

# SERVICE OPTIONS FOR THE CURBSIDE COLLECTION OF RESIDENTIAL YARD WASTE

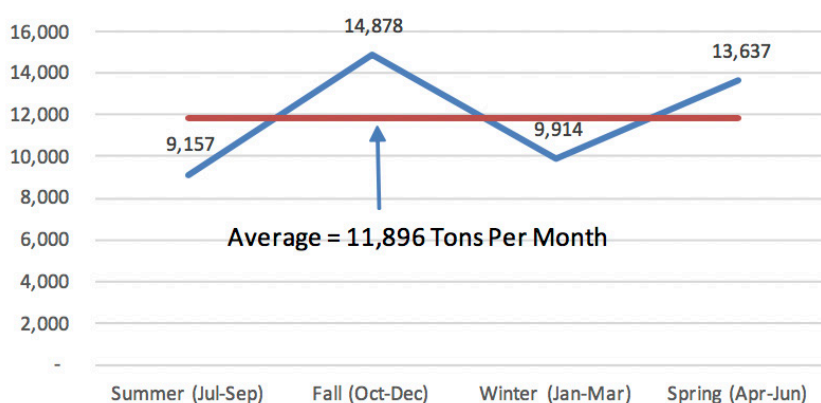


The collection of yard waste at the curb from single-family residences is a solid waste service that is provided by numerous communities across North America. Reasons for providing this service include the need to comply with yard waste disposal bans in some states as well as the opportunity to save landfill airspace and produce a useful and marketable compost, mulch and/or biofuel from the yard waste.

The curbside collection of residential yard waste, however, has associated costs and environmental impacts. Costs typically range from \$2.00 - \$8.00 per household per month while local environmental impacts include air pollution from collection trucks, road wear and tear and truck accident risks. For communities that manually collect yard waste and allow residents to use plastic bags for setouts, a significant issue involves having collection personnel debug the yard waste at the curb, exposing them to the elements as well as the potential for incurring injuries and accidents while performing this task.

An additional issue regarding curbside yard waste collection is the significant variations in the weights and volumes of yard waste set out by residences on a seasonal basis as shown in the figure on the right.

**Seasonal Yard Waste Tonnage Averages Generated by Charlotte's 208,000 Single-Family Residences in FY2008-2013**



The SWANA Applied Research Foundation's (ARF) Collection Group – which includes the cities of Charlotte, NC; Clearwater, FL; Tucson, AZ and Charleston County, SC.- decided to target this topic for investigation during Fiscal 2017 (July 2016 - June 2017).

In this research project, several yard waste collection options that address and mitigate these risks and costs were explored, including:

- Requiring the use of compostable bags
- Establishing set-out limits
- Switching to a seasonal or annual bi-weekly manual collection
- Switching to a call-in service during seasons of low demand, and
- Converting to an automated weekly or bi-weekly yard waste collection service.

Summary information on each of these options is provided in the project report, along with examples where they have been successfully implemented and a list of the advantages and disadvantages associated with each option. In addition, an analysis of the costs and savings associated with each option has been provided for comparative purposes.

This research found that municipalities that allow residents to set out yard waste in bags can – and often do – require residents to use compostable bags to avoid the problems of plastic contamination of the compost product produced from the yard waste. However, this require the resident to incur additional costs to participate in this service.

#### City of Charlotte - Leaves Set Out by Single-Family Residents for Debagging and Pickup



Converting to a bi-weekly manual collection service can lower service costs but exacerbates the problem of debagging yard waste at the curb.

Converting to an automated bi-weekly collection service can provide significant savings to both the municipality and the resident. It also can provide benefits to the local community in the form of reduced air pollution emissions, reduced road wear and tear and reduced truck accident risks.

Based on yard waste volumetric data analyzed in this project, the conversion to a bi-weekly automated collection service using 96-gallon roll-out containers appears to be feasible with respect to being able manage the yard waste volumes generated during the peak fall leaf season as well as other seasons.