

Solid Waste Management Quarterly Report

Fiscal Year 2013-14 3rd Quarter (January 1, 2014 – March 31, 2014)

Solid Waste Collections

Residential Collection Services

The City of Greensboro currently provides weekly automated garbage service, weekly manual yard waste service, every-other-week automated recycling service, and every-other-week manual bulk collection service.

Commercial Collection Services

Commercial garbage and recycling service are available on a fee basis, with service levels up to six times per week. Automated collection of ABC glass is also available inside and outside of the Central Business District. Currently, Commercial Services are working to transition their customer database from Microsoft Access to another software system.

| Solid Waste Collections FY 3rd Quarter | Residential Collections | | | | Commercial Collections | |
|--|-------------------------|--------------|----------------|----------------|------------------------|----------------|
| | Yard Waste | Bulk | Refuse | Recycling | Refuse | Recycling |
| Expenses | \$1,960,057 | \$688,785.00 | \$4,405,756.00 | \$1,248,822.00 | \$(394,615.00) | \$351,396.00 |
| Revenue | \$ | | | | (\$3,474,966.00) | (\$360,697.00) |
| Total Tons | 10,057.36 | 3,829.84 | 40,500.86 | 13,494.23 | 37,703.79 | 7861.30 |
| Collection Cost Per Ton | \$194.89 | 247.25 | 108.78 | 92.54 | (10.47) | 44.70 |
| Processing Cost Per Ton | \$N/A | N/A | N/A | 112.54 | N/A | 64.70 |
| Collection Points | 81,102 | | | | 2603 Boxes | 995 Customers |
| Cost Per Collection Point | \$24.17 | 11.68 | 54.32 | 15.40 | (151.60) | 353.16 |
| Cost Per Month | \$6.04 | 2.92 | 13.58 | 3.85 | (37.90) | 88.29 |

Recycling

Recycling Collections

Single-stream automated curbside collection of recyclables began in Greensboro in 1993. In 2008, the service shifted from every week to every other week collection. In addition to residential recycling, the city also offers recycling dumpster service for businesses and ABC glass recycling for bars and restaurants.

Recycling Contract

In January 2013, the City entered into a new 5-year contract with ReCommunity for the processing and marketing of the city's recyclable materials. The new contract eliminated processing fees (\$600k savings) and residue costs (\$300k savings). The new revenue share is \$30/ton for up to 2,500 tons per month and \$31/ton for each ton thereafter. Under the new contract, our accepted materials expanded to include all plastics #1-7, milk/juice cartons, metal pots & pans, pizza boxes, and aluminum foil and pie pans. Revenue received through December 2013 totals \$868,368.88.

| FCR Contract | Tons Delivered | Revenue Rate Per Ton | Revenue Received | ACR Rate | Residue Rate |
|-------------------------|----------------|----------------------|------------------|----------|--------------|
| 1 st Quarter | 7355.85 | 30.01 | \$220,729.22 | \$70.60 | 16.46% |
| 2 nd Quarter | 7223.60 | 29.79 | \$215,210.84 | \$70.60 | 16.86% |
| 3 rd Quarter | 6781.43 | 30.00 | \$203,442.90 | \$76.52 | 17.20% |
| 4 th Quarter | | | | | |

HHW Program

The City's Household Hazardous Waste (HHW) Program has provided Guilford County residents with a safe, economical, and environmentally sound disposal option for hazardous materials since 1995. The current HHW Collections Center, operated by ECOFLO, Inc. at 2750 Patterson Street, is open Wednesday through Friday from 10 a.m. to 6 p.m. and Saturday from 8 a.m. to 2 p.m. Business waste, medical waste, and radioactive waste is not accepted. Guilford County pays 25% of the cost of the Household Hazardous Waste Program so that County residents may use the facility. City residents are charged a fee for this service on their monthly water bill based on water meter size. The fee ranges from \$0.40 per month for a 5/8" meter size, which is typical, to \$46.00 per month for a 10" meter size. The current contract started September 1, 2013 and has a 3-year term with two potential 1-year renewal options.

| Contract Summary | Participants | Pounds | Total Cost |
|-------------------------|--------------|---------|------------|
| 1 st Quarter | 5,643 | 438,383 | \$138,508 |
| 2 nd Quarter | 4,732 | 341,244 | \$127,299 |
| 3 rd Quarter | 4,261 | 282,434 | \$107,786 |
| 4 th Quarter | | | |

Solid Waste Disposal Operations

Transfer Station Operations

Currently, the City manages its municipal solid waste through a transfer station (N.C. Permit No. 4120T). The transfer station is owned and operated by City staff. All MSW is transported and disposed of at the Uwharrie Landfill located in Montgomery County, NC. The City contracts for the out-of-county transportation and disposal services with private entities. The current transportation contract is with Hilco Transport and the disposal contract is with Republic Services.

At the Transfer Station, the city is responsible for loading acceptable waste types and volumes, securing the loads, and having the trailers ready for connection and hauling. The transfer station ranges from 400 to 1,400 tons disposed of daily and averages around 4,300 tons disposed of weekly. All waste disposal activities, with respect to operations, monitoring, future planning and construction, as well as long term care, are regulated by the U.S. Environmental Protection Services, N.C. Department of Environmental and Natural Resources, and Guilford County.

Currently there are no updates to the operations.

