**South Campus Composting Pilot Program**

**In-Depth Program and Recommendations**

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**Part 1: Pilot Program Details**

In September 2019, I began developing a semester-long pilot program for residents of Boston University’s South Campus to compost their organic waste. Boston University’s South Campus is home to roughly 2000 of BU’s on-campus population. The buildings in South are primarily small apartment style residences, in contrast to many of BU’s large apartment buildings, which makes potential composting in this area look similar to a curbside pickup model.

This would be an opt-in program for students in apartments only, with a cap of 200 students to start. There would be a waste dropoff bin in a location easily accessible to students, ideally in the alley between Beacon and Buswell streets, with a secondary option as the alley behind the Mountfort Street apartments. This would allow students to drop off their organic waste both according to the amount of waste they produce and in a way that accommodates a student’s lifestyle. After polling a group of about 50 residents, 95% said they would bring their food waste to a bin if it were near their apartment. On average, about 1lb of food per person is wasted daily, so students potentially have a lot of organic waste to compost.

 Students who opt into the program would receive a kitchen scrap bin with a locking lid to keep in their apartment kitchens. Ideally, compostable bags would also be provided for cleanliness, odor control, and aeration of the compost. These students would be responsible for emptying their scrap bins as needed into a common drop off bin, in the alleyway next to the dumpster most students use. The drop off bin would then be handled by BU’s organic waste vendor weekly, with adjustments to be made as necessary or as the program expands.

Some have expressed concern that students will be in charge of their own compost, which could allow for a high rate of contamination. As an opt-in program, the students involved will be those who are already interested in composting for the time being. With the proper education (see next section) as well as the use of designated food scrap bins for students, we can assume a low rate of contamination. Additionally, the program would decrease pest-attracting odors in South, which is known for its pest issues; a scrap bin with a locking lid and compostable bags will reduce odor and keep rotting organic waste out of open trash containers.

Students who opt into the pilot will attend a short mandatory meeting to learn about the program and the ‘do’s and don'ts’ of composting at BU. Additionally, students will have the opportunity to take on a larger role if they so choose; a few students will be chosen as point people that the others can get in touch with should they have questions. Materials that make it clear what can and can’t be composted will be distributed to the students in the form of a magnet for apartment refrigerators, to minimize contamination and confusion. It is my hope that this will encourage campus-wide education about composting and sustainability, increasing overall awareness and decreasing contamination.

 The primary cost would be an expanded contract with BU’s organic waste vendor, which would cover the community bins. Other associated costs would be a small scrap bucket for students in the program, compostable bags, and informative materials. Currently, however, organic waste costs significantly less per ton than inorganic waste, so these would pay for themselves and ultimately save the university money.

**Part 2: BU’s Existing Compost Program**

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**Composting vs. Bioslurry**

 Currently, BU works with both Waste Management and Save That Stuff to handle organic waste. At this time, organic waste comes almost exclusively from the dining halls and the GSU, which are both handled differently and present different challenges. At the dining hall locations, staff take students’ dishes and separate organic and inorganic waste, which allows little room for contamination and is relatively straightforward. In the GSU, however, students sort their own waste. This creates a large margin for contamination among students who don’t know what can and can’t be composted, or who simply don’t care. Any organic waste vendor assumes a small amount of contamination that must be sorted out, but more than that creates an issue. While steps have been taken to decrease contamination - such as the introduction of compostable utensils and containers - these become less useful once taken out of the GSU where there are no compost receptacles, and there are still lots of plastics in use that could end up in the organic waste receptacles. There are no other places to compost on campus, though in my preliminary research I heard from multiple students who are finding ways to do so: some bring their food waste to the dining halls or GSU, and some even freeze it and bring it to the nearest City of Boston dropoff bin in Brighton.

