

Environment Committee

Monday, February 1, 2016; 12:00 – 2:00 p.m.
Charlotte-Mecklenburg Government Center
Room 280

Committee Members: John Autry, Chair
James Mitchell, Vice Chair
Claire Fallon
Patsy Kinsey
Al Austin

Staff Resource: Debra Campbell, City Manager's Office

AGENDA

I. Post Construction Stormwater Ordinance

Staff Resource: Darryl Hammock, Engineering & Property Management

As requested in an October 2014 Council Action, a yearlong process has concluded on how to administer a mitigation fee in-lieu-of onsite stormwater management. This fee is associated only with redevelopment projects located in certain geography. A diverse task force has reached consensus on a methodology and staff supports their recommendation. Staff will explain the need for and role of mitigation fees, the timeline, and the recommendation including how it compares to the existing fee policy.
Action: The Committee is asked to endorse the consensus reached by the Task Force and staff.

II. Solid Waste Services Study

Staff Resources: Victoria Johnson, Solid Waste Services

Kim Eagle, Office of Strategy and Budget

Staff will provide an update on the Solid Waste Services Study. Current policies and future options will be reviewed.

Action: None, for information only.

III. Urban Forestry Management Plan

Staff Resource: Gina Shell, Engineering & Property Management

Staff will introduce plans for creating an urban forestry management plan, the next step in the City's 50% canopy by 2050 strategy.

Action: None, for information only.

January 11 Environment Committee Follow-up Information:

1. Q&A document
2. Solid Waste Services Report

Next Meeting: Monday, March 14 at Noon in Room 280

Distribution: City Council
Bob Hagemann

Ron Carlee, City Manager
Stephanie Kelly

Executive Team
Environmental Cabinet

Questions and Answers

January 11th Environment Committee

Question 1: *What would the cost be to add a new street sweeper crew in Solid Waste Services?*

The total cost for adding a new street sweeper crew to Solid Waste Services is outlined in the table below.

Street Sweeper Crew	Budget
Operating Expenses (annual expenses)	
Salary + Benefits of 1 Driver	\$66,000
Operating Costs (gas, maintenance, supplies, etc.)	20,000
Total Annual Operating Expenses	\$86,000
Capital Expense (one-time expense)	
Street Sweeper (7-10 year life cycle)	234,000
Total FY2017 Cost	\$320,000

Question 2: *What would the cost be to add a new litter collection crew in Solid Waste Services?*

The total cost for adding a new litter collection crew in Solid Waste Services is outlined in the table below.

Litter Collection Crew	Budget
Operating Expenses (annual expenses)	
Salary + Benefits of 1 Driver and 1 Laborer	\$115,000
Operating Costs (gas, maintenance, supplies, etc.)	11,000
Total Annual Operating Expenses	\$126,000
Capital Expense (one-time expense)	
Crew Cab Pick-Up (5-7 year life cycle)	38,000
Total FY2017 Cost	\$164,000



CHARLOTTE

MEMORANDUM

February 17, 2014

TO: Mayor & City Council
Manager's Cabinet

FROM: Ron Carlee, City Manager *R Carlee*

SUBJECT: Solid Waste Services Report

As discussed at the January City Council retreat in Winston Salem, the attached document, "Multi-family, Small Business and Rate Structure Review" was completed by a solid waste management consultant retained by Solid Waste Services to explore issues identified by the Council Environment Committee in 2012. Staff reviewed the targeted deliverables of the study with the Environment Committee in September 2012 and reported on initial results in March 2013. Solid Waste Services staff has written a response to the consultant report which is also attached. Key messages about both reports follow:

- In an effort to continuously improve, the City of Charlotte initiated an assessment of solid waste services provided to multi-family and small business.
- The report completed by GBB Solid Waste Management Consultants provided a thorough evaluation of services, comparisons with peer cities and highlighted opportunities for improvement.
- The City of Charlotte has established a process by which the recommendations will be vetted and reviewed.
- Initially, staff will review the report with the Privatization and Competition Advisory Committee (PCAC) and the PCAC observations and suggestions will be forwarded to the Environment Committee.
- The existing Solid Waste Services ordinance and practices have been in place for more than 18 years and the GBB Report and review provides an opportunity to assess local service needs, identify industry best practices and to make adjustments as needed.

I have asked the Privatization and Competition Advisory Committee (PCAC) to work with staff to assess the consultant's report and staff's response. The PCAC will develop a set of observations and recommendations for presentation to the Environment Committee. I am referring this report to the Environment Committee for them to make recommendations to City Council for Council's consideration.



City of Charlotte Solid Waste Services

Multi-family, Small Business and Rate Structure Review

Prepared by:



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March 11, 2013



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1.0 Introduction

Charlotte, "The Queen City," is the largest city in North Carolina. The seat of Mecklenburg County, Charlotte has a population of just over 750,000,¹ which comprises a majority of Mecklenburg County's population and about 40 percent of the larger metropolitan area.

In 2012, the City of Charlotte (City) retained Gershman, Brickner and Bratton, Inc. (GBB) to provide consulting services on two primary topics. First, GBB was directed to evaluate the cost and fee structure of the City's solid waste management program and make recommendations on cost allocation methodology, fee structure, and billing and collections. In "The North Carolina Benchmarking Project,"² an annual study conducted by the University of North Carolina and the North Carolina Local Government Budget Association, Charlotte was found to consistently outperform other municipalities in cost and efficiency for trash, recyclables and yard waste collection. It is only through vigilance and regular program evaluation, however, that such excellence is maintained.



Second, at the direction of Charlotte's Solid Waste Services Department (SWS), GBB conducted this analysis of the City's large multi-family collection program. This evaluation included benchmarking Charlotte against five other cities: three U.S. cities of comparable size, population density and service level,³ Greensboro, North Carolina and Raleigh, North Carolina; intensive field observations; and interviews with property managers in Charlotte.

¹ U.S. Census Bureau 2011 estimate is 751,087 for City of Charlotte and 1,795,472 for the Metropolitan Statistical Area.

² Online at <http://www.sog.unc.edu/programs/perfmeas>.

³ Austin, TX; Baltimore, MD; and Columbus, OH.

2.0 Executive Summary

Since 2004, Charlotte's Solid Waste Services Department (SWS) has been adjusting its multi-family and small business collection service programs in an effort to provide adequate service, at equitable fees while maintaining efficient spending levels. SWS has implemented changes to the type of service, contracting method, and pricing levels it employs, but challenges remain. There are many ways to improve the way that SWS meets the trash and recycling collection needs of multi-family residents and small businesses.

GBB has researched collection systems in communities across the United States, with regards to collection frequency, collection methods, financial structures and service provider arrangements. This research has shown that although many aspects of collection systems vary between communities, with a clear vision and a strong mission, an organization can find a system that will most appropriately meet its goals.

SWS vision and mission statements are as follows, respectively:

"We will be a leader in the solid waste industry and the service provider of choice for the City of Charlotte."

"We will partner with the community to deliver competitive and quality solid waste services that promote an attractive and healthy environment."

As it moves forward toward improving services, SWS has elected to address challenges facing its multi-family collection services. The supplemental service⁴ implemented in the past is due for reevaluation, as some multi-family customers find the once weekly service level inadequate, causing them to hire private sector collectors to provide additional service.

In order to determine better ways to address these challenges, SWS asked GBB to examine the services provided by the City to small businesses and multi-family complexes with more than 29 units, compare or benchmark these services to other cities, and provide the City with service and rate change recommendations.

As a result of our evaluation, which included benchmarking, field work, interviews, data review, and the development of a cost allocation model for disposal costs and revenues, GBB has developed a number of recommendations for service and fee changes for solid waste services for all customer groups: single-family homes, multi-family complexes, and small businesses. These recommendations offer an equitable approach to collection services for these customer groups and also provide a fee structure that will help the City capture its true costs for trash and recycling services.

Our recommendations include the following:

⁴ In the context of solid waste collection services at multi-family properties, "supplemental service" means trash collection above and beyond the standard service level provided by SWS. When the service level was reduced to once weekly in the FY2006 budget, the regulated community began to express concerns about costs to supplement the City service in order to meet their desired level of service.



- Eliminate trash and recycling collection for multi-family complexes with five or more units and small businesses, with the exception of small businesses in the Special Tax District. Multi-family complexes with five or more units and non-exempt small businesses must make their own arrangements for trash and recycling collection.
- Develop a fee structure that includes the following:
 - A Systems Benefit Fee, to be paid by all entities, that covers the administrative costs for solid waste programs and public education programs as well as maintaining and cleaning benefiting all citizens such as street sweeping and litter picking
 - Disposal Fee paid by the single-family homes and multi-family complexes with fewer than five units
 - Refuse and Recycling Collection Fee for single family homes and multi-family complexes with fewer than five units
- For single-family homes, eliminate the current Solid Waste Fee and adjust property taxes on single-family units to offset a portion of the new fees
- Multi-family complexes with five or more units pay the System Benefit Fee, but must make their own arrangements for trash and recycling collection with private haulers
- Require that all non-residential units and small businesses outside the Special Tax District make their own arrangements for recycling collection
- In the Special Tax District, all units (single-family, multi-family and non-residential) must pay the System Benefit Fee, Disposal Fee, and Refuse and Recycling Collection Fee.

If the City decides to continue to provide trash collection services to multi-family complexes, under the new fee structure multi-family properties will pay the private hauler directly for disposal and collection, in addition to the Systems Benefit Fee paid by all entities in the City.



3.0 Background

The goal for solid waste services in the City of Charlotte is to provide an equitable and affordable level of service to residents that promotes an attractive and healthy environment. The services provided are:

- Trash collection for residential units, multi-family developments of 30 units or more, and small businesses with less than or equal to 512 gallons of waste per week
- Recyclable material collection
- Bulky item collection
- Yard (green) waste collection - For multi-family development of 30 units or more, this is limited to Christmas Trees

The City of Charlotte's department of Solid Waste Services (SWS) provides collection of trash, recycling, yard waste and bulky items from residential customers in single-family homes and multi-family properties with fewer than 30 units. Under contract with a private-sector collector, SWS also provides collection of trash, recycling, bulky items and Christmas trees from multi-family residences with 30 or more units. The crews that service publicly-owned trash cans, including those at bus stops, also provide trash-only collection to eligible small businesses. SWS keeps the city streets clean through litter picks, dumping cleanups and street sweeping.

Charlotte residents pay for their trash service in three ways. First, the City assesses each single-family residence a solid waste fee and each multi-family property a per-unit solid waste fee.⁵ The fee is used to pay for disposal and processing at the Mecklenburg County designated disposal facilities. Second, SWS is a General Fund agency, constituting 9.6 percent of General Fund expenditures in FY2013.⁶ Therefore, through payment of various taxes, including property taxes, all taxpayers fund SWS services, including residential collection, street cleaning, education and special events services. Third, Mecklenburg County assesses each City single-family residence a solid waste fee and each multi-family property a per-unit solid waste fee.⁷ These fees pay for recycling and waste reduction services and facilities across the County.

There are differences in collection among the residential unit types and small businesses.

Collection service to single-family homes and multi-family properties with fewer than 30 units. Single-family customers and those in multi-family properties with fewer than 30 units (which are treated as single-family) receive collection of trash and yard waste once per week and recyclables every other week. Both trash and recyclables are collected in rollout carts, and yard waste is collected in bags, piles, or personal containers. Customers call SWS to schedule collection of bulky items, such as furniture and appliances. Collection of trash, yard waste and bulky items from single-family and small multi-family properties (fewer than 30 units) is provided by City employees, and recyclables are collected by a private-sector contractor.

⁵ In FY2013, the City solid waste fees were \$47 for single family and \$24 per unit for multi-family.

⁶ FY2013 City of Charlotte Strategic Operating Plan.

⁷ In FY2012, the County solid waste fees were \$15 for single family and per unit for multi-family.



Collection service to multi-family properties with 30 or more units. SWS contracts with a private-sector collector to provide service to multi-family properties with 30 or more units. For these larger multi-family properties, the City offers a per-unit service level. Once-a-week trash collection is provided from eight cubic yard (CY), un-compacted containers, with one container allowed for every 30 units in multi-family complexes. At properties where a compactor is in use, the service level is 8 CY (compacted) per 90 units. SWS provides one recycling station per 80 units; Each recycling station consists of five 95-gallon rollout carts, which are serviced once per week. Bulky waste is collected as scheduled with property managers and Christmas trees are collected once annually.

Collection service to small businesses. There are approximately 2,500 small businesses receiving City trash collection. Small non-residential businesses that generate 512 gallons or less of trash per week (about 2.5 CY) receive once-weekly collection. Small businesses are not eligible for yard waste, recycling or bulky item collection through the City.

Disposal. For each service provided to residential units, the City provides appropriate disposition of the materials collected. The City has the goal to maximize recycling, including recycling of yard waste. Therefore, the City processes yard waste at one of the four Mecklenburg County-staffed drop-off facilities. Primary processing is done at the County Compost Central facility, adjacent to the West Mecklenburg facility. Yard waste is processed to produce mulch and compost.

Bulky wastes are separated and taken to the Mecklenburg Metal and Tire Recovery Facility to recover recyclable material, including steel and tires. Non-Recyclable bulky waste items are disposed of at the Charlotte Motor Speedway Landfill, owned and operated by Republic Services (Republic), which has a disposal contract with Mecklenburg County. Solid waste from City collections and processing residues are disposed at this landfill. Other recyclable materials (glass, cans, cardboard) are taken to and processed at the County's Metrolina Recycling Facility.

Recent developments concerning multi-family collections In July 2010, the City issued a request for proposals for once-weekly multi-family garbage and recyclables collection, by-appointment bulky item collection, and annual Christmas tree collection. The contract would include provisions for City payment of disposal costs associated with supplemental services arranged by individual multi-family properties with the City contractor. On September 27, 2010, the City awarded the contract to Republic, and on January 14, 2011, the City Manager executed a three-year contract with two one-year renewal options.⁸ In May 2011, a lawsuit was filed against the City regarding the payment of disposal charges only for supplemental service provided by Republic. A judge found that the practice violated North Carolina law and ordered the City to reimburse any and all haulers that provided supplemental services. The City appealed and obtained a stay in February 2012.

During the FY2013 budget process, staff recommended eliminating multi-family supplemental disposal payments altogether, as this would eliminate the Court-challenged element and would not pose additional administrative or operational costs for SWS. The

⁸ "Solid Waste Services FY2013 Multi-family Service, Disposal Fee, and City Ordinance Recommendations"



Council approved the recommendation, and on July 15, 2012, the contract with Republic was amended. The change resulted in a net-zero impact to the budget because the per-unit multi-family Solid Waste fee was reduced to account for the reduction in disposal fees that would be paid.

Properties are classified by the City Tax Office as single family residential or multi-family, and the Solid Waste Fee is currently based on the property classification and historically, disposal costs, which do not necessarily align with the current level of service provided by SWS. The problem areas are highlighted in red in Table 1 and are represented by the approximate unit counts listed below under the following Property Types: apartments, duplexes, triplexes, quadraplexes, mobile homes, business garbage & those serviced by private hauler.

**Table 1
Classification and Fee Discrepancies**

Property Type	SWS Unit Count ⁹	Service Description	Solid Waste Fee in FY2013
SWS Single-family*	210,572	Weekly rollout garbage, weekly curbside yard waste & bulky, bi-weekly rollout recycling	\$47
SWS Multi-family	108,313	Weekly dumpster or compactor garbage, recycling, bulky	\$24
Properties classified as Multi-family by County and served as single-family by SWS			
Apartments	6,551	Weekly rollout garbage, weekly curbside yard waste and bulky, bi-weekly rollout recycling	\$24
Duplexes, triplexes, quadraplexes	5,599	Weekly rollout garbage, weekly curbside yard waste & bulky, bi-weekly rollout recycling	\$24
Other properties receiving service from SWS			
Mobile Homes	2,008	Weekly rollout garbage, weekly curbside yard waste & bulky, bi-weekly rollout recycling	0 - \$47
Business Garbage	2,534	Weekly curbside garbage (<= 512 gallons)	\$0
Properties classified as MF by County and not served by SWS			
Multi-family	11,944	Private hauler	\$24

*Includes properties classified as multi-family but served as single-family

In the interest of providing the best balance of service equity, cost management, quality operations and environmental excellence, GBB was directed to benchmark the current method of collecting and paying for collection from large multi-family properties and small businesses against high-performing cities throughout the U.S. SWS pre-screened North Carolina cities Greensboro and Raleigh, and GBB proposed a list of other U.S. cities, from which SWS added Austin, TX; Baltimore, MD; and, Columbus, OH. These cities were chosen

⁹ Unit counts are from 2012.



due to their size, population density, level of service provision, and other determining factors. For example, like Charlotte, Austin provides service in a central business district.

