



Chittenden Solid Waste District

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To: Board of Commissioners
From: Dan Goossen, Director of Organics Recycling
Brian Mital, Associate Director of Operations
Sarah Reeves, Executive Director
Date: 7/5/2024
RE: Organics collection pilot

Synopsis

The Organics Recycling Facility (ORF) was on track to exceed its processing capacity, when Casella's 2020 introduction of an organics depackaging facility halted the ORF's growth and threatened the facility's sustainability. A "depackaging facility" is where food that is unsuitable for human or animal consumption and is still in its packaging, can be processed to remove the food from the package, keeping organics out of the landfill per state law. An example would be a pallet of Ben & Jerry's ice cream that is packaged for sale but has failed the company's quality control. The packaged food is brought to Casella's facility in Williston and dumped into a machine that rips open the packaging and allows the food to be released. The food is then moved to a macerating machine and turned into a slurry. The slurry is shipped to an anaerobic digester for use in creating electricity. In order to maximize the efficiency of the depacking equipment and to maximize collection routes, Casella would bring source-separated food scraps to the depackaging facility as well instead of bringing this material to the ORF. Some Casella customers were unaware of this change, and through their contract with Casella directed their material back to CSWD (specifically, UVM).

ORF staff have succeeded in reclaiming some food scraps destined for depackaging but unfortunately not enough to make up the sudden and significant loss of material. Instead of relying on commercial haulers to bring the necessary quantities of food scraps needed for program sustainability, Staff proposes initiating a small-scale collection program so that ORF can have direct contact with high-quality food scrap generators who want their material composted rather than digested or disposed.

Background

Tip fees for inbound food scraps (\$70/ton) represent a critical component of the operating budget for the Organics Recycling Facility. Most compost facilities in the US rely on tip fees for the majority of their revenue stream. The ORF has always operated with a reverse model, relying on sales of outbound materials for a larger portion of revenue than tip fees for inbound materials. Much of this is market driven and is related to the scale of organic waste generation and processing in our region. It has long been a goal to correct this ratio to match the national norm more closely, but the spread between revenue sources has been exacerbated in recent years and has threatened the ORF's ability to maintain a trajectory of lowering the District subsidy required to support the operation. Long-term, the ORF budget will be less susceptible to seasonal weather fluctuations and economic bubbles if a greater proportion of revenues are shifted towards tip fees on incoming materials.

The average breakdown in revenue between sales and tip fees for the ten years between FY12 -FY23 was 27% from tip fees and 73% from sales. In the years since 2020, the tons of food scraps arriving at the organics facility have dropped significantly, due to the implementation of the depackaging facility located three miles from the ORF in 2020. Average annual tons of food scraps dropped by 32% from FY18 to FY23. Nearly all of these food scrap tons have been in the form of source separated organics and do not actually require pre-processing through a depackaging machine (they are not packaged foods).

CSWD heard from multiple food scrap generators of their discontent upon learning that their collected organics had been rerouted to depackaging, and particularly that this change was done without their notification or input. Many of these generators feel as though they are stuck in their current situation and without self-hauling their material, do not have another option for having their discarded organics to be once again composted.

We believe it is in the best interest of the District and its constituents to have all generators able to access composting as a preferred means of processing their disposed organics. Without additional infrastructure modifications, the estimated maximum annual tons of food scraps that can be processed at the ORF is 6,500. This is 2,000-2,500 tons greater than the current accepted volumes. The facility was designed and has grown to be able to process the higher volume of materials and the fiscal impact of returning to the higher inputs with associated tip fees would be substantial (2,000 tons @ \$70/ton is \$140,000 of additional revenue), thereby decreasing the need for financial subsidies moving forward.

Sarah Reeves, Executive Director, consulted with Attorney Thomas Melloni regarding the District's authority to provide collection services. Attorney Melloni stated that he is not aware of any prohibition against the District collecting solid waste. The Charter lists as the first power the ability to "operate and contract for operation of the collection of solid waste". Municipal collection of solid waste has been considered a municipal responsibility for well over a century in the United States, with case law extending to the US Supreme Court affirming the activity. Contracting the service to a commercial hauler was considered and determined to be uneconomical and contrary to the desire to have a direct connection to the generators of the collected food scraps. This direct connection is essential to ensuring low – to – no contamination in the food scraps, and to provide direct assistance and education where needed.

Proposed Organics Collection Pilot

Staff have designed a pilot organics collection program to redirect a portion of the food scraps back to composting. Utilizing existing maintenance and roll-off staff and adding a new truck outfitted with an organics collection body, District staff would be able to provide regular collection service to a limited number of customers wanting their material to be composted. The initial roll-out of the program would likely begin October 1st following procurement of the preferred truck.

- Service would be available to businesses who met prescreening requirements concerning feedstock quality. Contractual agreements would be capped at one year in duration and analyses would be carried out along the way to confirm financial assumptions as well as assurance that any operational challenges could be overcome, and a high level of service can be

maintained. If the collection effort were deemed successful for all parties, contracts could be renewed, and the pilot program could be continued as a regular program within the roll-off program with additional stops added within program capacity.

- The program would utilize existing carts recycled from prior Drop-Off Center organics collection efforts and would build cart replacement into the price of collection service.
- The initial 12-month pilot proposes to service 10 - 12 small to medium businesses along a dense route in the Burlington area. It is estimated that this level of service could generate as much as 500 tons per year and \$35,000 in tip fee revenue of additional food scrap diversion to compost per year.

Staff have met with multiple food scrap generators in the area and have confirmed their interest. Three potential anchor customers have been identified to launch the program, with the goal of adding an additional 7-9 customers by the end of the first year.

The organics collection pilot would not be a full-time 40-hour per week endeavor due to route density within the targeted area. It is estimated that servicing the first ten stops could be done in 15-20 hours per week. If the pilot goes well and adding additional stops to the route is deemed desirable, the program could likely double in volume within the constraints of the chosen collection vehicle.

Customer service, sales, and program oversight for the collection program would be carried out by Brian Mital, Associate Director of Operations, supported by Dan Goossen, Director of Organics Recycling. The collection pilot would be housed within the roll-off and maintenance budget with activities carried out by existing roll-off staff. With a recent hire to fill the long-vacant fifth maintenance employee position, there is sufficient capacity among the current staff to carry out this program.

Staff would like to move forward with this pilot program and believe that doing so will result in recapturing a good number of organics not currently being composted. Initial discussions with potential community partners (food scrap generators) indicate an eagerness to participate in the pilot program. Given the existing infrastructure, capabilities within current staffing, and low cost of infrastructure needed to implement the pilot (and the high resell value for the purchased equipment should the pilot not realize expectations), staff consider this a low-risk, high-benefit endeavor.