

Organics Management Guide Submission

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Select the Primary Entity Type Please identify the category that best represents your project: Owner of Infrastructure** (composting, anaerobic digestion, depackaging, etc.)

Questions:

- 1. Background: Provide context for the program, project, or policy — why it was developed, when it began, and the problem or opportunity it addresses.**

Black Earth began in 2011 with 3 guys and a pickup truck. The objective was to divert as much food Scrap out of the landfills as possible and use them for their highest-end energy usage; composting. The site we are outlining started in 2024 in Manchester by the sea, MA.

- 2. Summary: Briefly describe the initiative, including its goals, location, and primary outcomes.**

The landfills in MA are quickly filling up to their total capacity. Trash tip fees are on average some of the highest in the country and are continuing to go up. Food scraps and compostable items make up more than 30% of the waste stream and can be converted into a nutrient rich end product, instead of creating methane in a landfill. Our goal is to divert as much food Scrap out of the waste stream as possible while limiting trucking miles and contamination. Our high quality finished Compost goes back to residents and farmers where it is added back into the soil to create healthier, nutrient dense food. Simply out; Fix the waste system to divert food scraps, to fix the soil, which will fix our food, and create healthier communities :)

3. Percent of Overall Diverted Material: If available, include data or estimates on the portion of the community or organization's total diverted material no longer associated with the waste stream that this program or policy addresses.

We currently operate 4 Compost sites in MA. Our regional site in Manchester services many surrounding municipalities, managing roughly 150 tons of food Scrap per week. 30-90 tons of that gets processed on site into compost and the overflow gets trucked to a nearby site. We produce an estimated 3,000 cubic yards of finished Compost and we offer free Compost pickup to the residents of Manchester.

4. Key Program Elements or Policy Provisions Describe the structure and main components of your program or policy. Explain the investments origins (who, how much). Please include as many of the following elements as applicable: What types of materials are being managed? (e.g., surplus recoverable foods, food scraps, wasted food. How are these materials managed? Who is responsible for managing them? (Organizations, agencies, businesses, or other entities) What products are generated, and how are they utilized or managed? (e.g., compost, animal feed, energy products) Who funds the management of these materials? (Funding sources, grants, partnerships) Who generates these materials? (Identify the origin: households, institutions, businesses, etc.)

- 1) We manage food scraps and compostable materials that would otherwise be going to landfill or incineration.
- 2) We manage them on site with rotating aerated static piles (ASP) over the course of 6-8 months. The food Scrap starts indoors for the first months to control moisture content and protect from rodents. We have operators on site that mix leaf scrap with the food and turn the piles as needed.
- 3) Black Earth is responsible for managing the piles, as well as the transfer station for the town of Manchester.
- 4) We produce a high quality Compost that is used by farmers, Gardeners, and landscapers to increase organic matter in the soil and grow higher quality foods. Each resident that signs up for curbside service gets a voucher for one free bag of Compost to be picked up at a local garden center. We also deliver in bulk at a discounted rate.
- 5) We initially received a Grant from the USDA to build the site, but we are a private company that generates revenue to fund operations and sustain 73 employees. The town of Manchester pitched in to pay for engineering costs on the site location (a

capped landfill) and we also had 2,500 residents donate because they too believed in our mission!

6) We collect from residents, schools, restaurants, events, and other businesses.

5. Regulatory Impact: Describe how laws, policies, regulations, and/or code have affected your program or project. This may include positive, negative, or neutral impacts. Consider noting which regulations apply, how they influenced implementation or operations, any challenges or barriers encountered, and how compliance requirements shaped program decisions.

We were positively impacted by the MassDEP waste ban. They have done an excellent job rolling out the plan in increments and it is both thoughtful and calculated. We feel grateful that the timeframe has allowed for proper education to limit contamination. There are many companies in California and Colorado that weren't able to keep up with high levels of contamination when the food waste ban was enforced, due to how fast it was implemented.

6. Measurable Increase in Supply: Include data or qualitative outcomes showing growth in collection, diversion, or reuse volumes if available.

We have seen a measurable increase over the past 15 years. When starting, there weren't very many ways to track data and participation. Now we can track how many people are participating, how often they get their bin picked up and we can make accurate predictions on Tonnage diverted. Municipalities save money on their trash tip fees by diverting food scraps and they also report their Tonnage to the MassDEP to receive funding from their Recycling Dividends Program.

7. Behavior Change: Describe whether the initiative resulted in measurable behavior change and explain how you determined this. If behavior change occurred, outline the strategies that proved most effective. Please include any available data or evidence that supports your findings.