4.0 Project Objective and Approach

The objectives of GBB's review were to examine the services provided by the City to multi-family units greater than 29 units and small businesses, compare or benchmark these services to other cities, and provide the City with service and rate change recommendations. GBB conducted a detailed review of the City's multi-family and small business programs, a series of interviews with City personnel and benchmark City representatives, and field work.

The initial focus of our work included a review of data provided by the City, an initial planning conference call, and preparation and further review of additional data as requested.

Using the information received from the City, interviews, and field work, GBB undertook the following activities:

- Assisted in the development of a cost allocation model for disposal costs and revenues for each SWS customer group;
- Identified and benchmarked five other communities' programs and fees for multi-family properties and small businesses;
- Performed on-location field work and data gathering from multi-family properties with 30 or more units and small businesses;
- Reviewed best practices that incorporate efficient, cost-effective programs that could be applied to the City's multi-family and small business collection and fee structures;
- Interviewed apartment association representatives and multi-family property managers while on site for the field work to develop a clear understanding of the qualitative, operational and policy dynamics that impact services; and
- Evaluated and developed recommendations for service changes and solid waste fee structure that can be updated periodically, including recommendations for single-family homes, multi-family properties and small businesses.

Based on this approach, sections 5 and 6 of this report outline our findings, conclusions and recommendations.

5.0 Observations, Findings and Analysis

5.1 Benchmarking Other Communities

GBB compared the multi-family and small business programs and fees offered by the City of Charlotte to those of other governmental entities. As part of this task, the project team identified 17 cities with characteristics that are reasonably comparable to Charlotte in key demographics and compared their solid waste management programs, services and fees to those of the City. The list of comparable cities took into consideration certain differences such as geographic location, population, waste stream characteristics, and fiscal conditions. This initial list of potential benchmarking communities is provided in Attachment 1.

From this list of comparable cities, the City's project team chose the five cities they determined best represented the key characteristics: Raleigh, NC; Greensboro, NC; Austin, TX; Baltimore, MD, and Columbus, OH, as the five benchmark cities.

Once the five benchmark cities were identified, GBB developed an interview guide, as shown in Attachment 2, for use during the benchmark interviews with each city's representative. Questions focused on waste and recycling services provided, container sizes, capacity issues, collection frequency and funding sources for each city's multi-family and small business programs.

From October 26, 2012, through November 9, 2012, GBB conducted phone interviews with representatives from each of the five cities, recording the interview responses in the City Benchmarking Data Matrix, as shown in Attachment 3. The draft matrix, which compares data from the benchmark cities to Charlotte's system, was reviewed for completeness and accuracy and follow-up discussions or interviews were conducted to capture missing data or clarify some statements recorded during the original interviews.

5.1.1 Austin, TX

The population of Austin is 820,611. There are 345,283 housing units, 47.9% of which are in multi-unit structures. Renter-occupied units number 171,376, or 50% of housing units.

The City of Austin provides cart-based collection service to single-family homes, townhouses, multi-family buildings with fewer than four units, and small businesses within or near residential routes. This work is performed by City crews. The City provides dumpster service to businesses and multi-family properties in the downtown district. This work is performed by a contractor. All other businesses and all large multi-family properties in Austin contract for their own collection service.

The City charges all customers—residential, small business and downtown district—a monthly base fee for collection plus a fee for their specific level of service (see below for examples and details). In addition, every single-family residential unit and business in



Austin pays a fee for the Clean Community program.¹⁰ The Clean Community fee funds a wide variety of programs including bulky waste collection, street sweeping, recycling drop-off centers, household hazardous waste collection, litter abatement and enforcement of certain portions of the City code. The fee is assessed on utility bills and is a flat \$6.00 per housing unit per month. Businesses pay a Clean Community fee of \$12.00 per month. All fees are charged on the customer's utility bill, and each cost center is visible as a line item to the taxpayer.

In the downtown district, the base fee is \$8.75 for business customers and \$7.00 for residential customers. On top of their base fee, business customers pay by the cubic yard and residential customers pay per resident. Downtown district customers also pay a special cleaning service fee which funds nightly street and sidewalk sweeping, public container garbage collection, intensive litter abatement and other special needs of this high-density area. Finally, like all residents and businesses in Austin, downtown customers pay the Clean Community fee.

Customer billing examples: The following are examples of customers' **monthly** trash charges. All charges for service include single stream recycling, and there is no limit on recycling setouts. All residential customers receive bulky collection, and single family homes also receive yard waste collection.

Customer 1: A multi-family customer in the downtown district with two residents in the apartment.

$$\begin{aligned} & \$7 \text{ base fee} + (\$10 \times 2 \text{ residential units}) + \$17 \text{ special cleaning} + \\ & \qquad \qquad \qquad \$6 \text{ Clean Community} = \$50 \end{aligned}$$

Customer 2: A business in the downtown district who generates 16CY of trash monthly.

$$\begin{aligned} & \$8.75 \text{ base fee} + (\$10 \times 16 \text{ CY}) + \$17 \text{ special cleaning} + \\ & \qquad \qquad \qquad \$12 \text{ Clean Community} = \$197.75 \end{aligned}$$

Customer 3: A single-family customer who has chosen a 64-gallon cart for trash.¹¹

$$\begin{aligned} & \$9.50 \text{ base fee} + (16\text{¢} \times 64 \text{ gallons}) + \\ & \qquad \qquad \qquad \$6 \text{ Clean Community} = \$25.74 \end{aligned}$$

Customer 4: A small business receiving cart-based service from the City using two 96-gallon carts that are emptied twice weekly.¹²

$$\begin{aligned} & \$9.50 \text{ base fee} + (\$24 \text{ charge for } 96\text{-gallon cart} \times 2 \text{ carts}) + \\ & \$40 \text{ for twice weekly collection} + \$12 \text{ Clean Community fee} = \$109.50 \end{aligned}$$

¹⁰ This fee is charged to all utility customers whether or not they are City trash and recycling collection customers.

¹¹ Single-family customers with up to four units are charged a base fee, a per-gallon charge, and the Clean Community fee. Customers can choose from four sizes of trash cart: 24, 32, 64, or 96 gallons. The 96-gallon cart is charged at 25 cents per gallon; the three smaller carts are charged at 16 cents per gallon. Single-family customers can also purchase bag tags for excess trash for \$4 each from local stores.

¹² Some small businesses near or adjacent to residential areas receive cart-based trash and recycling from the City. Like all other customers, they pay a monthly base charge plus fees. These customers pay based on their cart size and the frequency with which it is emptied.



Customer 5: A small business with a 24-gallon cart that is emptied once weekly. Once-weekly service is included in the price for the cart.

\$9.50 base fee + (\$3.85 charge for 24-gallon cart x 1 carts) +
\$0 for once weekly collection + \$12 Clean Community fee = \$25.35

All other businesses and multi-family properties in Austin not described above or located outside the downtown district contract for their own trash and recycling service directly.

5.1.2 Baltimore, MD

The population of Baltimore is 619,493. There are 296,615 housing units, 33.1 percent of which are in multi-unit structures. Renter-occupied units number 119,737, or 40 percent of housing units.

The City provides service to multi-family properties with fewer than four units—the same as single-family service, and private haulers compete for service to multi-family properties larger than four units and all businesses. Fees to businesses and multi-family properties with more than four units are charged by the private contractors. There was no information available from City of Baltimore contact on rates being charged by private haulers.

5.1.3 Columbus, OH

The population of Columbus is 797,434. There are 370,489 housing units, 41.1 percent of which are in multi-unit structures. Renter-occupied units number 160,869, or 43 percent of housing units.

The City provides trash service to multi-family complexes with more than four attached units that meet all of the following criteria:

1. Have refuse storage capacity compliance requirements: one-half CY of refuse storage capacity for each dwelling unit in the complex;
2. Has a Division of Refuse-approved site plan showing the complex has ample refuse storage capacity; and
3. Have sufficient room for Division of Refuse Collection trucks to safely maneuver in the complex.

Businesses are all serviced by competitive private haulers. Fees to businesses and multi-family properties with more than four units are charged by the private contractors. There was no information available from the City of Columbus contact on rates being charged by private haulers.

5.1.4 Greensboro, NC

The population of Greensboro is 273,425. There are 122,124 housing units, ~37 percent of which are in multi-unit structures. Renter-occupied units number 48,257, or 39.5 percent of housing units.

The City provides trash and recycling services to single-family homes, multi-family properties with eight or more units, and small businesses. No additional fees are charged for cart service, but if customers have dumpsters, there is a flat charge per dumpster, regardless of size. There also is a different price for a Vertipak compactor. Recycling is charged per collection location only, not per container.

5.1.5 Raleigh, NC

The population of Raleigh is 416,468. There are 171,888 housing units, 38.8 percent of which are in multi-unit structures. Renter-occupied units number 70,605, or 41.1 percent of housing units.

Under a new policy, the City provides trash service to multi-family properties with five or fewer units. Previously, the City collected trash from apartment buildings or complexes that were ground-level only. Those properties are grandfathered-in from the previous policy, and none of those legacy properties has more than 25 units. Any new construction will fall under the five-unit rule.

Any apartment or condominium complex can request that the City set up and service a recycling center on site. There are no additional fees for the service. The recycling center accepts bottles, cans and mixed paper, but not cardboard. As cardboard is banned from disposal in North Carolina, the complexes are required to arrange for recycling of cardboard on their own.

Businesses in the Central Business District can receive bundled trash and recycling service or recycling-only service from the City at their discretion. Fees are determined by the level of service and whether the business receives collection six or seven times weekly.

Businesses within or adjacent to a residential neighborhood can request City recycling-only service. Several factors determine whether or not the City will accept the applicant into the system, and the customer must provide carts and pay a monthly fee for service.

5.1.6 Multi-family service

Of the five benchmark cities GBB analyzed, four—Austin, Baltimore, Greensboro and Raleigh—do not provide collection services to the majority of large multi-family properties. One city—Austin—provides services to multi-family residential properties within their downtown district. In the downtown district, there are mixed use high-rise buildings in a special tax district, and the City of Austin provides collection of trash and recycling to both the residents and businesses in these buildings. The fifth city—Columbus—provides services to multi-family complexes with more than four units; however, trash collection is the only service provided. The City of Columbus provides funding to the Solid Waste Authority of Central Ohio (SWACO) for recycling. Table 2 provides a high-level review of the major multi-family system components in each city.



Table 2
Services Provided by Survey Cities to Multi-family Units

Multi-family Services	Charlotte	Austin	Baltimore	Columbus	Greensboro	Raleigh
Size Criteria	> 29 units	>4-plex units	> 4-plex units	> four attached units	> 8 units ¹	>5 units ²
Waste Collection						
Waste Services Provided	Trash and Bulky	SNP	SNP	Trash	Trash, Bulky and Yard Waste	SNP
Service Frequency	Weekly	SNP	SNP	Weekly	Weekly (cart) 1-5 times week (dumpster)	SNP
Service provided by	Contracted Hauler	SNP	SNP	City	City	SNP
Recycling Services						
Recycling Services Provided	Yes	SNP	SNP	220 drop box locations	Yes	SNP ³
Service Frequency	Weekly	SNP	SNP	N/A	Bi-Weekly	SNP
Service provided by	Contracted Hauler	SNP	SNP	SWACO ⁴	City	SNP
Cost and Funding						
Multi-family Service Funding Source	General Fund	NA	NA	General Fund	General Fund	NA ⁵
Fees Charged	Disposal Only	NA	NA	Collection and Disposal	Service Dependent	NA

SNP = Service not provided to multi-family complexes larger than specified in the Size Criteria.

NA = Not Applicable

1 - Provides Dumpster or semi automated cart service to multi-family units.

2 - Raleigh considers properties with greater than five units to be multi-family and does not offer service to such properties; however, this is a relatively new policy and there are some legacy customers with up to twenty-five units that continue to receive service as of this report.

3 - Provides drop boxes if requested by complex.

4 - Solid Waste Authority of Central Ohio

5 -System funding source is Enterprise Fund as of FY 2013.

5.1.7 Small business service

Of the five benchmark cities GBB reviewed, two cities—Baltimore and Columbus—do not provide collection services to businesses. Two cities—Austin and Raleigh—provide service to businesses near or adjacent to the residential routes that can use rollout carts to collect their waste. These cities also provide service to businesses within a special tax district. These districts are characterized by mixed use buildings, some of which are high-rise. In Austin, the City provides collection of trash, bulky items, and recycling to both the residents and businesses in the downtown business district. In Raleigh, the City provides collection of



trash only in the central business district. The last city interviewed—Greensboro—provides services to small businesses across the city.

Table 3 provides a high-level review of the small business system services provided by each city.

**Table 3
Service Provided by Survey Cities to Small Businesses**

Small Business Services	Charlotte	Austin	Baltimore	Columbus	Greensboro	Raleigh
Service Provided?	Yes ¹	Yes ²	No	No	Yes	Yes ²
Waste Collection						
Waste Services Provided	Trash	Trash and bulky	SNP	SNP	Trash	Trash
Service Frequency	Weekly	Weekly	SNP	SNP	1-5 times per week	Weekly
Service provided by	City	City and contractor	SNP	SNP	City	Contractor
Recycling Services						
Recycling Services Provided	No	Yes	SNP	SNP	Yes	SNP
Service Frequency	SNP	Biweekly	SNP	SNP	1-4 times per week	SNP
Service provided by	SNP	City and contractor	SNP	SNP	City	SNP
Cost and Funding						
Business Funding Source	General Fund	Part of utility bill	SNP	SNP	General Fund	Enterprise Fund ³
Fees Charged	No	Collection & Disposal	SNP	SNP	City charges rates competitive with the private sector for container service	Solid Waste Fee + Recycling Fee

SNP = Service not provided

NA = Not Applicable

1 - The City of Charlotte only collects waste from business weekly with <=512 gallons.

2 - Austin and Raleigh collect from small businesses in residential areas and from businesses inside high-density tax districts. These customers receive service 5 or 6 days per week.

3 - Beginning in FY13, Raleigh Solid Waste Services operates as an enterprise fund; previously, it was subsidized by the General Fund.



5.2 Fieldwork and Observations

5.2.1 Collections Review Process

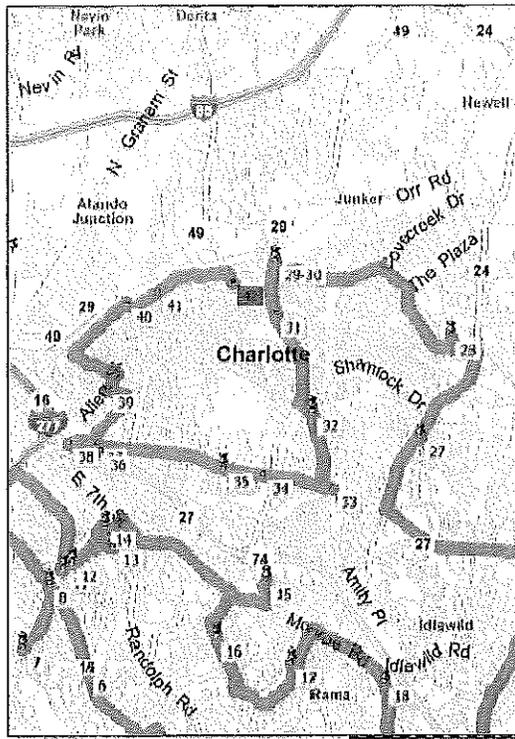
On-location visits were made to Charlotte multi-family and small businesses the week of November 12, 2012, to obtain information and insight on the waste practices of these sectors. Each day, the GBB team developed a route sheet for multi-family and small businesses with addresses that would be visited the next day. The GBB team strategically examined visits prior to collection day to gain an understanding of the properties' capacity and service needs. During the course of the week, the GBB team recorded personal observations, took photographs and interviewed stakeholders. Below is a description of GBB's observations and information collected during the five days that the GBB team was on-location.

Upon arrival, the GBB team first visited several setout locations before going to SWS offices to meet with key project personnel from the City. The purpose of the meeting was to review the scope and objectives for the fieldwork. Based on information gained in the benchmarking analysis and knowledge of industry best practices, the GBB team determined that the following information, at a minimum, was to be obtained at each location, if available:

- Number, size and types of trash containers;
- Number, size and type of recycling containers;
- Fullness of containers;
- Cleanliness of the area where containers were located; and
- Photos documenting the approach to the setout location and containers.

