Landscape Analysis of Industrial, Commercial, and Institutional Food Scrap Recycling in Nashville: Executive Summary

Up to 40% of food in the United States is wasted and with it significant resources. Food waste also is the source of at least 2.6% of the United States' greenhouse gas emissions and on average is the largest component of United States landfills by weight.[1] Research conducted by the Natural Resources Defense Council finds that as many as 178,920 tons of food are wasted annually in Nashville and that industrial, commercial, and institutional (ICI) generators are responsible for about 67% of this waste.[2] Furthermore, the vast majority of food scraps generated in Nashville are landfilled rather than recycled.

This report examines the barriers and opportunities for bolstering Nashville's food scrap recycling infrastructure, as well as increasing the amount of food scraps that are recycled by the ICI sector. Although preventing food waste before it occurs and rescuing food for hungry people are preferable to recycling, recycling nevertheless is a critical component of efforts to address food waste. Food scrap recycling not only helps to mitigate the environmental and climate impacts of wasted food, but returns nutrients to the soil.

As Nashville continues to grow at triple the national average, the landfill upon which it predominantly relies is reaching capacity. At the same time, the City is poised to develop and implement a long range zero waste master plan—a pivotal juncture for the City's solid waste management policies and practices. This report is intended to supplement the City's master plan efforts by focusing on a key aspect of reaching zero waste—a robust, diversified, and fully-used food scrap recycling infrastructure. NFWI's research is based on interviews with over 25 stakeholders, including ICI food scrap generators, waste management companies, waste management consultants, nonprofits, and governmental entities.

Findings and Recommendations on Food Scrap Recycling Infrastructure

Nashville's existing food scrap recycling infrastructure is limited, with only one nearby commercial organics recycling facility that accepts food scraps, as well as three organics haulers. NFWI's research points to several policies and practices that could help foster a more robust infrastructure, including:

- **Procurement Policy**: A state or local procurement policy that requires or encourages government agencies (and possibly commercial construction businesses) to use finished compost products in construction and landscaping projects could strengthen the market for compost which, in turn, could facilitate the development of a more robust infrastructure.
- **Subsidies**: New grants or loans and continuation of the state's Grants to Promote Materials Management program could help foster new and more robust organics recycling businesses.
- **Streamlined Permitting**: Streamlining the state permitting process for new organics processing facilities could lower the barriers to entry for prospective processors through measures such as an ombudsman to aid applicants in navigating the multiagency approval process.
- **Permit Fee Waivers**: Publicizing that the state waives its annual $3,000 permit maintenance fee for waste processing facilities that recycle 75% or more of materials could encourage processors to expand their recycling programs or lower the barrier to entry for prospective processors.
- **Hauler Requirements for Food Waste Collection**: Requiring Davidson County waste haulers to offer food scrap collection in order to receive a collection permit could help ensure that generators have the option to recycle their food scraps.
- **Collection Contracts**: Separating Davidson County into sectors with separate waste collection contracts could promote route efficiency and encourage haulers to offer food scrap collection.

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[1] Gunders, Dana, et al. 2017. *Wasted: How America is Losing Up to 40% of its Food from Farm to Fork to Landfill* (Report 17-05-A). Natural Resources Defense Council, August 2017. https://www.nrdc.org/sites/default/files/wasted-2017-report.pdf.

[2] Hoover, Darby. 2017. *Estimating Quantities and Types of Food Waste at the City Level* (Report 17-09-B). Natural Resources Defense Council, October 2017. https://www.nrdc.org/sites/default/files/food-waste-city-level-report.pdf.

- **Solid Waste Authority**: The creation of a solid waste authority that can operate as an enterprise fund could make it easier for Metro to fund new infrastructure and help people realize the true cost of trash collection.
- **Inter-County Collaboration**: Increased coordination among Metro and nearby counties, whether through a solid waste authority or other means, could spread the costs of new infrastructure.
- **Metro Infrastructure Projects**: Projects such as Metro-operated anaerobic digesters at wastewater treatment plants would help diversify the food waste processing infrastructure.

Findings and Recommendations on Participation in Food Scrap Recycling

NFWI's research indicates that less than 1.5% of food scraps generated annually by the ICI sector in Nashville are recycled. The research identified several barriers to increased participation in food scrap recycling, including lack of awareness surrounding food scrap recycling, cost, inconvenience of starting a new business relationship with a hauler, need for employee education and training, and lack of physical space. There are numerous steps that could help address these barriers (some of which would also bolster the food scrap recycling infrastructure), including:

- **Increased Food Scrap Recycling Education**: Additional materials on food scrap recycling in school curricula and in nonprofits' informal educational programs could increase public awareness about the practice, importance, and benefits of food scrap recycling.
- **Food Scrap Recycling Outreach and Training Materials**: Videos, handbooks, workshops and other materials tailored to specific audiences could provide practical guidance to generators, current and prospective processors, community groups and other stakeholders.
- **Procurement Policy**: Enacting a policy that encourages use of finished compost products can help build a more robust food scrap recycling infrastructure and may ultimately make food scrap recycling more cost-competitive with landfilling, which could increase generator participation.
- **"Pay-as-You-Throw"**: Instituting policies whereby waste collection costs are based on the amount of waste that generators send to landfills could help make food scrap recycling cost-competitive with landfilling.
- **Incentive and Recognition Programs**: Incentives (such as a tax credit or exemption from the Metro Public Health Department's permit renewal fee) and public recognition programs that provide good "free" publicity could incentivize food scrap recycling.
- **Hauler Requirements**: Requiring waste haulers to offer food scrap collection can help expand food scrap collection and recycling infrastructure as well as allow generators to begin recycling their food scraps within their existing waste contracts.
- **Building Codes**: Changes to building codes to require loading docks to have room for three appropriately-sized bins would make it easier for businesses to recycle their food scraps.
- **Organics Diversion Requirements**: Some type of ban or limitation on landfilling of organic materials would increase food scrap recycling and could be focused on large generators.
- **Shared Food Scrap Pickup Locations**: Working with haulers to identify locations at which neighboring generators can pool food scraps could enable haulers to charge less or generators to share collection costs.
- **Peer Network**: Establishment of a peer network could offer potential recyclers a mechanism for raising questions and concerns with peers who are successfully recycling their food scraps.

The report provides additional details on NFWI's findings and recommendations and an outline of the food scrap recycling steps that specific actors, including Metro, businesses, and consumers, can take.

The full report can be accessed online at https://bit.ly/2TJMdO2. For more information, contact foodwaste@eli.org.