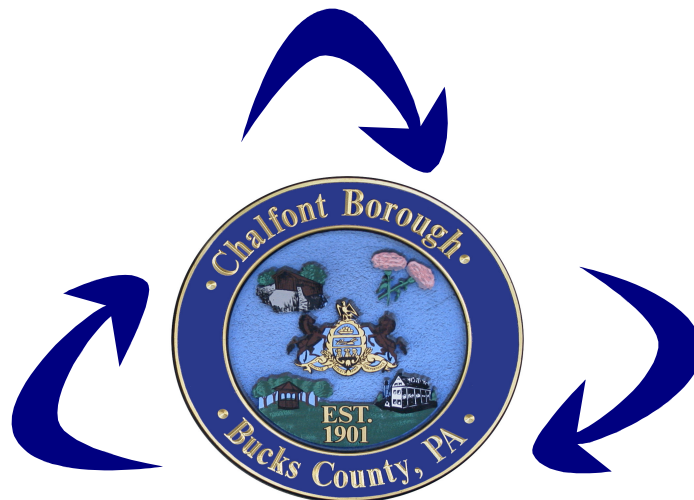


**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY**

FINAL REPORT

**CHALFONT BOROUGH,
BUCKS COUNTY PENNSYLVANIA**

**RESIDENTIAL WASTE AND RECYCLABLES COLLECTION
CONTRACT REBID**



GANNETT FLEMING, INC.



HARRISBURG, PENNSYLVANIA

NOVEMBER 2008

**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY
FINAL REPORT
CHALFONT BOROUGH
RESIDENTIAL WASTE AND RECYCLABLES
COLLECTION CONTRACT REBID**

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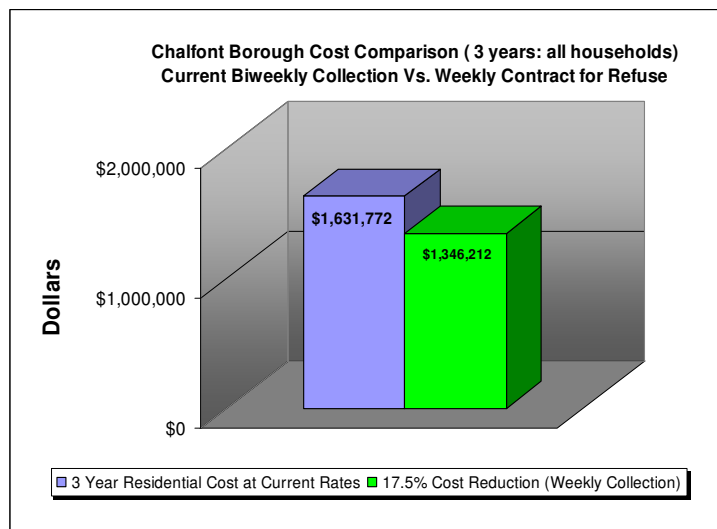
APPENDICES

**Example Liquidated Damages Policy
Residential and Commercial Waste and Recycling Survey**

SWANA RECYCLING TECHNICAL ASSISTANCE STUDY
EXECUTIVE SUMMARY
RESIDENTIAL WASTE AND RECYCLABLES
COLLECTION CONTRACT REBID

Chalfont Borough (Borough) is located in Bucks County and is evaluating ways to improve its residential waste collection and recycling program. Gannett Fleming, Inc. (GF) completed an evaluation of the Borough’s waste management program from August through November of 2008. The Borough’s current waste collection system is implemented through a contact between the Borough and a private waste hauler. GF reviewed the contractual arrangements for curbside waste and recycling services, bid specifications, and ordinances in conjunction with regional recycling markets. GF also assisted the Borough in development and review of a residential and commercial waste and recycling survey. Based on our evaluation of the Borough’s waste management system, GF has summarized the following conclusions, which are provided in more detail in the full Report:

- The Borough waste management system is fundamentally sound, but the program economics and recycling performance can be improved. Improving the overall waste program economics will help keep residential trash bills affordable, lessening the impact from escalating collection system costs and economic factors.
- The reported curbside recycling rate is **14 percent**, which is **10 to 15 percent below** the potential curbside recycling rate for a contracted collection program.
- The Borough and its residents pay approximately **\$95,000 per year** due to offering a second day for trash pick up each week. Over a three year contract period, a savings of over \$285,000 could be realized by changing to once per week trash collection. As in many PA municipalities, once per week trash collection (with recycling) can fully meet residential disposal needs. The majority of residents support once per week trash according to survey results (see **Appendices**).

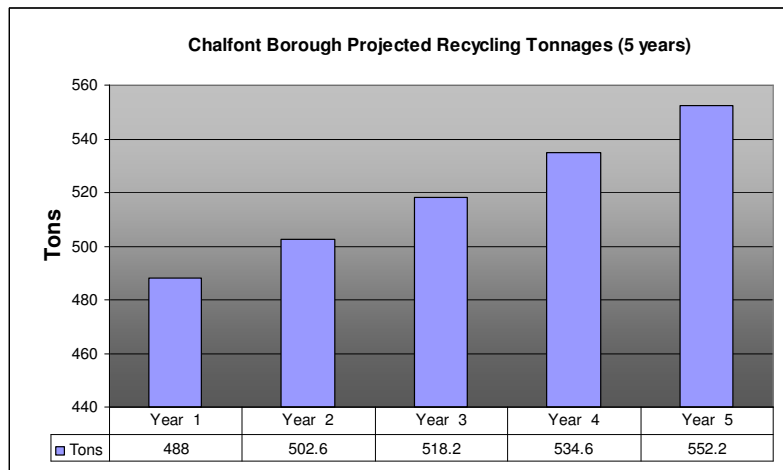


- The Borough does not market its recyclables for revenue, and therefore **forfeits roughly \$15,000 - \$40,000 of recyclable revenue per year** to the contracted waste hauler. Recyclables revenues can be invested into the waste collection program and be used to moderate Borough and residential costs.

The following recommendations and program implementation guidance is based on GF’s evaluation of Chalfont’s existing waste management and recycling program:

- As summarized, GF recommends the following changes to the waste collection and recycling bid specifications:
 - Bid once per week trash collection (not twice per week).
 - Clarify that ownership of recyclables belongs to the Borough and direct recyclables to a market where the Borough has implemented a pricing arrangement.
 - Allow small businesses that generate residential-level waste quantities to “opt-in” to the residential waste collection and recycling program.
 - Include both a dual-stream and single-stream collection price request in the rebid to evaluate/compare the costs for collection in each format (compared in conjunction with market prices).
 - Add a liquidated damages policy (see **Appendices**) to the waste contract to improve the Borough’s ability to ensure the contractor meets the requirements of its collection contract.
- **Develop and issue a separate bid document to secure a competitive price for Borough recyclables.**
- **Revenues from recyclables should be used to support the waste and recycling program initiatives** and to moderate the cost of residential trash bills.
- Monies from grants, sale of recyclables revenue, and/or an administrative fee tied to the waste program should be placed into a **dedicated fund** to improve long-term financial management of the waste collection system.
- Chalfont should implement the following strategies to increase its curbside recycling rate from **14 percent** to a targeted **30 percent** recycling rate over the next 5 years to reduce Borough and residential costs:

- Change from twice a week trash service to once a week to incentivize residents to recycle by offering less total disposal options.
- Validate reported recycling data.
- Increase the size of curbside recycling containers as new containers are needed.



- **Take ownership and market Borough recyclables** to incentive for the Borough to recycle and use revenues to partially offset waste system costs.
- **Establish residential curbside set-out limits for trash** via ordinance (e.g. 3 or 4 30 gal bags or two cans/toters).

