

**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY**

FINAL REPORT

**EAST PIKELAND TOWNSHIP,
CHESTER COUNTY PENNSYLVANIA**

MUNICIPAL-WIDE WASTE MANAGEMENT CONTRACT



GANNETT FLEMING, INC.



HARRISBURG, PENNSYLVANIA

JUNE 2008

**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY
FINAL REPORT
EAST PIKELAND TOWNSHIP
MUNICIPAL-WIDE WASTE MANAGEMENT CONTRACT**

Table of Contents

	<u>Page</u>
EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
Scope of Work.....	2
2.0 BACKGROUND	3
2.1 Recyclables Markets.....	3
3.0 ADVANTAGES OF A MUNICIPAL-WIDE WASTE CONTRACT	4
3.1 Cost Reduction	4
3.2 Waste Service.....	4
3.3 Trash Trucks & Nuisance Reduction	5
3.4 Program Participation and Compliance.....	5
3.5 Community	5
3.6 Recycling.....	6
3.7 Managed Competition	6
3.8 Administration, Billing Options and other Opportunities & Advantages	6
3.9 Disadvantages and Barriers	7
4.0 PRELIMINARY COST ANALYSIS	7
4.1 Reduction in the Bottom Line Trash Bill	7
4.2 Revenues from Sale of Recyclables	10
5.0 WASTE AND RECYCLING BID SPECIFICATION REVIEW	10
6.0 BASELINE WASTE COLLECTION AND RECYCLING STRUCTURE.....	11
6.1 General Structure.....	11
6.2 Administration.....	12
6.3 Waste Structure	13
6.4 Recycling Structure	14
6.5 Education.....	16
6.6 Enforcement	16
6.7 Record Keeping.....	17
6.8 Program Evaluation.....	17
7.0 SERVICE BY THE BOROUGH OF PHOENIXVILLE.....	17
8.0 ORDINANCE REVIEW AND UPDATE	18
9.0 CONCLUSIONS AND RECOMMENDATIONS	20
9.1 Conclusions	20
9.2 Recommendations	21

APPENDIX A - Chester County Processing And Marketing Agreement

APPENDIX B – Uwchlan Township Bid specifications and recycling program Resolution

SWANA RECYCLING TECHNICAL ASSISTANCE STUDY
EXECUTIVE SUMMARY
EAST PIKELAND TOWNSHIP
MUNICIPAL-WIDE WASTE MANAGEMENT CONTRACT

East Pikeland Township will dramatically improve its existing private subscription waste collection and recycling program by competitively bidding for waste collection service and executing a waste collection and recycling contract with a single hauling company. Making this waste system change now will lower residential costs and allow the Township to manage waste system costs and the quality of waste collection and recycling service now in into the future. The ability to participate in the Chester County Processing and Marketing agreement that is administered by the Chester County Solid Waste Authority will enable the Township to receive revenues for the materials that their residents set out at the curbside. Currently recycling revenue is forfeited because recyclables ownership is given to the haulers. In the face of dwindling Recycling Grants, these commodity revenues and the other efficiencies and cost savings that can be achieved through a municipal-wide waste and recycling contract are integral in implementing comprehensive waste and recycling services at an affordable cost to Township residents.

Although a small portion of East Pikeland Township residents do not subscribe for trash service (and pay nothing) and some others receive a competitive price around \$300 per year for service, the majority of Township residents (many paying well over \$400 per year) will see considerable savings AND more service as part of the standard package in the contracted program. For example, weekly bulky item pickup can be included at no extra cost to all households. Gannett Fleming conservatively estimates that Township residents will save approximately **\$800,000 over a three-year contract term** (Chart 3), which is a savings to most residents of about **\$100 per year, per household**. Additionally, the Township will be in a better position to stabilize the rising costs for trash services and could keep the residential trash bill the same or nearly the same for 2-3 years or more at a time. Some of the recommendations include:

- The Township should implement a single-hauler contract collection system for waste, recyclables and leaf waste and include an option for recycling service to be provided to the Kimberton Fair. The following are recommended the waste management system concepts and bid provisions:
 - Once per week curbside trash collection. Once per week recycling on the same day as trash collection.
 - Single-stream recycling format collecting container recyclables (aluminum, steel/bi-metallic can, clean, green and brown glass, plastic bottles) plus mixed paper and cardboard all in one 64-gallon (or larger) recycling container.
 - Participate in the Chester County Processing and Marketing Agreement.
 - Collect bulky wastes weekly.
 - Curbside leaf waste collection provided at least once in the spring and once in the fall.
 - Consider a PAYT program; possibly a Hybrid PAYT structure (see Section 6.3).
- The Township pays the waste disposal tip fees and directs Township-generated waste to the Lanchester Landfill in accordance with the Chester County Solid Waste Plan.
- Execute an agreement with the Chester County Solid Waste Authority to secure a reduced tip fee.
- Allow small businesses to “opt-in” to receive residential waste and recycling services.

SWANA RECYCLING TECHNICAL ASSISTANCE STUDY
FINAL REPORT
EAST PIKELAND TOWNSHIP
MUNICIPAL-WIDE WASTE MANAGEMENT CONTRACT

1.0 INTRODUCTION

East Pikeland Township (Township) is located in Chester County, and is in the process of evaluating the potential to improve its residential waste collection and recycling program through using the municipal bidding process to secure curbside collection services on behalf of its residents. The Township is requesting assistance from Gannett Fleming (GF) to provide guidance related to the development of a Request for Proposals (RFP) for residential waste and recycling service. The Township is also seeking guidance to update the solid waste ordinance.