 After organic waste is picked up by either of the two vendors, it goes to Waste Management’s CORe Processing Plant in Charlestown. It is important to note that BU does not “compost” its organic waste, where compost is the process by which organic waste decomposes and becomes nutrient-rich soil. The CORe facility produces EBS, a bioslurry which is used to generate renewable energy. In some cases what is left over is used as fertilizer, and in others it is mixed with sewage. While exponentially better than organic waste heading to a landfill, this process should not be mistaken for composting, which is a much more sustainable practice. If BU chooses not to move towards true composting, the university may seek ways to be more transparent with students about what actually happens with its organic waste so as to avoid further issues such as the Daily Free Press article regarding the compostable utensils[[1]](#footnote-1) or the scrutiny the city of Cambridge faced for a lack of transparency around its curbside pickup program.[[2]](#footnote-2) Transparency with students will encourage them to engage more with sustainable practices.

**Part 4: Other Models**

College campuses and other large institutions around the country are also finding ways to be more sustainable and handle their organic waste. As Boston University looks to achieve a zero-waste goal by 2030, there are models the institution can look to for good sustainability practices. St. John’s University in New York, for example, collects food waste from all over campus, composts on-site, and utilizes the compost in sustainable landscape practices and in student gardens. By composting on-site, “St. John's has reduced its carbon footprint by

eliminating the need for the Department of Sanitation to transport food waste to a landfill, thereby significantly reducing both truck exhaust and the production of landfill greenhouse gases.”[[3]](#footnote-3) Another example is Michigan State University, which in less than one year of having a commercial sized anaerobic digester on campus, generated “more than 1.7 million kWh of electricity” and used the resulting fertilizer on campus.[[4]](#footnote-4) These two universities, one smaller and one larger than BU, both provide viable examples of on-campus food waste models. Additionally, Harvard has a dorm composting system in which they provide Biobags in the trash room and students are able to fill them with food waste before returning them to the trash room and placing them in a designated compost bin.[[5]](#footnote-5)

**Part 5: Recommendation**

After an academic year of researching and developing my pilot program for South Campus, it is my hope that I can provide a recommendation to the University regarding its next steps in dealing with organic waste. I would strongly encourage the University to move to an organic waste vendor that composts rather than processes the waste into bioslurry (such as [CERO](http://www.cero.coop/), the vendor whose leadership was by far the most committed to sustainable practices, education, and non-contamination of all the local vendors I have been in touch with, or [Black Earth](https://blackearthcompost.com/)). Not only is this an admirable step as far as sustainability is concerned, but it would also place BU in a strong position among other Boston area institutions, and would go a long way towards the 10-year zero waste goal.

 Finally, I would encourage the university to look into purchasing its own anaerobic digesters to compost on site in the future. This cuts out the need for a vendor, which will reduce costs. This model opens the door for a truly sustainable and zero-waste campus, where the finished compost can be used around campus and could foster other projects such as campus gardens or pollinator protection. Biodigesters are a huge step in visualizing a more advanced university, where education about sustainability and work in living labs is the norm.

It is my hope that the South Campus pilot program will be successful in pushing BU towards zero waste as well as in cutting costs. Ideally, the program will continue to expand to other areas of campus and composting will be the eventual standard for every student who lives on campus. A pilot program like this will be instrumental in shifting students’ mindsets towards sustainability, which is equally as important as the logistics of sustainability itself.

1. <https://dailyfreepress.com/2018/03/01/composting-methods-lack-transparency/> [↑](#footnote-ref-1)
2. <https://www.wgbh.org/news/local-news/2018/05/22/cambridges-composting-program-isnt-actually-composting-is-what-theyre-doing-as-good> [↑](#footnote-ref-2)
3. <https://www.o2compost.com/Userfiles/PDF/O2Compost_AASHE_Stars_Flyer.pdf> [↑](#footnote-ref-3)
4. <https://urcmich.org/newsletters/biogas-research/> [↑](#footnote-ref-4)
5. <https://green.harvard.edu/topics/waste/composting> [↑](#footnote-ref-5)