- **Increase recycling education efforts** via a shared effort between the Borough and the contracted waste hauler.
- Because outsourcing the billing to the contracted waste collector increases the cost of the waste collection contract by roughly 5 percent and outsourcing billing has some other disadvantages (and some advantages), GF recommends the Borough closely evaluate the pros, cons and feasibility of the Borough administering trash bills via the Borough’s tax bill system.
- The Borough should pursue Act 101, Section 902 Grant funding for recycling containers and other grant-eligible items in support of its waste and recycling program. The Borough should pursue Act 101, Section 904 Performance Grant funds for the tons of eligible recyclables that are recovered and documented each year.
- The Borough should invest in comprehensive educational programs to promote increased recycling and waste reduction techniques including backyard composting, grass cycling, buying bulk, reusable/durable grocery bags, etc. The Borough education program should emphasize that Borough residents help to reduce their trash bills through recycling because revenues from recyclables are put back into the system and used to moderate waste program costs and residential trash bills.
- Borough officials should work closely with the judicial system (district magistrates, etc.) to support proper and timely enforcement of the waste management program for residents and haulers that are unwilling to comply with program requirements.
- The Borough should revise its waste management ordinance:
 - As needed to reflect program changes that could result from a revised waste program that is implemented after the Borough executes a new waste collection and recycling contract.
 - To clarify that the Borough owns its recyclables after they are placed at the curbside.
 - The Borough should develop and attach a **Rules and Regulations** document to existing Ordinance 366, which will be a document that supplement the ordinance by include waste and recycling program details that are subject to periodic change. The Rules and Regulations document can be easily revised via addendum(s) rather than opening the Borough ordinance for vote on minor proposed changes.

**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY
FINAL REPORT
RESIDENTIAL WASTE AND RECYCLABLES
COLLECTION CONTRACT REBID**

1.0 INTRODUCTION

Chalfont Borough (Borough) is located in Bucks County and is evaluating ways to improve its residential waste collection and recycling program. The Borough’s waste collection system is implemented through a contract between the Borough and a private waste hauler. The terms and services of this waste collection contract are included in the bid documents that were used to secure curbside trash collection and recycling services on behalf of its residents. The Borough requested assistance from Gannett Fleming (GF) to provide guidance in the development of revised bid specifications for residential waste and recycling service in order to identify ways to improve the collection system contract and programs.

Through the partnership with the Solid Waste Authority of North America (SWANA), the Pennsylvania State Association of Township Supervisors, and the Pennsylvania Department of Environmental Protection (PADEP), and the Pennsylvania Association of Township Supervisors (PSATS), the Borough was awarded \$7,500 in technical assistance to be provided by Gannett Fleming, Inc. (GF).

1.1 Scope of Work

GF worked with the Borough to develop the following three tasks for this recycling study.

- Task #1** Gather and review background information provided by the Borough including the existing waste and recyclables program information, ordinance and the current waste service contract.

- Task #2** Develop recommendations for revisions/changes to the current contract and bid specifications to enable the Borough to issue a subsequent bid document that will allow the Borough to secure comprehensive waste and recycling services at a competitive price.

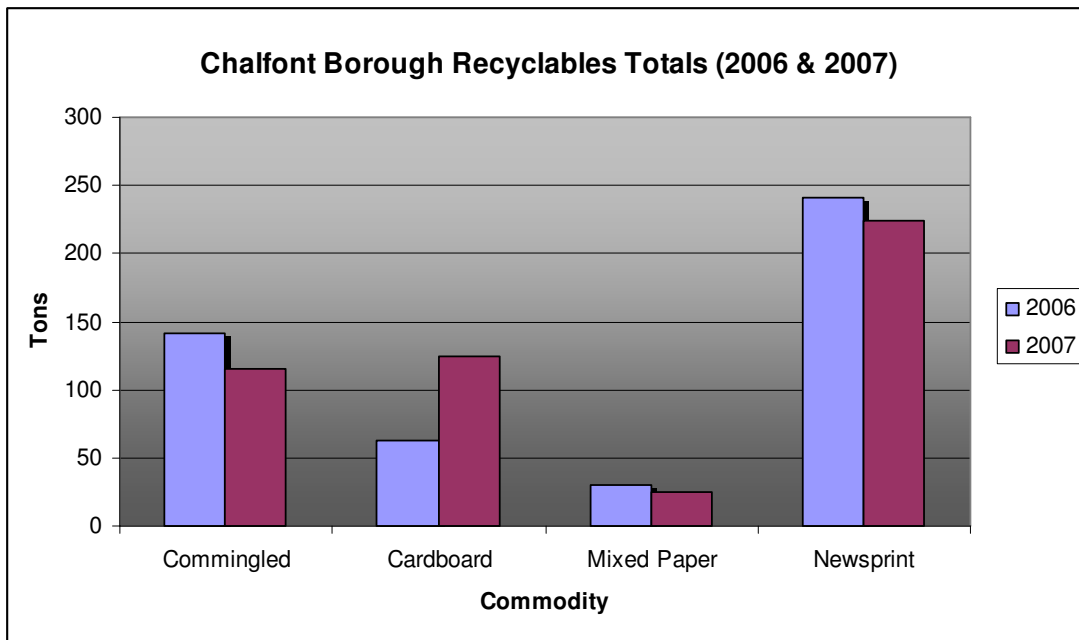
- Task #3** GF will prepare and provide the Borough with a summary Report of findings and recommendations. This task includes a review of the Report by PADEP and response to PADEP comments. An electronic file of the final report will be submitted to PADEP. Both an electronic and hardcopy version of the final report will be provided to the Borough.

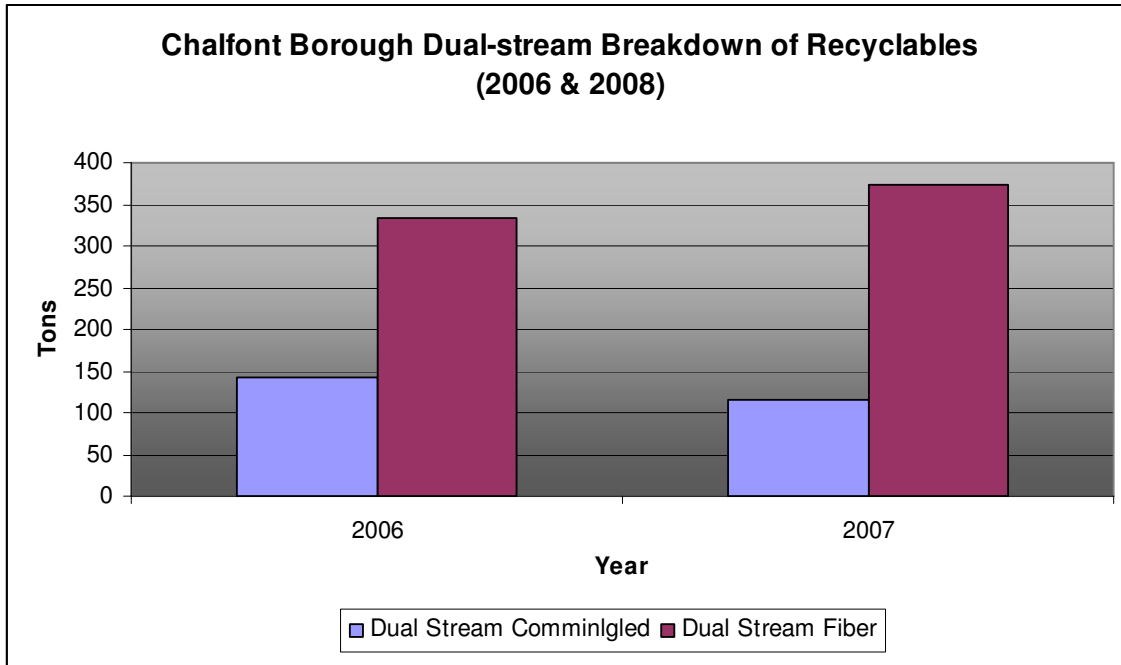
2.0 BACKGROUND

Chalfont Borough (Borough) is located in Bucks County, Pennsylvania, near the rapidly growing suburbs of Philadelphia. The Borough has approximately **1,450 residential units** and approximately **110 small to mid-size businesses**. According to the 2000 Census, Chalfont Borough had 3,900 residents. This is an increase from the 1990 population of 3,069.

