

Greenville City Council Agenda

Thursday, March 7, 2013
5:00 p.m.
City Hall Conference Room 337
200 West Fifth Street

- I. Call Meeting to Order
- II. Roll Call
- III. Approval of Agenda
- IV. Presentation of Revised Sanitation Plan
- V. Adjournment

City of Greenville
Five Year Plan to Provide More Efficient and
Cost Effective City Sanitation Service

Contents:

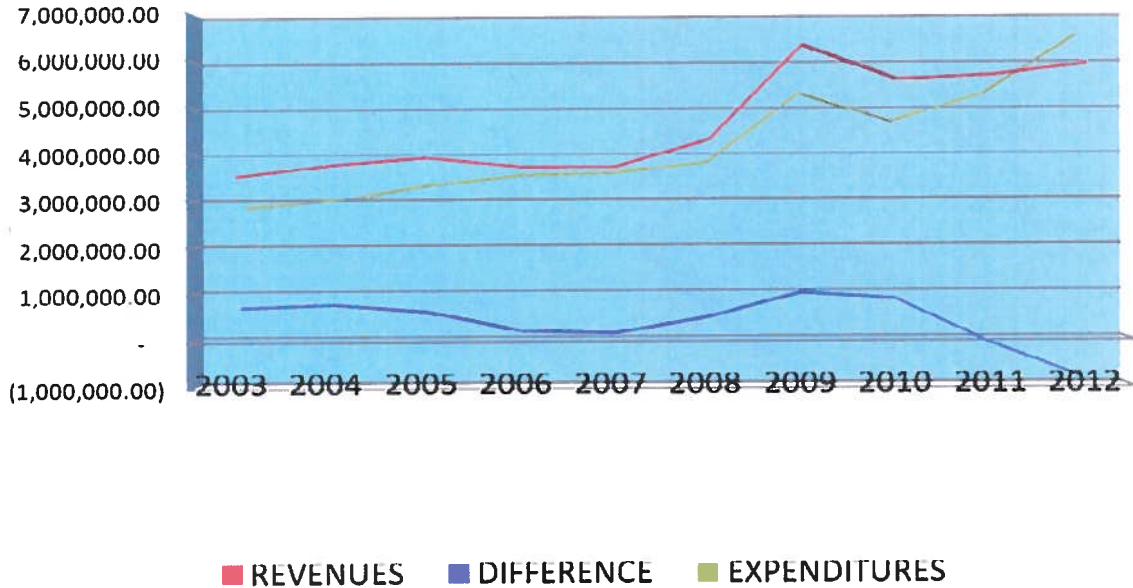
- Section I. Report Purpose – Page 1
- Section II. Current Sanitation Operations – Page 3
- Section III. Proposed Automated Waste Collection – Page 12
- Section IV. Employee Transition Plan – Page 24
- Section V. Fiscal Analysis – Page 26

- Appendix A: Performance and Cost Comparison Data from North Carolina
Local Government Performance Measurement Project (i.e.
Benchmarking Study)
- Appendix B: Survey of Refuse Fees from Select Cities (November 2012)
- Appendix C: Draft Voluntary Early Retirement Incentive Program

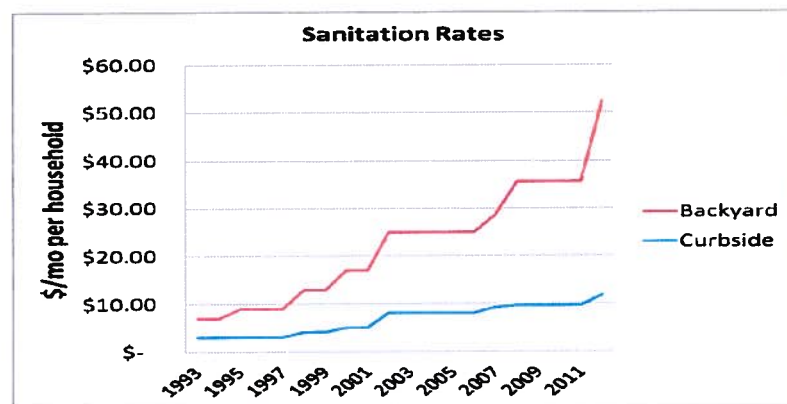
Report Updated by the City of Greenville
City Manager's Office, Public Works Department,
Financial Services Department and Human Resources Department
March 5, 2013

Section I. Report Purpose

The City's Sanitation Fund is designated as an enterprise fund and, as such, it is intended to be fiscally self supporting. The fund has operated at a deficit, as depicted below, the past two fiscal years with a loss of \$86,915 in FY 10-11 and a loss of \$844,383 in FY 11-12.



During the FY 12-13 and FY 13-14 biennial budget development process, the City identified two primary reasons for the fund's operational deficits. First, the rates had not been adjusted during the previous four years, while the cost for service provision had risen substantially during the same period. Second, the City continues to utilize an inefficient service delivery system (i.e. backyard service and manual collection) at a time when many of our peer communities have implemented, or are in the process of implementing, automated service delivery systems. As a result of these circumstances, the need for substantial rate increases in FY 12-13 and FY 13-14 to ensure that the fund's revenues would cover expenses was recognized.



City Council approved a limited rate increase for FY 12-13 and no additional increase in FY 13-14 (see Table 1 for approved Sanitation Rates). The approved budget included an operational subsidy in the form of a transfer from the General Fund totaling \$139,163 in FY 12-13 and \$439,200 in FY 13-14. In addition to this transfer, the General Fund will absorb an estimated \$749,000 in indirect costs that are not charged to the Sanitation Fund.

Table 1. Sanitation Rates

Service Type	FY 12 Rate (Per Month)	FY 13 Rate (Per Month)	*FY 14 Rate
Curbside (Basic)	\$9.60	\$11.75	\$11.75
Backyard (Premium)	\$26.00	\$40.80	\$40.80
Multi-Family	\$9.57	\$11.75	\$11.75

*FY 14 rate based on approved financial plan.

It was the general consensus of City Council during this year’s budget development process that changes are needed in how sanitation services are provided so as to avoid substantial future rate increases and continued subsidies from the General Fund. To this end, it was determined that an evaluation of sanitation services be conducted and that a plan for providing more efficient and cost effective sanitation service be developed and presented to City Council.

As such, the purpose of this report is to outline a five-year plan that transitions the City’s current manual collection processes to automated and semi-automated processes that will result in a service delivery system that will:

1. Continue providing high levels of customer service while utilizing industry best practices which will increase operational efficiencies and minimize injuries to City personnel;
2. Ensure that the Sanitation Fund operates as an enterprise fund, requiring no direct subsidy from the General Fund;
3. Better define service levels for various sanitation services;
4. Provide mechanisms for customers that need service levels greater than the defined service levels to pay additional fees for additional services; and
5. Ensure that the costs of services for customers are minimized to the greatest extent practicable.

There are inherent advantages to automated collection of solid waste for both residents and municipalities:

For Residents

- Convenient and easy method for residents to dispose of trash.
- Wheeled containers are safer, easier and more maneuverable for residents because there is no lifting of heavy trash cans.
- The containers keep rodents and pets out of trash cans as a result of the lids. Trash is less susceptible to being wind-blown due to the lids as well.
- Cleaner neighborhoods with no litter on streets after pickup.

For Municipality

- Reduced Employee injuries and less time missed by injured employees
- Lower turnover rate of employees
- Reduced Workmen's Compensation Claims
- Improved collection and efficiency which will lead to reduced costs
- Cleaner neighborhoods with no litter on streets after pickup.

Section II: Current Sanitation Operations

The Sanitation Division provides residential refuse services to the citizens of Greenville. The array and frequency of services are delivered in a manner that ensures public health risks are minimized, the City remains aesthetically pleasing, rules and regulations are abided by, and meets the Division's service goals.

The Sanitation Division has 72 full time positions authorized. Currently, 68 of those positions are filled. The Division has a Superintendent, three route Supervisors, seven Crew Leader II's, 17 Crew Leader I's, 38 Refuse Collectors, one Recycling Coordinator and a Pest Control Officer.

The Sanitation Division has 46 pieces of equipment. The fleet is comprised of 18 rear loaders, seven front loaders, six knuckle booms, six leaf collectors, eight pick-up trucks, and one car. Only diesel and gasoline fuels are used to power the Division's vehicles. All of the Division's vehicles and equipment were in compliance with federal exhaust emissions guidelines at their time of purchase. Compliance with emission standards has resulted in higher equipment cost. The fleet consists of equipment that is less than ten years old and is used to provide services described in this report.

Four of the pick-up trucks are assigned to the supervisors for various field services including supervision of route collect, one is assigned to the Pesticide Officer for mosquito and rodent

control activities, one is assigned to a Refuse Collector for roll out cart delivery, and one is used to pull the Division's two recycling trailers to special events and used in the Christmas parade. One pick-up serves as back-up and for picking up missed collections.

The Sanitation Division's only car is assigned to the Recycling Coordinator. It is used for Keep Greenville Beautiful activities and other recycling duties.

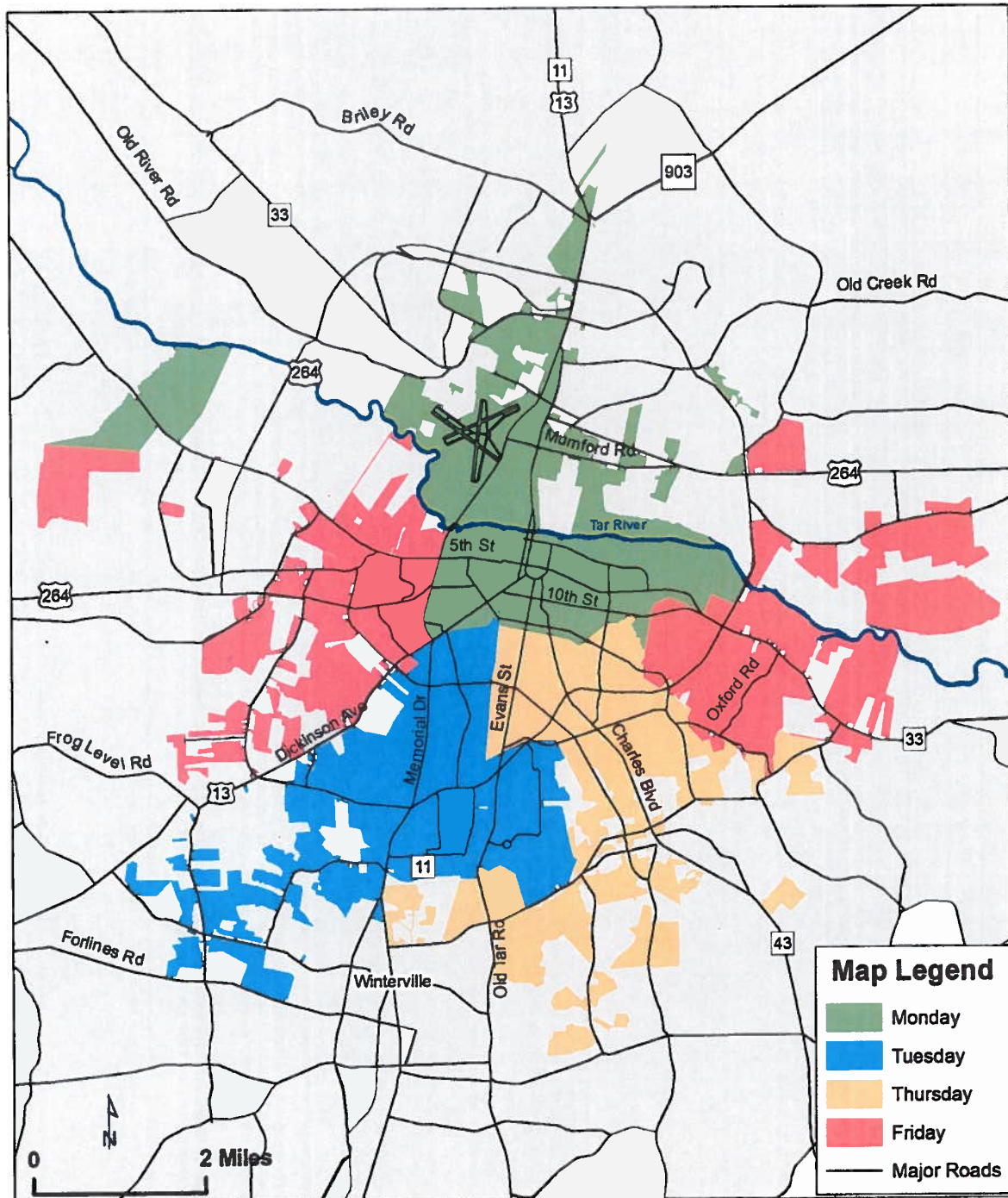
Refuse Collection

Collection Routing

Regular refuse collection, recycling collection, and yard waste collection occurs four days per week (Monday, Tuesday, Thursday and Friday). Multi-family bulky item collection and additional yard waste services are provided city-wide on Wednesdays. Figure 1 below depicts the daily routes within the city.

