

February 8, 2023

202300558

To: Mayor and Members of City Council

From: Sheryl M.M. Long, City Manager

Subject: Yard Waste Parameters, Processes, Constraints, and Best Practices

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**Reference Document #202201747**

The City Council, at its session on September 6, 2022, referred the following item for review and report:

MOTION, submitted by Councilmembers Cramerding and Owens, we move that the Administration provide a report to outlining the parameters, processes, and constraints of the current yard waste disposal program. It should outline what the Ohio Revised Code and the Ohio Environmental Protection Agency require for yard waste disposal and identify better or best practices for yard waste removal and separation.

**PROGRAM PARAMETERS**

**Ohio Law – Ohio Environmental Protection Agency**

Ohio regulations governing waste disposal are primarily set forth in R.C. 3734 and the Ohio Administrative Code (“OAC”) Section 3745, which falls under the jurisdiction of the Ohio Environmental Protection Agency (“Ohio EPA”). The OAC provides that:

“The owner or operator [of the landfill facility] shall not accept for disposal or dispose of any of the following materials at a sanitary landfill facility . . . (f) Yard waste, source-separated yard waste, or commingled yard waste as defined in rule 3745-27-01 of the Administrative Code.” OAC 3725-27-19(E)(8).

It should be noted that there are exceptions to this that allow yard waste to be lawfully landfilled, based on incidental volume, contamination, storm debris, or with appropriate permitting.

**City Law**

There are no City laws that govern how a landfill must treat or dispose of yard waste. CMC 729-88, entitled “Yard Waste Materials” requires property owners to separate yard waste from general garbage and recycling if the City provides separate yard waste collection, which

it does. CMC 730 pertains to commercial waste, not residential, and does not regulate yard waste.

### **City-Rumpke Contract**

The City contracts with Rumpke Sanitary Landfill, Inc. (“Rumpke”) for solid waste disposal services which permits the City to deliver waste, including yard waste, to Rumpke. The existing contract between the City and Rumpke has no language that governs the delivery or disposal of source-separated yard waste. The only contractual provision that is specific to yard waste is contained in Exhibit A “Scope of Services and Compensation,” Section C “Yardwaste Disposal Pricing.” Under that section, the contract provides that Rumpke will accept up to 625 truckloads of City yard waste per year at a cost to the City of up to \$84,112.50. This encompasses the City’s residential yard waste collection program.

There is a separate provision in Exhibit A, Section C, that provides for “Roll Off Containers,” which would be used for emergency storm debris or special programs. Under this program Rumpke will deliver containers to a location in the City, remove the loaded containers, and dispose “of yard waste at Rumpke’s compost facility.”

Consequently, the contract implies, but does not expressly require, that residential yard waste will be disposed of at Rumpke’s compost facility. However, the contract does not govern how the compost material may or may not be used.

The contract with Rumpke expires at the end of February 2023 and has three one-year renewal periods extending as late as February 2026. The renewal periods are triggered automatically unless either party provides written notice to the contrary by the first business day in February (e.g., February 1, 2023).

### **CURRENT PROGRAM PROCESSES**

#### **City Yard Waste Operations**

Currently, the City picks up source-separated yard waste curbside from residents every other week and transports it to Rumpke. The Neighborhood Operations Division (“NOD”) collects yard waste 41 weeks a year, suspending collection for the remaining 11 weeks during winter operations from mid-January through March. The City uses 7 to 9 two-person crews depending on volume; for example, 28.86 tons were collected on July 19, 2022 by 7 crews and 75.75 tons were collected on November 3, 2022 by 9 crews. In 2021, the City collected a total of 5,627 tons of source-separated yard waste. (See Exhibit B - Yard Waste Reports).

However, there is a significant amount of yard waste that is not source-separated, and it is mixed in with curbside garbage collection (i.e., commingled). This practice is prohibited by the City, but it is not strongly enforced. According to the 2018 Waste Characterization Study conducted by Hamilton County Solid Waste Management District, 14.3% of garbage the City takes to the Rumpke landfill is yard waste that has been commingled with it. In 2021, the City delivered 74,953 tons of commingled yard waste and garbage to the landfill, so based on the study percentage, an estimated 11,242 tons was yard waste that could have been separated. (See Exhibit C - 2018 Waste Characterization Study). In comparison the City

generated twice as much commingled yard waste as source-separated yard waste during 2021.

### **Rumpke Yard Waste Operations**

Rumpke operates an Ohio EPA permitted Class IV compost facility near its sanitary landfill located at 3800 Struble Road in Hamilton County. This location is not within the City of Cincinnati. All source separated yard waste delivered by the City to Rumpke is composted there.

Rumpke reports that the composted yard waste is placed in the landfill as alternative daily cover, and it is also used as road cover at the landfill. Rumpke is permitted by the Ohio EPA to use the compost in this manner so that garbage at the landfill is not exposed for more than 24-hours (See Exhibit D). This is also done because Rumpke reports that it does not currently have a third-party end user for its compost.

Rumpke under OAC 3745-27-19(O)(1) is permitted to place source-separated yard waste in the landfill if it is rejected by a compost facility due to garbage contamination, if it is debris from storm damage, and/or if it is from incidental acceptance. Rumpke reports that the source separated yard waste has approximately 2% garbage contamination, and that contamination is removed at their compost facility.