Chalfont Borough is not mandated by the Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988 (Act 101) to provide curbside recycling services to residential establishments. However, offering affordable and convenient curbside recycling services to all residents is a proven waste collection system that increases the diversion of recyclable materials from landfills. Gannett Fleming (GF) recognizes that Chalfont Borough has taken progressive actions, above state mandates, for managing its waste and recyclables. The Borough’s residential waste collection programs not only effectively serve constituents but plan for the future and address waste management regulations and issues. Notably, the Act 101 Recycling Grant program has recently changed and the Borough is required to meet new curbside waste and recycling program requirements in order to be eligible for certain Recycling Grant funding.

The Borough currently contracts for waste services for all residents, except those in the Lindenfield Townhome and Condo Associations. Borough recycling is conducted by the same contracted waste hauler. In 2006 and 2007, Chalfont recycled **477 tons** and **488 tons** of materials respectively according to data reported by the contracted hauler. The first chart shows the recycling weight totals for commingled recyclables plus individual totals for cardboard, mixed paper and newsprint. Local markets accept “dual-stream” recyclables, where commingled containers are collected from paper items. One rate is paid for the commingled containers and another rate is paid for the combined fiber/paper products. The totals for dual-stream commingled and dual-stream fiber are presented in the second chart and reveal that over twice as much fiber is collected and reported in the Borough than commingled containers.





2.1 Waste Contract and Collection Services

GF reviewed the existing waste collection and recycling contract in order to evaluate potential opportunities where improvements could be made. The Borough’s current residential collection, transportation, and waste disposal contract is with Allied - BFI Waste Services of PA, LLC. Under the current waste contract the services provided include:

- **Twice per week curbside trash collection** service for 1,125 residential household units delivered to a PADEP-approved disposal facility listed in the Bucks County Municipal Waste Management Plan.
- **Collection Containers** include one new 96 gallon wheeled waste receptacle and one new 32 gallon recycling bin per household. Both containers are part of contract services and bid price.
- **Once per week dual-stream (containers and paper items) recyclables collection** for 1,125 residential household units. Acceptable commingled containers include aluminum cans and steel cans, clear/green/brown glass, and #1 or #2 plastic bottles. Newspapers, magazines, junk mail and phone books are collected in brown paper bags separate from containers. Corrugated cardboard can be dropped off by residents at the Borough Hall cardboard container.
- **Compostable material** (i.e. leaves, grass clippings, etc.) is collected four (4) times annually; once in the spring and three (3) times in the fall on mutually agreed dates. Delivered to a PADEP-approved compost facility.
- **Bulky waste** collection such as furniture, appliances and other large items are collected once per week by the hauler. Each household is allowed one item per week.

- **Freon containing items** collected weekly on an on call basis, as is scheduled by the resident for \$35 per item.
- **Billing** of units is performed by the Collector.
- **Senior Citizen Discount** to any household in which any legal tenant of a rented household or legal owner of an owner-occupied property is a senior citizen. Persons age 62 and over are considered senior citizens in this contract. The discounted senior citizen rate shall include all services and benefits to be provided to non-senior citizen household.
- **Contract Terms** were for three years with two optional years. The contract is currently in the second optional year, set to expire in June of 2009.

2.2 Recyclables Collection Formats

“Dual-stream” recycling, where paper is separated from commingled containers, is the current recyclables collection format used by the Borough as specified in the collection contract with the Borough’s waste hauler. In this region opportunities are emerging to collect recyclable materials in a single-stream format where all recyclables are collected in one container. These different recyclables processing facilities or “markets” directly impact program economics and thus can influence the curbside collection methods in the Borough. Some of the terms associated with recyclables markets and collection formats include:

Source Separated – All types of recyclables are collected, processed and marketed in a separate stream. They are typically separated at the “source” or point of generation.

Commingled (containers) – Mixed recyclables (e.g. aluminum and steel cans, glass jars, plastic bottles, etc.) collection (paper/fiber materials are collected separately).

Dual-stream system: Commingled containers (e.g. aluminum and steel cans, bottles, plastic bottles, etc.) are collected and processed as a separate “stream” from other acceptable fiber/paper materials (e.g. newspaper and mixed paper such as envelopes, junk mail, etc). Dual-stream collection vehicles typically have two compartments to separate recyclable streams (a cost effective alternate to using two separate vehicles for collection).

Single-stream system: All recyclables are collected and processed mixed or combined together (e.g. cans, bottles, plastics, paper and other designated materials). Processing at a single-stream recyclables facility uses a combination of conveyors, manual sorting, mechanical sorting, optical sorting and various types of processing equipment.

2.3 Recyclables Markets

Because the Borough can receive revenue for recyclable commodities, it is important to research local market opportunities when bidding for waste and recycling services. Recycling markets located within a reasonable distance (typically less than 30 miles) of the Chalfont Borough can influence the structure of the recycling program and bid specifications. A consolidation point or transfer station, where recyclables can be unloaded and placed into larger transportation trailers,

is sometimes needed to ensure the commodity values do not degrade due to high costs for delivery to market.

GF includes the following descriptions of the markets near the Borough believed to be beneficial and relative to the current collection scenario. We have listed materials and noted that prices shown are subject to change and market analysis results will vary based on a wide number of economic conditions and factors. **Notably, as recently as mid-September 2008, regional and global recycling markets have changed and local markets have been forced to reduce the amount paid per ton for recyclable commodities.** Generally, it is recommended the Borough secure an arrangement for delivery of Borough recyclables to a single recycling facility at an agreed price for a set time period.

Otter Recycling Center, Inc. (Otter) is headquartered in Bristol Pennsylvania, Bucks County (3807 Otter St.). Otter accepts dual-stream curbside collected materials which include commingled containers (aluminum cans, tin cans, #1 & #2 plastic bottles, and clear/green/brown glass bottles) and a fiber stream (magazines, junk mail, newspaper and phone books). Corrugated cardboard is accepted in the fiber stream, however, is typically limited by collection provisions. Otter is a family owned operation and desires to contract directly with the Borough for materials delivered.

Otter is approximately 30 miles from Chalfont Borough. Otter participates in a Bucks County marketing arrangement which guarantees no tipping fee charge for recyclables and shares profit above a floor price based on market indexes. Otter guarantees no tip fees for materials and in September 2008 offered the following pricing:

Dual-stream:

- Fiber: \$105 per ton delivered
- Commingled Containers: \$15 per ton delivered

Todd Heller, Inc. (GreenStar) in Northampton Pennsylvania (799 Smith Lane) accepts both dual-stream and single-stream recyclables. This market is greater than 45 miles from the Borough and would likely require some consolidation or rudimentary processing/handling prior to delivery to minimize transportation costs. Based on conversations with Todd Heller, Inc. in September 2008, the prices for recyclables are:

Single-stream: \$20 to \$30 per ton delivered

Dual-stream: \$30 to \$45 per ton delivered

The BFI Recyclery in King of Prussia (372 South Henderson Rd.) accepts dual-stream recyclables and will accept single-stream recyclables by the fall of 2008. The BFI Recyclery is located 17 miles from Chalfont Borough and is privately owned by the firm that currently conducts refuse and recycling collection in the Borough. The September 2008 price for recyclables:

Single-stream: 20 to \$35 delivered

Dual-stream: 20 to \$40 per ton delivered depending on the mix of materials

*BFI pricing is affected by the amount and type of glass.

Blue Mountain Recycling located in Philadelphia (2904 Ellsworth St.) accepts dual-stream and single-stream recyclables. Based on a pricing letter provided in October 2008, the price paid to Chalfont based on a 3-month average would be:

Single-stream Variable Rate: \$28.46 per ton delivered (based on 3 month rolling average adjusted to the market index based on commodity sales).

Single-stream Fixed Rate: \$30 per ton delivered

Assumes long term contract (1-3 years) with guaranteed floor prices and price escalation clauses to eliminate a significant portion of the price volatility for recyclables sales.

Dual-stream:

- Fiber: \$40 per ton delivered (the high end price for #6 News, New York, issue of Official Board Markets (OBM) Yellow Sheet; less \$20 per ton)
- Commingled Containers: \$8.24 per ton (delivered).