After the meeting, the GBB team visited and recorded data from several additional locations. The group met later that evening, revisited the original approach and adjusted accordingly to develop a plan to continue visiting as many setout locations as possible.

In order to maximize the number of visits, the GBB team strategically developed daily routes of stops in densely populated areas (combination of multi-family and small business). These observation routes were developed utilizing MapPoint software. Figure 1 shows a page from the sampling route sheet for Thursday, November 15, 2012, with multi-family and business locations. These stops were to be serviced on a Friday pickup day by the contracted hauler or SWS.



10:44 AM	41.1 mi	Turn RIGHT (North) onto Barrington Dr for 0.1 mi
10:44 AM	41.3 mi	30 At HAMPTON COMMONS APTS (7017 BARRINGTON DR, CHARLOTTE, NC 28215-3285), return South on Barrington Dr for 0.1 mi
10:45 AM	41.4 mi	Turn RIGHT (West) onto Milton Rd for 1.0 mi
10:47 AM	42.4 mi	Bear LEFT (North-West) onto The Plaza for 1.5 mi
10:50 AM	44.1 mi	Turn RIGHT (North) onto Eastway Dr for 0.2 mi
10:51 AM	44.3 mi	32 Arrive 413 Eastway Dr, Charlotte, NC 28205 (413 Eastway Dr, Charlotte, NC 28205) [City Business - Retail]
10:51 AM	44.3 mi	30 At 464 Eastway Dr, Charlotte, NC 28205, keep STRAIGHT onto Eastway Dr for 0.6 mi [City Business - Professional]
10:52 AM	45.0 mi	31 At 157 Eastway Dr, Charlotte, NC 28205, stay on Eastway Dr (South) for 1.1 mi [City Business - Church]
10:53 AM	46.1 mi	Turn LEFT (South-East) onto K-Home Dr for 0.2 mi
10:54 AM	46.3 mi	32 At THE SLOPE APTS (2203 KILBORNE DR, CHARLOTTE, NC 28205-4226), stay on Kilborne Dr (South-East) for 0.9 mi
10:56 AM	47.2 mi	Turn LEFT (East) onto Central Ave for 0.1 mi
10:57 AM	47.3 mi	33 At 4442 Central Ave, Charlotte, NC 28205, return West on Central Ave for 0.8 mi [City Business - Professional]
10:59 AM	48.2 mi	34 At 3640 Central Ave, Charlotte, NC 28205, stay on Central Ave (West) for 0.9 mi
10:59 AM	49.6 mi	35 At BIRCHCROFT (3143 CENTRAL AVE, CHARLOTTE, NC 28205-5411), stay on Central Ave (West) for 1.5 mi
11:01 AM	50.1 mi	Turn LEFT (South) onto Lamar Ave for 142 yds
11:02 AM	50.2 mi	36 At 624 Lamar Ave, Charlotte, NC 28204, stay on Lamar Ave (North) for 121 yds [City Business - Retail]
11:02 AM	50.3 mi	Turn LEFT (West) onto Central Ave for 120 yds
11:03 AM	50.4 mi	37 At 1225 Central Ave, Charlotte, NC 28204, stay on Central Ave (West) for 0.3 mi [City Business - Restaurant]
11:03 AM	50.7 mi	33 At 525 Central Ave, Charlotte, NC 28204, return East on Central Ave for 0.3 mi [City Business - Retail]
11:04 AM	51.0 mi	Turn LEFT (North) onto Hawthorne Ln for 0.7 mi
11:06 AM	51.7 mi	Turn LEFT (West) onto Kennon St for 0.2 mi

Figure 1

Sample Route Sheet

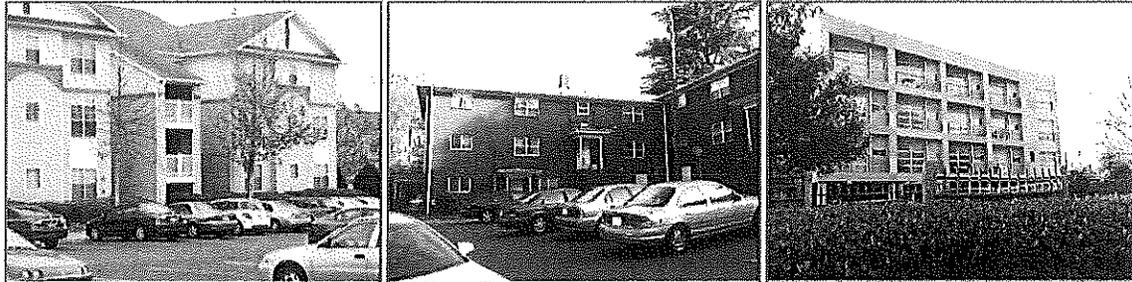
During the week, the GBB team visited approximately 200 locations and recorded data from setouts at 182 locations: 137 multi-family properties and 45 businesses. The GBB team was unable to obtain information from some locations because access was limited to residents or there were no containers set out for pickup at the time of observation.

The site locations fell into three categories: multi-family complexes of large apartment or condominium buildings, multi-family townhouse-style developments, and small businesses.

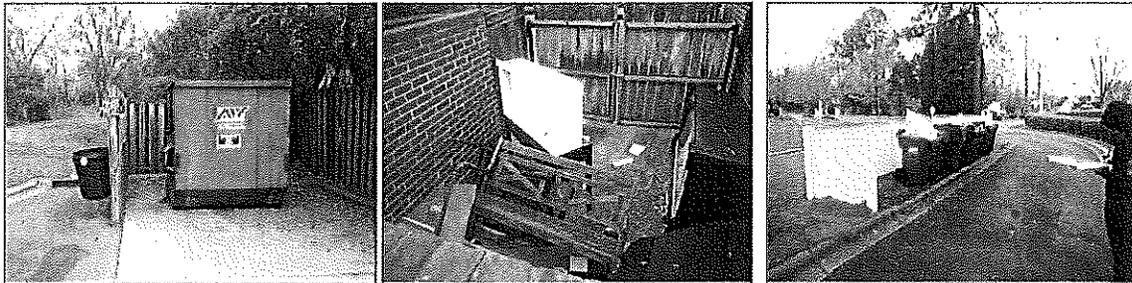
5.2.2 Multi-family Buildings

In the large multi-family apartment and condominium buildings, the containers were typically located in designated indoor or outdoor areas within the each complex. The GBB team was unable to observe the containers set out for collection at a few buildings since several limited access to residents or other authorized personnel only. At the locations where access was available, the setout areas were generally clean and free of litter and odors. In buildings or complexes with front-load containers, the containers generally appeared not to be full (only 13 out of 84 buildings had full containers), and since compactors are sealed, therefore restricting visual inspection, the GBB team was unable to assess how full they were. The recycling containers were generally fuller than the trash containers. The recycling containers at most of the setout locations were 96-gallon or 64-gallon carts provided by the City. Some complexes have chosen to contract with private

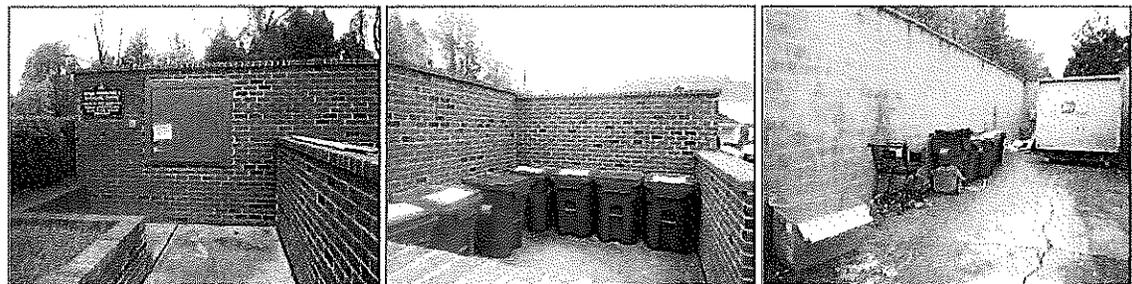
haulers for the collection of dedicated cardboard containers. Figure 2 shows some of the multi-family buildings the GBB team observed and different types of trash and recycling management systems.



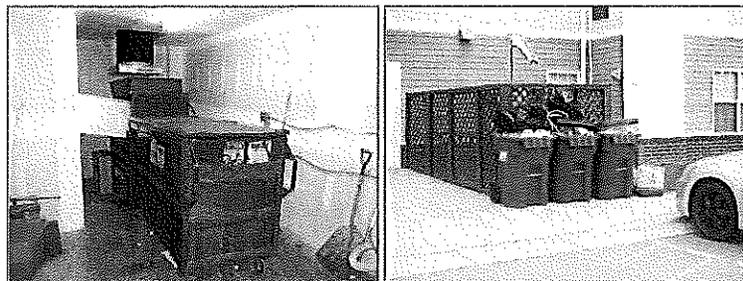
Examples of multi-family housing properties



Front-end loading box for trash with small recycling can; bulky waste area; "drive-thru" recycling area with compactor nearby (not shown)



Two examples of a compactor for trash and an adjacent recycling center



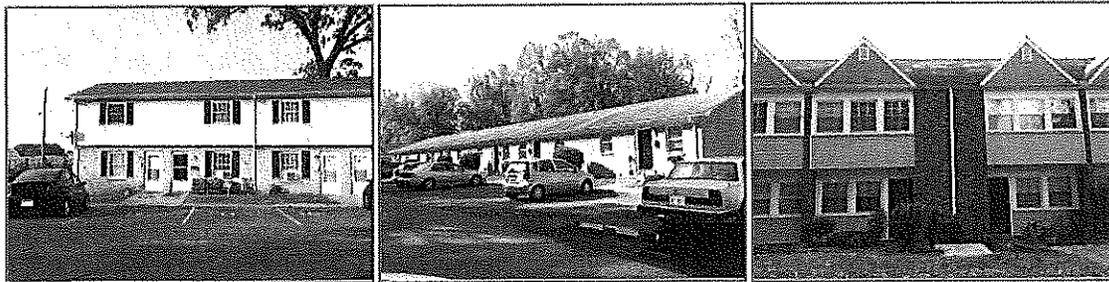
Senior citizens' community with interior chutes and compactors for trash and exterior carts for recycling

Figure 2
Examples of Multi-family Buildings and Trash and Recycling Systems

5.2.3 Townhouse-style Developments

At the townhouse-style condominium developments, most of the trash containers were less than half full. An estimated 25 percent were less than one-quarter full. Most of the trash containers were front-end load boxes, only a small percentage of the locations had compactor boxes. The locations of the trash and recycling containers in most of these developments appeared to be well planned, with attractive enclosures, clear truck approaches and easy resident access, and the sites were generally clean and free of litter and odors. Only a few of the locations appeared to be situated in ways that limited or restricted access for the collection vehicles. In the developments with compactor units, there were fewer setout locations for residents than in the developments with front-end containers. About half of the developments with front-load containers had a fenced area for the container, and many had fenced areas adjacent to the waste and recycling containers for bulky items. In other cases, the setout was simply a front-load container and recycling carts set in the parking lot.

Recycling containers in the townhouse-style developments were 96-gallon or 64-gallon carts. Some of the locations had no recycling containers, while other developments had carts and a separate dedicated container for cardboard. Figure 3 shows some of the townhouse properties the GBB team observed.



Townhouse-style multi-family housing



No visible recycling; Examples of front-end box for trash with recycling carts or bins nearby

Figure 3
Examples of Townhouse-style Multi-family Developments

5.2.4 Small Businesses

While the containers at the multi-family properties were primarily owned by Republic, the containers at the small businesses are owned by the customers or the City. Of the 45 sites visited, 15 could not be observed or there were no containers set out. Of the remaining 30 sites, 50 percent had recycling containers. Sixteen of the 30 locations had their containers in an area inaccessible to the GBB team. Fourteen locations had trash containers that the GBB team was able to observe. Three of the sites had dedicated containers for cardboard recycling collection, and two had containers for special recycling, such as fats, oils, and grease. Figure 4 shows some of the small businesses we observed.

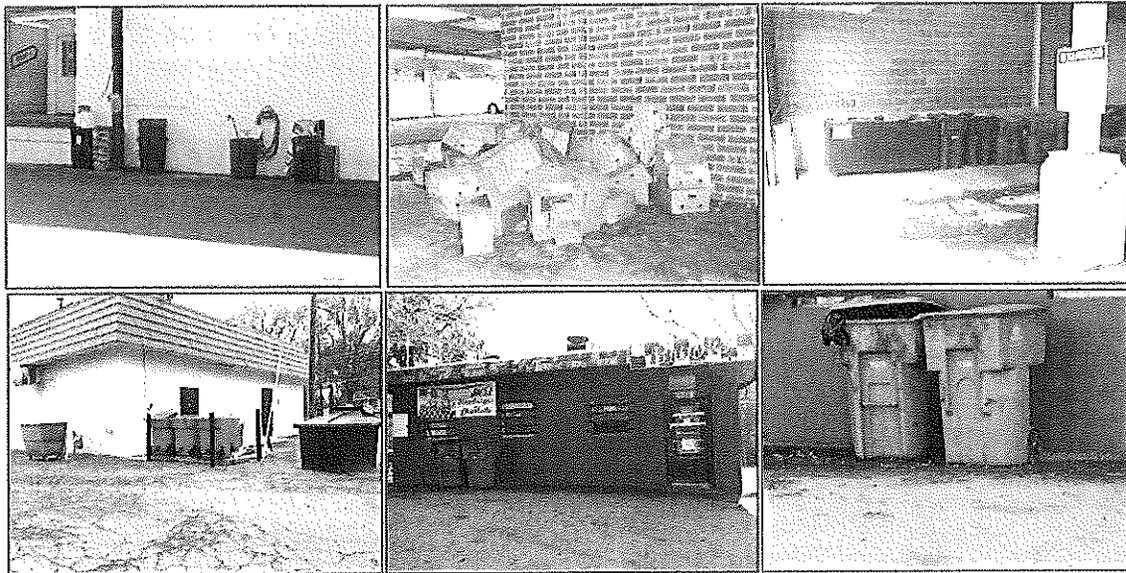


Figure 4
Examples of Small Businesses

5.2.5 Summary

Most of the setout locations were clean and free of litter and fewer than five of the 200 sites visited had need for a significant cleanup effort. Observations were strategically conducted a day before the scheduled collection day in order to audit the amount of waste collected. Most of the multi-family complexes had front-end containers for trash containers, and they were half full or less. Very few containers were full or overfilled to the extent that waste has fallen onto the ground around the setout location. There were fewer than 10 locations where containers were full. Around 30 percent of the multi-family sites observed had roll-off compactor trash containers, and the amount of material inside could not be determined. Table 4 shows a summary of the field work observations.



**Table 4
GBB Field Work Observation Results**

	Multi-family					Small businesses				
# of sites	137					45				
# of units	17,970					N/A				
# of sites where data could be collected ¹	125 (91.2%)					30 (66.7%)				
# of sites with trash containers	125 (100%)					30 (100%)				
	<i>How full were the cans? ²</i>					<i>How full were the cans?</i>				
	0	¼	½	¾	Full	0	¼	½	¾	full
	8	27	30	6	13	0	3	5	2	4
	6%	22%	24%	5%	10%	0%	10%	17%	7%	13%
# of sites with single stream recycling ³	86 (68.8%)					16 (53.3%)				
	<i>How full were the cans?</i>					<i>How full were the cans?</i>				
	0	¼	½	¾	Full	0	¼	½	¾	full
	17	17	16	6	30	2	2	4	1	3
	20%	20%	18%	7%	34%	13%	13%	25%	6%	19%
# of sites with cardboard recycling ³	13 (10.4%)					3 (10%)				
	<i>How full were the cans?</i>					<i>How full were the cans?</i>				
	0	¼	½	¾	Full	0	¼	½	¾	full
	2	3	1	5	2	0	1	2	0	0
	14%	21%	7%	36%	14%	0%	33%	67%	0%	0%
# of sites with special recycling (FOG, etc)	1 (0.8%)					2 (0.6%)				

- 1 - There were 12 multi-family and 15 small business sites where the GBB team was not able to make observations due to an inability to access the containers.
- 2 - Number of sites tabulated in the "How full are the cans..." columns does not sum to the total number of sites observed because some of the containers were closed, locked, or otherwise inaccessible and the GBB team was not able to observe their contents.
- 3 - The City does not provide recycling services to small business; however, as noted, recycling containers for single stream and cardboard collection were observed.