Sanitation has traditionally offered two service options for single family residences premium (backyard) and basic (curbside). City Council modified the service provisions by eliminating the option for new customers to choose premium service effective July 1, 2012, and by requiring all existing premium service customers to switch to basic service by July 1, 2017. As such, all new customers are required to have curbside service and must purchase a roll-out cart for the basic (curbside) refuse service. The Sanitation Division currently provides weekly refuse collection to approximately 3,154 premium (backyard) service customers, 14,595 basic (curbside) service customers, and 20,242 multi-family customers. These account numbers are reported as of December 2012. The number of premium services has decreased from 5,425 to 3,154 in the course of a year or approximately a 42% reduction.

Figure 1. Regular Sanitation Collection Routes



Greenville is the last of North Carolina’s ten largest cities that still offers backyard collections. Since manual collection processes are utilized, the City has a high number of Sanitation employees per collection points compared to the other municipalities participating in the North Carolina Local Government Performance Measurement Project (See Appendix A). Additionally the predominantly manual collection service leads to more frequent injuries (back and slips/trips/falls) and higher occurrences of workman’s compensation.



Example of Excessive Refuse – Premium (backyard)

Single Family Refuse Collection

There are currently eight rear loaders and twenty-four employees assigned to this collection sector on Monday, Tuesday, Thursday, and Friday. They provide the basic (curbside) collection, premium (backyard) collection, and curbside bulky trash collection on a weekly basis. The basic (curbside) customers utilize curbside carts that are purchased from the City and that fit the rear loaders’ cart tipper. Premium (backyard) service customers are allowed to have up to three 32- gallon containers located in their backyard. Refuse collectors travel to the rear of the homes pulling a crew cart to empty the resident’s garbage cans and then transporting the garbage back to the truck. The City also offers a special service option to customers that provide documentation that they are physically unable to transport their container(s) to the curbside. The City provides backyard collection to these customers at the basic (curbside) rate.

Identified Inefficiencies in the Current Single Family Refuse Collection System

- Labor intensive / manual collection process currently employed (three-man crews);
- Combination of collection points (rear yard and curbside);
- Lack of standardization for collection containers;
- No limitation on the volume (number of containers) for curbside customers;
- Fee for service is not tied to volume (number of containers) and



Example of Excessive Refuse – Basic (curbside)

- Weekly collection of bulky items using labor intensive / manual collection process (three man crews).

The Federal Government reported in 2012 that the waste/recycling collection workers have the 4th highest injury rate in the United States. This increased by 30% in 2010 and 2011. The proposed modifications will layout a collection plan that will not only increase operational efficiencies but greatly reduce the occurrence of injuries associated with lifting and slip/trips and falls. Figure 2 presents the injuries sustained, missed days as a result as well as the cost to the department for these workplace injuries.



Figure 2 – Sanitation Injuries

Public Works - Sanitation Division

Workmen's Compensation Claims and Injuries

	Year	Total # of cases w/ job restrictions	Total # days away from work	Total # days of restricted duty	Total # Injuries	% Claims Belonging to Sanitation	Injured	% Cost Belonging to Sanitation
Sanitation	2012	6	119	239	16	52%	\$168,979.00	76%
PW Dept	2012	9	208	285	31		\$222,683.44	
Sanitation	2011	6	17	125	11	38%	\$7,356.93	20%
PW Dept	2011	11	47	211	29		\$37,589.29	
Sanitation	2010	6	7	57	13	52%	\$5,653.71	48%
PW Dept	2010	7	20	61	25		\$11,699.81	
Sanitation	2009	8	3	107	14	48%	\$59,040.91	85%
PW Dept	2009	15	3	154	29		\$69,113.74	
Sanitation	2008	6	3	370	13	42%	\$13,016.88	12%
PW Dept	2008	14	113	746	31		\$110,720.23	

Multi-family Refuse Collection

Multi-family units use dumpsters for refuse disposal. Front loader trucks with two person crews are used to empty multi-family residential dumpsters, City facilities and Greenville Utility Commission (GUC). The trucks have a 40 cubic yard capacity.

The City’s multi-family refuse collection is provided by eight employees using four front loader dumpster trucks. This service is provided using two person crews. The refuse collector assigned to the crew is responsible for backing assistance and the disposal/pick-up of discarded items left on dumpster pads. The current fleet of front-end loaders has some front loaders equipped with rear view cameras. These mechanisms assist with backing, exiting, and servicing urban areas and traditional neighborhoods which typically have more narrow streets/alleys and can be more difficult to maneuver. Most dumpster collections in other municipalities, both private and public, are performed by the driver only. City standards require that all discarded items be placed inside the dumpster and not left on the dumpster pad. The standard practice has traditionally been for the refuse collectors to manually pick-up any items left around the dumpster and put them in the dumpster.

Identified Inefficiencies

- Utilization of two person crews.
- City allows debris to be placed around the dumpster.



Recycling

General recycling collection uses three person crews and 25 cubic yard rear loader trucks. Recycling is collected from single family residences, multi-family residential properties, three City recycling drop off sites, schools within the City limits, and other City buildings.

Recycling collection for white goods (i.e. appliances) and electronics (i.e. computers, televisions, etc.) is collected on a call-in basis, and no fees are charged for collection. All white goods with refrigerants are taken to the Allen Road Transfer Station. Non-refrigerant containing appliances are disposed of at a local metal recycler. Pick-up trucks are used for white good collection, electronic recycling, and missed service calls.

The City's recycling collection service has twelve employees and uses four rear loader trucks. Premium (backyard) refuse service includes backyard recycling collection. The City collects comingled recycling materials on the same day as refuse collection. Increased recycling participation, coupled with the city's population growth, has led to significantly greater volumes of recyclable collections than in previous years. This increased work load has placed great demands on current crews, and it is anticipated that a fifth rear loader truck and three additional employees will be needed within the next two years unless a more efficient collection system is implemented.

Identified Inefficiencies

- Labor intensive collection process currently employed (three man crews using rear loader trucks).
- Combination of collection points (rear yard and curbside).
- Lack of standardization for collection containers.

Yard Waste

The knuckle boom trucks operate with two person crews and are used to collect yard waste from single family homes and multi-family units. Truck bodies range between 22 and 30 cubic yard capacity.

Loose leaf collection services are provided weekly November – February (the peak loose leaf season). Part-time drivers and temporary employees are utilized for loose leaf collection. Residents are allowed to place loose leaves behind the curb for collection. These leaf trucks utilize vacuum apparatus to collect the loose leaf piles.



The Sanitation Division uses twelve employees and six knuckle boom trucks, operating as two person crews, to collect yard waste from city residences. Yard waste is scheduled to be collected the same day as refuse and recycling. The use of knuckle boom trucks has encouraged residents to put out enormous piles of yard waste, typically consisting of limbs, logs and brush. Additionally, many private landscape contractors perform large projects and leave excessive amounts of yard waste debris by the curb for the City to collect.

Currently, if a resident containerizes yard waste, the crew must dump the container or bag contents on a hard surface and use the grapple to collect the yard waste. The trucks are not made for the collection of containerized yard waste. Knuckle boom trucks also have limited compaction ability, and having no restrictions on the amount of yard waste a resident places at the curb makes the planning of routes and workloads



very difficult. This results in residents often complaining about the timeliness of scheduled yard waste collection. Once yard waste service levels become better defined, improved planning will allow more predictable and efficient service delivery.

Identified Inefficiencies

- Lack of limitations on volumes to be collected.
- No standard for how debris should be placed at the curb (customers are permitted to leave debris in any manner they desire).
- Knuckle boom trucks do not allow for compaction, leading to increased trips to the landfill for emptying.
- Current system does not allow for the efficient collection of containerized yard waste.
- Current practice requires staff time to rake area after collection by knuckle boom.

Each of the City's identified inefficiencies has led to a higher cost of performing the work associated with sanitation collection and disposal. The City of Greenville is the 10th largest City in North Carolina and is the last of the 15 largest cities to convert to an automated collection system. By not converting our system to an automated collection system the City will incur a deficit in the enterprise fund of nearly \$19 million by the year 2020. With this in mind the City is proposing a more efficient means of collecting and disposing of residential and multi-family waste and recycling.



Section III: Proposed Automated Waste Collection

Automated side-load trucks were first implemented in the 1970s. The goal of automation was to minimize worker injuries associated with the repetitive and strenuous nature of residential solid waste collection. Since this time thousand of public agencies have moved from the traditional rear-load method of waste collection to an automated system.

In an automated collection system, residents have a standardized container where they place their waste. The container

is then placed at the curb by the resident on their collection day. During waste collection the driver will position the collection vehicle beside the cart.

From inside the temperature controlled cab, the driver will use the controls to maneuver a side-mounted collection arm to pick up the container and place the contents into the vehicle.



The driver then uses the arm to return the container to its original location. The entire collection route can be serviced by the driver. This eliminates the manual labor that leads to frequent injuries, employee turnover as well as extra costs. Additionally crew productivity is increased. An automated system will allow the City to make twice as many stops in a day with one-third the manpower.

The following modifications are proposed for the City's waste collection system:

Single Family Refuse Collection

Replace the eight rear loader trucks utilizing three-man crews with three single operator fully automated trucks and two semi-automated trucks utilizing two man crews. The net result of this modification will include three fewer trucks and 16 fewer personnel assigned to weekly routes. Operational modifications proposed to accommodate and/or supplement this transition include:

1. Standardized Roll-Out Carts

The City will purchase and issue roll-out carts to basic customers that do not currently have carts compatible for automated collection. There are many types and styles of carts being used throughout the City. As such not all carts currently being used for basic (curbside) refuse service can be utilized for automated collection. Carts purchased from the City within the last 10 years are compatible with automated collection. Carts previously purchased from the City and in good working order will be replaced by the City. It is estimated that the City will provide 4000 carts, suitable for automation, to our customers. Cart performance affects the speed and efficiency of collection routes, the safety of sanitation employees, and the ability to prevent litter. Technology has improved the information that can be gathered from carts through Radio Frequency Identification (RFID) tags and web-based software management.

Refuse collectors will walk to the backyard for premium (backyard) customers until this service is discontinued on June 30, 2017. It should be noted that the transition of premium (backyard) accounts to basic (curbside) accounts is occurring more quickly than originally anticipated. In 2012 there was a 42% reduction in premium customers.

