

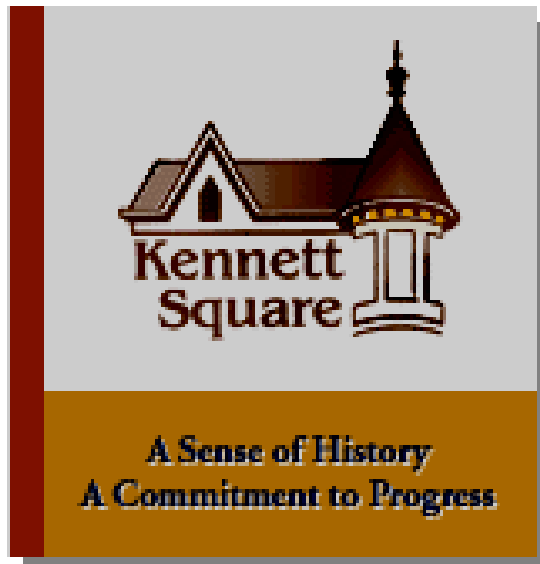
**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY**

FINAL REPORT

**IMPROVING CURBSIDE COLLECTION
METHODS FOR RECYCLABLES**

Prepared for:

**BOROUGH OF KENNETT SQUARE
CHESTER COUNTY, PENNSYLVANIA**



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HARRISBURG, PENNSYLVANIA

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**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY
EXECUTIVE SUMMARY
IMPROVING CURBSIDE COLLECTION
METHODS FOR RECYCLABLES**

Kennett Square Borough, located in Chester County, has approximately 5,200 residents and is continuing to grow. The Borough recognizes that, as the community grows, so does the importance of implementing a comprehensive waste management system that meets the disposal needs of the community. Through completing this study, the Borough has evaluated its waste collection system and is taking proactive steps to improve the recycling and waste management program.

Based on GF's evaluation of the existing program, there are many favorable aspects of the waste collection and recycling system. There are also changes that are needed to improve the waste collection system. Certain changes will result in higher recycling participation and increased waste diversion to recycling, and ultimately will lower total waste system costs.

GF has made a number of recommendations throughout this Report. Some of the key recommendations to the Borough include:

- The Borough should **bid for single-stream recycling** in the next waste contract.
- The Borough should **increase the size of recycling containers** used for curbside residential collection of commingled recyclables (e.g. plastics, glass, steel and aluminum cans).
- The Borough should **retain ownership of its recyclables for the purpose of marketing and sale for revenues**.
- It is recommended the Borough **participate in the Chester County Processing & Marketing Agreement** currently with the BFI Recyclery that is administered by the Chester County Solid Waste Authority in order to maximize recyclable commodity revenues.
- The Borough should **implement a waste collection program that includes recycling incentives and/or waste disposal disincentives**. The recommended incentive mechanism is a PAYT program where resident pay for every bag/container that is placed at the curb. This approach will be financially beneficial to the Borough because increased recycling can:
 - Reduce Borough annual costs by reducing the amount paid for disposal tip fees at a rate of \$55.00 per ton for each ton diverted to recycling
 - Increase revenues received from sale of recyclables due to increased recyclable tonnages

- It is recommended the Borough **allow small commercial business to “opt-in” to the contracted waste and recyclables collection program** so they are billed and provided service as though they were residential units.
- It is recommended the Borough work closely with the current waste and recyclable hauler to ensure recycling education is a joint and consistent effort by the waste hauler and the Borough.

FUNDING

- Because grant funding is not guaranteed, **the Borough should not rely solely on grant funding as the support mechanism for its recycling programs.** As the Borough continues to expand, it may become necessary for the Borough to work with a solicitor to investigate the use of a fee that is incorporated into the waste collection contract to support the administration and implementation of its services and programs.

902 RECYCLING PROGRAM GRANT

- The Borough should continue apply for Section 902 grant funding for up to 90 percent reimbursement for costs associated with purchasing recycling equipment and recycling containers.

904 PERFORMANCE GRANT

- It is recommended the Borough apply annually for the Act 101, Section 904 Recycling Grant award.

SWANA TECHNICAL ASSISTANCE STUDY
BOROUGH OF KENNETT SQUARE
FINAL REPORT
IMPROVING CURBSIDE COLLECTION
METHODS FOR RECYCLABLES

1.0 INTRODUCTION

Kennett Square Borough (Borough) is in the process of evaluating methods to improve its recycling program. 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), the Borough was awarded \$7,500 in technical assistance to be provided by Gannett Fleming, Inc. (GF).