A majority of the recycling containers at multi-family properties were half or more than half full. At 34 percent of the multi-family sites, the containers were completely full. At small businesses the containers observed were about half full. Many of the site managers interviewed by the GBB team emphasized that the capacity of their single-stream recycling containers is not sufficient and they often throw recyclables into their trash containers. Despite this common situation which could be remedied by adding front-end boxes for recycling, 96-gallon size rollout carts provided by the City per the current contract are the most common recycling receptacles. The large multi-family building complexes were more likely than the townhouse-style developments to have separate, dedicated cardboard

containers. These were usually accompanied by carts for the other recyclable materials. Figure 5 shows a breakdown of additional quantitative field observations.

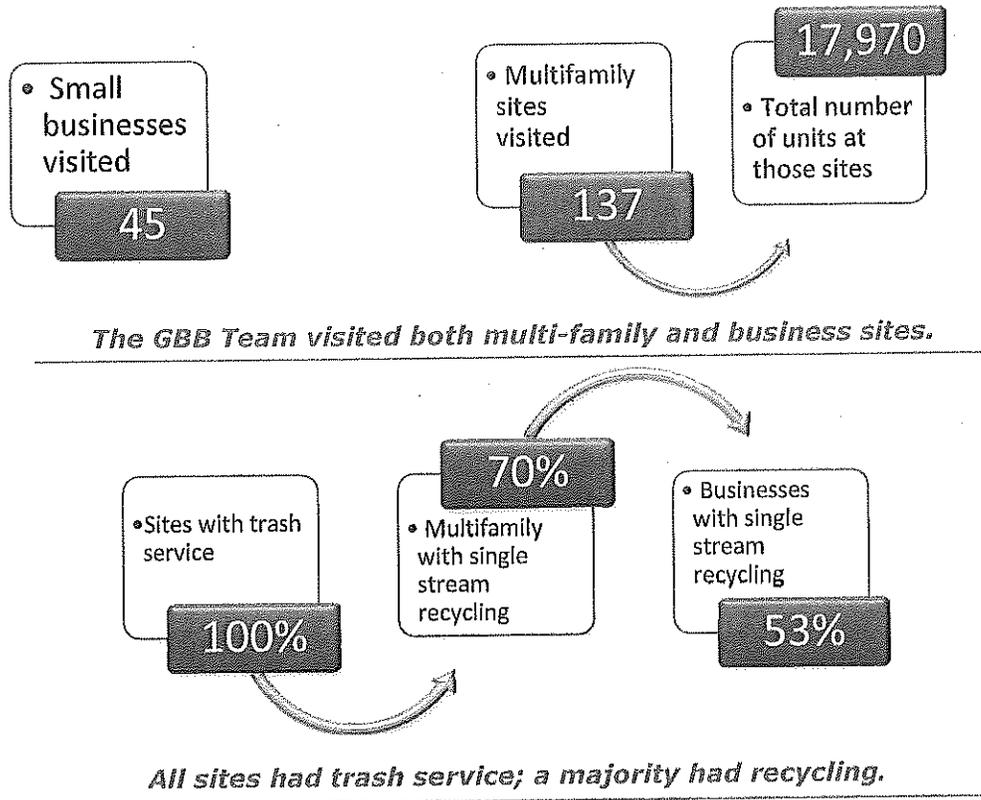


Figure 5
Fieldwork Observations by the Numbers

5.3 Full Cost Management and Rate Model

5.3.1 Overview

GBB conducted a detailed assessment of the City's SWS revenues and costs to develop a cost model following the U.S. EPA's Full-Cost Accounting guidelines. The cost model provides allocation of personnel, equipment, waste and materials streams, department overhead, City overhead and services from other City departments among the various cost centers or activities generating the costs and producing the revenues. The model was then used as a tool to analyze and determine an equitable fee structure among the various customer groups serviced by SWS. The model uses FY2012 actual financial data as the baseline data.



5.3.2 Background

SWS provides a comprehensive solid waste management program for the City’s residential, multi-family, business, and community services customer base.

SWS customers are defined as follows:

- “Single Family” includes single-family homes and multi-family units that receive City collection services in carts. Materials collected include trash, recyclables, yard waste, Christmas trees, and bulky items;
- “Multi-family” includes multi-family units that receive Republic Services collection services. Materials collected include trash, recyclables, Christmas trees, and bulky items;
- “Business” includes businesses that receive City collection services. Materials collected include trash only; and,
- “Community” includes public trash receptacles (e.g. Pebblestone) that receive City collection services. Materials collected include trash only (not included in Table 5).

The number of units serviced in FY2012 is shown in Table 5.

**Table 5
Units Serviced by City of Charlotte FY2012**

Customer Type	Number of Units Serviced
Single Family	210,572
Multi-family	108,313
Business	2,534
Total	321,419

The tonnages disposed or processed in FY 2012 are shown in Table 6. In addition to the trash from public receptacles, the Community tonnages also include materials from litter pickup and disposal of materials by other City departments, such as CDOT-Street Maintenance.

**Table 6
City of Charlotte Tonnages Disposed FY2012**

Customer Type	Garbage	Yard Waste	Recyclables ¹	Total ²
Single Family	178,241	51,945	43,424	273,610
Multi-family	77,096	8	3,602	80,706
Business	2,638	0	0	2,638
Community	37,573	2,089	96	39,758
Total²	295,549	54,041	47,122	396,713

1 - Recyclables also includes bulky white goods recycled

2 - Totals may not add up due to rounding



In FY 2012, the SWS's operating budget included 15 separate cost centers. A brief description of the services provided under each cost center is listed below:

1. 50800 - Sanitation Division
Divisional overhead for garbage, yard waste and bulky items collection;
2. 50820 - Sanitation - Landfill Services
Cost of disposal of garbage and bulky items at landfill and yard waste at Compost Central;
3. 51400 - Special Services
Business and community benefit (e.g., litter pick up, emptying of public receptacles, etc.) services provided by City;
4. 51402 - Central Business District
Business and community benefit (e.g., litter pick up, emptying of public receptacles, etc.) services provided by City;
5. 52020 - Solid Waste Services - Administration
Department administration/overhead;
6. 52020 - Solid Waste Services - Multi-family Contracts
City contract with Republic Services to serve multi-family complexes with greater than or equal to 30 units;
7. 52023 - Miscellaneous Contracts
Contracts for garbage and recycling carts;
8. 52024 - Technology Services
Department information technology support;
9. 52031 - Residential Recycling Contract
Contract for residential recycling collection;
10. 52025 - Contract Monitoring
Field monitoring of recycling, multi-family, and cart contracts;
11. 52028 - Customer Service
Customer service for garbage, recycling, yard waste, and bulky collection;
12. 52032 - SWS - Director's Office
Personnel and operating costs for the Director's Office, Public Service, Human Resources, Safety and Facilities;
13. 52033 - Garbage Collection
Residential garbage collection provided by City;
14. 52034 - Yard Waste Collection
Residential yard waste collection provided by City; and
15. 52035 - Bulky Items Collection
Residential bulky item collection provided by City.

In addition to the costs identified in the operating budget, City administration, equipment replacement, and facility costs were added, as shown in Table 7. City Administration includes costs for items such as City-provided human resources, attorneys, fleet and management. Equipment replacement includes an annual depreciation expense for mobile



equipment, based on the City of Charlotte's Cost Allocation Plan, and for carts. Facility costs include costs for operations conducted at a City building or parking lot (e.g., collection yard).

Table 7
City of Charlotte Solid Waste Services Full Costs in FY2012

Cost Items	Expense	% of Total
Operating Budget	\$ 45,651,232	83.6%
City Administration	\$ 2,916,620	5.3%
Equipment Replacement	\$ 5,750,920	10.5%
Facility Costs	\$ 313,162	0.6%
Total Expense	\$ 54,631,934	100.0%

The costs above do not include elements outside the system operated by SWS, such as multi-family complexes contracting with private companies to collect and transport waste and recyclables to nearby facilities. The costs above also do not take into account environmental, health and social costs, costs referred to in "true cost accounting," "environmental accounting" or "life cycle costing".

Revenues from FY2012 included in the model are shown below in Table 8. The City Solid Waste Fees, discussed earlier in this report, were excluded from the model as the goal of the model is to identify a rate structure. The Solid Waste Disposal Tax revenue includes a State tax rebate from fees collected at the landfill. Recycling Program revenue includes shared revenue from cardboard recycling. Dead Animal Collection revenue includes fees collected from animal hospitals. Special Events revenue includes fees collected from special event sponsors.

Table 8
City of Charlotte Solid Waste Services Revenues in FY2012

Revenue Items	Revenue	Percent
5436 Solid Waste Disposal Tax	\$ 501,422	61.9%
5459 Recycling Program	\$ 239,510	29.6%
5627 Dead Animal Collection	\$ 3,525	0.4%
Special Events	\$ 65,544	8.1%
Total Revenue	\$ 810,001	100.0%

5.3.3 Approach and Allocations

For the cost model, the 15 cost centers used to track SWS's operating budget were collapsed into six activities, which include collection and disposal/processing for single family, multi-family and commercial customers. This section discusses the assumptions used to allocate the financial data from SWS to the cost model, as presented in Attachment 4. The model allows for changes to these assumptions if more accurate information is provided. The assumptions below are for the first allocation.



- FY2012 financial data is based on the City of Charlotte’s Solid Waste Services Funds Availability Report for actuals and encumbrances, Fixed Asset Listing and Capital Financing for Equipment Depreciation and Facility Cost, and the City of Charlotte’s Administration’s Cost Allocation Plan;
- City Administration costs (excluding service equipment) are allocated to the cost centers by percentage of direct expenses for each cost center;
- Equipment replacement costs are from the City of Charlotte’s Administration’s Cost Allocation Plan and are allocated to the cost centers based on City- provided allocation of equipment to cost centers. The equipment replacement costs also include estimated annual cart capital; and
- Facility costs are allocated to the cost centers based on City-provided allocation to cost centers.

The assumptions below are for the second allocation.

- Solid Waste Services Administration and Technology Services costs are allocated to the remaining cost centers by percentage of direct expenses for each cost center; and,
- SWS Department Director and Contract Monitoring costs are allocated to the remaining cost centers based on City-provided allocation of staff.

The assumptions below are for the third allocation.

- Sanitation Division costs are allocated to Garbage/Trash, Yard Waste, and Bulky Item collections based on personal services expenses;
- Miscellaneous Contracts costs are allocated to Trash and Recycling based on cart counts; and,
- Customer Services costs are allocated to Multi-family, Garbage/Trash, Recycling, Yard Waste, and Bulky Item collections based on City-provided allocation of staff.

5.3.4 Cost Model Summary

Based on the previously stated assumptions the 15 costs centers collapse into the following collection and disposal related activities, as shown in Table 9.

Table 9
City of Charlotte Solid Waste Services Net Expenses FY2012

	Solid Waste Services Totals	Special Services	Solid Waste Multi-family Contracts	Residential Recycling Contract	Garbage/Trash	Yard Waste	Bulky Items
Collection	\$43,931,369	\$6,686,777	\$2,746,625	\$8,305,508	\$14,297,139	\$9,297,943	\$2,597,377
Disposal	\$10,700,566	\$1,344,479	\$2,493,110		\$5,486,881	\$1,099,425	\$276,670
Total Expense	\$54,631,934	\$8,031,256	\$5,239,735	\$8,305,508	\$19,784,020	\$10,397,369	\$2,874,047
Revenue	\$640,756	\$82,747		\$221,015	\$336,993		
Net Expense	\$53,991,178	\$7,948,508	\$5,239,735	\$8,084,493	\$19,447,027	\$10,397,369	\$2,874,047

“Solid Waste Services” includes the net expense for SWS’s full costs. “Special Services” includes the net expense for Businesses and Community services. “Multi-family Contracts” includes the net expense for multi-family. The remaining columns include the net expenses for “Single Family.” Allocation of these costs to Single Family, Multi-family, and Business is shown below. Costs for community-related services are allocated among the three customer types.

Table 10
Resulting Rates from the City of Charlotte SWS Full Cost Model FY2012

Activity Expense	Single Family	Multi-family	Business
Collection and Disposal	\$193.77	\$46.86	\$646.07
Community Benefit ¹	\$19.62	\$19.62	\$19.62
Total Annual Fee	\$213.39	\$66.48	\$665.69
Total Monthly Fee	\$17.78	\$5.54	\$55.47
FY2012 Annual Fee ²	\$45.00	\$27.00	N/A

1 - The “Community Benefit” fee covers the costs for services that benefit the community (e.g., litter pickup, servicing public receptacles, and disposal of materials by other City departments, such as CDOT-Street Maintenance).

2 - The “FY2012 Annual Fee” is included for comparison purposes and represents the City Solid Waste Fee paid by single-family and multi-family customers for disposal only.

5.4 Review of Fee Structure

The City of Charlotte currently funds its solid waste management programs from the General Fund primarily from the City’s real property tax revenue. In addition, each residential property pays a fee for the disposal of trash with a Solid Waste Fee. This fee is collected through the real property tax system as well. The annual SWS budget is approximately \$46 million, of which approximately \$12 million is generated by the Solid Waste Fee. The fee is different for single-family residences and multi-family residences based on Tax Office classification. Section 3.0 above provides details of the City’s fee structure for its solid waste management programs.

5.4.1 Fee Structure Alternatives

Solid waste fees can be structured in several ways to include and capture various costs components incurred for the services. Several alternatives are presented below.

Waste Collection Fee

The City could add a new fee based on collection costs to the existing fee charged. The City has data on the cost of collection from single-family residences and multi-family properties with fewer than 30 units because the City provides that collection. Also, the City has data from the Republic contract that details costs of collection from multi-family properties with more than 30 units. The waste collection fee would be calculated based on the actual costs to service each type of residential unit. The collection fee would be added to the disposal fee and collected similarly to as it is now.

Generator Fee

The City has data on the quantity of solid waste generated by both single-family and multi-family residential units. The City could establish a new fee based upon this generation for the various types of residential units. This fee would be based on the average solid waste volume generated by each housing unit type. Because multi-family properties generate approximately 60 percent of the trash generated by single family homes, a generator fee based on housing type would be fair. This generator fee could be large enough to cover both the collection costs and disposal costs incurred by the City, not just disposal costs as is the case with the current fee. This generator fee would replace the current disposal fee.

Pay-as-you-throw

Pay-as-you-throw (PAYT) has been successful in many large cities—e.g., Ft. Worth, TX, San Jose, CA, and Seattle, WA. PAYT is based on the concept that residents who generate more waste pay higher fees. Implementing a PAYT system would require a total re-design of the City's collection system, including an array of containers to offer to each residential unit. San Jose offers a choice from among four sizes of carts for trash; 20-, 32-, 64- and 96-gallons, and assesses fees depending on the size of container a customer chooses (with higher fees for larger size carts). A new fee structure and accounting system would need to be established as each unit would have an option to choose any cart size, and the fee for each cart size is different. Therefore, the City under a PAYT system, SWS would need to keep track of the cart sizes for each unit and create individualized invoices. The Mecklenburg County Recycling Survey conducted in 2009 indicated less than 50 percent support for this approach.

Utility or Service Fee

Utility fees, similar to the water fee, can be charged to all users of the solid waste system. The fees can be calculated by dividing the full cost of the system by the number of users and billed monthly, quarterly, semiannually or annually. The utility fee can be billed on a separate solid waste services bill, or it can be added to an existing bill for taxes, water, sewage or other utility.

The City of Seattle has departments for water, wastewater, solid waste and electricity, and issues a single itemized bill for all services. Some jurisdictions break the overall system charge into components so that the customers know the cost of each component. Properties in Montgomery County, MD, receive different services depending upon location within the County. The County divides its charges into five components, which appear on individual County annual property tax bills. The following charges are fees, not taxes:

- System Benefit Charge, which covers administration, planning and facility sunk costs
- Disposal Charge, which is based on a generator assessment
- Incremental System Benefit Charge, which covers residential recycling collection and other charges
- Refuse Collection Charge
- Leaf Vacuuming Charge

Breaking the charges into components ensures that properties are only charged for services received.

6.0 Recommendations

Based on the data provided by the City, GBB's field work and interviews, and information presented in this report, GBB has developed the following recommendations for changes to services provided and the solid waste rate structure for single family, multi-family and small business. The recommendations should be simultaneously implemented.

The goal and driver of these recommendations is to provide an equitable approach for refuse services to single-family, multi-family and small businesses in the City. Our recommendations are based on best practices and industry solid waste experience throughout the United States.

6.1 Modify City trash and recycling collection services provided by SWS

The GBB team considered the pros and cons in combination with the benchmarking surveys, interviews, and industry best practices to conclude the following recommendation for the City to consider.

