Interactive Map and Database to Promote Compost Accessibility in Baltimore

CENTER FOR LEADERSHIP **EDUCATION** Kristen Corlay, Mia Grahn, Clara Kochendoerfer, Emily Sperring, Carlos Tenreiro-Braschi compostbmore@gmail.com JOHNS HOPKINS

Faculty Mentor: Alissa Burkholder Murphy



Early Research

There is no municipal organic waste program in Baltimore, so compostable waste is often sent to landfills and incinerators. From user interviews and surveys, we learned about residents' experiences collecting food scraps for home compost or for a community garden, in addition to reasons why people did not. Although most residents were environmentally conscientious, lack of accessibility to compost sites, lack of space, and concerns about pests and odor were barriers to composting or collecting food scraps for composting.

of ENGINEERING

Baltimore residents who are environmentally conscious need a way to divert their food waste from the incinerator.



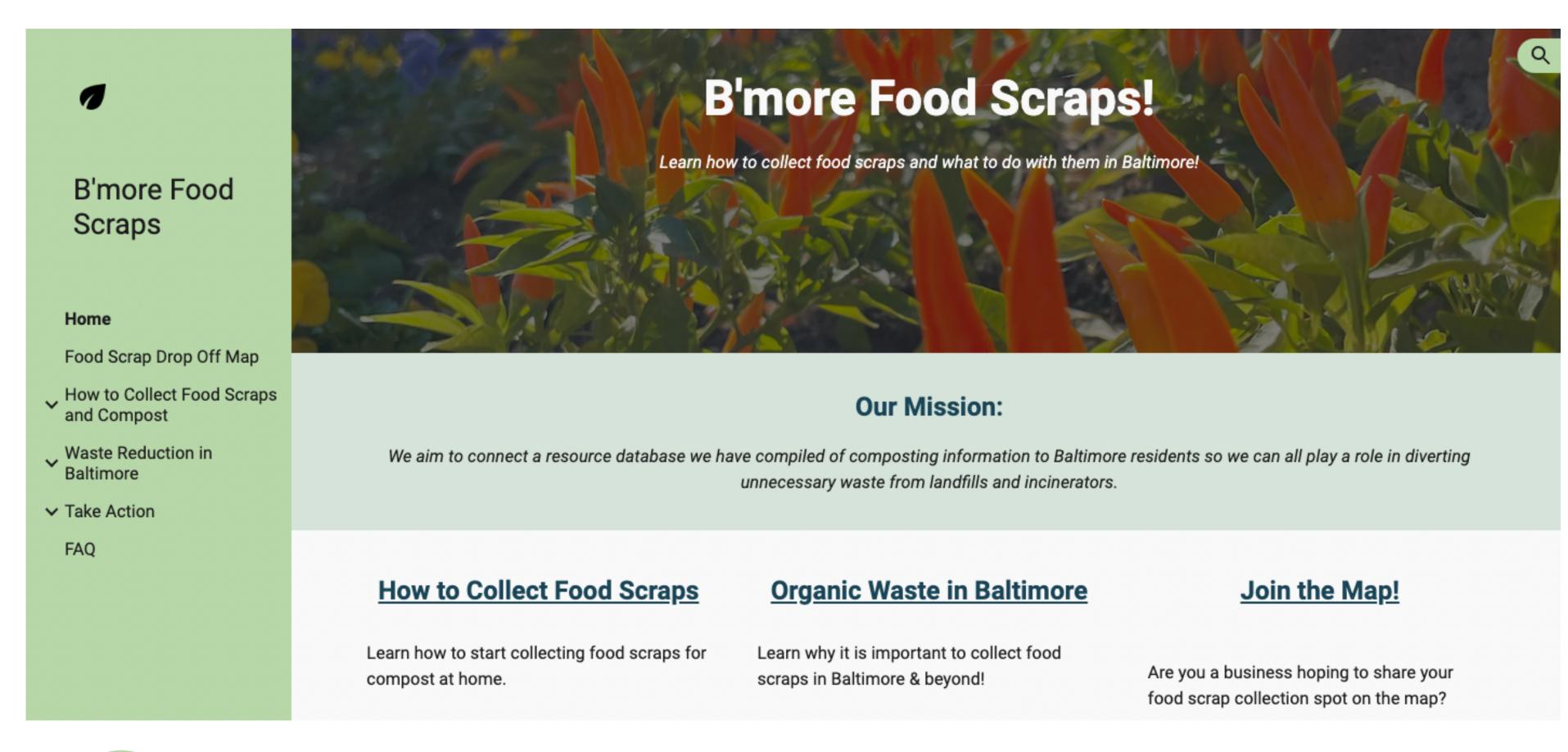
50% of the typical municipal garbage bag sent to landfills and incinerators is compostable, half of which is food waste.