2.3.1 Bidding To Secure Recyclables Market Pricing

With the increased demand for recyclables and competition for recyclables among recycling markets in the region, it is feasible for the Borough to issue a bid document to secure competitive pricing for recyclables prior to issuance of the bid for waste and recycling collection services. Once the recyclables prices are received, the Borough can determine which recycling facility offers the greatest return for Borough commodities with consideration of transportation costs. The bid for recyclables can request pricing for both single-stream and dual-stream recyclables and, depending on the pricing, could help the Borough determine which recyclables collection format should be implemented under the next curbside waste collection and recycling contract.

3.0 WASTE COLLECTION RECYCLING PROGRAM DEFICIENCIES

To formulate recommendations for improving the Borough’s contracted waste collection and recycling program GF assisted the Borough with a residential and commercial survey and reviewed the recycling performance. This portion of the evaluation revealed deficiencies in the Borough’s existing waste management program.

3.1 Recycling Survey

In order to analyze the current program and to identify program deficiencies, GF assisted with developing a residential and commercial waste and recycling survey as part of this waste collection system evaluation. The Borough conducted the survey in September 2008. **231 residents** and **13 businesses** responded. The complete surveys and results are contained in the attached **Appendices** and offer valuable information about public opinion regarding various aspects of the current waste and recycling program. Highlights of the responses include:

3.1.1 Residential Survey

Waste collection

- **91 percent** were satisfied or very satisfied with their current service with BFI/Allied.
- **80 percent** favored once per week waste collection to reduce costs of service.
- **50 percent** were satisfied with the cost of service and **50 percent** were not satisfied.
- **86 percent** indicated that bulky waste collection was very important or seemed worthwhile as part of standard service.

Recycling

- **92 percent** responded that weekly curbside recycling collection was very important or seemed worthwhile.
- **96 percent** indicated that recycling bins were adequate for one week storage.
- **66 percent** were not in favor of a recyclable drop-off location. Some comments addressed the need for drop-off but did not want to discontinue curbside, raise prices, or see abuse of drop-off.

Yard Waste Collection

- **58 percent** indicated that spring/fall curbside leaf collection were very important or seemed worthwhile. Some comments appeared to indicate that the yard waste collection program was not advertised effectively.
- **58 percent** indicated that Christmas tree collection was not important.
- **57 percent** indicated that a drop-off for leaf/yard waste was very important or seemed worthwhile, while **38 percent** indicated that it was not important.
- **72 percent** did not participate in the yard waste collection offered four times per year.
- **75 percent** did not want yard waste to be part of their standard collection fee.

Responding residential survey results indicate the following:

- A majority of residents would switch to once per week collection to reduce costs.
- Residents were interested in continuing bulky waste collection and recycling as part of standard service.
- Yard waste service was not a priority to over half of the respondents and most residents do not want to pay for yard waste service in their trash bill.
- There was strong sentiment that weekly curbside recycling collection be continued and only weak support for a Borough drop-off site.
- Yard and leaf waste collection appears to be lower on the priority list for residents and there seems to be some dissatisfaction with the current service for this.

3.1.2 Commercial – Business Survey

Waste Collection

- **54 percent** of responding businesses have a refuse dumpster while **46 percent** do not.
- **75 percent** without a dumpster generated only one to two bags per week.
- **63 percent** indicated that they would be interested in learning more about joining the Borough refuse collection program.
- **33 percent** of businesses with a dumpster had it emptied once per week and **33 percent** had dumpsters emptied twice per week. Comments indicated that others were less frequently than once per week or on a call-in basis.

Recycling

- **75 percent** of responding businesses have a recycling program.
- **58 percent** of responding businesses did not think the Borough should operate a drop-off site for recyclables
- **67 percent** generated office paper, **46 percent** generated mixed paper (junk mail) and the third most prevalent recyclable was corrugated cardboard (**27 percent**).

Responding commercial survey results indicate the following:

- Nearly one half of the Borough businesses did not require a dumpster for waste and a great majority of those only generated one to two bags per week. There was interested in learning more about the ability for businesses to join the Borough contract.
- Businesses most frequently generate office paper, mixed paper and corrugated cardboard as recyclable commodities.

To an extent, the Borough can addressing some of the residential concerns expressed in the survey responses during the upcoming refuse contract rebid, including a reduction in costs.

3.2 Recycling Performance

The Borough reported 488 tons of materials recycled in 2007. Using a formula derived by the PADEP, the Borough curbside recycling rate is as follows:

Formula

$$\frac{\text{Tons Recycled}}{\text{Waste Generated}(\text{Population X } 0.8 \text{ tons/person/yr}) + \text{Tons Recycled}} \times 100\% = X\%$$

Calculation

$$\frac{488 \text{ tons}}{(3900 \text{ persons})(0.8 \text{ tons/person/yr}) + 488 \text{ tons}} \times 100\% = 14\%$$

PADEP has established a 35 percent statewide recycling rate, which is a higher rate than reported by the Borough. There is a significant amount of recyclable material that is not recycled and/or not being reported. Many successful curbside recycling programs in PA exceed 25 percent recycling, and with additional non-curbside recycling efforts documented, their programs meet the 35 percent goal. Increasing recycling will reduce waste disposal costs and increase revenues generated by the sale of recyclables.

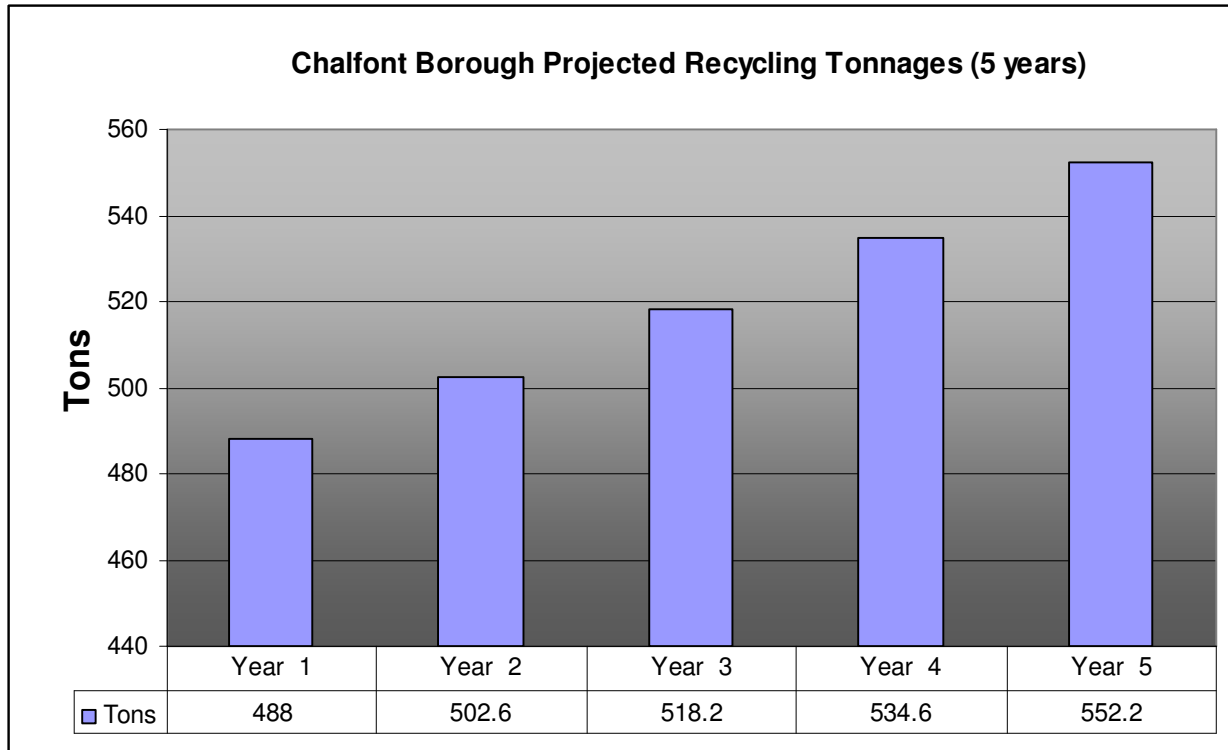
4.0 PRELIMINARY PROGRAM AND COST ANALYSES

Overall, the Borough of Chalfont has a fundamentally sound waste management and recycling program. There are areas where the program can be improved as identified by GF's program evaluation and by waste system survey results. GF recommends the Borough focus on opportunities within its waste management and recycling program that improve the overall economic performance because a cost-effective program with comprehensive service will benefit Borough residents in the near and long term. The Borough should look closely at its costs and potential revenue sources and reduce the overall cost per unit to provide comprehensive waste and recycling service. Based on GF's program evaluation, we identified and conducted preliminary analyses to review cost savings from reducing the trash collection frequency and potential revenues from recyclables.