Working and benchmarking various government agencies, GBB recommends the City eliminate trash and recycling collection services for multi-family homes and small businesses and only provide solid waste and recycling services to single-family dwellings and small business within Special Tax District No. 1. As such, multi-family units containing five (5) or more residential units, small businesses which reside outside the special tax district, and all industrial and institutional properties must negotiate their own contracts for waste and recycling collection and disposal services with private haulers. This recommendation will require a change to the definitions of building types, as described in section 6.2, as well as changes to the City Code, which currently mandates solid waste collection from all residential units. In order to be equitable, GBB recommends a new fee structure be instituted as described in section 6.3 of this document.

A summary of the pros and cons of discontinuing trash and recycling collection services for multi-family homes and small businesses outside Special Tax District No. 1:

Pros:

- No service impact to single-family dwellings;
- Continue to maintain clean and orderly appearance in the downtown area;
- Provides an equitable solution to all waste generators in the City when combined with implementation of new solid waste fees;;
- Reduces expenses for monitoring multi-family contractor; and
- Frees up City staff to focus on educating multi-family and commercial business on recycling.

Cons:

- Potential initial increase in Code Enforcement department;

- Potential financial impact to single-family residents (net of new solid waste fees less reduced property tax impact); and
- Financial impact to multi-family and current small business customers outside the special tax district (fee charged by hauler less elimination of solid waste fee).

6.2 Revise the City Code to define four property classifications and limit provision of collection services to single-family dwellings

The City Code currently mandates solid waste collection from all "residential units." GBB recommends the City develop definitions for types of improved properties, as suggested below. These definitions are similar to those in Chapter 10 of the City Code. Further, GBB recommends that the City limit solid waste and recycling services to single-family dwellings, which also requires a change to the City Code.

- Single Family Dwelling - A detached or attached residence containing four (4) or fewer dwelling units when each dwelling unit is designed exclusively for residential occupancy by not more than one family.
- Multi-family Dwelling - Any residence with five (5) or more residential living units, including any flat, apartment, condominium, town home, residential units in multi-use properties, service-enriched housing or other residence, and excluding a hotel, motel, or dormitory.
- Non-residential Units - A business or commercial establishment and/or industrial facility including, but not limited to, hotel, motel, dormitory, restaurants and bars, governmental, recreation, religious, and educational facilities.
- Special Tax District No 1 - The dwelling and non-residential units located the section of the city bounded by I-77, Brookshire Freeway, and the John Belk Freeway (I-277), and the Tryon Street Mall (mall) which includes, the area of Tryon Street beginning at Stonewall Street and extending to Eighth Street, including the blocks designated as the 100 blocks of East and West Trade Street, including both sides of Tryon Street and Trade Street, as identified in Figure 6.

directly from the City. The system benefit fee, which provides for all administration costs associated with provision of solid waste and recycling services including planning, education and enforcement, would apply to all improved properties in the City regardless of what entity collects solid waste and recyclable materials. This spreads the costs of administering the solid waste system equitably to all properties.

Table 11
Example Solid Waste Fee Structure

Fee Type	Description	Who Pays	Payment
Systems Benefit Fee	These fees provide for all administration costs associated with provision of solid waste and recycling services, including planning, education, enforcement and general engineering/technical support, etc.	Assessed to the owners of each "Improved" property in the City - occupancy permitted residences and non-residential improvements with assessed value > \$5,000.	The Systems Benefit Fee is a line item on the property tax bill.
Disposal Fee¹	The City's tipping fee is market-based and from its inter-local agreement with the County Contracted Landfill.	The single family residence or business owner	The owners of such residence or business owner pre-pay the Disposal Fee that approximates what their waste would pay at the County Contracted Landfill. Collectors are charged the Disposal Fee in the form of a per-ton "Tipping Fee" at the County Contracted Landfill based on the tonnage of solid waste delivered for disposal.
Refuse and Recycling Collection Fee²	These fees are charged to single-family households or dwellings in buildings comprised of four or fewer dwelling units located in the City to capture collection costs for these services.	The owners of single-family and multi-family of four or fewer units pre-pay on a per-household basis.	These fees are a line item on the property tax bill for single-family and multi-family of four or fewer units.

1 - If Solid Waste services are provided to multi-family dwelling complexes with more than 4 units and non-residential units, commercial and small businesses, a similar disposal fee will be assessed. However, if City services are not being provided to these complexes, a disposal fee will not be collected because it would be paid by the commercial hauler.

2 - Refuse and Recycling Collection fees for multi-family dwelling complexes with more than 4 units and non-residential units, commercial and small business, will be assessed similar recycling and refuse collection fees if services are provided

A summary of the pros and cons of a new fee structure:

Pros:

- Clearly defined definitions for similar service needs and waste generation sources;

- New fees can be easily adjusted based on future increases or decreases in expenses.

Cons:

- Political will to implement;
- Lengthy timeline for process to implement;

6.4 Services and Rate Recommendations

The following recommendations will be based on the previously described definitions and should be implemented concurrently so the timing of changes to the applicable fees and taxes charged is at the same time. GBB's recommendations that follow are a result of benchmarking studies, field work and industry experience and knowledge.

6.4.1 Single-family Services and Rate

GBB's focus in this review is primarily on solid waste services and fees for multi-family and small business properties; however, in order to maintain equity in services and rates within the City, single-family dwelling services must be considered in the overall system and fee structure.

GBB recommends the City continue trash, recycling, bulky and yard waste collection services to those dwellings falling within the "Single Family Dwelling" definition above. GBB further recommends that the City modify the fees charged to single-family homes to include the System Benefit, Disposal and Recycling and Refuse Collection fees, since these homes receive solid waste collection, disposal and other related services directly from the City. This will provide an equitable solution across all property classifications.

GBB recommends the City eliminate the Solid Waste Fee and adjust the property taxes on single family units to offset a portion of the cost of the new fees.

Finally, GBB recommends that the individual fees charged, once calculated, be equal to the City's actual cost for providing services to the number of single-family units receiving those services.

The impact to the residential units newly defined as single-family dwellings will not have any effect on services offered and provided by the City. Financially, they will see a change of fees included in their property taxes to a separate line item or multiple line items and possible a small increase in their total property tax bill. The health and welfare of the community will not be impacted by this recommendation.

6.4.2 Discontinue trash collection services to multi-family units; revise fees; require recycling

Common practice is to provide services based on a specific number of units. It is uncommon for a City like Charlotte to be involved and the need for two providers or different billing arrangements for one customer. GBB recommends the City discontinue the

trash, recycling and bulky collection services to those dwellings falling within the "Multi-family Dwelling" definition above and eliminate the solid waste fee currently being charged to those properties. Multi-family properties would need to make their own arrangements for waste collection and disposal. They have the option of doing it themselves, or using one of several local private haulers who provide the service in Charlotte. Elimination of City-provided services will allow these properties to obtain services at competitive or market-based prices. However, GBB further recommends the reduction in services to multi-family units be done in parallel with the implementation of ordinances requiring recycling and City-supported recycling education programs.

GBB further recommends that the City improve the multi-family recycling program to capture additional recyclables, which will reduce disposal costs. The multi-family recycling program should continue to meet the same requirements for materials and processing as the City's single-family recycling program, regardless of whether the service is provided by a private collector or the City.

GBB recommends that multi-family residential properties in the City be required to provide recycling services to the occupants or tenants that are the same as those provided by the City to single-family residential units. These services, performed by private haulers, should include collection of the same recyclable materials and preparation requirements as in the City's residential program. Private haulers shall be licensed by the City, to provide services within City limits along with the City requiring the collection vehicles used be inspected and permitted by the City.

The system benefit fee covers the administration costs associated with the provision of solid waste and recycling services, including planning, education and enforcement. Because the residents are recipients of such services, multi-family units will be charged the System Benefit Fee as described in Table 11.

GBB recommends the City eliminate the disposal fee and adjust the property taxes on multi-family units to offset a portion of the cost of the new fees.

A summary of the Pros and Cons to discontinue multi-family services:

Pros:

- Receive competitive pricing on the open market;
- The type and level of service residents receive is the choice of the property owner, building manager, association, etc.;
- Paying for services will drive a more cost effective recycle program; and
- Ability to contract for all service levels required from one hauler.

Cons:

- Potential increase in cost of services;
- Potential health and safety issue if services are not adequate.

If the City chooses to continue providing services to multi-family units, the procurement of exclusive services would provide for optimal service rates and direct billings to the multi-family property owners for collection and disposal fees. If these services continue to be

provided, GBB further recommends the City clearly define collection and recycling services and programs that maximize recyclable recovery and minimize collection and disposal expenses, contract with one contractor, obtained through a competitive proposal process. The benefits of contracting for one vendor for all multi-family collection services typically include lower rates and better customer service. GBB would recommend that the contractor direct bill each multi-family owner for services based on the service levels of the service levels requested by the multi-family owner or property manager.

A summary of the Pros and Cons if the City chooses option to facilitate services:

Pros:

- Multi-family dwellings will be able to subscribe to service levels as necessary directly from the City procured hauler;
- Award of a competitively-bid contract to provide services to multi-family dwellings based on their specific service needs will provide a lower rate due to density (exclusivity) and lower costs for the private contractor;
- Reduction of administrative support for managing the billings; and
- Multi-family dwellings will directly receive solid waste invoices and City will only monitor the contractor's compliance to the contract.

Cons:

- City staff must spend time and energy to procure;
- City staff must manage and monitor the contractors compliance to the contract; and
- Potential health and safety issue if services are not adequate.

Regardless, GBB recommends the City eliminate the disposal fee and adjust the property taxes on multi-family units to cover the cost of the new fees.

6.4.3 Discontinue collection services to non-residential units, commercial and small businesses outside the Special Tax District

GBB recommends the City discontinue trash collection services to those properties that can be defined as "Non-residential Units" and are located outside the Special Tax District. This will be fair and equitable for all businesses outside the Special Tax District.

Elimination of City-provided services will allow these properties to obtain City-mandated and other services in the open market at competitive or market-based prices. GBB further recommends the reduction in services to non-residential units be implemented along with changes to ordinances requiring recycling and City-supported recycling education programs.

GBB recommends that the non-residential properties in the City be required to provide recycling services to their occupants or tenants that are same as those provided by the City to single-family residential units. These services should include collection of the same recyclable materials and preparation requirements as in the City's residential program. Private haulers shall be licensed by the City.



As the City will supply administrative, public information and enforcement services related to solid waste management, non-residential units will be charged the System Benefit Fee.

GBB recommends the City not adjust the Small Business property taxes to account for the reduction of services, since the City did not previously charge for refuse collection.

If the City chooses to continue providing services to small non-residential/business units outside the Special Tax District, the City will need to modify the fees charged for solid waste services to include the System Benefit, Disposal and Recycling and Refuse Collection fees.

GBB recommends that the City educate and enforce its multi-family existing ordinance for non-residential, commercial businesses to have a recycling program and to capture additional recyclable materials, which will reduce disposal costs. The non-residential recycling program should meet the same requirements for materials and processing as the City-provided single-family recycling program, regardless of whether service is provided by a private collector or the City.

The fees charged for solid waste services for Single-family, multi-family and non-residential units in the Special Tax District No. 1 will need to be modified to include the System Benefit, Disposal and Recycling and Refuse Collection fees. Currently, the special tax collected from these businesses is not designated for service enhancements or to help fund SWS; rather, proceeds from this tax are directed to a non-profit organization called Charlotte Center City Partners (CCCP). Individual fees that, once calculated are equal to the actual cost incurred for services provided for the appropriate number of units served will be implemented.

Continuing to provide City services within the Special Tax District will maintain the high standards of Charlotte as a clean city. Also, traffic could be reduced as the City could schedule services during non-rush hour times and not have multiple refuse vehicles from multiple vendors in the City at various times of the day.

The impact of this recommendation to the community will be negligible. Continuing to provide services to special tax district businesses that meet the criteria will ensure cleanliness and aesthetic standards of the City. The few businesses outside the special tax district currently being served by the City will be impacted to the extent that services will be solicited and contracted by private haulers similar to other businesses throughout the City.



Attachment 1 Initial List of Potential Benchmarking Communities



Attachment 2 Sample Benchmarking Survey Questionnaire



CHARLOTTE, NORTH CAROLINA	
Demographics and General	
Population, 2011 estimate 751,087	Housing units in multi-unit structures, 2006-2010 33.5%
Housing units, Total 311,891	Housing units, Occupied 282,082
Rental Vacancy Rate 8.6	Housing Units in 20+ structure 31,485
Housing units, Renter-occupied 114,782	Average household size of renter-occupied unit 2.31
Contact information	
Contact name	Contact Agency
Contact phone	Contact Email

Multi-family properties	
Service	
1. Does the city provide solid waste collection services to multi-family properties?	Yes No Comment [If yes, proceed to 1.a]
1.a. What collection services does the city provide to renter-occupied apartment complexes larger than 29 units?	Trash – Recycling – Bulky waste – Yard waste – HHW – Christmas trees – Other
1.b. What collection services does the city provide to owner-occupied condominium complexes larger than 29 units?	Trash – Recycling – Bulky waste – Yard waste – HHW – Christmas trees – Other
2. Who is responsible for SW collection?	City – Private Hauler (franchised? under contract?) – Other
3. Who is responsible for recyclables collection?	City – Private Hauler (franchised? under contract?) Other
4. How often is each service provided? (Days per wk, as contracted)	Trash – Recycling – Bulky waste – Yard waste – HHW – Other
5. How is service level set? How is the service level differentiated?	Per unit– Per unit, weighted – Per property – Per property, weighted – Variable based on volume/weight (size, volume, location, other)
6. Who owns and maintains containers/bins?	Property – Condo board/owners – Hauler – City
7. Type of container service provided for trash	FEL – REL – Roll-off – Compactor Other
8. Type of container service provided for recyclables	Exterior carts, dumpster, other Interior bins for units
9. How is extra service handled? (move in move outs)	[describe answer]
10. How are bulky items handled?	[describe answer]
11. Are complexes allowed to contract with a hauler to provide supplemental collection service for trash collection?	No – Yes – Yes, conditional
If Yes, who pays?	Customer – City – Other
11.a. How many complexes hire a hauler for supplemental service?	# - % - Few – Many
12. Are complexes allowed to opt out of city service and arrange their own waste collection?	No – Yes – Yes, conditional
12.a. If yes, do they get a fee reduction?	No – Yes
12.b. How many complexes opt out of city service?	# - % - Few – Many
13. Does the city administer a customer satisfaction survey to multi-family customers?	No – Yes – Yes, conditional



13.a. How do customers rate satisfaction with containers (size, type, quality)?	[describe answer]
13.b. How do customers rate satisfaction with trash/recycling collection service (frequency, style, materials collected)?	[describe answer]
14. How often are service corrections needed? (Callbacks, misses, clean ups, etc.)	[describe answer]
Costs and Funding	
15. How is the solid waste management system funded?	General fund – Enterprise fund – Authority – Other
16. How is the multi-family collection system funded?	Within SWM system – Interfund transfer – General fund transfer – Enterprise fund – Authority – Other
17. How is capital equipment sourced?	[describe answer]
18. Are collection charges included in disposal costs?	No – Yes – Yes, conditional
19. What is the current disposal cost per ton?	
20. What percentage of agency's total collection vehicles is used for multi-family collection?	%
21. How do renter-occupied apartment complexes pay for collection service?	Property taxes/General fund – Annual service fees – Per-service charges
22. How do owner-occupied condominium complexes pay for collection service?	Individual units' property taxes/general – Annual service fees – Per-service charges
23. How are fees or charges determined?	Per unit- Per unit, weighted – Per property – Per property, weighted – Variable based on volume/weight
24. Do you have a fee formula? What is it?	[describe answer]

Small Businesses	
Service	
1. Does the city provide solid waste collection service to small businesses?	No – Yes – Yes, conditional
2. Who is responsible for SW collection?	City – Private Hauler – Other
3. What services does the city provide to small business customers?	Trash – Recycling – Bulky waste – Yard waste – FOG – Other
4. How often is each service provided? (Days per wk, as contracted)	Trash – Recycling – Bulky waste – Yard waste – FOG – Other
5. How is service level set? How are they differentiated?	Per unit- Per unit, weighted – Per property – Per property, weighted – Variable based on volume/weight (size, volume, location, other)
6. Who owns and maintains container/bin?	Property – Condo board/owners – Hauler – City
7. Type of container service provided for trash	FEL – REL – Roll-off – Compactor (size)
8. Type of container service provided for recyclables	Carts Dumpster (size)
9. How is extra service handled? (clean outs, etc.)	[describe answer]
10. How are bulky items handled?	[describe answer]
11. Are small businesses allowed to contract with a hauler to provide supplemental collection service?	No – Yes – Yes, conditional
11.a. If Yes, who pays?	Customer – City – Other



12. Are small businesses allowed to opt out of city service and arrange their own waste collection?	No – Yes – Yes, conditional
12.a.If yes, do they get a fee reduction?	No – Yes
12.b.How many eligible businesses opt out of city service?	# - % - Few - Many
13. Does the city administer a customer satisfaction survey to business customers?	No – Yes – Yes, conditional
13.a. How do customers rate satisfaction with containers (size, type, quality)?	[describe answer]
13.b.How do customers rate satisfaction with service (frequency, style, materials collected)?	[describe answer]
13.c.How often are service corrections needed? (Callbacks, misses, clean ups, etc.)	[describe answer]
Costs and Funding	
14. How is the collection system for small businesses funded?	General fund – Enterprise fund – Authority – Other
15. How is capital equipment sourced?	[describe answer]
16. What percentage of agency's total collection vehicles is used for collection from small businesses?	%
17. Are collection charges included disposal costs?	No – Yes – Yes, conditional
18. How do tenant businesses pay for solid waste collection service?	BPOL or other taxes/General fund – Annual service fees – Per-service charges – None, the property owner pays
19. How do owner-occupied businesses pay for service?	BPOL or other taxes, Property taxes/General fund – Annual service fees – Per-service charges
20. How are fees or charges determined?	Per unit– Per unit, weighted – Per property – Per property, weighted – Variable based on volume/weight
21. Do you have a fee formula? What is it?	[describe answer]



Attachment 3 City Benchmarking Data Matrix



Attachment 4 Cost Model Analysis Spreadsheets



The Cost Model Analysis Spreadsheets will be provided separately in an Excel file.