1.1 Scope of Work

Task #1 GF, with information provided by the Borough as needed, will gather pertinent background information to evaluate the existing collection program and identify methods for improving collection performance. This task will require review of the existing recyclables collection requirements contained in the annual refuse collection contract.

Task #2 GF will outline the relevant components of Act 101 and identify potential inconsistencies in the existing waste collection and recycling collection program. This task will include review of the existing ordinance(s).

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 the Pennsylvania Department of Environmental Protection (PADEP) and response to PADEP comments. Additionally, an electronic file of the final report will be submitted to PADEP along with a MS Word summary (as required) of the project conclusions and findings. Both an electronic and hardcopy version of the report will be provided to the Borough.

2.0 BACKGROUND

The Borough requested assistance from GF to evaluate the existing curbside collection methods for recyclables in the Borough. The Borough is interested in increasing annual recycling collection quantities by making feasible changes to the existing program. The Borough believes a 15 percent increase in recycling is achievable. The Borough also wants to ensure the existing recycling practices and solid waste ordinance is in compliance with the Municipal waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101).

3.0 EXISTING WASTE COLLECTION SERVICES

Kennett Square Borough currently has a three (3) year refuse contract with Allied Waste Services (formerly known as BFI). This contract expires on 12-31-08, and has two one-year

renewal options. As specified in the contract and Ordinance No. 825, waste collection for residencies having up to three units is conducted weekly on Tuesdays (same day as recyclables). Trash pick-up is limited to three, 32-gallon containers. Multi-family units containing four (4) or more units and commercial establishments are not included in the residential refuse contract.

Kennett Square Borough is one of 24 municipalities that participate in the Southeastern Chester County Refuse Authority (SECCRA) program for regional waste management. All municipal waste generated in the Borough is taken to the SECCRA Community Landfill located in London Grove Township on PA Route 926. As of January 2, 2007, the tipping fee for disposal of municipal waste at SECCRA is \$58.00 per ton. Kennett Square receives a \$3.00 per ton rebate for directing waste to the Chester County Landfill. A complete listing of year 2007 landfill tip fees for materials accepted at the SECCRA County Landfill is provided in **Appendix A**.

4.0 EXISTING RECYCLING PROGRAM

Kennett Square Borough is mandated to provide curbside recycling to residents by Act 101. The Borough offers weekly curbside collection for recyclables, which is provided by Allied under the waste and recycling contract. Recyclables are collected on Tuesday, the same day as trash. Residents currently use 14-gallon containers to set-out recyclables, which can be seen below in **Photo 1**. In GF’s experience, a 14-gallon container is not sufficient capacity for an average household (~2.5 persons) generation of recyclable collections each week. This is clearly seen in **Photo 2**, where the curbside set-out includes the 14-gallon container plus a cardboard box to hold additional recyclables. Undersized containers are inconvenient for residents and often, residents will throw recyclables away as trash when their original container is filled.

The following Act 101 materials are collected weekly from residential households and small businesses:

- Clear glass
- Green and brown glass
- Aluminum
- Steel/ Bimetallic cans
- #1 & #2 Plastic bottles
- Newsprint
- Junk Mail



Photo 1: 14-gallon container



Photo 2: Commingled recyclables

Although **cardboard** is not picked up curbside by haulers, the residents can drop off flattened cardboard in a recycling container, seven days a week, located in the rear parking lot of 228 Birch Street.

4.1 Leaves, Brush and Christmas Trees

The Borough’s Public Works Department collects leaves at the curb from May 1st through December 31st. Brush is collected the first Monday of each month. Leaves are only collected if placed in biodegradable (paper) leaf bags purchased from the Borough. Bags are \$0.50 each. Christmas trees are collected December 26th through January 31st. After the collection of woody wastes, the Borough uses a chipper to process the material. Woodchips are available for use by the Borough and residents.

4.1.1 SECCRA Yard Waste Disposal

SECCRA permits yard waste disposal at Community Landfill in small or large quantities. After receipt at the landfill, most yard waste is composted and then mixed into soil used as a daily cover at the landfill. **Table 1** shows yard waste disposal and pricing at SECCRA.