4.1 Increased Recyclables Tonnages (projections)

At the current recycling rate of **14 percent**, the Borough has an opportunity to increase recyclables tonnages over the next 5 years to near a **30 percent** curbside recycling rate. In the chart below, GF presents 5-year recyclable tonnage projections based on a **3 percent** annual increase from current quantities (488 tons in 2007). By year five, the Borough can potentially recycle over **550 tons** of curbside materials each year. Some strategies and factors that can impact program performance and increase curbside recycling rates include:

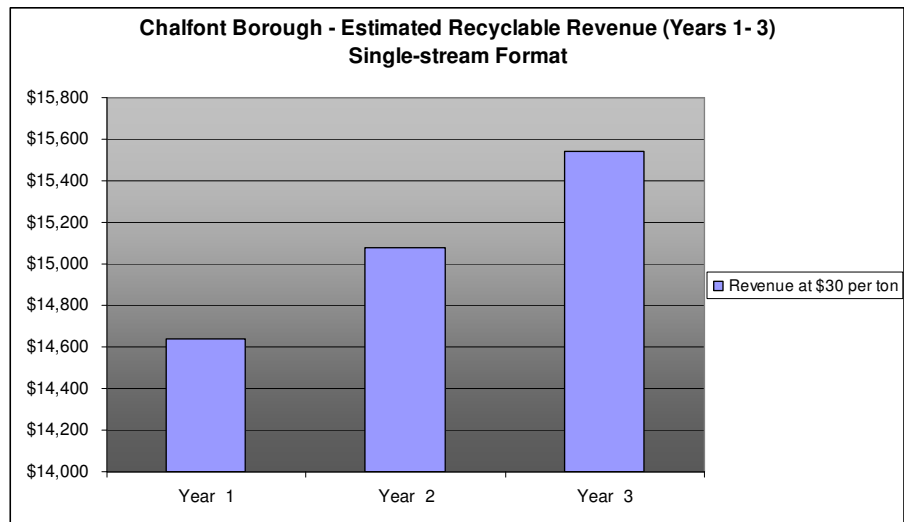
- Changing from twice a week trash service to once a week will incentivize residents to recycle.
- Validating that the contracted hauler and corresponding recycling markets are providing accurate data.
- As new curbside recycling containers are needed, use containers of at least 24-gallon capacity in a dual stream system and at least 64-gallons in a single-stream collection format.
- Selling recyclable commodities to incentivize municipal efforts to increase recycling and program revenue.
- Establishing set-out limits for trash via ordinance so residents are encouraged to recycle.
- Establishing a curbside recycling percentage goal (e.g. a 3 percent increase each year for the next five years).



4.2 Estimated and Projected Recyclables Revenues

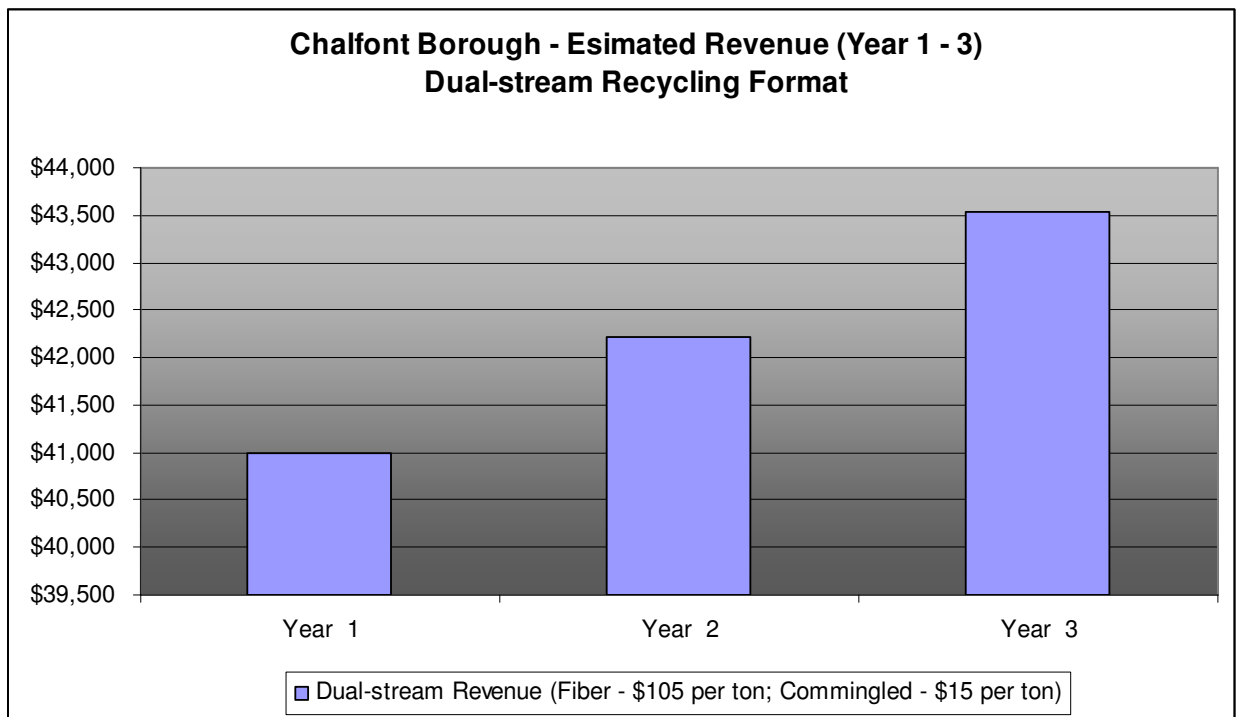
In the chart below, GF projects recyclables revenues over a 3 year period. The estimate is based on marketing **488 tons** of recyclables (as reported in 2007) at a return of **\$30 per ton delivered** to a single-stream market. This estimate assumes that the total tons (**488 tons**) of **recyclables will increase by 3 percent each year** and that the single-stream price of **\$30 per ton** will remain constant. These revenues are estimates only and will change based on actual market prices. The

estimate provides the Borough an approximation of the total amount of revenue that could be generated if the Borough took ownership of its recyclables and sold them to a local single-stream market. GF recommends the Borough bid its recyclables out to a local market (prior to rebidding the curbside waste collection contract) to secure a shorter term



market price agreement for its recyclables. If the Borough marketed its recyclables to a regional single-stream market it would be paid between **\$14,000 and \$16,000** annually.