Jurisdiction	County	State	Pop	Number of Housing Units	Renter occupied	# units inside structures with 20+ units	Services Provided by County/City	Residential Service Provider	Residential eligibility
Charlotte City	Mecklenburg	NC	731,424	311,891	114,782	31,485	The City of Charlotte sponsors the CURB IT! program, which provides garbage, recycling, yard waste and bulky item collection services for single-family residences and multi-family complexes with fewer than 30 units in the City of Charlotte boundaries.	City services	single-family residences and multi-family complexes with fewer than 30 units
Raleigh City	Wake	NC	403,903	171,888	70,605	16,833	City provides residents with same-day garbage, recycling, and yard waste collection, as well as bulk disposal options	Solid Waste Services Department	most residents eligible, townhomes evaluated on a case-by-case basis
Greensboro City	Guilford	NC	269,668	122,124	48,257	6,785	Greensboro's Solid Waste Division provides automated curbside trash, recycling, appliance, and bulk collections for its residents.	City services	single family homes and small businesses
Austin City	Travis	TX	790,611	345,283	171,376	65,203	Solid Waste Services Department provides weekly garbage and yard waste collection, as well as bi-monthly recycling and scheduled bulk item collection	City Services	all residents and businesses eligible
Baltimore City	Baltimore	MD	620,961	296,615	119,737	32,373	Baltimore's City Waste Collection provides weekly trash and recycling pick-up to all residents.	City Services	All City residents
Boston City	Middlesex	MA	617,594	270,470	159,964	60,670	City provides garbage and recycling collection, as well as seasonal yard waste collection.	City Services	All residents. Buildings larger than six (6) units are required by law to have recycling services.
Cleveland City	Cuyahoga	OH	396,815	216,561	90,126	22,706	City Department of Public works provides residential garbage and recycling collection, as well as yard waste and bulk item collections	City services	all residents eligible
Collier County	Collier	FL	321,520	194,529	28,120	34,868	The County provides residents with garbage and recycling collection services through 2 private hauling companies. The Solid Waste Management Department manages 4 recycling centers.	The County has contracts with 2 private hauling companies: Waste Management Inc. of Florida services District 1 and Immokalee Disposal Company Inc services District 2.	County residents
Columbus City	Franklin	OH	797,434	370,489	160,869	31,548	City provides residents with weekly garbage, recycling, yard waste, and scheduled bulk item collection.	City contract	all residents eligible
El Paso City	El Paso	TX	649,152	223,836	79,837	22,935	Environmental Services provides weekly residential garbage and recycling collection service	City services	all city residents
Fort Worth City	Tarrant	TX	742,030	282,500	99,859	23,704	County provides residents with same-day curbside garbage, recycling, and yard waste collection	County contract, currently served by Republic Services	all residents eligible
Polk County	Polk	FL	602,095	277,547	62,481	7,556	County provides garbage and recycling collection services through a non exclusive franchise with 2 private companies; residents can self drop off to the Landfill Department of Public Works provides weekly residential trash, recycling, and green waste collection, as well as scheduled bulk collections.	County has a nonexclusive franchise with Republic Services and Waste Resources Management City Contracts, currently with Burrtec Waste Industries, Inc.	All county residents who live in the unincorporated areas of Polk County all residences (S-F, mobile homes, apartments, condos/townhomes, backyards)
Riverside City	Riverside	CA	303,871	99,041	37,612	8,642	The City of San Francisco has a Zero Waste Program. City provides public disposals and recycling centers open to all residents and businesses.	City has a contract with 2 private garbage collectors: Golden Gate Disposal and Recycling and Sunset Scavenger	all city residents
San Francisco City	San Francisco	CA	805,235	372,560	209,928	93,496	City Department of Environmental Services provides residents with same day garbage, recycling, and yard waste collection	Private Haulers, City Contracts	S-F homes, participating apartment and condo facilities
San Jose City	Santa Clara	CA	967,612	313,944	119,545	39,901	Department of Public Utilities provides same-day collection of garbage, yard waste, and recyclables as well as limited bulk and dumpster collection	City Services	S-F homes for curbside pickup, all other residences require dumpsters
Seattle City	King	WA	608,660	302,465	143,368	82,775	City provides residents with weekly collection of garbage and yard waste, every-other-week recycling, and bulk item services	The Northwest Quadrant is serviced by the City of Tulsa, and has once-a-week cart service. The rest of the city is serviced by Tulsa Refuse, Inc., and receives twice-a-week service.	all single-family homes, some multi-family depending on location and access
Tucson City	Pima	AZ	520,097	233,002	97,617	29,077	Department of Environmental Services provides Tucson citizens and businesses with weekly trash and recycling collection.	City services	all residents eligible
Winston-Salem City	Forsyth	NC	229,617	102,882	37,116	5,985	City of Winston Salem provides residents and small businesses with automated garbage, recycling, and yard waste collection, as well as seasonal bulk collection and drop-off center access	City services	all single family homes, apartments, condominiums, townhouses, mobile home parks, and some small businesses



City of Charlotte
City Benchmarking Data Matrix

City of Charlotte City Benchmarking Data Matrix	CHARLOTTE, NORTH CAROLINA Demographics and General Population, 2011 estimate 751,087 Housing units, Total 311,891 Rental Vacancy Rate 8.0 Housing units, Renter-occupied 114,762 Housing units in multi-unit structures, 2006-2010 33.5% Housing units, Occupied 282,082 Housing Units in 20+ structure 31,485 Average household size of renter-occupied unit 2.31 Contact information Contact name Contact Agency Contact phone Contact Email	AUSTIN, TEXAS Demographics and General Population, 2011 estimate 820,611 Housing units, Total 345,283 Rental Vacancy Rate 7.0 Housing units, Renter-occupied 171,376 Housing units in multi-unit structures, 2006-2010 47.9% Housing units, Occupied 315,337 Housing Units in 20+ structure 65,203 Average household size of renter-occupied unit 2.18 Contact information Contact name Lauren Hammond Contact Agency Austin Resource Recovery Contact phone 512-974-1959 Contact Email lauren.hammond@ausintexas.gov	BALTIMORE, MD Demographics and General Population, 2011 estimate 619,493 Housing units, Total 295,815 Rental Vacancy Rate 10.4 Housing units, Renter-occupied 119,737 Housing units in multi-unit structures, 2006-2010 33.1% Housing units, Occupied 238,392 Housing Units in 20+ structure 32,373 Average household size of renter-occupied unit 2.40 Contact information Contact name Contact Agency Contact phone Contact Email	COLUMBUS, OHIO Demographics and General Population, 2011 estimate 797,434 Housing units, Total 370,489 Rental Vacancy Rate 12.4% Housing units, Renter-occupied 160,889 Housing units in multi-unit structures, 2006-2010 41.1% Housing units, Occupied 318,454 Housing Units in 20+ structure 31,548 Average household size of renter-occupied unit 2.28 Contact information Contact name Erin Miller Contact Agency Contact phone Contact Email EMMiller@columbus.gov	GREENSBORO, NORTH CAROLINA Demographics and General Population, 2011 estimate 273,425 Housing units, Total 122,124 Rental Vacancy Rate 14.5 Housing units, Renter-occupied 48,257 Housing units in multi-unit structures, 2006-2010 36.8% Housing units, Occupied 107,770 Housing Units in 20+ structure 6,785 Average household size of renter-occupied unit 2.22 Contact information Contact name Contact Agency Contact phone Contact Email	RALEIGH, NORTH CAROLINA Demographics and General Population, 2011 estimate 416,468 Housing units, Total 171,888 Rental Vacancy Rate 9.3% Housing units, Renter-occupied 70,605 Housing units in multi-unit structures, 2006-2010 38.8% Housing units, Occupied 154,677 Housing Units in 20+ structure 18,833 Average household size of renter-occupied unit 2.20 Contact information Contact name Linda Leighton Contact Agency Contact phone 919-998-6871 Contact Email Linda.Leighton@raleighnc.gov
Multi-family properties Service	Multi-family properties Service	Multi-family properties Service	Multi-family properties Service	Multi-family properties Service	Multi-family properties Service	Multi-family properties Service
Question	Responses	Response	Response	Response	Responses	Responses
1 Does the city provide solid waste collection services to multi-family properties?	Yes	Yes, anything up to 4-plex; Also, Dumpster service in the Downtown District which includes some MFUD	Single Family, Town Houses, Condominiums and Multi-family units with < 4 units	Yes No Comment [If yes, proceed to 1.a] Conditionally, yes we do provide weekly service to multi-family complexes (over four attached units) that meet all of the following criteria: a. They meet refuse storage capacity compliance requirements. This is one-half cubic yard of refuse storage capacity for each dwelling unit in the complex. b. The complex has a Division of Refuse approved site plan showing the complex has ample refuse storage capacity c. That Division of Refuse Collection trucks have sufficient room to safely maneuver in the complex	Yes, > 6 units, both Dumpster and semi-automated with 64 gal. carts	Yes, but with 5 units or less. This is a new rule. They have cart service like a single-family home does. There are some other apartment buildings/complexes that are grandfathered-in from the previous policy, which allowed multifamily properties that were ground-level only. None of those legacy properties has more than 25 units.
1.a. What collection services does the city provide to renter-occupied apartment complexes larger than 30 units?	Trash - Recycling - Bulky waste - Christmas trees	NONE	N/A	Trash - discontinued yard waste collection	Trash - Recycling - Bulky waste - Christmas trees	Trash - Recycling - Bulky waste - Christmas trees
1.b. What collection services does the city provide to owner-occupied condominium complexes larger than 30 units?	Trash - Recycling - Bulky waste - Christmas trees	NONE	N/A	Trash - discontinued yard waste collection	Trash - Recycling - Bulky waste - Christmas trees	None
2 Who is responsible for SW collection?	Private Hauler - under contract	City does cart service up to 4-plex - Private Hauler has the Dumpster contract (WM)	Private Hauler - under contract w/ private hauler	City	City	City
3 Who is responsible for recyclables collection?	Private Hauler - under contract	Same as above	Same as 2..	Other: We provide funds to the solid waste management district (SWACO) to operate the recycling drop box program. There are over 220 drop box locations throughout the City of Columbus and the target audience to utilize those boxes are multi-family residents. SWACO trucks collect the material.	City	City
4 How often is each service provided? (Days per wk, as contracted)	Trash: < 30 units same as single family; >30 units equivalent of 8 CY uncompact per 30 units once per week or 8 CY compacted per 90 units once per week - Recycling: 1 recycling station per 80 units, a recycling station being ~ 5 95-gal carts - Bulky waste, as requested and arranged by the customers - Yard waste - HHW - Other: Xmas trees once annually	Trash 1x - Recycling Biweekly - Bulky waste twice a year clean up - Yard waste once a week - HHW - Other - Dumpster customers are daily for trash and twice a week for recycling	based contract with private hauler.	once per week	Trash weekly - Recycling biweekly - Bulky waste biweekly for the cart customers, dumpster customers have a centralized collection area - Yard waste weekly - HHW - Other	Trash weekly - Recycling biweekly - Bulky as scheduled; Single-family is included in service but multifamily must pay for a special - Yard waste weekly - HHW - Other
5 How is service level set? How is the service level differentiated?	Per unit, weighted - Per property based on number of units, dumpster. Per property based on number of units and compactor size: (#units/90)*9 divided by # of yards in compactor. 1.00 and less equals one collection per week, 1.01 and more equals two collections.	Per property Each account gets one cart; they can request and pay for additional carts - Per property, weighted - Variable based on volume/weight (size, volume, location, other)	scheduled	Per property	Per unit 64 gallon cart of each for condos and TH - Variable based on volume/weight (size, volume, location, other) it's based on the layout and the operations ("not numerical") and the volume	Per property
6 Who owns and maintains containers/bins?	Property	Property - Condo board/owners - Hauler owns the dumpsters - City owns the carts	Hauler	With the exception of approximately 100 8 C.Y. dumpsters in the OSU area, all dumpsters and compactors are privately owned or leased.	City	City
7 Type of container service provided for trash	FEL - Compactor	FEL - REL - Roll-off - Compactor Other	FEL - REL - Roll-off - Compactor Other	Front loader - dumpsters, roll-off truck - compactors, rear loader - bulk. During 2010, the Division of Refuse Collection serviced 103,889 multi-family dwelling units. Within this, 93,789 units had dumpsters and 10,100 units had compactors.	FEL - REL	Carts
8 Type of container service provided for recyclables	Exterior carts	Exterior carts, dumpster, other Interior bins for units	Exterior carts, dumpster, other Interior bins for units	Through SWACO, we have dumpsters available at locations such as grocery stores, fire stations, public schools and parks.	Exterior carts, dumpster	Carts
9 How is extra service handled? (move in move outs)	as requested? Tenant generated bulky is part of service provided	none		OSU move in - move out is truly a community project with assistance from OSU area landlords, SWACO, private sector companies in providing roll-offs and many extra Refuse Collection resources.	[They provide move in move out service for all residents. If you move into an existing dwelling and you have a bunch of stuff to set out like boxes, you can place it on the curb, call in, and they will schedule a special pick up. If you are on their service, they offer this.]	n/a
10 How are bulky items handled?	Service schedule is worked out by each property	Twice a year clean up for the cart customers; d/k for the Dumpster customers		Complexes typically have a location (often enclosed by a fence) for bulk items. When they need a collection the call and schedule for service.	[see above, but they're probably getting ready to do it more scheduled only rather than biweekly]	Must pay extra for a special load
11 Are complexes allowed to contract with a hauler to provide supplemental collection services for trash collection?	Yes	Yes, conditional But they would still have to pay for our fees	N/A	Yes, and if they do not have ample refuse storage which is .5 cubic yards per unit per week, they have to arrange for an additional private section collection.	Yes	
11.a. How many complexes hire a hauler for supplemental collection services?	Customer	Customer	N/A	Customer	Customer	
12 Are complexes allowed to opt out of city service and arrange their own waste collection?	All supplemental is separately contracted	Not aware of any because our fees are competitive	N/A	Yes	Few	
12.a. If yes, do they get a fee reduction?	No	n/a	N/A	Few - Many 93	Yes - They try to accommodate everyone though, and No - Yes	
12.b. How many complexes opt out of city service?	Service approximately 2/3 of all multifamily properties, roughly 800	n/a		No	# - % - Few - Many Since 2008, when contracts have run out with privates, they usually come to the city.	
13 Does the city administer a customer satisfaction survey to multi-family customers?	Yes	Yes, conditional Every year, but not sure who all receives it (it goes to all customers)	No		No - Yes - Yes, conditional	
13.a. How do customers rate satisfaction with containers (size, type, quality)?	n/a	d/k				
13.b. How do customers rate satisfaction with trash/recycling collection service (frequency, style, materials collected)?	n/a	d/k				
14 How often are service corrections needed? (Callbacks, misses, clean ups, etc.)	approximately 3 times per month	d/k Sometimes we have issues with the carts having to be close together and they get mixed up or go missing or something like that.	N/A		[Less 1%]	
Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources
1 How is the solid waste management system funded?	General fund	General fund	General fund	General fund	General fund	General fund
2 How is the multi-family collection system funded?	General fund	Utility bill	Other contract	General fund	General fund	General fund
3 How is capital equipment sourced?	private hauler	rolled into the larger SW program		Through capital budget, competitively bid or off state contract		
4 Are collection charges included in disposal costs?	No	For residential, we own the trucks; for the Downtown District, WM owns that equipment	N/A	No		
5 What is the current disposal cost per ton?	Via the Interlocal agreement \$28/ton	Yes	Yes	\$55.42 / ton		
6 What percentage of agency's total collection vehicles is used for multi-family collection?	0%	d/k	N/A	18.70%		
7 How do renter-occupied apartment complexes pay for collection service?	Property taxes/ disposal only	Very little	Directly to the hauler	General fund		
8 How do owner-occupied condominium complexes pay for collection service?	Property taxes/ disposal only	Some renters get their own utility bill and others pay the landlord	directly to the hauler	General fund		
9 How are fees or charges determined?	Per unit-	n/a		n/a		
10 Do you have a fee formula? What is it?	[N/A we have]	Per account		no		
		Base fee + variable cart fee (per cart for trash) = monthly 9.50 + per gallon fee for trash = monthly bill	N/A			