The residents of Greenville purchase their roll out cart for basic (curbside) refuse service and special services. Most of North Carolina's cities provide their residents with roll-out carts for both recycling and garbage disposal.



Benefits / Rationale

- Standardized carts are critical to transitioning to automated and semi-automated collection;
- Allows Public Works to optimize the collection routes as the current configuration was based on historical backyard collection locations.

- Eliminates heavy lifting currently required to service premium (backyard) customers, thus reducing work-related injuries and their associated costs (June 30, 2017):
- Eliminates the injuries associated with crew cart use;
- Ensures that all carts have appropriate lids attached which, when used properly, will reduce water infiltration and litter spilling onto the streets and private property;
- Saves time as the refuse collectors would no longer be required to remove and replace lids or lift and empty different styles of containers.

2. Volume-Based Pricing

The City will define the amount of refuse to be collected during a scheduled weekly collection as one roll-out cart (96-gallon capacity). If the customer generates additional refuse, they will need to purchase one or more additional roll-out carts (\$75 each) and pay an additional monthly fee for this additional service (\$5.00 per month). The City currently charges a single rate regardless of the amount of refuse generated (i.e. the same basic rate whether the customer uses one 96-gallon roll-out cart or if they use four 96 gallon roll out carts).

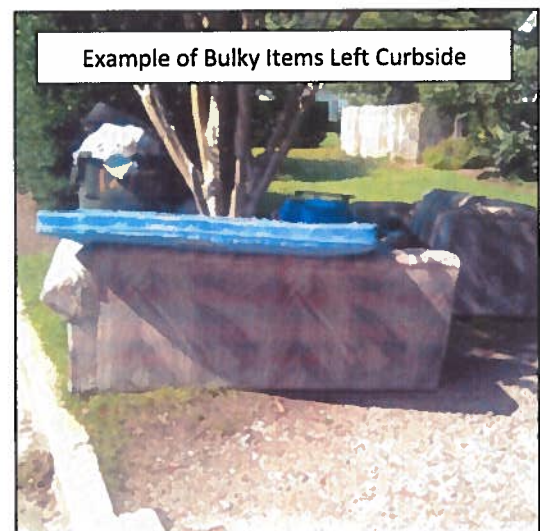
Benefits/Rationale

- Fees are more aligned with the customer’s service usage;
- Average consumers are not subsidizing those that generate the most refuse;
- Provides incentive to recycle;
- Potential for additional revenues.

3. Bulky Item Collection / Sofas, Mattresses, Furniture

Currently, bulky refuse is placed at the curb for collection every week. Most collections are performed manually and with rear loader trucks. This current practice is not compatible with automated side loaders; thus, a separate collection method is needed.

The City proposes to utilize knuckle-boom trucks for bulky item collection on a call-for-service



basis. The service day for bulky item pick-up will be Wednesday. Residents will be required to call and schedule bulky item pick-up prior to that Wednesdays. Residents will be allowed 4 cubic yards of bulky items (about the size of a regular pick-up truck bed or approx. 6-ft L by 6-ft H by 4-ft W container) at no additional cost. Collection of more than 4 cubic yards will require a special collection fee of \$25.00 for each additional 4 cubic yards.

Benefits / Rationale

- Fees are aligned with the customer’s service usage (volume based pricing);
- *Use of knuckle-booms will reduce heavy lifting by employees;*
- Citizens can always utilize the Allen Road Transfer Station in addition to City service for no additional charge.



Table 2 presents the implementation plan for automated single family refuse collection. The chart below provides a summary of that table.

Single Family	2012	2017
Criteira	Current Program	Automated Program
Staffing	24	7
Vehicles	8	5
Collection Frequency	1 x week	1 x week

Table 2: Implementation Plan for Single Family Refuse Collection Modifications

FY 2012 – 2013	FY 2013 - 2014	FY 2014 – 2015	FY 2015 - 2016	FY 2016 - 2017
Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism
<ul style="list-style-type: none"> 8 rear loader trucks utilizing 3-man crews <p>Note: Reduction of 1 Crew/Truck by April 1, 2013 is expected</p>	<ul style="list-style-type: none"> 5 rear loader trucks utilizing 3 man-crews 2 single-operator automated trucks <p>Note: 2 automated trucks to be in service effective January 2014.</p>	<ul style="list-style-type: none"> 3 rear loader trucks utilizing 3-man crews 4 single-operator automated trucks <p>Note: 2 automated trucks to be in service effective July 2014.</p>	<ul style="list-style-type: none"> 1 rear loader truck utilizing 3 man crew 2 automated 2-person crew side-loader trucks 3 single-operator automated trucks 	<ul style="list-style-type: none"> 2 automated 2-person crew side-loader trucks 3 single-operator automated trucks
Route Personnel	Route Personnel	Route Personnel	Route Personnel	Route Personnel
<ul style="list-style-type: none"> 7 Crew Leaders (Drivers) 14 Refuse Collectors 	<ul style="list-style-type: none"> 7 Crew Leaders (Drivers) 10 Refuse Collectors 	<ul style="list-style-type: none"> 7 Crew Leaders (Drivers) 6 Refuse Collectors 	<ul style="list-style-type: none"> 6 Crew Leaders (Drivers) 4 Refuse Collectors 	<ul style="list-style-type: none"> 5 Crew Leaders (Drivers) 2 Refuse Collectors
Action	Action	Action	Action	Action
<ul style="list-style-type: none"> Issue RFP and accept formal bids for 1 single-operator automated truck and 1 automated 2-person side-loader truck (March 2013) Hire consultant to maximize sanitation routes (March 2013) Incorporate Mobile 311 to assist with bulky item collection (Jan. 2014) Proposed refuse fee adjustment for single family residences 	<ul style="list-style-type: none"> Put into service 2-single operator automated trucks (January 2014) Issue RFP and accept formal bids for 2-single operator automated trucks (July 2013) Implement new routing to accommodate automated trucks (January 2014) Purchase and deliver roll-out carts that are compatible with automated collection (January 2014) Proposed refuse fee adjustment for single family residences 	<ul style="list-style-type: none"> Put into service 2 single-operator automated trucks (July 2014) Issue RFP and accept formal bids for 2 automated 2-person side-loader trucks (July 2014) Proposed refuse fee adjustment for single family residences 	<ul style="list-style-type: none"> Put into service 2 automated 2-person crew side-loader trucks (July 2015) Issue RFP and accept formal bids for 2 single-operator automated trucks to be placed in the reserve fleet (July 2015) Proposed refuse fee adjustment for single family residences 	<ul style="list-style-type: none"> Notify remaining premium (backyard) service customers that all service will be curbside effective July 1, 2017 Proposed refuse fee adjustment for single family residences
Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact
<p>Anticipated Costs</p> <ul style="list-style-type: none"> Purchase of 2 automated trucks (\$520,000) Routing software consultant (~\$30,000) 	<p>Anticipated Costs</p> <ul style="list-style-type: none"> Purchase of 2 automated trucks (\$550,000) Refuse cart purchase, assembly and delivery (6,000 carts \$300,000) 	<p>Anticipated Costs</p> <ul style="list-style-type: none"> Purchase of 2 automated trucks (\$550,000) 	<p>Anticipated Costs</p> <ul style="list-style-type: none"> Purchase of 2 automated trucks as back-up vehicles (\$550,000) 	<p>Anticipated Costs</p> <ul style="list-style-type: none"> None
<p>Anticipated Savings/Revenues</p> <ul style="list-style-type: none"> Reduction of 3 FTE for 1/4 year @ 43,900 per year (\$32,925) 	<p>Anticipated Savings/Revenues</p> <ul style="list-style-type: none"> Reduction of 3 FTE for full year and 4 FTE for 1/2 year @ \$43,900 per year (\$219,500) Surplus 2 rear loader trucks (\$15,000) 	<p>Anticipated Savings/Revenues</p> <ul style="list-style-type: none"> Reduction of 11 FTE for full year @ \$43,900 per year (\$482,900) Surplus 2 rear loader trucks (\$15,000) 	<p>Anticipated Savings/Revenues</p> <ul style="list-style-type: none"> Reduction of 14 FTE for full year @ \$43,900 per year (\$614,600) Surplus 2 rear loader trucks (\$15,000) 	<p>Anticipated Savings/Revenues</p> <ul style="list-style-type: none"> Reduction of 17 FTE for full year @ \$43,900 per year (\$746,300) Surplus 2 rear loader trucks (\$15,000)

Multi-Family Refuse Collection

Proposed Modifications

Actively enforce the requirement that all refuse be placed into the dumpster. Utilize four single-operator front loader dumpster trucks for collection. Also make available one refuse collector that will float among the four trucks to assist with backing in more urban areas. The net result of this modification will include three fewer personnel assigned to weekly routes.

Benefits / Rationale

- Increased collection efficiency;
- Costs savings due to workforce reduction.

Table 3 presents the implementation plan for automated single family refuse collection. The chart below provides a summary of that table.

Multi Family Criteria	2012 Current Program	2017 Automated Program
Staffing	8	5
Vehicles	4	4
Collection Frequency	1 x week	1 x week

Table 3: Implementation Table for Multi-Family Refuse Collection Modifications

FY 2012 – 2013	FY 2013 - 2014	FY 2014 - 2015	FY 2015 - 2016	FY 2016 – 2017
Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism
<ul style="list-style-type: none"> 4 Front loaders utilizing 2-person crews 	<ul style="list-style-type: none"> 4 front loaders with single operators and one floating Refuse Collector 	<ul style="list-style-type: none"> 4 front loaders with single operators and one floating Refuse Collector 	<ul style="list-style-type: none"> 4 front loaders with single operators and one floating Refuse Collector 	<ul style="list-style-type: none"> 4 front loaders with single operators and one floating Refuse Collector
Personnel	Personnel	Personnel	Personnel	Personnel
<ul style="list-style-type: none"> 4 Crew Leaders 4 Refuse Collectors 	<ul style="list-style-type: none"> 4 Crew Leaders 1 Refuse Collector 	<ul style="list-style-type: none"> 4 Crew Leaders 1 Refuse Collector 	<ul style="list-style-type: none"> 4 Crew Leaders 1 Refuse Collector 	<ul style="list-style-type: none"> 4 Crew Leaders 1 Refuse Collector
Action	Action	Action	Action	Action
<ul style="list-style-type: none"> Develop Routes with Routing software Education and notice to all multi-family property managers / owners that all refuse (bags, clothes) is required to be in the dumpster for collection (April 2013 through January 2014) Bulky items will be collected weekly by call-in for service appointments Address site distance / backing issues associated with dumpster locations where feasible Proposed refuse fee adjustment for multi-family residences 	<ul style="list-style-type: none"> Shift from 4 two-person crews to 4 single operators with one Refuse Collector to float among routes to assist with backing maneuvers Continue education efforts Proposed refuse fee adjustment for multi-family residences 	<ul style="list-style-type: none"> Study alternative fuels for savings Proposed refuse fee adjustment for multi-family residences 	<ul style="list-style-type: none"> Study alternative fuels for savings Proposed refuse fee adjustment for multi-family residences 	<ul style="list-style-type: none"> Study alternative fuels for savings Proposed refuse fee adjustment for multi-family residences
Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact
Anticipated Costs <ul style="list-style-type: none"> Printing education materials, direct mailing and dumpster stickers (\$1,000) 	Anticipated Costs <ul style="list-style-type: none"> (\$0) 	Anticipated Costs <ul style="list-style-type: none"> (\$0) 	Anticipated Costs <ul style="list-style-type: none"> (\$0) 	Anticipated Costs <ul style="list-style-type: none"> (\$0)
Anticipated Savings/Revenues <ul style="list-style-type: none"> None 	Anticipated Savings/Revenues <ul style="list-style-type: none"> Reduction of 3 FTE for 1/2 year @\$43,900 (\$65,850) Fuel savings from routing efficiency 	Anticipated Savings/Revenues <ul style="list-style-type: none"> Reduction of 3 FTE for 1 year @\$43,900 (\$131,700) Fuel savings from routing efficiency 	Anticipated Savings/Revenues <ul style="list-style-type: none"> Reduction of 3 FTE for 1 year @\$43,900 (\$131,700) Fuel savings from routing efficiency 	Anticipated Savings/Revenues <ul style="list-style-type: none"> Reduction of 3 FTE for 1 year @\$43,900 (\$131,700) Fuel savings from routing efficiency

Recycling Collection

Proposed Modifications

Replace the four rear loader trucks utilizing three-man crews with three single operator fully automated trucks and two semi-automated trucks utilizing two-man crews. The net result of this modification will include five fewer personnel assigned to weekly routes. Operational modifications proposed to accommodate and/or supplement this transition include:

1. Standardized Roll-Out Carts

The City will purchase and issue recycling roll-out carts to all customers.