Table 1: YARD WASTE DISPOSAL AT SECCRA	
<p>Cost:</p> <ul style="list-style-type: none"> • Grass, leaves and chipped brush (less than 500 lbs): FREE • Grass, leaves and chipped brush (more than 500 lbs): \$20 per ton • Unchipped brush and limbs: \$45 per ton 	<p>Rules:</p> <ul style="list-style-type: none"> • Sticks must be less than 1/2 inch across to qualify for free or reduced cost recycling • You must check in at the weighmaster window, before entering the scale area

Source: www.seccra.org

4.2 Appliances and Furniture

Appliances and furniture are picked up at the curb on the last Tuesday of each month. There is a limit one piece per residence. Refrigerators must have the doors removed. Appliances with coolant gas (refrigerators, freezers and air conditioners) must have the freon removed by a certified technician and a tag certifying that this has been done must be attached to the unit. Residents can call the hauler (Allied) to make pick-up arrangements after the freon has been properly removed.

4.3 Commercial Recycling

Larger commercial establishments are not included in the refuse and recycling contract with Allied. Commercial establishments privately subscribe with one of several local private haulers for refuse and recyclables collection. Businesses that do recycle typically contract independently for collection of cardboard and/or office paper (and/or other materials). It is unknown how many commercial establishments actively recycle in the Borough and include recycling for high-grade paper, corrugated paper, aluminum cans and leaf waste as required by Borough ordinance.

Even in municipalities that have been mandated for a long time, commercial businesses may not recycle all or any of the materials designated by Act 101. This is often attributed to lack of education, lack of enforcement and/or penalties, and also because there may be additional collection costs for the business if it separates recyclables from trash collection. It will be the Borough's responsibility to educate and work cooperatively with local businesses (and as necessary, the haulers) concerning recycling responsibilities and to enforce the Act 101 requirements. In Act 101 mandated municipalities, commercial, institutional and municipal establishments are responsible for arranging for collection and recycling of the materials designated by municipal recycling ordinance, unless other arrangements or an agreement fulfills the requirements of the ordinance.

It is important for commercial, institutional and municipal entities to provide written documentation to the municipality as to the type and weight of materials recycled annually. Mandated municipalities are required to submit annual recycling reports to their host County for PADEP record. Some Pennsylvania Counties have placed a quarterly recycling report requirement on haulers.

Kennett Square Borough's recycling ordinance does not clearly specify commercial, institutional and municipal establishment recycling requirements.

5.0 COLLECTION SYSTEM EVALUATION

Based on GF's review of the Borough's waste collection system and recycling program, the Borough's recycling program is fundamentally sound. Some favorable aspects of the existing collection system include:

- Waste collection and recycling services are bundled together under a single, competitively bid waste collection contract
- Recyclables collection is on the same day as trash and limited to one day
- Trash collection is limited to one day per week
- A comprehensive list of recyclables is collected:
 - Commingled containers
 - Mixed paper
 - Leaves, branches and limbs are collected in compliance with Act 101

- Monthly collection of appliances and furniture is provided.

Some of the unfavorable characteristics of the current waste collection system and recycling program include:

- Allowing residents to set out up to three, 32-gallon containers under one set fee structure does not create a financial incentive to recycle (as with a Pay-As-You-Throw type waste collection system)
- Recycling containers under the existing program are too small, thus making recycling inconvenient. Residents must deal with overflow of recyclables. Limited capacity to collect and store recyclables can reinforce the behavior to simply discard material as waste
- There is no active Enforcement Officer or other Borough designee for enforcing the curbside waste collection and recycling program
- Single stream collection is not in place and could improve the total recycling rate and convenience for residents to participate in recycling.

6.0 REVIEW OF BOROUGH ORDINANCE

As part of this Technical Assistance Study, GF was tasked to review the existing Borough Ordinance No. 825 (solid waste) to determine any inconsistencies with Act 101. Based on GF's review, the following was determined or noted:

- Generally, the ordinance accurately defines the waste and recycling program that is implemented in the Borough.
- Section 4.D.2. – This section indicates yard waste, with the exception of leaves and Christmas trees are prohibited from collection. Based on the definition of “leaf waste” in Act 101, this section of the Ordinance is in violation of Act 101 and the policies and guidelines of PADEP. The Act 101 definition of “leaf waste” and corresponding curbside collection requirements for leaf waste are presented below:

“**Leaf waste**” is defined as **leaves, garden residue, shrubbery and tree trimmings**, and similar material, but not including grass clippings. The practice of a landfill or resource recovery facility (incinerator) accepting "truckloads composed primarily of leaf waste" is a violation of Act 101, Section 1502(a).