Small Businesses Service	Small Businesses Service	Small Businesses Service	Small Businesses Service	Small Businesses Service	Small Businesses Service	Small Businesses Service
Question	Responses	Responses	Responses	Responses	Responses	Responses
1 Does the city provide solid waste collection service to small businesses?	Yes	Yes, Large and small in the Central Business District (CBD)	Does not provide, they must contract with private hauler	No	Yes	Yes, conditional: Only if located in the central business district or in residential neighborhoods
2 Who is responsible for SW collection?	City	City in non-CBD areas (2000 comml customers); Private Hauler (W&B) in CBD (640 comml/MFDU customers)			City	City - Private Hauler - Other
3 What services does the city provide to small business customers?	Trash	Trash - Recycling - Bulky waste/brush - Yard waste (will confirm)			Trash - Recycling - Bulky waste	Trash - Recycling - Bulky waste - Yard waste - FOG - Other
4 How often is each service provided? (Days per wk, as contracted)	Trash: weekly	Trash: CBD = a few times per week (will confirm); non-CBD = 1x per week. Customer can pay for more frequent service: 2x per week for \$40/mo; 3x per week for \$100/mo; 6x per week for \$200/mo - Recycling: CBD (will confirm); non-CBD = bi-weekly - Bulky waste/brush: non-CBD 2x per year - Yard waste (will confirm)			Trash 1-5 depending - Recycling 1-4 depending	CBD serviced 6 day/week; residential neighborhoods serviced once per week
5 How is service level set? How are they differentiated?	Per unit - volume Per property: <=512 gallons/week	Per property, Non-CBD: by container size - 24/32/64/96 gal by customer choice of container; CBD (will confirm)			Variable based on volume/weight (size, volume, location, other)	95 gallon cart
6 Who owns and maintains container/bin?	Hauler	Non-CBD - City; CBD - WM			Property - City provides up to three carts	Property owners
7 Type of container service provided for trash	REL	CBD: FEL - Non-CBD: mostly automated; some semi automated			FEL - REL	automated REL
8 Type of container service provided for recyclables	[n/a]	Carts - Non-CBD; Dumpster - CBD same sizes as MSW			Carts Dumpster (size) same as trash	65 gal Carts owner provided
9 How is extra service handled? (clean outs, etc.)	[n/a]	Non-CBD: same as MFDU; CBD (will confirm)			[we try to work with them, like during the holidays]	n/a
10 How are bulky items handled?	[n/a]	Non-CBD: same as MFDU; CBD (will confirm)			[scheduled, moderate quantities]	n/a
11 Are small businesses allowed to contract with a hauler to provide supplemental collection service?	Yes	No - Non-CBD: Yes; CBD: Yes, but impractical due to space constraints			Yes	Yes
12 Are small businesses allowed to opt out of city service and arrange their own waste collection?	Customer	Customer			Customer	Customer
12.a.If Yes, who pays?	Yes	Yes			Yes	Yes
12.b.If yes, do they get a fee reduction?	No	Yes (will confirm)			No - Yes - Yes, conditional	Yes - If they get private service they pay no city fees
13 Does the city administer a customer satisfaction survey to business customers?	un-known	Yes, but doesn't know if commercial customers are included			Few	No
13.a. How do customers rate satisfaction with containers (size, type, quality)?	n/a	d/k			No	No
13.b. How do customers rate satisfaction with service (frequency, style, materials collected)?	n/a	d/k				
13.c. How often are service corrections needed? (Callbacks, misses, clean ups, etc.)	<1 time per month	d/k				
Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources	Costs and Funding Sources
1 How is the collection system for small businesses funded?	General fund	Enterprise fund - "Solid waste Service Fee" on utility bill			General fund	Same as above
2 How is capital equipment sourced?	City's capital replacement fund	Some through Enterprise Fund, some through General Fund			[Leased from other City agency]	
3 What percentage of agency's total collection vehicles is used for collection from small businesses?	3%	We have 640 customers in the Downtown District/CBD, which are mostly businesses + a few large MFDU complexes. In the rest of the city, we have 183,000 customers with residential service, of which 2000 are commercial.			<10% 1,000+ customers	%
4 Are collection charges included disposal costs?	No	monthly fee- None, the property owner pays			BPOL or other taxes/General fund - Per-service charges	BPOL or other taxes/General fund - Annual service fees
5 How do tenant businesses pay for solid waste collection service?	The property owner pays through property taxes	Per-service charges+monthly fee				- Per-service charges - None, the property owner pays monthly fee on utility bill
6 How do owner-occupied businesses pay for service?	Property taxes/General fund	see next answer			BPOL or other taxes, Property taxes/General fund - Per-service charges	Monthly fee on utility bill
7 How are fees or charges determined?	currently no fees	Commercial			Variable based on volume/weight	Per cart purchased
8 Do you have a fee formula? What is it?	no	CBD Commercial \$8.75/mo + \$10 per CY per week = (CY charge determined by formula depending on type of business) Special cleaning service fee \$17/month Clean Community Fee \$12/month Residential \$7 + \$10 per resident = Special cleaning fee \$17/month Clean Community fee \$5/month Small businesses using carts in residential area \$9.50 + \$/gallon + per cart= If they need to be picked up more than once a week, it's \$40 for twice a week and \$200 for 6 times a week. CC fee \$12 / month			[carts only is no charge; if they have Dumpsters, it's \$ per dumpster, regardless of size, different price for Vertipak; recycling is charged per location only, not per Dumpster]	



Solid Waste Services Multi-family, Small Business and Rate Structure Review Report

February 2014

Presented by:

City of Charlotte Solid Waste Services (SWS)

Solid Waste Services Multi-family, Small Business, and Rate Structure Review Report

Report Overview

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Executive Summary

The report from Gershman, Brickner & Bratton, Inc. (GBB), **Multi-family, Small Business and Rate Structure Review** recommends substantial changes to the way that Charlotte manages residential and small business waste collection. While the report offers a valuable comparative perspective on Charlotte's practices and policies, Solid Waste Services (SWS) identified the need to develop a response to the recommendations that reflects an understanding of policy context and community values. The consultant's recommendations are logical and clear-cut, based primarily on economic values and industry best practices. Each recommendation has implications beyond the scope of the GBB report which staff highlights in the following document so that informed decisions about the strategic future of Solid Waste Services can be made.

Several key policy considerations derive from the report, including:

1. Should residential waste collection services remain in the General Fund as a function of health and sanitation support for all taxpayers or are those services ones that should be funded primarily with user fees?
2. Are apartment buildings commercial entities that should handle waste collection independently or are they residential properties eligible for City-funded collection services?
3. Is the Solid Waste Services fee structure aligned with levels of service usage?

These are policy questions best answered by an informed governing body. Staff offers a response to the recommendations of GBB from the value system of a triple bottom line, aiming for:

- An equitable approach to collection services for single-family, multi-family and small businesses in Charlotte (social equity)
- A fee structure aligned with the community vision and values (economy)
- Environmental benefits (environment)

Comparison of Recommendations

Consultant	Solid Waste Services
<ol style="list-style-type: none"> 1. Modify City trash and recycling collection services provided by SWS <ol style="list-style-type: none"> a. Eliminate collection services for multi-family homes (complexes containing five or more residential units) b. Eliminate collection services for small businesses outside Special Tax District No. 1 	<ol style="list-style-type: none"> 1. Deliver redefined services for single-family and multi-family dwellings and small businesses according to policy decisions
<ol style="list-style-type: none"> 2. Revise the City Code to define four property classifications and limit provision of collection services to single-family dwellings 	<ol style="list-style-type: none"> 2. Revise the City Code to support the new service provisions and policies
<ol style="list-style-type: none"> 3. Develop a new fee structure to be assessed on all improved properties 	<ol style="list-style-type: none"> 3. Redefine the City of Charlotte's Solid Waste Fee into a new fee structure to assess on all properties receiving collection services

Key Aspects of Current State

Collection Services			
Ordinance definition	Rollout container collection service (Sec. 10-99)	Stationary container collection service (Sec. 10-101)	Nonresidential collection service (Sec. 10-102)
Service location types	Single-family <i>and multi-family complexes of 29 or less units</i>	Multi-family complexes of 30 and more units	Small businesses generating less than 512 gallons of trash weekly
Service description	<p><i>Curbside rollout container</i></p> <ul style="list-style-type: none"> • Weekly garbage • Bi-weekly recycling <p>Weekly yard waste Bulk waste as scheduled</p>	<p><i>Dumpster or compactor (30 units per dumpster or 90 per compactor)</i></p> <ul style="list-style-type: none"> • Weekly garbage <p>Weekly recycling Bulk waste Christmas trees</p>	Weekly curbside collection in containers or bags provided by business owner
Solid Waste Fees			
Ordinance definition	Residential solid waste disposal fee (Sec. 10-141) Levied and collected by the county tax administrator		
County Tax Assessor's classification	Single-family	Multi-family (<i>including multi-family complexes of 29 or less units</i>)	Non-residential/Commercial
FY2014 Solid Waste Fee	\$47/unit	\$24/unit	<i>No Solid Waste Fee for non-residential</i>

Key Aspects of Current State

Funding

- Solid Waste Fees fund approximately 25% of the annual Solid Waste budget; the remaining 75% comes from other General Fund revenues

Solid Waste Fee

- Solid Waste Fees are defined by the City of Charlotte's ordinance as "Residential solid waste disposal fee"
- Exclusions from fee are allowed for any residence using a private hauler who disposes of waste at a facility provided by the private hauler AND "does not use any of the **county's** solid waste services (including landfills, incinerators, yard waste sites, or recycling facilities, including drop sites)"
- Solid Waste Fees are billed and collected by Mecklenburg County with the annual property tax
- Solid Waste Fees are levied by Mecklenburg County based on Assessor's Office classification of building type (Single-Family or Multi-Family)
- Assessor's Office classification of structures does not always align with Solid Waste Services' collections model. For example, multi-family complexes of 29 or less units are assessed the Solid Waste Multi-Family Fee (\$24/unit) but receive the same curbside rollout service given to single-family properties paying \$47 per unit

Recommendation 1

Consultant's recommendation

Eliminate collection services for multi-family dwellings of 5 or more units and small businesses outside Special Tax District No. 1 (GBB, Section 6.1)

City's recommendation

Deliver redefined services for single-family and multi-family dwellings and small businesses according to policy decisions

POLICY DECISION NEEDED: Elimination of services for multi-family dwellings of 30 or more units

History

- Per City ordinance, multi-family properties of 30 or more units have qualified for dumpster or compactor garbage collection paid from the General Fund **for more than 18 years.**
- Questions have periodically surfaced as to whether rental apartments are more commercial in nature than residential but multi-family collection services have been supported by City Council through numerous budget cycles.

Considerations

- Concerns around requiring multi-family properties to make their own arrangements for waste collection and disposal include equity issues for the multi-family residents as well as the likelihood that transferring the costs of private hauler service to property owners will be passed to residents. Illegal dumping, unsightliness and ultimately, code enforcement issues are all perceived as potential risks of the elimination of City-funded multi-family services. It should be noted that in 2013, the same concerns were raised when the City stopped paying disposal costs for additional collections for multi-family complexes. No adverse effects resulted from the elimination of those City services.

Who is affected?

- Currently, the City funds garbage, recycling, bulky and Christmas tree collections for 111,806 units within 755 complexes (as of January 2014) by means of a contract with Republic Services that expires at the end of June 2015.
- The number of multi-family units served by the Republic contract represents approximately 79% of all multi-family properties located in the City of Charlotte.

Impact on City Budget and Future Revenues

- Elimination of City-funded multi-family services, including collections and disposal costs, would result in a **net annual savings to the City of more than \$1.5 million.**
- One other potential consequence of removing multi-family services from the General Fund would be the multi-family property owners' expectations of a property tax rate adjustment. Since isolating a property tax rate change to multi-family property is not feasible, a tax rate adjustment means a city-wide property tax rate adjustment. **Lowering the tax rate for Charlotte has implications beyond the immediate effect on property tax revenue; sales tax is distributed by Mecklenburg County on an ad valorem basis so a reduction in the Charlotte property tax rate would also result in a reduction in City sales tax revenue.**

Public Facilities

- Approximately 116 public facilities (City and County buildings, fire and police stations, Spirit Square, Discovery Place, etc.) are served via the multi-family contract with Republic Services. Other arrangements would be needed for waste and recycling collections for those locations.

Consideration of Franchise approach

If elimination of multi-family collection and disposal services from the General Fund is approved by Council, Solid Waste Services recommends consideration of one of GBB's suggestions: **franchise agreements.** Governmental franchises are established by ordinance in North Carolina and would enable the vendors to bill the properties directly. The governing body would be required to maintain oversight and fee approval which could mitigate concerns about potential excessive costs and service quality issues. Franchises are not favored by the private haulers.

POLICY DECISION NEEDED: Definition of multi-family dwellings as less than five units

The threshold of 29 units as a qualification for rollout service has no relevant operational basis today. Properties with up to four dwellings (quadraplex) do not have the space or need for a dumpster or compactor. The consultant's recommendation to provide rollout service only to single-family homes and dwellings with less than five units makes sense from an operational and policy perspective. However, there are a number of potential impacts to this policy decision that would be further complicated by a decision eliminating multi-family collection services funded by the City:

- Approximately 12,800 multi-family units in complexes of more than four and less than 30 units currently receiving City rollout service will be either required to find a private hauler or request service on the City contract for dumpster/compactor service if that option is still available for multi-family properties
- Possible annual revenue loss (at current fee rate) of \$307,800

- Possible reduction of Solid Waste Services workforce
- According to 2010 census data, roughly one fourth of the 12,800 units are located in areas with an annual household income of \$0 to \$37,500
- 416 of the 12,800 are currently receiving special collection service (backyard or doorstep), a service reserved for disabled or geriatric citizens

Solid Waste Services acknowledges the potential drawbacks of policy revision, but in the interest of well-defined guidelines that make operational sense, recommends the designation of all properties of five or more dwellings as multi-family and ineligible for rollout service. Staff recommends a phased approach (2 years) to moving multi-family properties no longer eligible for rollout service to other collection services.

POLICY DECISION NEEDED: Elimination of services for small businesses

- The consultant's reasoning for the elimination of services for small business is based on comparative practices; other cities of comparable size provide collection services for only those small businesses that reside in the business or downtown districts.
- **Small businesses** served by SWS are located primarily on major and minor thoroughfares throughout the City; only 94 of 2549 service locations (4%) are in Municipal Service District No. 1. It should be noted that none of the revenue from the special taxes assessed to those businesses in that area goes to fund solid waste collection so the case for continuing service only in Municipal Service District No. 1 seems arbitrary.
- **Solid Waste Services recommends continuing the provision of combined services in Municipal Service Districts 1 and 4 (street sweeping, sidewalk cleaning, public receptacle garbage and recycling collection, small business garbage, etc.) Staff recommends a reassignment of a portion of the revenue from the Municipal Service Districts to cover operating costs of service provision in those areas.**
- City collection services for small businesses are important in maintaining cleanliness on thoroughfares for the surrounding urban neighborhoods. Currently, small business owners are not required to use carts; overstuffed bags vulnerable to vermin and prone to breakage are used by some small business owners.
- Estimates of equivalent garbage collection services provided by private haulers range from \$900 to \$3000 per location annually, which is two to five times more than estimated City fees.
- **Solid Waste Services recommends requiring small business owners to purchase City-specified carts, assessing a variable fee based on number of carts and adding recycling collection services for small businesses.** More details on the proposed model follow in recommendation #3.