2. Require That All Recycling be Collected at Curbside

Curbside recycling collection is mandated by all of the other benchmark cities and is recognized throughout the solid waste industry as a best management practice. Currently, the City collects recycling for all premium (backyard) service customers in the backyard. The proposed approach requires that all customers except special service customers bring recycling material to the curbside for automated / semi-automated collection.



Benefits / Rationale

- Helps maintain recycling collection without additional personnel;
- Standardized carts are critical to transitioning to automated and semi-automated collection;
- Provides an avenue for the City to own all carts used in collection process ensuring compatibility with collection equipment;
- Allows the City to apply for grants to help pay for residential curbside recycling carts. The Sanitation Division has applied for a \$75,000 grant from the State of North Carolina for curbside recycling carts.
- Eliminates the need for approximately 12 crew carts and associated modifications required to rear loader tipping mechanisms which are currently needed to service premium (backyard) customers;
- Eliminates injuries associated with crew cart use;

- Many cities have reported increased recycling participation when roll-out carts are provided to residents and this is supported by state government's grants to provide roll out carts for curbside collection.

Table 4 presents the implementation plan for automated single family refuse collection. The chart below provides a summary of that table.

Recycling	2012	2017
Criteira	Current Program	Automated Program
Staffing	12	7
Vehicles	4	5
Collection Frequency	1 x week	1 x week

Table 4: Implementation Table for Recycling Collection Modifications

FY 2012 – 2013	FY 2013 - 2014	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017
Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism
<ul style="list-style-type: none"> 4 rear loader trucks utilizing 3-man crews 	<ul style="list-style-type: none"> 3 rear loader trucks utilizing 3-man crews 2 single operator automated trucks Note: 2 automated trucks to be in service effective January 2014 	<ul style="list-style-type: none"> 3 rear loader trucks utilizing 3-man crews 2 single-operator automated trucks 	<ul style="list-style-type: none"> 1 rear loader truck utilizing 3-man crew 4 single-operator automated trucks Note: 2 automated trucks to be in service effective January 2015 	<ul style="list-style-type: none"> 2- 2-person side loader trucks 3 single-operator automated trucks Note – 1 2-person side loader automated truck to be in service effective July 2016
Personnel	Personnel	Personnel	Personnel	Personnel
<ul style="list-style-type: none"> 4 Crew Leaders (Drivers) 8 Refuse Collectors 	<ul style="list-style-type: none"> 5 Crew Leaders (Drivers) 6 Refuse Collectors 	<ul style="list-style-type: none"> 5 Crew Leaders (Drivers) 6 Refuse Collectors 	<ul style="list-style-type: none"> 5 Crew Leaders (Drivers) 2 Refuse Collectors 	<ul style="list-style-type: none"> 5 Crew Leaders (Drivers) 2 Refuse Collectors
Action	Action	Action	Action	Action
<ul style="list-style-type: none"> Issue RFP and accept formal bids for 1 single operator automated trucks and 1 2-person crew side loader truck January 2014 (March 2013) February 2013 submitted application for State Recycling roll out cart grant (\$75,000) Issue RFP and accept formal bids for assembly and delivery of 17,000 recycling carts (95/65-gallon) (delivery prior to October 2013) 	<ul style="list-style-type: none"> Issue RFP and accept formal bids for 1 single operator automated truck and 1 2-person crew side loader truck (July 2013 reserve fleet) Implement automated routes Reduction of 2 Refuse Collectors and addition of one Crew Leader 	<ul style="list-style-type: none"> Issue RFP and accept formal bids for 1 single operator automated truck and 1 2-person crew side loader truck January 2014 (\$550,000) 	Promote recycling	<ul style="list-style-type: none"> Promote recycling
Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact
<u>Anticipated Costs</u> <ul style="list-style-type: none"> Purchase, assemble and delivery of 17,000 recycling carts (\$890,000) Purchase of 2 automated trucks (\$520,000) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> Purchase of 1 single operator automated truck and 1 2-person crew side loader truck (\$550,000) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> Purchase of 1 single operator automated truck and 1 2-person crew side loader truck (\$550,000) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> None 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> \$ (0)
<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> City to accept cart maintenance and replacement Refuse fee adjusted for single family residences 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> Reduction of 1 FTE for ½ year @ \$43,900 per year (\$21,950) Surplus 1 rear loader truck (\$7,500) 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> Reduction of 1 FTE for full year @ \$43,900 per year (\$43,900) 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> Reduction of 4 FTE for ½ year @ \$43,900 per year (\$87,800) and 1 FTE for 1 year @ \$43,900 per year (\$43,900) Surplus 2 rear loader trucks (\$15,000) 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> Reduction of 5 FTE for full year @ \$43,900 per year (\$219,500) Surplus 2 rear loader trucks (\$15,000)

Yard Waste Collection

Proposed Modifications

A common yard waste collection practice among the benchmark cities is to limit the amount of yard waste collected on the resident's service day. Staff recommends limiting residential yard waste collection to 4 cubic yards (regular bed of a pick-up truck) per week for a single family residence. The 4 cubic yards limit will not apply to leaves during yard waste collection from November to February.

Encourage residents to use biodegradable bags for yard waste, to bundled limbs, and require limbs be placed at the curb not exceed six feet in length. The City will collect 4 cubic yards (6 ft x 6 ft x 4 ft container or standard size pick-up truck bed) of yard waste per week from a single family home. Yard Waste in excess of 4 cubic yards will require a special collection fee of \$25 for each additional 4 cubic yards of yard waste. Residents should call and schedule collection of yard waste in excess of 4 cubic yards. The modifications to this collection are presented in Table 5.

Benefits / Rationale

- Increased ability to maintain service schedule;
- Fuel savings;
- Greater efficiency;
- Reduced equipment maintenance cost.
- Potential for increased revenue.

Loose Leaf Collection

The City's loose leaf collection operates from November to February each year. The City uses up to 18 temporary employees to provide this service utilizing leaf vacuum trucks during this peak period. Outside of the peak leaf season, loose leaves are either collected using knuckle boom trucks or special trips are made with leaf vacuum trucks.

Proposed Modifications

Continue loose leaf collection using vacuum trucks during peak months (November through February). During non-peak months, encourage loose leaves and grass clippings be bagged in biodegradable bags for collection.

Benefits / Rationale

- Makes yard waste collection more efficient during the months that loose leaves are not collected with vacuum truck.

Table 5: Implementation Table for Yard Waste / Bulky Item Collection Modifications

FY 2012 – 2013	FY 2013 - 2014	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017
Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism	Collection Mechanism
<ul style="list-style-type: none"> • 7 Knuckle boom trucks utilizing 2 person-crews 	<ul style="list-style-type: none"> • 7 Knuckle boom trucks utilizing 2 person-crews 	<ul style="list-style-type: none"> • 7 Knuckle boom trucks utilizing 2-person crews 	<ul style="list-style-type: none"> • 7 Knuckle boom trucks utilizing 2-person crews 	<ul style="list-style-type: none"> • 7 Knuckle boom trucks utilizing 2-person crews
Personnel	Personnel	Personnel	Personnel	Personnel
<ul style="list-style-type: none"> • 7 Crew leaders (Drivers) • 7 Refuse Collectors 	<ul style="list-style-type: none"> • 7 Crew leaders (Drivers) • 7 Refuse Collectors 	<ul style="list-style-type: none"> • 7 Crew leaders (Drivers) • 7 Refuse Collectors 	<ul style="list-style-type: none"> • 7 Crew Leaders (Drivers) • 7 Refuse Collectors 	<ul style="list-style-type: none"> • 7 Crew Leaders (Drivers) • 7 Refuse Collectors
Action	Action	Action	Action	Action
<ul style="list-style-type: none"> • Citizen education for biodegradable bagging, bundling of yard waste and bulky item collection by call-in for Wednesday collection (GTV, newspapers, direct mail flyers) • Set new parameters for yard waste quantities • Yard Waste Recycling Promotion • Use Mobile 311 system to enhance collection efficiency • 	<ul style="list-style-type: none"> • Citizen education • Incorporate residential bulky item collection within the yard waste system • Implement standards for yard waste quantities • Issue RFP and accept formal bids for 1 knuckle boom truck (Reserve Fleet) (July 2013) 	<ul style="list-style-type: none"> • Citizen education • Knuckle boom for residential bulky item collection • Yard Waste / Composting Recycling Promotion 	<ul style="list-style-type: none"> • Citizen education • Yard Waste / Composting Recycling Promotion 	<ul style="list-style-type: none"> • Citizen education • Yard Waste / Composting Promotion
Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact	Fiscal Impact
<u>Anticipated Costs</u> <ul style="list-style-type: none"> • Printed Material (\$500) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> • Purchase of 1 knuckle boom truck for reserve fleet (\$150,000) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> • (\$0) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> • (\$0) 	<u>Anticipated Costs</u> <ul style="list-style-type: none"> • (\$0)
<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> • Fuel savings by routing to specific collection points resulting from call-in for collection of bulky items 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> • Fuel savings by routing to specific collection points for bulky item collection on Wednesday 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> • Fuel savings by routing to specific collection points 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> • Fuel savings by routing to specific collection points • Yard waste special collection fee 	<u>Anticipated Savings/Revenues</u> <ul style="list-style-type: none"> • Fuel savings by routing to specific collection points • Yard waste special collection fee

Section IV: Employee Transition Plan

Automated sanitation collection utilizes technology to provide greater efficiency to the collection process. As such, changing from a manual collection process to an automated / semi-automated collection process will result in the Sanitation Division needing 25 fewer Refuse Collectors over the next five years (See Section III, herein). Recognizing that the City organization's greatest asset is its human capital / employees, staff has evaluated how best to address this proposed reduction in staffing.

Sanitation Division	2012	2017
	Current Program	Automated Program
Staffing	68 (72 authorized)	47
Vehicles	46	40
Collection Frequency	1 x week	1 x week

Historic personnel trends for employees of the Sanitation Division and for other positions requiring similar skill sets to Refuse Collectors have been reviewed. Staff has also reviewed the division's personnel service records to identify those employees with the requisite combination of years of service and age to qualify for retirement. Based on this analysis, staff estimates that the following opportunities will exist to address the proposed reduction in staffing:

1. Full Retirement

Staff estimates that **four** sanitation employees will retire with full benefits over the next five years. This estimate includes Refuse Collector, Crew Leader I, and Crew Leader II positions.

2. Early Retirement

Staff estimates that **five** sanitation employees will take early retirement with the incentive plan outlined in Appendix C of this report. This estimate assumes that just less than 50% of those eligible for early retirement will do so with the proposed incentive plan. This estimate includes Refuse Collector, Crew Leader I, and Crew Leader II positions.