Acknowledgments

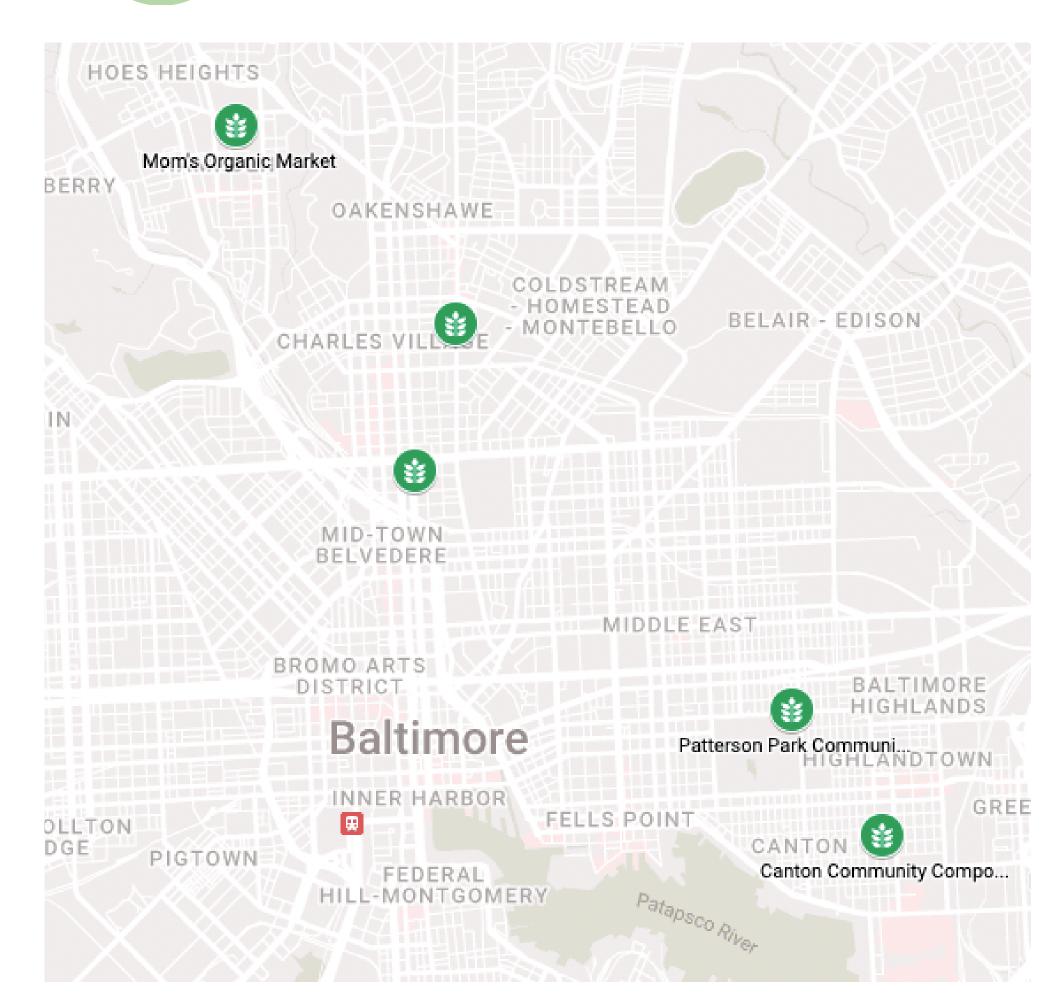
We would like to thank Prof. Alissa Burkholder Murphy for being a supportive mentor, Sadie Baker for hosting a neighborhood compost drop off site, Hugh Pocock for showing us Hidden Harvest Community Farm and providing feedback, Brenda Platt for sharing resources from the ILSR, Jamie Harding for helping us develop our website, and Vennela Avula for her compost map and feedback.

Our Solution

Website with Interactive Map



Food Scrap Drop Off Map



- **Residents** can locate the nearest food scrap drop-off site.
 - Community composting groups can fill out the form to add new locations.
- nationally.

Map can expand to new regions

Meet the Team



Chemical Engineering

Carlos Tenreiro-Braschi '23 Mia Grahn '23

Chemical Engineering



Clara Kochendoerfer '23 Emily Sperring '24



Biomedical Engineering Environmental Engineering Civil Engineering



Kristen Corlay '24



Scan to watch our video!

Scan to see our website!

- Features how to collect food scraps and compost, composting landscape in Baltimore, importance of compost
- Created on free platform and will be hosted by Energy Justice Network after course ends

Early Prototyping

Could composting residents be drop-off sites on our map?

We tested this idea by placing collection bins in two neighborhoods and sending a survey to composting residents.

RESULTS

The collection bin test showed neighbors are willing to share food scraps.

Survey results indicated that composting residents are not willing to be hosts.



Neighborhood Drop Off Site