PADEP has provided the following guidance related to leaf waste collection:

Act 101 mandated municipalities with programs that collect leaves only in the fall are not in compliance with the Act. Mandated municipalities desiring to establish leaf waste collection programs in compliance with Act 101 must, as a minimum:

1. Require by ordinance that leaf waste consisting of leaves, garden residues, shrubbery and tree trimmings, and other similar material are targeted for collection from residences and commercial, municipal and institutional establishments; and

2. Establish a scheduled day, at least once per month, when leaf waste is collected from residences; or
3. Establish a scheduled day, not less than twice per year and preferably in the spring and fall, when leaf waste is collected from residences, and facilitate a drop-off location or other collection alternative approved by Pa. DEP that allows persons in the municipality to deposit leaf waste for the purposes of composting or mulching at least once per month. The leaf waste drop-off location may be located in a neighboring municipality or at a private sector establishment provided that an agreement is in place to utilize that location and the municipality keeps residents and commercial, municipal and institutional establishments informed of the option at least once every six months.
4. Ensure that commercial, institutional and municipal establishments generating leaf waste have collection service.
5. Municipalities are encouraged to manage source separated Christmas trees as leaf waste for processing at Pa. DEP-approved composting facilities.

The Borough's ordinance should be revised to accurately reflect the definition of leaf waste, and at a minimum, indicate the Borough will meet the collection frequency minimums set forth by Act 101 and Pa. DEP standards.

The yard waste recycling program implemented in the Borough is comprehensive in nature and meets the Act 101 and PADEP leaf waste collection requirements. The Borough does not permit open burning within Borough limits and the weekly curbside collection of grass, leaves, limbs and tree branches meets the corresponding regulatory requirements.

To facilitate the ability of the ordinance to serve as an enforcement tool, the Borough could add a section to the ordinance that establishes a straightforward citation process that may be used to issue warnings, followed by citations (when warranted) issued to residents for a number of identified violations. Depending on the nature of the violation, the fee for the citation could vary. The ordinance should indicate that citations will be issued by a Code Enforcement Office or other Borough designee.

7.0 INCREASING RECYCLING PARTICIPATION AND WASTE DIVERSION

GF has provided recycling program guidance in this section that can increase the quantity of material that is diverted from the landfill, improve program efficiency, and increase participation in the Borough's curbside recyclables collection program. This guidance is based on the following premise:

*The Borough needs to make a few fundamental structural changes to its waste collection system in order to maximize the amount of material that is diverted from the landfill to recycling. In making these revisions to the collection system, waste and recycling should be viewed as integrated services, not as separate programs. To achieve optimal results in terms of waste diversion, participation, economic return and program sustainability, the Borough will need to establish a convenient waste collection and recycling program that creates an **incentive for residents (and the Borough) to limit the amount of waste set out at the curb for disposal.***

7.1 Structural Changes to the Borough Waste and Recyclables Collection System

GF recommends the Borough improve and/or implement the following components of the existing waste and recycling program structure:

- **Establish a Waste and Recycling Committee:** The Borough should form a committee commissioned to evaluate and make recommendations to Council regarding waste and recycling on an ongoing basis. The Committee should meet at a minimum of twice per year and report findings to Borough Council after each meeting, or as necessary during the course of each year. The Borough should also appoint an Enforcement Officer or other designee to distribute educational materials, recycling feedback, and or warnings, fines or citations to households.
- **Limit the amount of trash set out at the curb:** The Borough should not permit excessive residential trash set-outs. This can be done indirectly through a financial incentive program, which is commonly referred to as Pay-As-You-Throw (PAYT). Refer to Section 7.1.1 for a more complete PAYT description.
- **Recyclables Collection Format:** The Borough should move to a single-stream recyclables collection format because it will increase recycling and local markets in the region are moving to single-stream processing and marketing.
- **Recyclables collection schedule:** Although the Borough's weekly recyclables collection program is working well, the Borough should give consideration to changing the curbside recyclables collection schedule to a minimum pick up frequency of once every two-weeks (bi-weekly). This recommendation is primarily made because there is a cost reduction of 10-25 percent for bi-weekly collection when compared to weekly collection of recyclables. Municipal case studies also reveal that bi-weekly programs with educational programs and adequately sized containers recover the same quantity of material as weekly recycling programs. If the Borough wishes to pursue the bi-weekly service option in a future bid, the Borough should make it clear in the Request for Proposal that the Borough anticipates an appropriately reduced cost for weekly to bi-weekly service.
- **Recycling containers:** Residential recyclables make up over 50 percent of the material (by volume) that will be set out at the curbside. Therefore, the recycling containers should be sized to meet this volume. Although curbside preparation of materials may vary (e.g. placing commingled materials in with bundled paper on top), 32-gallon or larger recycling containers have the capacity to handle commingled containers generated from typical households where collection occurs weekly or bi-weekly. Single-stream recycling programs should include 64-gallon or larger containers. 14-gallon containers may supplement, or serve as a second container for dual-stream programs (i.e. mixed paper including magazines, newspaper, junk mail, etc). Recycling containers should be labeled with the materials accepted for collection. Graphics with pictures and words are recommended.