3. Reassignment to other City Positions

It is estimated that there will be the opportunity to reassign **twelve** sanitation employees to other vacant City positions over the next five years. This estimate includes Refuse Collector, Crew Leader I, and Crew Leader II positions.

4. Freezing Vacant Positions

The Sanitation Division currently has **four** Refuse Collector positions unfilled. These positions will remain unfilled to assist in implementing the proposed reduction in staffing.

The approach outlined above would accommodate all Sanitation personnel without any being terminated due to personnel reductions; however, there is no guarantee that:

- Those eligible for full retirement will do so;
- Those eligible for early retirement will utilize the proposed incentive and do so;
- Attrition within the division and for other positions requiring similar skill sets will continue at historic rates.

Section V: Fiscal Analysis of Automated Collection

The greatest cost associated with transitioning to an automated/semi-automated collection system comes in the form of vehicles. Automated/semi-automated vehicles cost approximately \$260,000 each. Rear loader trucks traditionally utilized for single family refuse and recycling collection cost approximately \$145,000 each.

The plan to transition to an automated/semi-automated collection system is based on a five-year implementation schedule; however, fleet modifications will occur over eight-years to accommodate the purchase of back-up vehicles. The difference between the budgeted contributions to the Vehicle Replacement Fund over the eight-year period and the increased cost of the modified fleet totals \$1.4 million. Staff recommends that the Vehicle Replacement Fund cover this deficit as it has sufficient funds to do so with a current balance of \$7.2 million, has increased fund balance each year since it was created in 2007, and includes an initial General Fund contribution of \$2.5 million. This is a one-time contribution from the Vehicle Replacement Fund as future Sanitation Fund budgets will be adjusted to pay the increased “rent” for the more expensive vehicles.

While the transition to an automated/semi-automated collection system will provide greater efficiency and lead to cost savings, it will not, in and of itself, balance the Sanitation Fund. It will significantly reduce the deficit in the Sanitation fund but the fund will still be operating with a deficit. As illustrated in Table 6 a 7-yr rate increase is requested with a total amount of four dollars and seventy-five cents over that time frame.

Tables 7, 8 and 9, below, depict financial projections for the Sanitation Fund through FY 2020 under three different scenarios. Table 7 projections assume no changes in service delivery and no rate increases. This scenario will result in a cumulative operational loss of approximately \$18.1 million from 2013 to 2020. Table 8 presents projections assuming changing to an automated system while holding the monthly rate steady through 2020. This shows that the cumulative deficit will be approximately \$11.2 million without a rate increase. This represents a savings of nearly \$7 million from the current plan but is still not sustainable. Table 9 projections assume implementation of the service delivery modifications proposed by this plan with the rate increases as depicted in Table 6, below.

When the County’s tipping fee is added to the rate a resident will be paying about \$22.50/month for solid waste collection in 2020 as presented in the Automated Waste Collection section (Section III) of this report and as presented in Table 9.

Table 6. Proposed Rate Increases Through 2020

Fiscal Year	Proposed Rate Increase	% Increase (Based on Basic and Multi-Family)	Proposed Monthly Rate
2014	\$1.50	12.8%	\$13.25
2015	\$1.25	9.4%	\$14.50
2016	\$.75	5.2%	\$15.25
2017	\$.50	3.3%	\$15.75
2018	\$.25	1.6%	\$16.00
2019	\$.25	1.6%	\$16.25
2020	\$.25	1.5%	\$16.50

* FY 13 monthly rate is \$11.75 for basic (curbside) and multi-family customers.

Table 7. Sanitation Fund Financial Projections Through 2020: No Changes in Service Delivery and No Rate Increases

SANITATION FUND REVENUE HISTORY AND PROJECTIONS
No Change in Process and No Change in Fee

	2012	2013	2013 Projection Based on 1/31/2013	2014	2015	2016	2017	2018	2019	2020
	ACTUAL	ADJUSTED BUDGET	No new trucks	ADJUSTED PLAN Based on Projections for FY 2013	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS
TOTAL REVENUES	5,789,597	7,335,212	6,528,879	6,441,622	5,993,686	5,866,273	5,861,364	5,909,243	5,947,656	5,996,099
Operating-	6,214,703	6,926,678	6,608,573	7,317,405	7,539,004	7,794,500	8,034,924	9,172,742	9,417,261	9,679,310
Capital Improvement-	192,593	303,614	303,614	320,000	-	-	-	-	-	-
Transfer Out (Debt/Others)-	226,686	104,920	104,920	104,920	-	-	-	-	-	-
TOTAL EXPENSE	\$ 6,633,982	\$ 7,335,212	\$ 7,017,107	\$ 7,742,325	\$ 7,539,004	\$ 7,794,500	\$ 8,034,924	\$ 9,172,742	\$ 9,417,261	\$ 9,679,310
<i>Total Annual Net (Loss)/Income</i>	\$ (844,384)	\$ -	\$ (488,228)	\$ (1,300,702)	\$ (1,545,318)	\$ (1,928,227)	\$ (2,173,560)	\$ (3,263,499)	\$ (3,469,605)	\$ (3,683,212)
<i>Total Cumulative Net (Loss)/Income</i>	\$ (214,522)		(702,750)	(2,003,452)	(3,548,770)	(5,476,997)	(7,650,557)	(10,914,056)	(14,383,662)	(18,066,873)

Table 7, above, demonstrates that the continued use of the current collection system with no rate increases would result in increasing large annual deficits from FY 14 – FY 20, with a FY 20 net loss of \$3.7 million and a total cumulative fund loss of \$18.1 million. Cost will take a noticeable increase in fiscal year 2018, when the full allocation of indirect costs will be charged to the fund to illustrate full costs for the Sanitation Fund.

Table 8. Sanitation Fund Financial Projections Through 2020: Includes Implementation of Proposed Service Modifications and No Rate Increases

SANITATION FUND REVENUE HISTORY AND PROJECTIONS
Change in Process No Fee Change

	2012	2013	2013 Projection Based on 1/31/2013	2014	2015	2016	2017	2018	2019	2020
	ACTUAL	ADJUSTED BUDGET	No new trucks	ADJUSTED PLAN Based on Projections for FY 2013	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS
TOTAL REVENUE	5,789,597	7,335,212	7,793,879	6,455,674	5,950,366	5,819,901	5,691,867	5,736,557	5,781,145	5,828,513
Operating-	6,214,703	6,926,678	6,607,148	7,062,858	6,873,458	6,909,572	6,830,236	7,295,271	7,555,685	7,751,305
Capital Improvement-	192,593	303,614	1,493,614	150,000	-	-	-	-	180,000	-
Transfer Out (Debt/Others)-	226,686	104,920	-	269,875	166,608	168,279	169,966	171,670	173,391	175,219
TOTAL EXPENSE	\$ 6,633,982	\$ 7,335,212	\$ 8,100,762	\$ 7,482,733	\$ 7,040,066	\$ 7,077,851	\$ 7,000,202	\$ 7,466,941	\$ 7,909,076	\$ 7,926,434
Total Annual Net (Loss)/Income	\$ (844,384)	\$ -	\$ (306,883)	\$ (1,027,059)	\$ (1,089,701)	\$ (1,257,950)	\$ (1,308,335)	\$ (1,730,384)	\$ (2,127,930)	\$ (2,097,921)
Total Cumulative Net (Loss)/Income	\$ (214,522)	\$ (521,405)	\$ (1,548,464)	\$ (2,638,165)	\$ (3,896,114)	\$ (5,204,449)	\$ (6,934,833)	\$ (9,062,763)	\$ (11,160,684)	\$ (13,258,605)

Table 8, above, demonstrates the recommended combination of service delivery modifications with no rate increases would result in increasing large annual deficits from FY 14 – FY 20, with a FY 20 net loss of \$2.1 million and a total cumulative fund loss of \$11.2 million. With no fee increases the Sanitation fund will continue to be in debt to the General Fund by the 11.2 million mentioned above. With the service modifications, costs will take a noticeable increase in fiscal year 2018, when the full allocation of indirect costs should be charged to the fund to illustrate full costs for the Sanitation Fund. However, these projected costs have been reduced by approximately 34% based on personnel changes.

Table 9. Sanitation Fund Financial Projections Through 2020: Includes Implementation of Proposed Service Delivery Modifications

SANITATION FUND REVENUE HISTORY AND PROJECTIONS
Change in Process - Recommended Fee Increase

This model will illustrate what it will take to breakeven by year 2020, while maintaining a reserve of 8%

				1.50	1.25	0.75	0.50	0.25	0.25	0.25
	2012	2013	2013 Projection Based on 1/31/2013	2014	2015	2016	2017	2018	2019	2020
	ACTUAL	ADJUSTED BUDGET	No new trucks	ADJUSTED PLAN Based on Projections for FY 2013	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS	PROJECTIONS
TOTAL REVENUES	\$ 5,789,597	\$ 7,335,212	\$ 7,793,879	\$ 7,142,613	\$ 7,219,580	\$ 7,447,846	\$ 7,566,886	\$ 7,744,324	\$ 7,923,590	\$ 8,107,600
Operating	6,214,703	6,926,678	6,607,148	7,062,858	6,873,458	6,909,572	6,830,236	7,295,271	7,555,685	7,751,305
Capital Improvement	192,593	303,614	1,493,614	150,000	-	-	-	-	180,000	-
Transfer Out (Debt/Others)	226,686	104,920	104,920	269,775	166,608	168,279	169,966	171,670	173,391	175,129
TOTAL EXPENSE	\$ 6,633,982	\$ 7,335,212	\$ 8,205,682	\$ 7,482,733	\$ 7,040,066	\$ 7,077,851	\$ 7,000,202	\$ 7,466,941	\$ 7,909,076	\$ 7,926,434
Total Annual Net (Loss)/Income	\$ (844,384)	\$ -	\$ (411,803)	\$ (340,120)	\$ 179,514	\$ 369,995	\$ 566,684	\$ 277,383	\$ 14,514	\$ 181,166
Total Cumulative Net (Loss)/Income	\$ (214,522)		\$ (626,325)	\$ (966,445)	\$ (786,931)	\$ (416,936)	\$ 149,749	\$ 427,132	\$ 441,646	\$ 622,812

Table 9, above, demonstrates the recommended combination of service delivery modifications and rate increases. This projection would result in manageable annual deficits through 2014, with the fund recognizing annual surpluses from FY 15 through FY 20. It is anticipated that the cumulative fund balance would be positive beginning FY 17. This cumulative fund balance is expected to increase to a reserve of approximately one month (8%) of operations by FY20. The Sanitation Fund will have a cumulative debt owed to the General Fund of \$966,445, of which the fund can begin to pay back in FY2015.

Potential Opportunities

It should be noted that other communities that pay tipping fees at landfills have decreased costs by encouraging and /or incentivizing recycling. Based upon this model, increased recycling leads to less waste sent to the landfills, resulting in less tipping fees paid by the cities. In most instances, cities receive revenues from their recycling partners based upon the volume of recyclable material transferred. The City will continue to look into this potential revenue source. It should be understood that these opportunities will be limited unless Pitt County and/or ECVC, the City's depositories for refuse and recycling materials, modify their current arrangements with the City (i.e. the City does not pay tipping fees at the landfill because the County bills all County households directly for this service and ECVC does not pay the City for the volume of recyclable materials transferred to their facility).

Pay-As-You –Throw - In communities with pay-as-you-throw programs (PAYT) also known as unit pricing or variable-rate pricing, residents are charged for the collection of solid waste based on the amount they throw away. This creates a direct economic incentive to recycle more and to generate less waste.

Traditionally, residents pay for waste collection through property taxes or a fixed fee, regardless of how much—or how little—trash they generate. Pay-As-You-throw (PAYT) breaks with tradition by treating trash services just like electricity, gas, and other utilities. Households pay a variable rate depending on the amount of service they use.