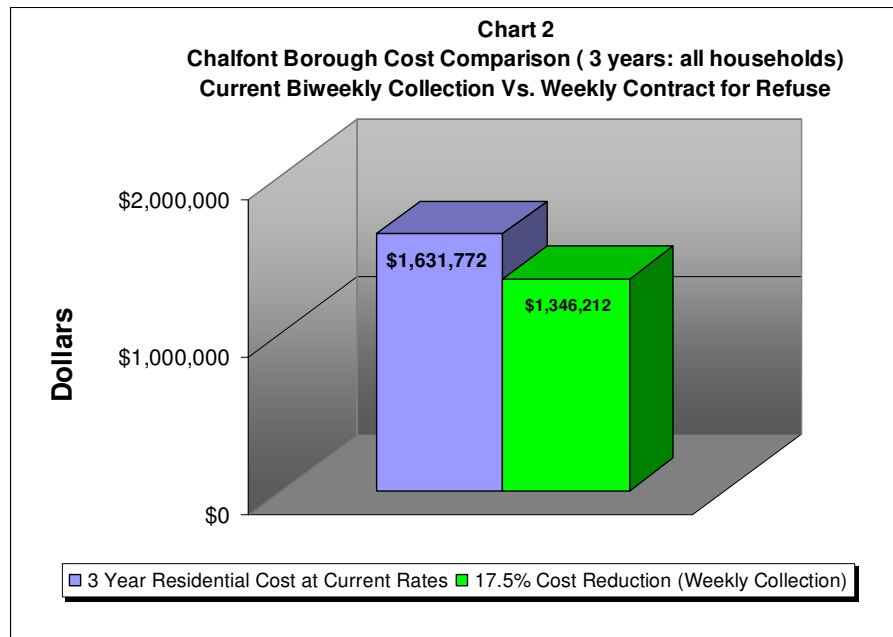
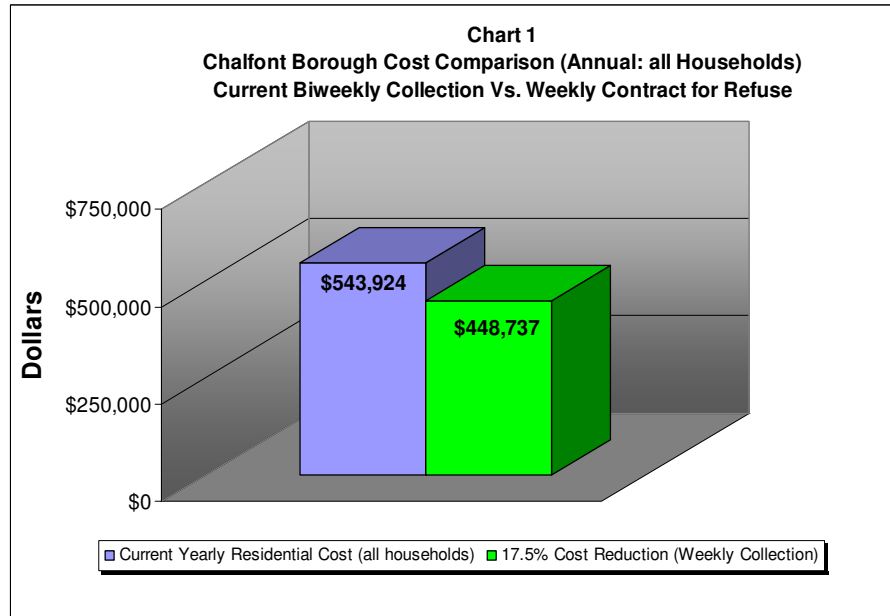
For comparing the single-stream market revenue with potential revenues for Borough recyclables collected and marketed in a dual-stream program (the current collection format), GF used revenues based on October 2008 pricing for materials delivered to the Otter Recycling Center. Otter paid municipalities **\$105 per ton** for fiber, which is higher than the pricing paid by other markets reviewed in this study. This estimate assumes a **3 percent increase in recyclables tonnage** each year and the rates of **\$105 per ton** for fiber and **\$15 per ton** remain constant over the 3 year projection. This high payback for fiber increases the total revenue that would be paid to the Borough for its recyclables considerably when compared with single-stream markets. GF cautions that recyclable commodity pricing has fallen in recent months so actual revenues realized could be considerably less (or more) than estimated. If the Borough marketed its recyclables to Otter at current prices the Borough would generate between **\$40,000 and \$45,000** annually.

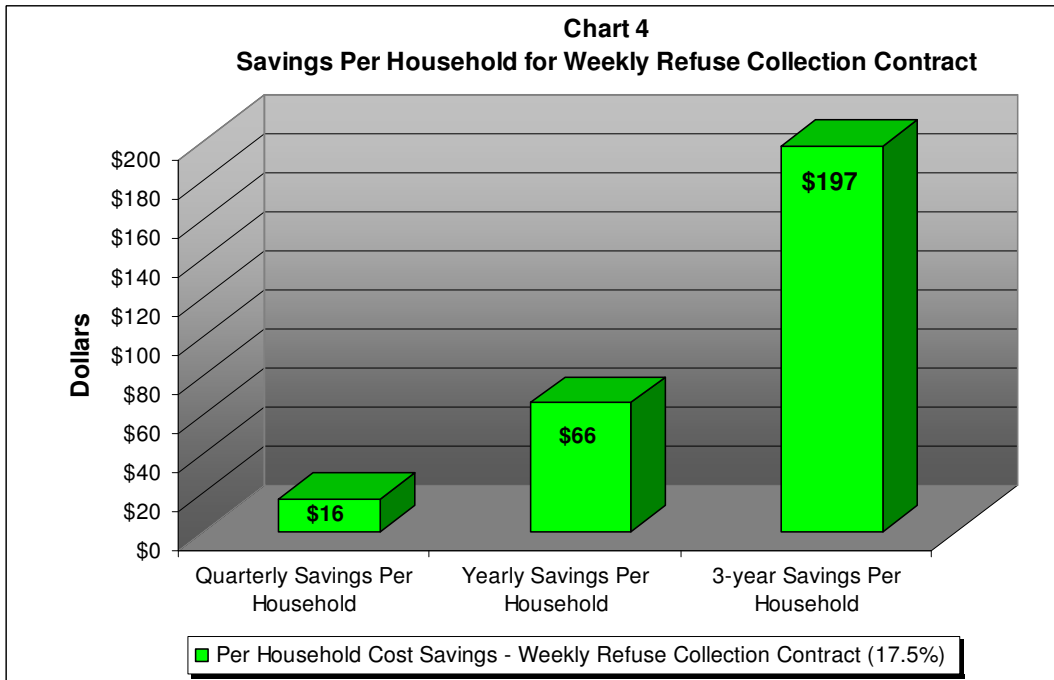
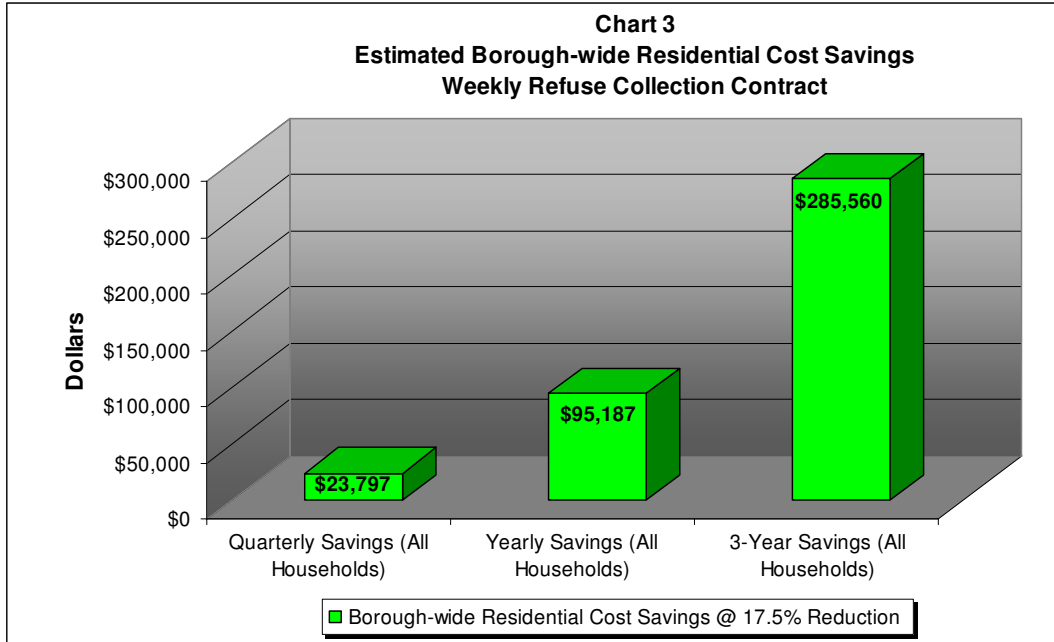


4.3 Twice Per Week Trash Collection Versus Once Per Week Trash Collection

GF believes the Borough adds unnecessary cost to its current program by including twice per week trash service in its collection contract. Additionally, offering a second day of trash disposal makes waste disposal very convenient, which discourages recycling efforts. GF conducted a preliminary cost analysis to compare existing waste collection system costs for twice per week collection with a new collection system that would only collect trash once each week. **As confirmed by GF** through discussions with waste haulers, a biweekly refuse collection program is fifteen to twenty percent more costly than a weekly collection and only a small percentage of the population actually take advantage of the second collection of the week. In addition to expense, there are a number of environmental and social detriments for collecting waste twice per week.