Tons Disposed

| MSW Tons | 1 st Quarter | 2 nd Quarter | 3 rd Quarter | 4 th Quarter |
|-----------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Private Haulers | 21,751 | 20,696 | 19,744.50 | |
| City Haulers | 30,261 | 27,336 | 26,133.50 | |
| Total | 52,012 | 48,032 | 45,878 | |

Revenue Received

| MSW Revenue | 1 st Quarter | 2 nd Quarter | 3 rd Quarter | 4 th Quarter |
|-----------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Private Haulers | 687,111 | 890,688 | 890,113.60 | |
| City Haulers | 931,243 | 1,178,232 | 1,181,733 | |
| Total | 1,618,354 | 2,068,920 | 2,071,845 | |

Cost of Operations

| Transfer Station | 1 st Quarter | 2 nd Quarter | 3 rd Quarter | 4 th Quarter |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Expenses | 1,566,871 | 2,058,094 | 1,974,618 | |
| Revenue | 1,618,354 | 2,068,920 | 2,071,845 | |
| Net Cost of Operations | 51,584 - | 10,826 - | 97,226 | |
| Cost Per Ton | 31.12 | 42.85 | 43.04 | |

Hauling & Disposal

| Hauling & Disposal | Lower Atlantic Diesel Price Per Gallon | Total Surcharge | Total Cost per Trailer | Number of Loads | Hauling Cost Per Ton | Disposal Cost Per Ton |
|--------------------|--|-----------------|------------------------|-----------------|----------------------|-----------------------|
| 1 st | \$3.835 | \$119,386.06 | \$294.13 | 2,343 | \$12.59 | \$22.50 |
| 2 nd | \$3.831 | \$99,373.44 | \$294.02 | 1,950 | \$12.69 | \$22.81 |
| 3 rd | \$3.892 | \$106,727.28 | \$295.71 | 2,021 | \$12.67 | \$22.81 |
| 4 th | | | | | | |

White Street Landfill Operations

Construction & Demolition Disposal Operations

At the White Street Landfill, the City owns, operates, and maintains a fulltime Construction and Demolition (C&D) Landfill (N.C. Permit No. 41-03-CDLF). By definition, the construction and demolition debris waste stream originates solely from construction, demolition, and remodeling or repair operations on pavement, buildings or other structures. In addition, the NCDENR Division of Waste Management (DWM) has approved other inert wastes, such as land clearing debris, but not yard waste. The C&D disposal area operates within the area of the facility known as Phase II.

At the C&D disposal area, operations performed include receiving, screening (for prohibited materials), placement, and compaction of waste in order to maintain compliance. C&D disposal ranges from 100 to 400 tons disposed of daily, and around 40,000 tons disposed of annually. All waste disposal activities, with respect to operations, monitoring, future planning and construction, as well as long term care, are regulated by the U.S. Environmental Protection Services, N.C. Department of Environmental and Natural Resources, and Guilford County.

Currently there are no updates to the operations.

Composting Operations

The City manages its yard waste disposal through composting activities at the White Street Landfill (N.C. Permit No. 41-03-Compost). The composting operations manage all of the green waste prohibited from landfill disposal. All operations are performed by City staff. Yard waste, which includes leaves, grass clippings, branches, garden waste and any vegetative waste generated from within Guilford County or from municipalities whose boundaries cross into Guilford County, is directed to the yard waste composting facility.

At the yard waste composting facility, operations performed include receiving, screening (for suitability), grinding, mixing, windrowing, turning, monitoring, curing, blending, loading and/or packaging of the finished product. Yard waste disposal ranges from 200 to 500 tons disposed of daily, and around 30,000 tons disposed of annually. All waste disposal activities, with respect to operations, monitoring, future planning and construction, as well as long term care, are regulated by the U.S. Environmental Protection Services, N.C. Department of Environmental and Natural Resources, and Guilford County.

Currently there are no updates to the operations.

Compliance

Landfill Gas Operations

Landfill gas is a natural by-product of the anaerobic decomposition of organic waste in a landfill. By volume, landfill gas is approximately 50 to 55 percent methane, 45 to 50 percent carbon dioxide, less than 5 percent nitrogen, and less than 1 percent non-methane organic compounds (NMOCs). Methane is flammable at 5 to 10 percent in air, by volume. The production of landfill gas creates positive pressure within the landfill that forces gas to migrate. The City of Greensboro operates the landfill gas collection and control system at the White Street Landfill in compliance with state and federal regulations in order to control migration as well as control the emissions of NMOCs.

The landfill gas collection and control system consists of a network of extraction wells and collection piping. Vacuum is provided to the collection system through the use of two blower/flare stations. The landfill gas can be transported via underground piping to International Textile Group (ITG) for use in their operations. The flare is used to combust excess landfill gas. Federal and state regulations require routine monitoring, recordkeeping, and reporting.

| Quarter | Phase I/II | | Phase III | | Total Gas System | | |
|-----------------|------------|-------------|-------------|--------|------------------|-------------|----------|
| | Flared | To ITG | Flared | To ITG | Produced | Flared | % Flared |
| 1 st | 65,480,000 | 81,228,000 | 133,660,000 | 0 | 280,368,000 | 199,140,000 | 71% |
| 2 nd | 61,621,000 | 109,401,000 | 130,186,000 | 0 | 301,208,000 | 191,807,000 | 64% |
| 3 rd | 32,743,000 | 129,635,000 | 110,930,000 | 0 | 273,308,000 | 143,673,000 | 53% |
| 4 th | | | | | | | |

*LFG output is expressed as standard cubic feet per minute (scfm)