Most communities with PAYT charge residents a fee for each bag or can of waste they generate. In a small number of communities, residents are billed based on the weight of their trash. Either way, these programs are simple and fair. The less individuals throw away, the less they pay. The proposal to convert to an automated collection system does incorporate PAYT methods into the refuse and recycling aspects of collection. There are over 60 PAYT communities in North Carolina presently.

Compressed Natural Gas - As fuel prices continue to rise, our costs associated with solid waste collection will also rise. The City has met with Greenville Utilities Commission and other vendors to discuss the potential of locating a Compressed Natural Gas (CNG) facility at the Public Work's location. Locating a facility here would enable the City to begin to convert our fleet to CNG vehicles and enjoy the benefits of significantly lower fuel rates.

Yard Waste – The City will continue to evaluate potential savings in the collection of yard waste and look to move towards an automated collection system that incorporates the elements of PAYT.

APPENDIX A: Performance and Cost Comparison Data from North Carolina Local Government Performance Measurement Project (i.e. Benchmarking Study)

Greenville, like many other North Carolina municipalities, is continually looking for ways to improve efficiency and effectiveness related to the delivery of municipal services. To this end, the city has participated in the North Carolina Local Government Performance Measurement Project over the past several years. As part of this collaborative project with the UNC School of Government and 13 other municipalities, performance and costs data for multiple municipal service have been compiled.

Portions of the data provided in the project’s most recent report, including data for fiscal year 2010 – 2011, are summarized below. This data provides the opportunity for quantitative comparisons of performance measures associated with residential refuse collection, household recycling, and yard waste / leaf collection.

Table 1. Benchmark Community Profiles

City or Town	City / Town 2010 Census Population	State Population Rank	County / Primary County
Apex	37,486	22	Wake
Asheville	83,393	11	Buncombe
Burlington	49,963	17	Alamance and Guilford
Cary	135,234	7	Wake
Charlotte	731,424	1	Mecklenburg
Concord	79,066	12	Cabarrus
Greensboro	269,666	3	Guilford
Greenville	84,554	10	Pitt
Hickory	40,010	21	Catawba
High Point	104,371	9	Guilford
Salisbury	33,663	24	Rowan
Wilmington	106,476	8	New Hanover
Wilson	49,167	18	Wilson
Winston-Salem	229,617	4	Forsyth

Table 2: Residential Refuse Collection Data

City or Town	Normal Coll. Location	Coll. Pts	Tons Collected	Weekly Routes	% Contracted	Crew Size	City FTE Positions	Packers	Automated Trucks
Apex	Curbside	11,432	11,580	13	100%	Contracted	N/A	N/A	N/A
Asheville	Curbside	29,150	23,734	33	0%	1&3 person	13.5	1	7
Burlington	Curbside	17,854	13,285	27	0%	1&2 person	8.9	1	5
Cary	Curbside	43,637	30,562	48	0%	1&4 person	29	2	10
Charlotte	Curbside	211,613	172,111	310	0%	1&2 person	77	7	55
Concord	Curbside	27,676	23,757	38	100%	Contracted	1.9	(Contracted) 8	N/A
Greensboro	Curbside	80,251	55,698	86	0%	1&2 person	26.17	3	23
Greenville	Curbside & BY	17,431	28,287	32	0%	3 person	27	8	0
Hickory	Curbside	12,100	9,306	15	0%	1&2 person	4.25	2	3
High Point	Curbside	35,544	25,490	38	0%	1&3 person	26	1.5	8
Salisbury	Curbside	10,817	9,320	15	0%	1&2 person	10	7	0
Wilmington	Curbside	28,371	28,834	36	0%	2&3 person	34	13	0
Wilson	Curbside	17,900	18,545	17	0%	1&3 person	11	2	5
Winston-Salem	Curbside	76,064	50,269	128	0%	3 person	96	29	3

Table 2 Notes:

1. Data provided for FY 2010 – 2011.
2. Data includes regularly scheduled collection of household refuse from residential premises and other locations, including small businesses, using containers small enough that residents and/or workers can move or lift them manually. The service excludes collection of waste from dumpsters. Transportation of refuse to a landfill or transfer station is included, but the disposal of refuse and tipping costs are excluded.

Figure 1. Tons Collected per Collection Point

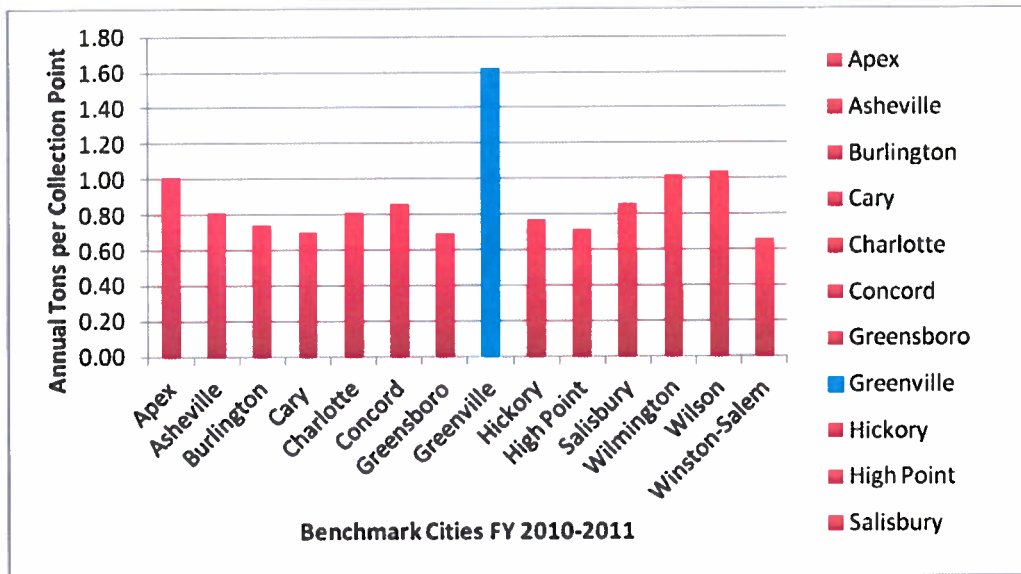


Figure 2. Collection Points per FTE

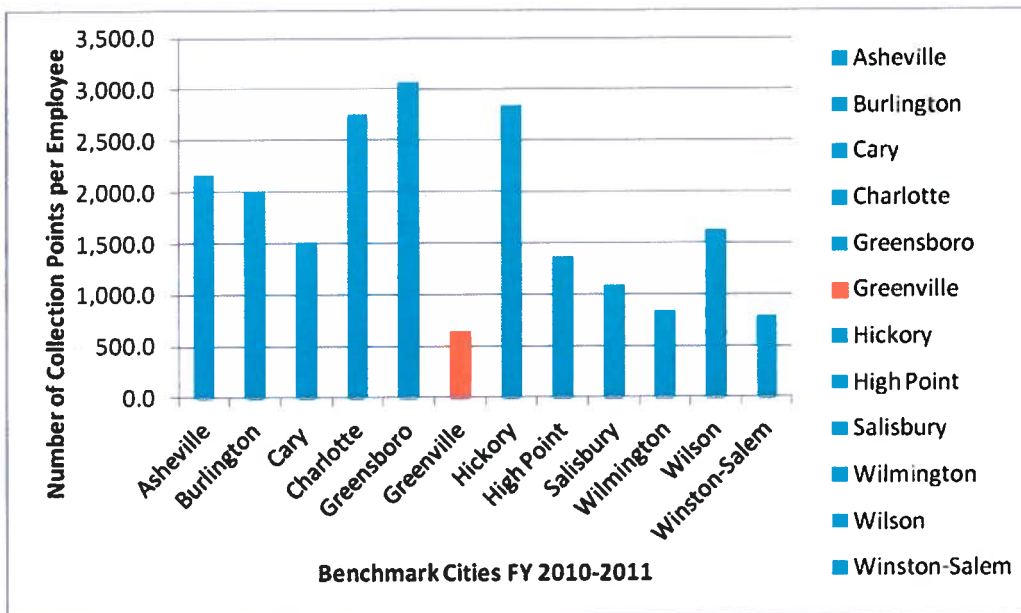


Table 3. Household Recycling Collection Data

City or Town	Collection Frequency	Sorted at curb	Collection Points	Tons Collected	% waste diverted from landfill	% Contracted	FTE Positions
Apex	1 x week	No	12,082	3,634	24%	100%	0
Asheville	1 x 2 weeks	Yes	27,597	6,662	22%	98%	0
Burlington	1 x 2 weeks	Yes	17,854	2,084	14%	99%	0
Cary	1 x 2 weeks	Yes	44,754	11,154	27%	0%	12
Charlotte	1 x 2 weeks	Yes	207,738	41,770	20%	100%	0
Concord	1 x week	No	27,676	3,579	13%	100%	1.5
Greensboro	1 x 2 weeks	No	80,251	18,269	25%	0%	15
Greenville	1 x week	No	17,431	3,599	11%	0%	15
Hickory	1 x week	Yes	12,100	1,787	16%	70%	0.5
High Point	1 x 2 weeks	No	35,544	8,816	26%	0%	3
Salisbury	1 x week	Yes	10,427	929	9%	100%	0
Wilmington	1 x week	No	16,974	5,253	15%	0%	10.25
Wilson	1 x week	No	19,900	1,468	7%	0%	6
Winston-Salem	1 x week	Yes	76,064	10,947	18%	100%	0

Table 3 Notes:

1. Data provided for FY 2010 – 2011.
2. Data includes both curbside collection and processing of household recyclable materials from residences and other drop-off locations. The service excludes collection of commercial recycling.