When people start composting, they think about where their waste is going and where their food is coming from. We hope that composting makes people conscious about how much food they buy so they don't waste it in the first place. When I'm attending events, people rush over to our booth and frequently tell us how much they love our service. Residents

and business want to know that they are making a difference by diverting their food scraps and we are always happy to give site tours and share photos and statistics. The residents of Manchester also put the free Compost to use, estimating 200 cubic yards goes out completely free each spring. We also have many residents willing to volunteer to support the mission.

8. Benefits and Impacts (Economic, Environmental, and Social): Describe the economic, environmental, and social sustainability impacts of the program, policy, or initiative. This may include both positive and negative outcomes. You may address impacts such as costs or savings, job creation, waste reduction, emissions, resource conservation, community engagement, equity, or public health. Please include data or qualitative observations where available and note any trade-offs or challenges.

Our main mission is to divert organics out of the waste stream and reintroduce organic matter back into the soil to add nutrients. In the process of doing that, we have created jobs for 73 employees over 4 Compost sites. We service roughly 40,000 residential customers and about 1000 commercial accounts. We partner with garden groups and non-profits to educate residents and attend events. I work with roughly 130 municipalities across eastern MA, RI, Southern NH, and soon to be CT. The compost produced also helps the soil by helping to retain moisture and sequestering carbon.

As a private company, we can operate in a town without them having to pay any money. This results in them getting cost saving from their trash tip fee and they are usually thrilled to help us promote the service. When a town helps endorse us, the resident trusts the service a bit more and we see a spike in participation. We also offer discounts to the residents based on density. For an example, if the average tip fee in Mass is roughly \$100/per ton, and our top towns divert anywhere from 200-500 tons per year (based on participation), then towns are saving \$20,000-\$60,000 per year using our service. Some tip fees are higher and some are lower, this is just to outline how much a town can benefit on savings alone. My personal favorite is when I volunteer with local garden groups and find that they use our compost in all of their community garden beds, creating healthier food for people that may need it most.

9. How Stakeholder Buy-In Was Achieved: Explain how the program gained support from key stakeholders (e.g., government agencies, businesses, residents, nonprofits).

The Key was having support from the town of Manchester. They saw the value in having a long-term facility and worked with us to develop a plan, set dates and manage finances. They offered the parcel of land as well as taking care of some engineering costs, and now as the food waste ban is becoming more strict, all of the benefits go to the town and directly to the residents. The USDA Grant also helped tremendously.

10. Stakeholders' Perspectives and Dynamics at Play: Highlight collaboration dynamics, challenges, or differing stakeholder interests and how they were addressed.

Our vision was always aligned with the municipality. Open and honest communication is always key and having the operators also be part of the conversation. We understand that Municipalities have a lot on their plate and have to get approval from multiple different parties, so we were happy to adapt to their pace and we made the moves as soon as we were able.

11. Lessons Learned Share what worked well, what didn't, and recommendations for others seeking to replicate your approach.

We learned permitting can be a long process and to plan that into the initial stages. Luckily we were operating at different sites while this one was being built and we could transition once all the paperwork was complete. We learned that it's important to plan ahead to ensure the town and the residents can receive the most benefits, when things are rushed they can get overlooked. We are really excited to see how well this turned out and we hope to replicate it in many municipalities across the state. The dream down the line would be to operate more Compost sites to reduce emissions from trucking miles and keep the food scraps local. The location here in Manchester is great because we have indoor capacity to start the decomposition process, we're near a major highway so the trucks can easily get on the road, and with the long-term lease it is at low cost to the town. We are proud to be serving half of all of the residents in Manchester and we are seeing increasing participation rates across municipalities. We are glad to provide a service that residents can feel good about. Versus the alternative, burning our trash in incinerators, paying high prices to ship it far away, send it down the drain and clog up WWTP, or pile up the landfills until they're completely full.

With forward planning, towns can group up and share the funding to build a regional site, sharing the benefits as they share the investment. One of the main lessons was just

making sure the operators have a voice in the design phase. The ones doing the work know what the plan is because they have the boots on the ground. It is important that everyone up and down the chain have a voice so that collaborative decisions can be made. Building something like this takes years of trial and error and a lot of our mistakes were costly. We hope municipalities call on us for our expertise and refined process because we have come a long way from when we started. Composting food scraps is a unique process that needs a custom solution. Munis and engineers alone aren't always equipt to carry out this mission - which is why we all have to work together to implement projects like this.