GF performed an analysis of the cost savings that may be realized with a once per week refuse collection program. The following series of charts is a summary of the analysis. Savings were based on a projected average of **17.5 percent savings**. Actual savings can only be determined through the bidding process, and it should be understood that collection costs rise each year and will continue to increase residential costs. **Chart 1** reveals that reducing refuse collection from twice per week to once per week would **save Borough residents over \$95,000** per year. **Chart 2** demonstrates the same cost comparison over a typical three year contract period. **Chart 3** demonstrates that over a three year contract period, a **savings of over \$285,000** could be realized, and in turn a significant portion of savings could be passed to residents. **Chart 4** indicates that a typical household could save approximately \$200 for waste collection over a three year period (Note: this projected savings estimate is based on the current costs and does not account for inflation or other increased costs that may be incurred as a result of the new contract).





Note: The actual savings for residential households cannot be determined until all actual cost have been evaluated for the services provided.

5.0 RECOMMENDED WASTE PROGRAM & BID SPECIFICATION REVISIONS

Through the revision process of its bid specifications for curbside waste and recycling services, the Borough will clearly define and shape an improved municipal waste management and recycling program. The accuracy and completeness of the data provided to prospective bidders will make the bid(s) more competitive, increasing the Borough’s leverage for a competitive contract price. The program that is reflected by the details of the bid specifications should be convenient for residents, cost effective, and readily implementable by local haulers. A primary goal should be to effectively and safely manage waste while diverting materials to recycling. To the extent feasible, it is recommended the Borough’s comprehensive curbside waste and recycling programs is consistent in structure, methods and requirements in other nearby and successful municipal programs.

Based on GF’s review of the existing waste management, recycling, and leaf waste management services provided in the Borough under the existing service contract, GF recommends certain changes to the current program, while keeping other program components the same or similar to what is done. GF illustrates this in the table blow that compares the current program service with the proposed program service.

Current Program and Contracted Service	Proposed Program and Contracted Service (as reflected in revised bid specifications)
Twice per week curbside trash collection for residential units.	<ul style="list-style-type: none"> - Once per week trash collection - Small to mid-size businesses allowed to “opt-in” to residential program. Send letter to determine interest well-before bid to identify participating units.
Hauler retains ownership of recyclables and any proceeds from sale of recyclables.	<ul style="list-style-type: none"> - Hauler bids on <u>collection</u> of recyclables only and does not own the recyclables. - Bid clarifies ownership of the recyclables belongs to the Borough. - Prior to bidding waste and recycling collection services, competitively bid recyclables and contract directly with the most economically feasible recyclables market, which will be the highest cost per ton after transportation costs have been factored.
Once per week curbside recyclables collection for all residential units in dual-stream (paper items separated from recyclable containers like glass, plastic bottles and steel and tin cans).	<ul style="list-style-type: none"> - Determine collection format through bidding and evaluating recyclables collection <u>options and their costs</u>: - a price for weekly dual-stream recyclable collection (same materials as current). - a price for weekly single-stream recyclable collection (Collector to list all acceptable recyclable items). - Provide annual tonnage of recyclables from prior Borough annual recycling report.

<p>Compostable material collection (i.e. leaves, grass clippings, etc.) four (4) times annually; once in the spring and three (3) times in the fall on mutually agreed dates.</p>	<ul style="list-style-type: none"> - Collection frequency to remain the same; however, bid should specify the collection of leaf and yard waste (not “compostables”). The spring collection to include leaves, garden residues, shrubbery and tree trimmings, and similar material in accordance with Act 101 of 1988 and additionally, grass (not specified by Act 101 but accepted at yard waste compost facilities). - Initial hauler education package and subsequent annual education information required by hauler should include details of the leaf and yard waste program.
<p>Bulky waste is collected weekly. Each household is allowed one item per week.</p>	<p>Same – residents value bulky waste collection and weekly collection is cost effective for haulers and minimizes illegal dumping.</p>
<p>Freon containing items collected weekly on an on call basis, as is scheduled by the resident for \$35 per item.</p>	<p>Same – again let bidder set price and frequency within reason to accommodate their most efficient collection and price.</p>
<p>Billing of units is performed by the Collector.</p>	<p>Bid as option (collector or Borough) and re-evaluate. It is noted that the Borough can reduce the cost of the contract price by roughly 5 percent if the Borough can conduct the billing. The Borough bills for taxes and this mechanism should be considered as a method for in-house billing for curbside waste and recycling services. Borough billing facilitates the collection of a nominal admin fee to support beneficial programs and the Borough can average the cost of the contract over the contract term and bill residents the same rate for several years without increase.</p>
<p>Education – Contract requires hauler to provide schedule for days of week for collection services.</p>	<p>Bid should require a detailed education program booklet at start up and the collector to provide waste and recycling information once each year.</p>
<p>Senior Citizen Discount</p>	<p>Continue Senior Citizen discount but specify in the revised bid the estimated number of households eligible for the discount (based on current participation).</p>
<p>No liquidated damages in current contract.</p>	<p>Include a liquidated damages policy (see Appendices) in contract that establishes set penalty amounts for specific offenses by the contractor. For example, leaving trash or recycling containers in Borough streets could be set at \$50 for each offense.</p>
<p>No “opt-in” for small businesses to enter the residential waste and recycling program.</p>	<p>Through the curbside waste contract, permit small businesses that generate residential-level waste quantities to “opt-in” to the residential waste collection and recycling program at a cost comparable to the residential program cost. The small businesses would dispose of trash the same as residential units and be provided the same recycling services. Adding small businesses can make the contract larger and more attractive/competitive to haulers.</p>

6.0 CONCLUSIONS AND RECOMMENDATIONS

GF concludes that Chalfont Borough is proactively managing wastes with consideration of future growth and the need for managing costs over the long term. By periodically bidding for waste and recycling service the Borough manages competition for waste service to keep cost down, serves the needs of residents, accommodates changes in the industry, and can adjust to regulatory changes as needed. Although the Borough waste management system is fundamentally sound, the program economics and recycling performance can be improved and investing in these changes will help keep residential trash bills affordable as collection system and other costs continue to increase. The following bullets represent key areas the Borough has the greatest need for improvement:

- There is approximately **\$95,000 per year** added to the cost of waste program due to offering a second day for trash pick up each week. Once per week trash collection (coupled with recycling) can meet residential disposal needs and will reduce the cost of the waste contract. The majority of residents support once per week trash based on the residential survey.
- The Borough does not market its recyclables, and therefore forfeits roughly **\$15,000 - \$40,000 of recyclable revenue per year** that can be invested into the waste collection program and be used to moderate residential costs. Dual-stream collection (where commingled containers are collected separately from designated paper/fiber items) yields higher revenue returns at this time.
- The reported curbside recycling rate is **14 percent**, which is **10 – 15 percent below** the potential curbside recycling rate for a contracted collection program. The poor performance may result from incomplete recyclables data, poor recycling participation, or a combination of the two. Increased recycling can save the Borough and residents money.

The following recommendations are based on GF’s evaluation of Chalfont’s waste program and waste system goals. Borough staff and elected officials will need to evaluate these recommendations and reach agreement on the services that are included in the next bid release as well as how the Borough will implement the new program. Key recommendations and implementation steps include:

Confirmation of the proposed waste management program changes incorporated in the revised bid specifications: GF made recommendations under Section 5.0 of this Report that should be reviewed by the Borough and added into the revised bid specification for waste collection services. As summarized GF recommends the following changes to the program bid specifications:

- Bid once per week trash collection (not twice per week).
- Clarify that ownership of recyclables belongs to the Borough and direct recyclables to a market where the Borough has implemented a pricing arrangement.