Figure 3. Percentage of Waste Diverted from Landfill by Recycling Collection

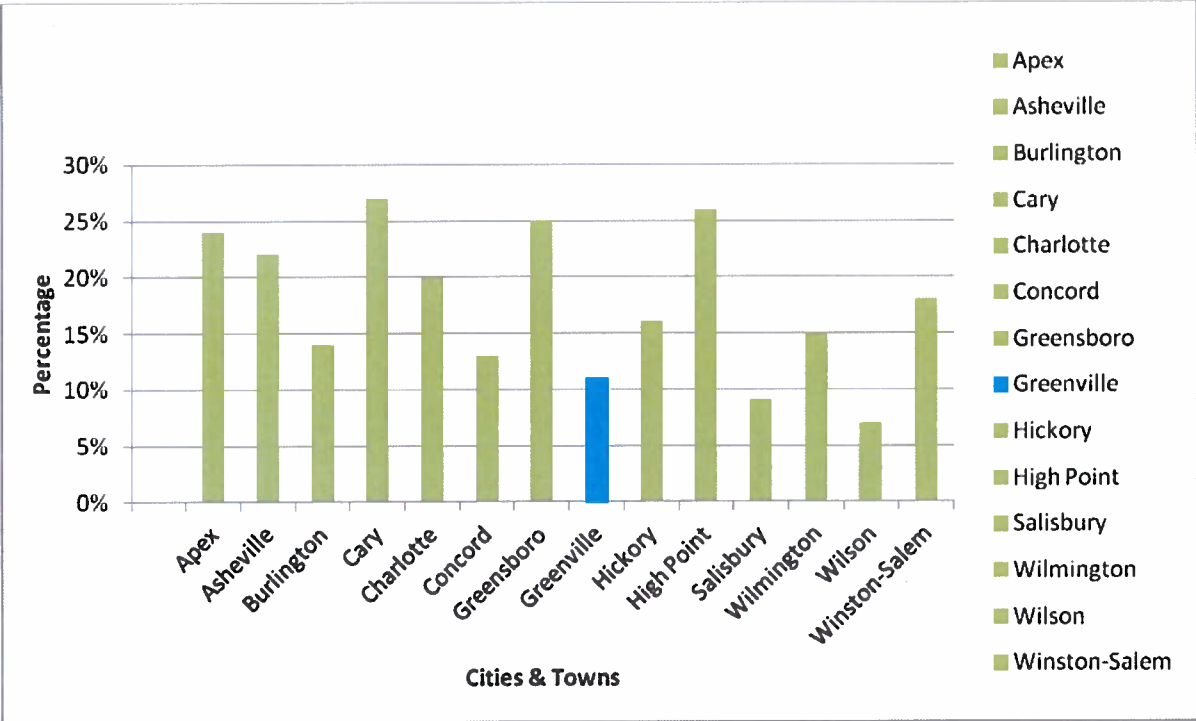


Table 4. Yard Waste / Leaf Collection Data

City or Town	Yard Waste Collection			Collection Points	Tons Collected		FTE Positions
	Location	Frequency	Seasonal Loose Leaf Collection		Yard Waste	Loose Leaves	
Apex	Curbside	1 x week	NA	11,337	4,944	NA	10.25
Asheville	Curbside	2 x month	2 sweeps	29,150	6,364	2,502	17.8
Burlington	Curbside	1 x week	4 sweeps	17,854	5,292	2,998	14.32
Cary	Curbside	1 x week	2 sweeps	43,637	13,394	3,160	26.9
Charlotte	Curbside	1 x week	NA	207,738	51,503	NA	77
Concord	Curbside	1 x week	3 sweeps	27,676	6,489	1,767	24.6
Greensboro	Curbside	1 x week	2 sweeps	80,251	15,568	9,306	41.2
Greenville	Curbside	1 x week	1 x week	20,000	21,000		20.75
Hickory	Curbside	1 x week	2 sweeps	12,100	3,522	2,903	9.75
High Point	Curbside	1 x week	2 sweeps	35,544	5,407	1,700	15.5
Salisbury	Curbside	1 x week	1 x 3 weeks	12,000	4,650	4,890	7
Wilmington	Curbside	1 x week	NA	27,583	11,598	NA	21.6
Wilson	Curbside	1 x week	1 x 3 weeks	19,900	6,958	1,435	15.5
Winston-Salem	Curbside	1 x week	Yard Waste Cart 1 x week; Brush every 10 days	14,040 for yard waste cart; 76,064 for other	23,544	13,450	84.96

Table 4 Notes:

1. Data provided for FY 2010 – 2011.
2. Data includes both regularly scheduled and special collection of yard waste and leaves. Yard waste and leaves may be bagged, placed in containers, or loose.
3. City of Greenville data related to tons collected is provided for combined collection (yard waste and loose leaves). Separate data on tons collected is not available.

APPENDIX B: Survey of Refuse Fees from Select Cities (November 2012 / Updated February 2012)

Municipality	Rate / Frequency	Collection Method	Recycling Rate / Frequency	Yard Waste Rate / Frequency	Bulky Items Rate / Frequency	Enterprise / Subsidized
Pitt County:						
Greenville*	\$11.75/month (\$17.67 including annual fee) Collected weekly	Semi-automated Manual	Included Collected weekly	Included Collected weekly	Included Collected weekly	Enterprise, but subsidized by GF
Ayden*	\$11.50/month (\$17.42 including annual fee) Collected weekly	Semi-automated	Included Collected weekly	Included Collected weekly	Included Collected weekly	Subsidized by GF
Farmville* (contracts w/Waste Ind)	\$18.00/month (\$23.92 including annual fee) Collected weekly	Semi-automated	Included Collected bi-weekly	N/C (if fits in cart) Collected weekly	\$15 1 st load \$50 2 nd load pre-pay; call schedule	Subsidized by GF
Winterville* (contracts w/Waste Ind)	\$11.50/month per container (\$17.42 including annual fee) Collected weekly	Semi-automated	Included Collected weekly	Included Collected weekly	Included Collected weekly	Subsidized by GF
Eastern NC:						
Goldsboro	\$22.00/month Collected weekly	Automated	Included (mandatory) Collected bi-weekly	Included Collected bi-weekly	\$5: up to 3 items \$10: 4 to 6 items Call to schedule	
Kinston	\$22.50/month Collected weekly	Automated	Included Collected monthly	Included Collected weekly	Included Collected weekly	100% Enterprise
Rocky Mount	\$9.75/month Collected weekly	Semi-automated	\$2.25(SF) \$1.25(MF) Collected bi-weekly	Included Collected weekly	Included Collected weekly	Subsidized by GF
Wilson	\$17.50/month Collected weekly	Automated	Included Collected weekly	Included Collected weekly	Included Call to schedule	Subsidized by GF
Other NC Towns:						
Asheville	N/C (taxes) Collected weekly	Automated	\$3.50/month Collected bi-weekly	Included Collected 2x month	Included Call to schedule	General Fund
Burlington	\$3.71/month Collected weekly	Automated	\$2.29/month Collected bi-weekly	Included <3cu yds Collected weekly	Included <3cu yds Collected weekly	Subsidized by GF
Cary	\$14.00/month Collected weekly	Automated	Included Collected bi-weekly	Included Collected weekly	\$13 1 st item \$7 ea adtl. item Call to schedule	Subsidized by GF
Gastonia	\$4.00/cart/month (max 4 carts) Collected weekly	Automated	Included Collected bi-weekly	Included Collected weekly	\$15 < 99 lbs. \$25 > 100 lbs. Call to schedule	General Fund
Hickory	\$14.00/month Collected weekly	Automated	Included Collected weekly	Included Collected weekly	Included Collected weekly	General Fund and Enterprise

* All rates provided include collection and disposal (landfill) fees except those located in Pitt County. Pitt County residents pay \$71 annually to Pitt County for the disposal component of the service. As such, the total monthly municipal cost to customers is provided as well as the rate including the prorated share of the \$71 fee (\$5.92 monthly).

APPENDIX C: Draft Voluntary Early Retirement Incentive Program

PURPOSE

The purpose of the Early Retirement Incentive Program is to provide a retirement incentive to eligible employees who are eligible to retire under the North Carolina Local Governmental Employees' Retirement System (LGERS) with either unreduced or reduced service retirement benefits.

This Program is completely **voluntary**. Eligible employees will not be coerced or pressured to retire or to take advantage of this benefit. Employees with concerns relating to this process are encouraged to contact the Director of Human Resources.

PROCEDURE

Eligibility Requirements:

To be eligible for the Voluntary Early Retirement Incentive Program, participants must meet all requirements listed below:

- Be a regular, full-time employee in the job classification of Refuse Collector, Sanitation Crew Leader I, or Sanitation Crew Leader II;
- Meet the qualifications for service retirement (unreduced benefits) or early retirement (reduced benefits) under the LGERS;
- Elect to retire under the LGERS with an effective date of no later than January 1, 2014;
- Complete and sign the election and release form and submit to the Human Resources Department by October 1, 2013. Eligible employees who voluntarily elect to participate in the Program are required to execute and submit the election and release form to the Human Resources Department and have seven calendar days to revoke their election and release and withdraw from the Program, resulting in the eligible employee not being qualified for program incentive;
- Make an appointment and meet with Human Resources before September 1, 2013 to complete the LGERS retirement application.

Eligibility Requirements under LGERS:

To qualify for service retirement (unreduced benefits) under LGERS, local government general employees must have:

- Attained at least age 65 and completed at least 5 years of creditable service,
- Attained at least age 60 and completed at least 25 years of creditable service, or
- Completed 30 years of creditable service, at any age.

To qualify for early retirement (reduced benefits) under LGERS, local government general employees must have:

- Attained at least age 50 and completed 20 years of creditable service, or
- Attained at least age 60 and completed 5 years of creditable service.

Creditable service determination may include current accumulated sick leave and other service which is allowed as creditable service under LGERS such as time purchased/carried from prior system employment and purchase of military service credit.

Program Incentive:

Eligible employees who are eligible to retire under the LGERS and elect to retire with an effective date of no later than January 1, 2014 shall receive a one-time lump sum payment of \$25,000. The lump-sum payment will be paid as a separate check within thirty (30) days following the effective date of retirement and will be subject to normal statutory deductions. Such payment will not be considered in the final compensation amount used for the calculation of retirement benefits as LGERS rules do not allow this type of lump sum payment to be included in the benefits calculation formula to increase monthly retirement benefits.

Payment for accrued vacation and longevity will be handled in accordance with City policy and procedures and will be in addition to the lump sum payment. Eligible employees who retire under this Program will be eligible for group health and hospitalization insurance in accordance with applicable City policy.

Other Provisions:

- Employees will be given at least 45 days written notice of the program prior to the initial deadline to submit an election and release form.
- Employees are advised and encouraged to consult with their private attorney and/or financial consultant before participating in this Program and signing the form. This Program does not set a maximum age limit for participation, nor are any incentives based upon age.
- This Program does not alter any benefits or requirements of the LGERS.
- Participating retiring employees will not be eligible for rehire into regular, full-time positions with the City.
- This Program may be modified or terminated by the City at any time. In the event of a modification or termination of this Program, existing agreements with participants will be honored.

Follow-Up Items from the 12/13/12 Sanitation Plan Presentation

The following is a list of questions and/or comments made by City Council members during the 12/13/12 Sanitation Workshop and staff's response to those questions and/or comments.

Refuse Collection

1. Charge more for multi-family collection. – Policy Decision

Multi-family collection is currently priced the same as single-family collection (\$11.75 monthly). The City's multi-family collection process is currently much more efficient than that of single family collection (four trucks and eight employees versus eight trucks and 24 employees). As such, the proposed plan does not propose to increase rates for multi-family customers any differently than single-family (Basic / curbside) customers.

2. Two comments received on bulky item collection as follows:

- **The City should charge more for bulky items, similar to Goldsboro's approach.**
- **Continue to provide bulky item collection free of charge, unless more than five items to be disposed. If we charge to pick-up these items they will sit on the curb as litter when renters leave. – Policy Decision**

The revised plan proposes to provide bulky item collection on a call-in basis using knuckle-boom trucks. Weekly collection of bulky items is proposed to be limited to 4 cubic yards of material (an area of 6' x 6' x 3' / the standard size of a pick-up truck bed). Collections in excess of 4 cubic yards will be charged a special collection fee of \$25 for each additional 4 cubic yards of material collected.

3. It is not fair to give carts for free to some customers when others have financed their carts. – Policy Decision

Everyone with basic (curbside) service has already purchased a collection cart. Those carts purchased from the City within the past ten years are compatible with automated collection, whereas most purchased more than ten years ago are not. The plan includes replacing all curbside collection carts associated with basic (curbside) customers that are not compatible with automated collection at no charge to the customer (approximately 4,000 carts total). Premium (backyard) customers do not use roll-out carts, but rather smaller containers that are not compatible with automated collection. These customers

would purchase roll-out carts from the City when they transition to curbside service (between now and June 30, 2017).