***Note:** Always verify with the recycling market as to which materials are accepted and handling procedures for each material.

- The Borough should require the hauler to identify and inform the Borough which households do not set out recyclables. Borough follow up and enforcement is needed for households that repeatedly do not comply.
- **Recycling ordinance:** Revise the current recycling ordinance and consider adding program details in a concise Policies and Procedures (P&P) document that is attached to the ordinance so that details of the recycling program can be revised without going through the standard and time consuming ordinance revision process.

7.1.1 Pay-As-You-Throw (PAYT)

Because the Borough of Kennett Square has a fundamentally sound waste and recycling program, but wishes to see results in terms of increased curbside waste diversion, a PAYT waste collection system is a favorable collection system alternative. In “true” PAYT programs, residents are required to purchase each trash bag placed at the curb for pickup or pay a fee based on the number or capacity of trash containers that are used for curbside set-out of waste. An alternative to bags is stickers which are easier to distribute. Because residents are charged based on the quantity of waste disposed, PAYT creates a financial incentive for residents to divert materials to recycling. In other words, more recycling means less paid by the household for trash disposal. Based on GF’s research and conclusions, PAYT waste collection systems are beneficial in terms of increasing residential recycling participation, which in turn maximizes the quantity of waste that is diverted from the landfill to recycling. Although limiting trash set outs can be achieved using an ordinance that sets bag limits (i.e. the number of bags/containers), it is important not to set the limits too low because of health and safety issues such as illegal dumping. Ordinances should be in place to prevent open burning or illegal dumping.

7.1.2 Implementing Structural Changes to the Borough Waste Collection System

The way to implement structural changes is to revise the Borough’s waste collection contracts via the municipal bid process and change the Borough ordinance to reflect the changes to the program. The Borough is encouraged to **restructure the municipal bid documents** and corresponding contract for curbside waste and recycling services to ensure that:

- To the extent feasible, the collection services offered to residents are comprehensive, convenient, and create an incentive to recycle.
- Single-stream recycling is implemented.
- The contractor that provides recyclables collection service be required to distribute residential recycling information/recycling requirements at least once per year, and any time changes are made to the program.
- The contractor should be involved in a quick response curbside feedback program. This should be established as a mutual arrangement and not forced upon the hauler. It can be part of the contractual arrangement that stickers or tags will be placed periodically on trash cans and/or on recycling containers, or directly on items, to

provide immediate feedback at the curbside to residents who are not following Borough procedures established for trash and recyclables preparation and collection. Some municipalities leave unaccepted recyclable items behind with a sticker, card or checklist indicating why it is “not acceptable.” It is not realistic that the hauler would be required to place stickers at every household that recycles improperly on every collection day. However, the hauler should provide feedback to households who clearly are not recycling properly on a regular basis.

- The municipal bid documents and corresponding contract should contain a liquidated damages policy. Liquidated damages can be used to define a number of provisions related to waste and recycling collection performance as “breaches of contract.” These breaches of contract can result in financial penalties (that vary in amount by the offense) that are assessed to the contractor when specific provisions are not met. A sample liquidated damages policy is provided in Appendix B. Although Performance Bonds are an important piece of collection and disposal contracts, recovering performance bonds has historically been very difficult and is generally not feasible for small infractions by the contractor.