Recommendation 2

Consultant's recommendation

Revise the City Code to define four property classifications:

- Single-Family Dwelling
- Multi-family Dwelling
- Non-residential units
- Municipal Service District No. 1;

and limit provision of collection services to single-family dwellings (GBB, Section 6.2)

City's recommendation

Based on policy decisions, revise the City Code to support the new service provisions

City staff sees no need for the reclassification of property types in **Sec. 10-32. Definitions** as the definitions already exist in the code. Even the *multiple residential unit* is defined as "any apartment, group of apartments, or condominiums used for dwelling places of more than four families."

Staff sees alignment issues with the two city ordinances that define collection services and user fees for waste management in Charlotte:

1. Residential solid waste disposal fee (Sec. 10-141)
2. Division 2. Collection Services

History

- The solid waste disposal fee was inherited from Mecklenburg County; the language and defined responsibilities in the ordinance reflect that inheritance. The County established the fee structure for multi-family and single-family structures based on estimated waste generation amounts per household hence the characterization of the fee as a disposal fee. Responsibilities for disposal facilities passed from the City of Charlotte to Mecklenburg County in 1984 by way of an interlocal agreement. City ordinance Sec 10-141 notes FY1997 as the first fiscal year in which the fee was imposed by the City. In the years since FY1997, the City has made adjustments to the fee to cover the cost of increased tipping fees.

Assessment versus Service

- Mecklenburg County Tax Assessor's Office assesses all City of Charlotte residential properties either a Single Family Solid Waste Fee (\$47) or a Multi-Family Solid Waste Fee (\$24 per unit) based on the County's assessment process. The City of Charlotte's Solid Waste Services Collection Services Ordinance (Sec 10-99, Rollout container collection service) is not consistent with the Solid Waste Services Residential waste disposal fee (Sec. 10-141). **Specifically, the fact that the City identifies multi-family properties up to 29 units as eligible for rollout service means that those properties can receive the equivalent of single-family service for a multi-family fee.** Mobile homes receive curbside rollout collection (single-family service) but are not considered building improvements and therefore not assessed a Solid Waste Fee unless the structures are mounted on a permanent foundation.

Opt-out or constrained by space

- **Another group of City of Charlotte residents includes multi-family property owners of complexes of 30 or more units that pay the Multi-family Solid Waste Fee and do not receive any City service.** Some of those properties of more than 30 units choose to hire a private hauler and not use the City contract (for dumpster or compactor service) because they prefer rollout collections. Some of those communities do not use the collection services for which they qualify because they lack space for a bulk waste container (dumpster or compactor). The City does not have records on which properties have refused service and which properties cannot accommodate a bulk waste container.

Summary of Inconsistencies

- In summary, some property owners receive rollout service for a multi-family fee, others pay the multi-family fee and receive no service and some pay no fee and receive rollout or business garbage service (see page 7 of the GBB report for a table reflecting counts of each property type in 2013).

Fee for Disposal

- The argument that the solid waste fee is a disposal fee is supported by the ordinance language which GBB points, is an uncommon if not unique practice. The City has been repeatedly questioned over the years on the equity of imposing the disposal fee on those multi-family properties that hire a private hauler for waste collections. Typically, private haulers embed the cost of disposal in the rate of service. Property

owners have argued that they are being effectively charged twice for disposal – the Multi-Family Solid Waste Fee and the private hauler charge.

- The ordinance specifies that **exclusions from the fee** are allowed for any residence using a private hauler who disposes of waste at a facility provided by the private hauler AND “does not use any of the **county’s** solid waste services (including landfills, incinerators, yard waste sites, or recycling facilities, including drop sites)”.

Determination of properties that pay the Solid Waste Fee

- Finally, the responsibility for determining on which properties the fee shall be applied is defined in the ordinance as the responsibility of the county tax administrator. The county tax records are structured to meet the needs of the county tax administrator. The Solid Waste Services service location database is designed to meet the operational and customer service needs of SWS. The datasets have never been aligned; current efforts are underway with the County Tax Assessor’s Office to do that.

Based on policy decisions, Solid Waste Services recommends a number of ordinance revisions:

Residential solid waste disposal fee (Sec. 10-141)

- **Add language to re-define the fee to cover collection costs which is allowed by NC state statute in addition to disposal costs.**
- **Modify the language to change the responsibility for determination of properties on which the fee is levied to the director of solid waste services**

Rollout container collection service (Sec. 10-99)

- **Modify the language to designate rollout container collection for single-family units and those dwellings with less than five units**

Stationary container collection service (Sec. 10-101)

- **Modify the language to designate bulk container collection for dwellings with more than four units**
- **Modify language as needed for description of service provision (i.e., via City contractor or franchise or another method)**

Recommendation 3

Consultant's recommendation

Develop a new fee structure to be assessed on all improved properties (GBB, section 6.3)

Resulting Rates from Full Cost Model FY2012 (GBB, section 5.3.4)

	Single-Family	Multi-Family	Business
Collection & Disposal	\$193.77	\$46.86	\$646.07
Community Benefit ¹	\$19.62	\$19.62	\$19.62
Total Annual Fee	\$213.39	\$66.48	\$665.69
Total Monthly Fee	\$17.78	\$5.54	\$55.47
FY2012 Annual Fee ²	\$45.00	\$27.00	N/A

- 1 - The "Community Benefit" fee covers the costs for services that benefit the community (e.g., litter pickup, servicing public receptacles, and disposal of materials by other City departments, such as CDOT-Street Maintenance).
- 2 - The "FY2012 Annual Fee" is included for comparison purposes and represents the City Solid Waste Fee paid by single-family and multi-family customers for disposal only.

City's recommendation

Develop a new fee structure to apply on all properties receiving SWS collection services

- a. Rollout service, variable based on garbage cart size and quantity**
- b. For dumpster service, one of three methods:**
 - 1. If elimination of City-funded services - free market choice by property owners**
 - 2. If elimination of City-funded services - franchise agreements**
 - 3. If continuation of City-funded services - recalculation of fee to offset costs in a way consistent with the method used for single-family/rollout service**
- c. For small business garbage service outside Municipal Service Districts, collection fee based on size and number of garbage carts as well as frequency of collection**

As previously stated, the Solid Waste Fee was originally assessed by Mecklenburg County and based on disposal costs. North Carolina law permits solid waste user fees for three purposes:

collection, disposal facility use and disposal facility availability. Solid Waste Services has been advised by staff from the School of Government at the University of North Carolina as well as the City Attorney's Office that **the assessment of a Community Benefit Fee as defined by the consultant is not supported by state statute.**

SWS recommends a new fee structure for three collection services:

- a. **Rollout service** based on container size is used by a number of cities with high diversion rates (Austin, TX and Toronto, ON) and is feasible in Charlotte. Multiple container sizes deter residents from using more service than needed and reward those putting out less garbage. Studies show that variable-rate programs decrease residential disposal by an estimated 17% in weight which would help offset the implementation costs of the programs. Anticipated costs would include container purchase and distribution, expanded customer service and administration, public engagement campaign, rate study and a possible change in billing system. Ongoing costs could shift to recycling collection. Rates could be tiered with a based fixed fee or calculated to cover capital costs only, garbage service only, all services or any reasonable configuration of service and disposal.
- b. **Dumpster service** fees recommendations depend on the policy decisions made around funding the service. If collection services funded by the City are eliminated, staff sees two options:
 1. Free market choice by property owners
 2. Franchise agreements overseen by the City and the governing bodyIf multi-family collection services continue to be funded by the City, staff recommends
 3. Recalculations of the fee to offset or cover the costs of collection in a manner consistent with the method used for single-family/rollout service fee calculation (i.e., based fixed fee, garbage service only, garbage plus disposal costs, etc.)
- c. A cart-based program for **small business garbage** would improve neighborhood appearances and enable more efficient collection. Introducing the new program with the addition of recycling collections for small business service would encourage waste diversion while enabling the City to defray the costs of both services.

Work is underway with Mecklenburg County to enable SWS to remove or assign fees to individual properties based on services. **Solid Waste Services recommends redefining the Solid Waste Fee as Rollout or Dumpster/Compactor Collection Service and recalculating the fee. SWS recommends removing the Solid Waste Fee from any property not receiving services from the City of Charlotte and adjusting the fees for properties that do receive service.**

Conclusion

In conclusion, Solid Waste Services believes that the consultant's recommendations have merit. That being said, the implementation of all the recommendations in City of Charlotte at once is not recommended by staff. Staff has tried to explore all possible impacts of each potential change in the interest of presenting city officials and executive management with all the facts. Solid waste management is an area of opportunity; as the largest city in North Carolina, staff believes Charlotte can be a leader in crafting innovative solutions for long-standing issues. The Solid Waste Services Department anticipates supporting the implementation of policy decisions with efficiency and enthusiasm.

Privatization / Competition Advisory Committee (PCAC)

February 2014

To: Mayor and City Council

From: Christopher Brown, Chair, Privatization / Competition Advisory Committee

Subject: PCAC Observations and Suggestions on Proposed Changes to Solid Waste Services

This letter communicates the observations and opinions of the Privatization/Competition Advisory Committee ("PCAC") with respect to the recent evaluation of the City of Charlotte's ("City") solid waste management program by Gershman, Brickner and Bratton, Inc. ("GBB") and subsequent recommendations by the City's Solid Waste Services Department ("SWS").

Background

In 2012, the City retained GBB to evaluate and recommend potential changes to the service and fee structure of the City's solid waste management program. In addition, at the direction of the SWS, GBB conducted an analysis of the City's large multifamily program. SWS subsequently evaluated the GBB report and completed their own report recommending actions to be taken based on the study and their on-going efforts to provide equitable, high-quality and cost effective services. Following these reports, the PCAC was asked by the City to provide independent "observations and suggestions" on the issue(s) and recommendations raised in both reports. The PCAC undertook this review at the request of SWS and under its charge to be an advisor to both the City Council and City Manager on matters regarding privatization and competition. As part of the review, PCAC members reviewed both reports and met with members of SWS to discuss the recommendations and related service provision issues.

PCAC Summary and Conclusions

The PCAC believes that the GBB study and recommendations and subsequent SWS recommendations bring to light notable inconsistencies in the City's services and fee structure with respect to solid waste service provision. They also highlight notable differences in the City's service provision relative to peer communities across the country. During our review of the multifamily study and discussions with SWS staff, it is clear there are numerous opportunities for the City of Charlotte to efficiently and effectively evolve its service provision in a positive manner. In general, while our somewhat limited involvement precludes us from conducting a more detailed analysis, we believe that the majority of GBB and SWS recommendations proceed in this direction.

Specifically, we support GBB's recommendation to eliminate City provision of trash and recycling services for multi-family structures containing 5 or more residential units. We also support making changes to service provision for small businesses that are equitable, environmentally friendly, and economical. Finally, the PCAC agrees that the current system of charging the Solid Waste Fee to residences and business should be modified to ensure that those receiving service are charged proportionally to the service provided and those not receiving service are not charged. We provide more detailed comments to all the recommendations below.

The PCAC would like to thank the Mayor, City Council, city staff and particularly the SWS team for allowing us to consult in the consideration of these issues. In particular, the PCAC acknowledges the willingness of City staff to consider outside opinions and is repeatedly impressed by the efforts of staff to bring high quality, efficient and cost effective services to its citizens.

The PCAC looks forward to hearing more about the direction the City chooses to take with respect to solid waste service provision. We also look forward to assisting in any way possible with respect to future study/consideration of the issues. If the Mayor or City Council have any questions or comments on the topics discussed in this letter, please feel free to contact us.

PCAC Observations and Suggestions on SWS Recommendations:

Recommendation #1:

Consultant (GBB): Eliminate collection services for multi-family dwellings of 5 or more units and small businesses outside Special Tax District No. 1.

SWS: Deliver redefined services for single-family and multi-family dwellings and small businesses according to policy decisions.

PCAC Comment: The PCAC agrees that the provision of collection services to multifamily homes with five (5) or more residential units is an inappropriate cost to the general citizenship, has no relevant operational basis, and is significantly outside the norm for cities most similar to Charlotte. In addition, eliminating the service would save the city more than \$1.5 million per year. The PCAC also agrees that multifamily structures with five or more residential units are more commercial in nature than residential. With SWS acknowledging that the change would make operational sense, the PCAC agrees with the consultant's proposal to eliminate City provision of trash and recycling services for multi-family structures containing 5 or more residential units.

The PCAC agrees that the current system of solid waste service provision to small businesses in the community is both arbitrary and inconsistent. We recommend the City redefine its service provision and revise the City Code to be more equitable, environmentally friendly, and economical. SWS recommendations on this topic appear to move in this direction.

Recommendation #2:

Consultant (GBB): Revise the City Code to define four property classifications and limit provision of collection services to single-family dwellings.

SWS: Based on policy decisions, revise the City Code to support the new service provisions.

PCAC Comment: The PCAC believes that revising the City Code appears necessary to implement the proposed changes being considered to solid waste services. Due to the lack of specific knowledge on the City Code, the PCAC defers to City staff and its legal advisors with respect to this recommendation.

Recommendation #3:

Consultant (GBB): Develop a new fee structure to be assessed on all improved properties.

SWS: Develop a new fee structure to apply on all properties receiving SWS collection services.

- a. Rollout service, variable based on garbage cart size and quantity
- b. For dumpster service, one of three methods:
 1. If elimination of City-funded services – free market choice by property owners
 2. If elimination of City-funded services – franchise agreements
 3. If continuation of City-funded services – recalculation of fee to offset costs in a way consistent with the method used for single-family/rollout service
- c. For small business garbage service outside Municipal Service Districts, collection fee based on size and number of garbage carts as well as frequency of collection

PCAC Comment: The PCAC agrees that the current system of charging the Solid Waste Fee to residences and business is lacking uniformity and inconsistent. The fee should be modified to ensure that those receiving service are charged proportionally to the service provided and those not receiving service are not charged.

More specifically, GBB recommends the City develop a new fee structure based on clearly defined service categories that “could” include a systems benefit fee, a disposal fee, and a refuse and recycling fee. SWS recommends a new fee structure that supports refuse collection service based on cart size, cart quantity, and frequency of collection, in essence, a move toward pay-as-you-throw services.

The PCAC believes that both proposals have some merit and attempt to modernize and improve the fee structure with respect to solid waste services in Charlotte. However, the changes being proposed represent a significant departure from current practices. The PCAC believes that any major modification to fee structure and service provision deserves thorough consideration. The PCAC suggests that additional consideration of the costs, benefits, and potential service impacts to citizens could better validate the ultimate decision and the effectiveness of implementation. In this light, we provide some additional comments and observances below:

- The GBB recommends a systems benefit fee. However, the City Attorney’s Office is of the opinion that the “systems benefit fee,” as proposed by GBB, is not supported by State statute. While the PCAC has no reason to disagree, GBB’s recommendation is based on best practices that they have seen in the industry. We believe additional discussion could be given to the topic to see if some legally acceptable form of a public area maintenance fee is feasible and appropriate for the City.
- SWS recommends rollout service that is variable based on container size and quantity. The PCAC views this as a move toward pay-as-you-throw solid waste services. While this type of service appears to have significant merit and is a direction that many communities around the country are moving, the PCAC notes that it is a significant change in current service model and additional study of the costs, benefits, and potential service impacts to citizens could better validate the decision to change and the effectiveness of its implementation.
- SWS recommends initiating a cart based program for small businesses and makes a compelling argument that it would be more consistent, efficient, and improve neighborhood appearances. The PCAC believes that this recommendation has some merit if the City chooses to continue to provide collection services to small businesses. However, this recommendation is somewhat dependant on choices made with respect to Recommendation #1 proposed above. Until the City decides on its preferred level of solid waste service provision to small businesses as a whole, the cost and benefits of this recommendation cannot be appropriately evaluated.

Additional Information on the PCAC

The Privatization/Competition Advisory Committee (“PCAC”) is a citizen advisory committee tasked with monitoring City activities and advising the City Council and City Manager with respect to privatization and competition issues, in general. Members are appointed by the City Council and City Manager for two year staggered terms. City Council established the Privatization/Competition Advisory Committee in 1993.

The PCAC consists of an 11-member panel of citizens; 3 of which are appointed by the Mayor and the remaining 8 appointed by City Council. Committee members typically commit approximately 4 1/2 hours per month to committee business and come from all sectors of the Charlotte business community.