### **PROGRAM CONSTRAINTS**

Current constraints of the yard waste program include:

1. Participation in the City's yard waste collection program is not mandatory although commingled yard waste is prohibited; however, residents are still not completely separating out yard waste from curbside garbage collection.
2. Ohio law allows Rumpke to accept in some instances yard waste at their sanitary landfill, and Rumpke is permitted by the Ohio EPA to use compost as alternative daily cover at the landfill.
3. Ohio law does not expressly provide the Ohio EPA authority to regulate transporters of yard waste or require generators of yard waste to source-separate for delivery to a particular facility.
4. The contract between the City and Rumpke does not restrict yard waste or compost from being placed in their sanitary landfill including as alternative daily cover.
5. Rumpke does not have a third-party end user for the yard waste that it composts. The City has not identified potential third-party end users of the compost. The City as a potential end user has not requested the compost be delivered back for use in City operations.

## YARD WASTE BETTER AND BEST PRACTICES

In a landfill organic waste, including yard waste, is broken down and creates methane. This is a potent greenhouse gas and a major contributor to climate change. According to the US EPA, landfills are among the nation's largest sources of methane (<https://www.epa.gov/ghgreporting>).

Diverting yard waste from landfills therefore contributes to a sustainable community. Diversion efforts offer significant environmental, economic, and social benefits, helping underpin a circular economy and saving valuable landfill space. The Hamilton County Solid Waste Management plan and the Green Cincinnati Plan both strongly encourage the diversion of yard waste from landfills and promote it being processed into compost or mulch.

Based on operational estimates a significant volume of yard waste could be diverted from the landfill. Landfill diversion points to the following better and best practices in designing and operating a successful yard waste curbside program:

1. **“Yard Trimmings” has become preferred terminology to reframe this material as a resource rather than a waste.** “Trimmings” is used in City and County planning documents, but “Yard Waste” is still the term used in State law
2. **Align the program with the solid waste management plan.** The program's intent should be to expand efforts to increase the solid waste management plan's diversion initiatives. The *draft* Hamilton County Solid Waste District Plan has enhanced focus on organic waste diversion and includes yard trimmings in the calculation of Residential Recycling Incentives, to reward municipalities for diverting yard trimmings from the landfill.
3. **Establish program performance goals with metrics that can be measured based on the diversion hierarchy of source reduction and re-use, composting, energy recovery, and disposal.** Determine an appropriate diversion rate based on benchmark data that is typically 50 percent or more.
4. **Identify needed resources to reach program goals and allocate commensurate budget to effectively administer the program.** Resources should consider program capacity and capability, and it may need to increase those through additional staffing and equipment.
5. **Utilize contractual and regulatory tools to direct source separation and maximize landfill diversion of yard waste and compost.** Contracts can establish clear terms and conditions with program partners beyond rules and regulations. Legislative changes add or amplify incentives, restrictions, bans, and/or enforcement provisions to influence source separation and increase diversion.
6. **Develop a diversion strategy that optimizes the yard trimming types, volumes, and collection frequencies.** There are multiple types of yard

trimmings including grass clippings, leaves, and woody materials, and the volumes of these can vary among neighborhoods and seasons of the year, which with further understanding will better direct collection frequency needs.

**7. Encourage enhanced resident program understanding and participation through education and outreach activities.** Many residents do not know the environmental impacts of yard trimmings disposal and how to divert it from landfills including ways to separate, reduce, and compost yard waste.

**8. Design the program to support a circular economy including matching supply with the operations of local organic composting facilities and accounting for end user demand.** Understanding the supply of yard trimmings and developing a network of beneficial end users is a critical step toward diverting the yard trimmings or processed material from landfills for the long term. The City's emerging biochar processing system may play an important role in yard trimming diversion in the coming years.

**9. Establish program convenience and efficiency criteria that benefits both residents and administration; for example, provide standardized containers and/or vacuum truck collection options.** The less burdensome the program is the more likely it will be successfully implemented by all stakeholders resulting in increased landfill diversion of yard trimmings.

**10. Implement garbage limits and user-pay approaches to incentivize source separation of yard trimmings whereby residents who generate more garbage pay more for the service.** The pay-as-you-throw model has been demonstrated to work to decrease garbage and to increase recycling. In terms of yard trimmings, composting would be analogous to recycling. Increasing cost of waste generation supports the creation of market alternatives for waste diversion.

**11. Monitor, and inspect as needed, yard trimmings collections for commingled garbage.** Educate and enforce where commingled garbage is found. Establish criteria to penalize program violators. Formal notices and fines have been demonstrated to reduce the commingling of garbage with yard trimmings.

**12. Identify and minimize indirect environmental implications of the program; for example, by using electric collection vehicles to reduce carbon emissions.** The intent is to improve program practices while decreasing detrimental effects on the environment.

CC: Ollie Kroner, Director, Office of Environment and Sustainability  
Jerry Wilkerson, Director, Department of Public Services  
Emily Woerner, City Solicitor, Law Department

Attachments