7.1.3 Increasing Curbside Residential Participation

In order for the Borough to reach its goal of increasing recycling participation by 15 percent, the Borough is encouraged to implement the structural changes presented in the sections above. In other words, if there are some basic structural problems that persist, it will be difficult to increase participation through education or other measures. To maximize participation, many of the program changes should focus on improving the convenience of the recycling program: single-stream recycling, where residents put all recyclables in one large recycling bin, is convenient. The level of recycling convenience directly impacts residential recycling participation, and will be a driving factor in the success achieved by the Borough’s enhanced recycling and waste collection program. Based on review of the existing waste collection system, the Borough’s recycling curbside rate can increase by 5 to 15 percent if a more comprehensive and convenient recycling collection system is implemented and then reinforced by education, enforcement, and incentives.

It is GF’s observation that recycling education is very important to get residents to “buy-in” to recycling. However, the implementation of a sound waste and recycling structure will be the key to results and an enforceable program. GF encourages the Borough to improve recycling participation from the **residential sector** as follows:

- **Convenience:** Make changes to the recycling collection program that ensure participating in the recycling program is convenient for residents/households. Some of the key components of a convenient curbside residential recycling program include:
 - Single-stream recycling format
 - Consistent curbside collection schedule for all households in the municipality
 - Curbside collection frequency is not less than bi-weekly
 - Collection of a comprehensive list of recyclables is offered to all households by the municipality and/or other collectors active in the municipality
 - Sufficient recycling container capacity for all households.

7.1.4 Effective Residential Recycling Educational Methods

Recycling information should be distributed to households at least twice per year (once every six months) in accordance with Act 101 to all residential establishments. Although websites can contain useful recycling information, many residents do not rely on municipal websites for guidance on trash disposal or recycling. Based on experience and success stories from a number of municipal recycling programs throughout Pennsylvania, some of the most effective residential recycling education methods include:

- **Requiring the hauler to play a role in residential recycling education:** The hauler providing waste and recycling services should assist the Borough in distributing recycling information at least once per year or prior to any program change that will impact residential disposal and recycling habits. Waste and recycling education should be a cooperative effort between the hauler and the Borough.
- **Recycling containers include labels** with recycling instructions (e.g. list of accepted materials) either printed directly on the container or printed on a label that adheres to the container. Pictures can be used to clarify the recycling message.
- **Distribution of refrigerator recycling magnets** to households that lists the acceptable and unacceptable recyclables and includes the recycling schedule (if the schedule will fit on the magnet). Refrigerator magnets are effective because they can be placed in the house in a visible location and referenced by household members throughout the year. Magnets are not usually discarded as quickly as newsletters or flyers.
- **Website:** The Borough’s website should be kept up-to-date for residents using the internet as an information tool. The website should clearly explain the waste and recycling program and procedures. Additionally, the website should provide information on the importance of recycling as it relates to the community, lowering disposal costs, saving energy, and preserving resources and the environment.

7.1.5 Increasing Commercial, Institutional and Municipal Recycling

Commercial sector establishments (i.e. commercial businesses, industries, institutions, and municipal establishments) located in the Borough are mandated to recycle by Act 101. Large offices typically generate recoverable quantities of paper and cardboard. Depending on the size of the company and quantity of recyclable material generated, businesses may lower their waste disposal costs by separating recyclables from the waste stream and then reducing the level of service that is required for waste disposal. For example, removal of a cardboard recycling dumpster can be over 60 percent less expensive than removal of the same-sized dumpster of waste.

Businesses’ poor recycling efforts can be attributed to a lack of recycling education, reluctance by companies to recycle, and lack of enforcement and/or penalties for non-compliance, and lack of understanding of contracting for collection services. Some

businesses are deterred from recycling because adding recycling services may increase their annual collection costs, but not always, especially when markets are good. Business wishing to add recycling service typically will contract with a hauler to provide service in addition to trash service for segregated recyclables (e.g. separate cardboard dumpster and/or collection service for separate containers for cans, bottles, or other materials). There are several common barriers or reasons why businesses in the Borough may not implement comprehensive recycling programs:

- The commercial establishment is unaware of its recycling requirements established by the Borough ordinance.
- Management has not established recycling as a priority.
- Management and staff are unaware of how to implement a recycling program.
- Supplemental programs, such as local drop-off sites, have not been made available.
- Management perceives recycling as a hassle and feel it may result in extra cost.
- There is little or no enforcement program or consequences for commercial establishments that do not comply.
- Municipalities may not wish to interfere with the activities of private businesses.