- Permit small businesses that generate residential-level waste quantities to “opt-in” to the residential waste collection and recycling program. By added these commercial units in the contract, the Borough may help to lower the cost per unit while helping small businesses to reduce their trash bills and recycle.
- Include a dual-stream and single-stream collection price request in the rebid to evaluate the preferred collection format (compare in conjunction with market prices).
- Define “compostables” as leaf waste, which is defined as **leaves, garden residues, shrubbery and tree trimmings, and similar material** in accordance with Act 101 of 1988.
- Require hauler to issue an education program booklet at start up and provide waste and recycling information once each year.
- Add a liquidated damages policy (see **Appendices**) to the waste contract to improve the Borough’s ability to ensure the contractor meets the requirements of its collection contract.

Pre-bid Meeting – Invite haulers and Borough officials to discuss the program specifications and work through any possible issues by hosting a meeting prior to bid release.

Development of a Separate Bid Document for Securing a Competitive Price for Recyclables: The Borough should take ownership of its recyclables and then market its recyclables by directing them to a regional market under a pricing agreement. To ensure the Borough secures a competitive price, the Borough should competitively bid out its recyclables and execute a marketing agreement. The recycling market bid process should be completed at least two months prior to the issuance of the curbside waste and recyclables collection bid.

Recyclables Revenue: Revenues from recyclables should be used to support the waste and recycling program initiatives and to moderate the cost of residential trash bills.

Dedicated Waste System Budget Line-item/ Fund: Monies from grants, sale of recyclables revenue, and/or an administrative fee tied to the waste program should be placed into a dedicated fund to improve long-term financial management of the waste collection system. An annual budget should be established for the waste management program.

Increase Recycling: Chalfont should implement a number of strategies to increase its curbside recycling rate from fourteen percent to 30 percent over the next 5 years, which in turn will reduce Borough and residential costs. Strategies (from Section 4.1) are summarized as follows:

- Change from twice a week trash service to once a week to incentivize residents to recycle by offering less total disposal options.
- Validate reported recycling data.
- Increasing the size of curbside recycling containers as new containers are needed.
- Sell Borough recyclables, which in turn should be an incentive for the Borough to recycle more and use revenues to partially offset waste system costs.
- Establish curbside set-out limits for trash via ordinance so residents are encouraged to recycle more and dispose less.

- Establishing a curbside recycling percentage goal (e.g. a 3 percent increase each year for the next five years)
- Increase recycling education efforts and awareness through a shared effort between the Borough and the hauler.

Verify billing (by the Contractor or by the Borough): GF has described several advantages, including lowering the waste contract cost, for billing residents for trash service through the Borough. The Borough should validate its ability to periodically bill residents for waste collection and recycling services through the tax billing system or another method and make a final determination if trash billing in house is feasible.

Administrative Fee: A nominal per-household administrative fee can be recovered through the waste contract and remitted to the Borough or recovered directly by the Borough if it does the billing. If the Borough does the billing the total cost of the waste contract will be reduced by roughly 5 percent and it will be simple to recovery a nominal administrative fee. Collecting the fee through the contractor will require setting the fee in the bid specification and then requiring the selected contractor to remit the fee back to the municipality, usually on a quarterly basis.

This small fee can be built into the cost per household fee for the purpose of administrating the waste and recycling programs. This fee is justified because of the cost to administer the contact and program and because the funds will be used to support the waste collection system and recycling programs. If the Borough builds a \$1.00 per household, per month fee into the program for 1,450 residential units, it could generate roughly **\$17,500 annually** for recycling education, yard waste programs, contract administration and other beneficial waste management programs.

Act 101 Recycling Grants: On an ongoing basis, the Borough should pursue Act 101, Section 902 Grant funding for recycling containers and other grant-eligible items in support of its waste and recycling program. The Borough should pursue Act 101, Section 904 Performance Grant funds for the tons of eligible recyclables that are recovered and documented each year.

Enforcement: Enforcement should be closely linked with the educational program. Municipal officials should work closely with the judicial system (district magistrates, etc.) to support proper and timely enforcement of the waste management program for residents and haulers. The waste program should address enforcement through ordinances, education, sound legal waste contracts and enforcement staff. Enforcing the contracted collector can be simplified by including liquidated damages in the collection contract (refer to Example Liquidated Damages in the **Appendices**).

Education: By improving program economics the Borough can invest in comprehensive educational programs to promote increased recycling and various waste reduction techniques including backyard composting, grass cycling, buying bulk, reusable/durable grocery bags, etc. The Borough should emphasize that Borough residents help to reduce their trash bills through recycling because the revenues from recyclables are used to moderate the costs of the waste collection system.

Ordinance - Recyclables Ownership: Ordinance 366 does not clarify Borough ownership of its

recyclables after placement at the curbside. The ordinance should be revised to be consistent with the Borough collection contract so the Borough can benefit from recyclables revenue.

Ordinance: Rules and Regulations Document: The Borough could adopt a Rules and Regulations document that is an attachment to in existing Ordinance 366. Such a document would allow the Borough to set and revise rules via addendum for the collection of waste; without requiring a change to the ordinance for specific program details. For example, Ordinance 369 was adopted primarily to prohibit collection of waste from 9:00 pm to 6:00 am. If a rules and regulations document were in place, such times could be changed without opening the ordinance for revision. The Rules and Regulations document could also list the items to be recycled, specific costs for service and other terms detailed in the contract which can change from time to time and based on short term needs of the community.

Ongoing Program Evaluation: It is important that recordkeeping, cost tracking, and program evaluation is conducted on an ongoing basis. Haulers should be required to comply with the reporting format prescribed by the Borough’s waste contract. The Borough can use 488 tons of curbside recyclables as an annual baseline from which to improve.

APPENDICES
Example Liquidated Damages Policy
Residential and Commercial Waste and Recycling Survey
Surveys not in on-line Report

SECTION _
Sample Liquidated Damages Policy

The _____ or his/her designee shall notify the Proposer for each violation of the Agreement reported to or discovered by him/her for the Municipality. It shall be the duty of the Proposer to take whatever steps may be necessary to remedy the cause of the complaint and notify the Municipality in writing of its disposition within twenty-four (24) hours after receipt of complaint.

The following acts or omissions shall be considered a Breach of Contract and for the purpose of computing damages under these provisions.

1. Failure to clean up solid waste spilled by Proposer within six (6) hours of oral or written notification -----\$50.00 each instance.
2. Failure to maintain vehicle in a manner which prevents nuisances such as leaky seals or hydraulics ----- \$100.00 each instance.
3. Failure or neglect to collect solid waste, recycling, (or yard waste/bulky goods if part of the proposal) at those times provided by the Agreement within 24-hours after either oral or written notice by municipality ----- \$50.00 each instance.
4. Failure or neglect to provide notice to resident upon solid waste refused for collection for cause ----- \$25.00 each instance.
5. In addition to above, failure or neglect to correct chronic problems will be considered a Breach of Contract----- \$50.00 each instance.

Chronic problems shall be construed to be three or more occurrences of items (1), (2), or (3) immediately above at the same address within any period of six (6) consecutive months whether or not remedied within 24-hours or four hours in the case of spilled solid waste.

6. Failure to collect recyclables, which are properly prepared and placed for collection as part of the collection program ----- \$25.00 each instance.
7. Missing entire blocks/neighborhoods. A missed block is defined as a block where residents from at least three (3) households within two intersections of that block or cul-de-sac report that their material was out before 7:00 a.m., the material was not picked up and the addresses did not appear on the records as unacceptable setouts ----- \$250.00 each instance.
8. District-wide collection not completed. The failure to complete a majority (50% or more) of pickups within the municipality or collection district on the scheduled collection day without following proper notification procedure----- \$2,500 per instance.

Hauler must maintain an escrow account of \$5,000 with the municipality to be used for payment of any liquidated damages. Any unused portion of the deposit shall accrue interest at 5% simple annual interest and will be returned to the Proposer at the end of the contract period.

The _____ or his/her designee will inform Proposer when or if the escrow account needs to be replenished.