provide a simple, educational guide to better recycling practices.