Act 101 requires the Borough to educate businesses about its recycling requirements. It is the Borough's responsibility to educate businesses on recycling and to work cooperatively with local businesses and haulers concerning recycling responsibilities. Enforcing its recycling requirements is also the responsibility of the Borough. However, the individual establishments are responsible for arranging for collection and recycling of the designated recyclables, unless another arrangements or agreement fulfills the Borough's requirements. GF encourages the Borough to improve recycling participation from the **commercial sector** as follows:

- The Borough can add provisions to a subsequent municipal bid for curbside waste and recycling services that allow small businesses to “opt-in” to the contracted residential waste and recycling collection program. This can increase the number of business that participate in recycling and comply with Borough recycling requirements. Often businesses that generate a small quantity of waste can save money in this type of opt-in program because their dumpster service will be replaced by a less expensive can or bag service. Additionally, participating businesses will be able to conveniently recycle in the same way as residential establishments.
- The Borough should provide recycling information to all businesses at least twice per year, in accordance with Act 101 requirements. The information that is distributed to businesses should contain the following information:
 - The businesses' recycling obligations under Act 101 and the Borough ordinance.
 - Brief instructions that describe how businesses can contract with their existing trash hauler or another hauler to provide collection services for cardboard, office paper, and as needed, for collection of other recyclables such as cans, bottles, etc.

- Provide a list of local hauling companies, including telephone numbers, that offer waste and recycling services to commercial establishments.
- Update the Borough’s recycling ordinance to require commercial, institutional and municipal establishments to report recycling totals to the Borough. Act 101 requires the Borough, as an Act 101 mandated municipality, to report residential, commercial, institutional and municipal recycling totals (from the prior year) to their host County by February 15th. Consequently, the Borough may wish to require commercial establishments to report to the Borough by January 15th or no later than January 31st.

It is important for commercial, institutional and municipal entities to provide written documentation to the municipality as to the type and weight of materials recycled annually. If this data is not collected, it will be nearly impossible to track commercial recycling efforts. Additionally, eligible reported commercial recycling tonnages are reimbursed through grant funds awarded by the Act 101, Section 904 Recycling Grant program.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Kennett Square Borough, located in Chester County, has approximately **5,200 residents** and is continuing to grow. The Borough recognizes that, as the community grows, so does the importance of implementing a comprehensive waste management system that meets the disposal needs of the community. Simultaneously, the program must comply with the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101). Through completing this study, the Borough has evaluated its waste collection system and is taking proactive steps to improve the recycling and waste management program and to comply with Act 101 requirements for curbside recycling. Currently, the contracted waste and recycling program is operating well and adjustments to the program will coincide with the rebid process for curbside waste and recycling service.

Based on GF’s evaluation of the existing program, there are many favorable aspects of the waste collection and recycling system. There are also changes that are needed to improve the waste collection system. Certain changes will result in higher recycling participation and increased waste diversion to recycling, and ultimately will lower total waste system costs.

This Report identifies several structural changes that can be made to the waste collection system that, if implemented, will increase waste diversion to recycling. Notably, one of the significant changes recommended is related to the convenience of waste collection, and the inconvenience of recycling. As long as the Borough continues to allow set out of three, 32-gallon containers for trash with no real incentives to recycle, residents will continue to participate at current disposal levels and it will be difficult to maximize recycling efforts. Implementing changes to the current collection program will require the Borough to make changes to the waste collection and recycling contract (via the municipal bidding process) and the waste management/recycling services offered. These contractual program changes should be reflected in appropriate sections of the solid waste and/or recycling ordinances, or via a Rules and regulations document adopted via Resolution.

The Borough's Recycling Ordinance (#825) appears to comply with Act 101, with the primary exception of meeting the Act 101 and the PADEP guidelines for curbside leaf waste collection. The current leaf/yard waste collection program that is in place meets Act 101 and PADEP leaf waste collection requirements, so revisions are recommended for the details of the ordinance, not for the actual yard waste collection program.

In the current program, there is a lack of effective educational methods and there is no active collection system enforcement program. Several effective educational tools are described in this Report. Both education and enforcement are areas that can be improved and should be included as line items in the Borough budget. A Code Enforcement Officer or other designee is an asset for monitoring the program, but additional staffing for this purpose will increase program costs. Importantly, if revisions and incentives are added to the current program structure as identified in this Report, the effectiveness of the waste and recycling program can increase without unnecessary, additional expenditures used for recycling education and enforcement. In short, if the program services are fine-tuned to be comprehensive, convenient, and include incentives, they will increase the recovery of recyclables from the Borough's waste stream and lower long-term costs.