Yard Waste Collection

- 4. Need public education to encourage more backyard composting. – Policy Decision**
Public education is a critical component of any successful sanitation collection system (refuse, recycling, yard waste, bulky items, composting, etc.). Staff plans a widespread public information campaign (print media, GTV9, webpage, neighborhood and property management groups, etc.) prior to initiating whichever collection modifications authorized by City Council. Backyard composting will be included as a component of these efforts.
- 5. Leave yard waste collection as is (i.e. no requirement to bundle, bag or containerize). – Policy Decision**
While the use of biodegradable bags and/or bundling yard waste will be encouraged, the plan has been modified to effectively leave yard waste collection unchanged except that the amount of yard waste to be collected free of charge during a single weekly collection is limited to 4 cubic yards (a stack 6' x 6' x 3' / the standard size of a pick-up truck bed). Collections in excess of 4 cubic yards will be charged a special collection fee of \$25 for each additional 4 cubic yards of yard waste. This change will allow for more dependable collection scheduling.
- 6. Collect yard waste every other week in lieu of each week. – Policy Decision**
While this potential change in collection process would offer more flexibility to absorb large loads and still meet collection schedule within specified week, the potential for yard waste sitting for extended periods of time could have adverse impacts. As such, the suggestion has not been included in the proposed plan.
- 7. Recognizing that Division staff are to be reduced, consider a proportional reduction in management (i.e. less employees require less managers to supervise them).**
The Sanitation Division has a current allocation of 4 supervisors to 68 employees. (1 to 17) Upon completion of the 5 year plan the allocation will be 4 supervisors to 43 employees. (1 to 11)
Staff expects additional assignments associated with routing, GPS, 311 system, customer service request for yard waste, bulky waste collection and Sanitation Code issues to require a significant commitment of staff time. Staff recognizes the service area, customer base and population are projected to grow.

The plan has 5 fill in employees and depending employee absences and their skills, a supervisor could spend a significant amount of time as a fill in driver. Sanitation will continue to have employees that are awarded the maximum vacation time allotment each month. When needed, a supervisor also supplements the mosquito control summer activities and loose leaf season. If staff determines a reduction in supervisors is needed at the end of the conversion plan, similar options afforded to prior Sanitation employees may be offered. The 4 supervisors will be kept abreast of changes which allow some opportunity for them to prepare for a reduction in Sanitation supervisors.

The following North Carolina cities have the following Sanitation supervisor employee ratios:

Asheville	1 to 10
Burlington	1 to 8
Cary	1 to 20
Greensboro	1 to 16
Winston Salem	1 to 14

8. Need training opportunities so impacted employees can qualify for other positions.

Reverend Kenneth Battle met with a group of sanitation employees (those that serve on the Sanitation Employee / Management Committee) on December 19, 2012, and asked them for input regarding the types of training opportunities in which they are interested.

The primary responses included:

- *Basic skills training;*
- *Computer training;*
- *Vocational training; and*
- *The City's Educational Tuition Assistance Program would be more useful to them if the City could front the costs for the classes versus the current reimbursement process.*

Beginning in 2012, at the request of the former Public Works Director and Sanitation Manager, the Human Resources Department began offering increased training opportunities for public works employees and specifically for sanitation division employees. Attached you will find a summary of the training schedule for calendar year 2012 and an accounting of the number of sanitation employees that participated in said opportunities, as well as a summary of the City's Educational Tuition Assistance Program. A similar program is planned for 2013 where training will be offered onsite for Sanitation employees. Also, the Human Resources Department has coordinated with Pitt Community College regarding the possibility of providing basic skills improvement training (reading/writing) for Public Works employees. This is a very promising opportunity that staff will continue to pursue and provide additional details when available.

9. Get input from employees on preferred early retirement incentive(s).

Reverend Kenneth Battle met with a group of sanitation employees (those that serve on the Sanitation Employee / Management Committee) on December 19, 2012, and asked them for input regarding the types early retirement incentives that would be most appealing / beneficial to them. The two primary responses included:

- *Cash incentives; and*
- *Purchase of service credits.*

Through additional research, staff found that the North Carolina Local Government Employees Retirement System (LGERS) does not permit the purchase of service credits, so that option is currently unavailable. As such, the approach proposed in terms of offering an early retirement incentive is a cash payout. Additional details associated with this proposed program are included in Appendix C of the plan report.

10. Concern that new automated trucks may allow refuse to escape littering the City's streets and neighborhoods.

In developing the specifications for new automated vehicles, staff will investigate which designs are less prone to this potential problem. Staff has communicated with several municipalities in North Carolina that have made the switch to an automated system and they have indicated the current truck technology/performance reduces this concern.

11. Consider continuing the provision of premium (backyard) service, but increasing rates to completely cover costs. – Policy Decision

The decision to phase-out premium (backyard) service over five-years was made recognizing the need to move to a more automated collection process. To continue providing premium (backyard) service to a very limited number of customers will require a separate manual collection process. This collection process will not be efficient because the collection points will be scattered throughout the community in areas that the automated trucks will already be serving. Premium backyard service will also contribute injuries due to the manual nature of the collection thus increasing the missed days and worker turnover rate. Including this option will lead to higher workmen's compensation premiums and payouts and greatly reduce the efficiency in staffing within sanitation. Including this option will lead to an increased number of employees beyond what is typically necessary for normal collections. As such, the proposed plan continues to be based on City Council's decision to phase-out backyard service over a five-year period.

12. Need to verify if Winston Salem is transitioning to automated collection and, if so, what is their timeline, approach and results?

Request for information from Winston Salem via e-mails and phone messages have not readily been returned and those that have did not reveal any financial documentation related to the curbside conversion process undergone in Winston Salem.

Staff reports the following information related to the Winston Salem conversion: Winston Salem started its curbside program on a volunteer basis in 2005. The City issued volunteers a curbside roll-out cart. In September 2010, Winston Salem completed its delivery of roll out carts to Single family residents. Winston Salem's FY 2010-11 contained the following statement; Implements curbside garbage collection throughout the City, resulting in a first year savings of \$175,000 after providing roll out carts to all city households.

Staff was able to determine the following based on information available through the City of Winston-Salem's website:

1. Curbside collection saves taxpayers' money. Aside from being a far more efficient way to collect garbage, curbside collection results in less personnel expense, less overtime, less fuel use, less workman's compensation claims, and less contracted services expenses. It all adds up.
2. Curbside collection reduces air pollution from trucks. Trucks will be idling for less time and there will be fewer trucks on the road.
3. Curbside collection allows garbage collections on more bad weather days. After a winter storm, road conditions are usually good enough for Sanitation trucks to travel, but the yards are not accessible due to ice or snow on the ground. The crew carts used by Sanitation employees did not roll in the snow. Curbside collection reduces these interruptions.
4. Curbside collection is less disruptive. Collection at the curb eliminates the need to enter citizens' property, eliminating early morning disruptions from barking dogs and the noise associated with employees emptying trash cans into rollout carts.
5. Curbside collection eliminates missed pickups when access to garbage cans is blocked. Under backyard collection, obstructions to backyard trash cans made it difficult or unsafe to collect their garbage.
6. Curbside collection reduces effects of bad air quality days. When air quality reaches the orange, red, or purple levels it is unhealthy for employees to be working outside. Curbside collection is faster than backyard collection and will reduce the time that employees are exposed to poor air quality. Faster collection also reduces emission from trucks that can further aggravate air quality.

7. Curbside collection raises fewer collateral issues. With backyard collection, the City received complaints when collection crews mistakenly took items that were not trash but which were left in the backyard near the trash. Curbside collection eliminates this problem. It also eliminates complaints about pets escaping and about damages to lawns and flower beds.
8. Curbside collection eliminates citizen concerns about trash can lids. Under backyard collection, lids were sometimes damaged or lost. Cans often fill with rain water and became too heavy to lift. Since lids are attached to the carts, these problems would not exist.
9. Curbside collection is safer for employees. Employees will not be exposed to needles, broken glass, dogs, back strains due to heavy lifting, ankle sprains due to uneven walking surfaces, or other problems associated with backyard collection.
10. *Curbside collection increases the number of Sanitation employees who are able to work until retirement. With backyard collection, refuse workers were liable to all the problems listed above, and the average refuse worker walked 40 miles a week collecting trash. Very few refuse workers made it to normal retirement. Most had to leave early on disability.*
13. **Need to account for tipping fees in rate table (i.e. which communities have landfill fees built into monthly rate structure versus those that bill separately like Greenville).**
Appendix B of the plan report has been updated to reflect the additional annual fee Pitt County residents pay for landfill operations / use.

Training Program Summary Calendar Year 2012

Sanitation Division specific training

At the request of the former Director of Public Works and Sanitation Manager, the following training was offered to Sanitation Division employees in 2012:

- Introduction to Computers (offered April – October 2012)
- Leadership and the One-Minute Manager (offered February and June 2012)
- One-Minute Manager (offered May – October 2012)
- Dysfunctional Communications in the Workplace (offered January 2012)
- Distracted Driving: What You Need to Know (offered February and November 2012)

City-wide internal training (offered through Human Resources Department)

The City continues to invest in internal training opportunities to meet the professional needs of employees as follows:

- 105 training courses in various topical areas were offered to employees during 2012
- 471 employees participated in the training (this number includes Sanitation Division employees who participated in the Sanitation Division specific training)
- Training topics offered in 2012 included, but were not limited to:
 - Leadership Training for Supervisors
 - 21 Irrefutable Laws of Leadership
 - 17 Indisputable Laws of Teamwork
 - Understanding Performance Appraisals
 - Basics in Conflict Management
 - Communication Cornerstones: Building Trust
 - Inclusiveness: the Strengths and Challenges of a Four-Generation Workplace
 - Basics in Personal Computer Usage
- A training calendar is posted each quarter and all employees are encouraged to take advantage of the training opportunities

Tuition reimbursement

The Educational Tuition Assistance Program provides financial assistance to regular full-time employees who independently pursue and successfully complete a course of study which directly relates to current job duties or will help prepare the employee for a job with the City at a higher level of responsibility and/or skill. Upon successful completion of the approved course(s), the costs of tuition, registration, audit, and laboratory fees are reimbursed at 100%, subject to a maximum of \$800 per calendar year.

Employees typically enroll in courses at Pitt Community College, East Carolina University, and Mount Olive College since these are local, well-respected educational institutions. The City's Tuition Assistance Program, however, also applies to online enrollment at accredited colleges and universities. For some employees, online enrollment is preferred because of the convenience it affords and, in some cases, lower overall costs.

**Training for Public Works Department (Sanitation Division)
January 2010 - December 2012**

Training	Date	Title & # of employees who attended training		
		Refuse Collector	Sanitation Crew Leader I	Sanitation Crew Leader II
21 Irrefutable Laws of Leadership	Dec. 2012		1	
Basics in Customer Service	Oct. 2012	1		
Distracted Driving: What You Need to Know	Feb. 2012		1	
Distracted Driving: What You Need to Know	Nov. 2012	29	14	7
Dysfunctional Communications	Jan. 2012		17	7
Introduction to Computers	April 2012	1		
Introduction to Computers	May 2012	2		
Introduction to Computers	Aug. 2012		1	
Introduction to Computers	Oct. 2012	4	1	2
Leadership and the One-Minute Manager	Feb. 2010			1
Leadership and the One-Minute Manager	Jan. 2012			1
Leadership and the One-Minute Manager	Feb. 2012		1	
Leadership and the One-Minute Manager	June 2012	6	3	
One-Minute Manager	Aug. 2010			1
One-Minute Manager	Feb. 2011		3	2
One-Minute Manager	May 2012	7	3	
One-Minute Manager	Aug. 2012	7	2	
One-Minute Manager	Sept. 2012	6	4	
One-Minute Manager	Oct. 2012	9	2	2
Understanding the Purchasing Process	Mar. 2012			1

Description of Supervisory/Management Training:

21 Irrefutable Laws of Leadership: joint COG-GUC workshop; 21 leadership principles are presented.

One-Minute Manager: teaches the fundamentals of effective goal setting, praising, and reprimanding.

Leadership and the One-Minute Manager : teaches why there is no one-best leadership style, and how the most effective leaders use a combination of 4 styles: directing, coaching, supporting, and delegating.

Dysfunctional Communications: (taught by an outside consultant); recognizing dysfunctional communication and strategies for effective communication in the workplace.