8.1 Recommendations

GF has made a number of recommendations throughout this Report. Some of the key recommendations to the Borough include:

- The Borough should bid for single-stream recycling in the next waste contract.
- The Borough should increase the size of recycling containers used for curbside residential collection of commingled recyclables (e.g. plastics, glass, steel and aluminum cans). In the current system, 22-32 gallon recycling containers are recommended for commingled recyclables plus the use of 14 gallon containers for materials designated as "mixed paper". If single-stream is implemented, 64-gallon or larger containers should be utilized.
- The Borough should retain ownership of its recyclables for the purpose of marketing.
- To realize the greatest results, in terms of waste diversion and recycling participation, the Borough should implement a waste collection program that includes recycling incentives and/or waste disposal disincentives. The recommended incentive mechanism is a PAYT program where resident pay for every bag/container that is placed at the curb. Hybrid programs, where residents pay a standard rate for basic service and a per-bag/container for additional disposal could also be considered. The Borough can realize and benefit from the same economic incentive by bidding for waste and recyclables collection services only, and retain the responsibility to pay for the disposal component (tip fees) of the program. This approach will be financially beneficial to the Borough because increased recycling can:
 - Reduce Borough annual costs by reducing the amount paid for disposal tip fees at a rate of \$55.00 per ton for each ton diverted to recycling
 - Increase revenues received from sale of recyclables due to increased recyclable tonnages

- Increase Section 904 Recycling Performance Grant funds through increased recyclables tonnages
- Support local recycling economy, local businesses and local employment
- Participate in the Chester County Processing and Marketing Agreement (currently with the BFI Recyclery) that is administered by the Chester County Solid Waste Authority in order to maximize recyclable commodity revenues.
- It is recommended the Borough allow small commercial business to “opt-in” to the waste and recyclables collection program. Commercial recycling education efforts and strategy have been outlined in this report and recommended as a baseline for the Borough to initiate and improved commercial sector recycling program.
- It is recommended the Borough work closely with the current waste and recyclable hauler to ensure recycling education is a joint and consistent effort by the waste hauler and the Borough. Several recommended effective educational tools and methods have been outlined in this Report in Section 7.1.5, but these educational tools are not a substitute for making the recommended changes to the fundamental program structure. A new program format and incentive-based program will improve awareness of the residents.

FUNDING

- Because grant funding is not guaranteed, the Borough should not rely on grant funding as the support mechanism for its recycling programs. As the Borough continues to expand, it may become necessary for the Borough to work with a solicitor to investigate the use of a fee that is incorporated into the waste collection contract to support the administration and implementation of its services and programs. New waste and recycling containers can be provided as part of a new waste and recycling contract. Although this will increase the cost per household, spreading this one-time cost across a 3-5 year contract term is a marginal cost increase when compared to the improvement potential for the performance of the program.

902 RECYCLING PROGRAM GRANT

- The Borough should continue apply for Section 902 grant funding for up to 90 percent reimbursement for costs associated with purchasing recycling equipment and recycling containers.

904 PERFORMANCE GRANT

- The requirements of the Section 904 Recycling Performance Grant have recently changed and the Borough should review these changes (www.dep.state.pa.us). It is recommended the Borough apply annually for the 904 grant award. The Section 904 grant program provides funding based on the amount of eligible Act 101 recyclable

materials that are recycled and documented (documentation must meet PADEP requirements) for a given year.

APPENDIX A

SECCRA Community Landfill – Tip Fees (2007)

SECCRA

Southeastern Chester County Refuse Authority

TIPPING FEES

EFFECTIVE DATE: JANUARY 2, 2007

RATES (EFFECTIVE JANUARY 2, 2007)

Classification	Rate
Tonnage rate (pro-rated charge by weight)	\$58.00 per ton
Trucks, vans, trailers	\$5.00 min fee
Car, mini van, and station wagon	\$5.00 min fee
Auto tires	\$3.00 each
Truck tires (no rims)	\$6.00 each
Tractor tires (no rims or earth mover tires)	\$16.00 each
Refrigerant appliances (we remove refrigerant)	\$12.00 each
Other appliances	\$5.00 each
Unchipped brush and limbs	\$45.00 per ton
Grass, leaves, chipped brush (must notify office before dumping)	\$20.00 per ton
(Less than 500 lbs. or delivered by a municipality)	No Charge

SCHEDULE

Regular operating schedule is: Monday through Friday 7:00 a.m. - 4:00 p.m. and
Saturday 8:00 a.m. - 12:00 noon.

Source: www.seccra.org