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), East Pikeland Township (Township) was awarded \$7,500 in technical assistance to be provided by Gannett Fleming, Inc. (GF).

Scope of Work

GF worked with East Pikeland Township to develop the following tasks for this project.

- Task #1** Gather and review background information provided by the Township related to existing waste and recyclables programs and bid specifications from contractually-based waste programs in the area. This task will include review of the relevant ordinances and corresponding regulatory requirements.

- Task #2** GF will provide advantages of a single hauler contract waste management program. GF will develop a baseline waste and recycling program structure as a guideline for actual bid specification document preparation. GF will review the current ordinance and advise the Township on information that can be included in a new/revised ordinance to reflect the proposed municipal contract program.

- Task #3** GF will prepare and provide the Township 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 Township.

2.0 BACKGROUND

East Pikeland Township is a narrow, rectangular-shaped municipality located in the northeastern portion of Chester County, Pennsylvania. The Township is mandated by the Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988 (Act 101) to provide curbside recycling services to residential establishments. The Township has **2,680 residential units** according to 2008 tax roll records. The Township has approximately 125 small to mid-sized businesses. There are also seven townhouse/condo complexes within the Township municipal boundary. Most Township residents currently subscribe independently with one of several local waste hauling companies. The Township began researching the implementation of a municipal-wide contract for waste and recycling in order to determine if a cost-effective and improved program could be established on behalf of the community. Through this study, GF has expanded upon Township efforts to further clarify the feasibility of a municipal-wide waste management contract.

2.1 Recyclables Markets

It is important to understand the background of the recycling markets in the region since these markets will influence the design of the proposed waste management program. Two recyclables processing facility types, or “markets,” have emerged in this region: **single-stream processors** and **dual-stream processors**.

Dual-stream system: commingled recyclables (e.g. aluminum and steel cans, glass 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 recycling collection).

Single-stream system: recyclables are collected and processed mixed or in one single “stream” (e.g. cans, glass 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.

Local recyclables markets have the capability and capacity to process recyclables generated in the Township. The near-term outlook for recyclable commodities is favorable, largely due to overseas demand for U.S. generated materials. The BFI Recyclery, located on 372 S. Henderson Rd., in King of Prussia, Pennsylvania, is under contract with Chester County for processing and marketing of recyclables until September of 2009. The **Chester County Processing and Marketing Agreement (CCPMA)** is administered by the Chester County Solid Waste Authority. This marketing arrangement establishes set pricing (per ton) for recyclables generated by Chester County municipalities that participate in the program by executing an intermunicipal agreement with the County to deliver recyclables to the BFI Recyclery. **Beginning in 2008, the BFI Recyclery will accept both single stream and dual stream recyclables.** East Pikeland Township can (and should) participate under the CCPMA and benefit from revenue for recyclable commodities delivered to the BFI Recyclery. Information on the Chester County Processing and Marketing Agreement is included in **Appendix A**. The Chester County Solid Waste Authority has additional information about this recyclables marketing contract.

There are certain disadvantages inherent in any multi-hauler municipal waste management system for curbside residential trash and recycling services. These disadvantages stem from overlapping hauling routes and highly varied services that are inefficient and contribute to public nuisances (e.g. traffic, noise, program confusion, etc.), environmental harms (e.g. emissions) and higher residential costs. There are known advantages contract with a single hauler for curbside residential trash and recycling services. In February 2008, the Township requested GF to provide a list of advantages for a contractually based waste management program, which are outlined below. Essentially, these advantages are compared or contrasted with the existing waste system, which is an individual subscription system where each household subscribes with one of several local haulers. This list of advantages has been derived through ongoing experience, observations, bid specification development and studies GF has conducted of Pennsylvania municipal waste management systems. It is noted that most individual hauling companies can competently perform trash service. The advantages are broken out by category.

3.0 ADVANTAGES OF A MUNICIPAL-WIDE WASTE CONTRACT

3.1 Cost Reduction

- The cost-per-household (for paying customers) can be lowered by **20-35 percent** via a municipal-wide waste management contract (as compared to current household rates).
- Increased collection efficiency for the overall collection system through planned routes and "house-to-house" collection rather than non-consecutive collection routes in a multi-hauler system. This is factored into the competitive price received in the bid responses and passed on as savings to East Pikeland residents.
- Reduction in the cost associated with effective program education and better ability to comply with Act 101 education requirements. Education related to one hauler with the same waste and recycling services each week is less complex than communicating requirements for a variety of service options provided by different haulers (current system).
- Managed costs - East Pikeland can require the hauler to provide an average of the contract cost for the term of the contract (3 to 5 years), thus guaranteeing residents and the Township the same low residential bill each year without an increase for an extended period.
- An administrative fee can be recovered to cover administrative costs and to maintain a budget for beneficial Township waste and recycling programs (e.g. yard waste programs, supplemental drop-off programs, special material collections, household hazardous waste programs, etc.).

3.2 Waste Service

- Increased level or types of services offered (e.g. include bulky item collection at no additional cost). Bulky collection is commonly an "additional" cost in private subscription/homeowner contract programs. Waste services are customizable and can be

designed to reflect needs of the community: initial RFP/bidding stages used to define collection system.

- Assured municipal-wide participation in refuse collection at a fair, affordable cost.
- A more consistent, manageable waste collection system.
- Improved quality of collection service (e.g. scheduling/set collection days).

3.3 Trash Trucks & Nuisance Reduction

- Decreased number of trucks that will service a given area on a given day, and as a result:
 - Increases collection efficiency, while decreasing operational costs.
 - Minimizes truck traffic.
 - Reduces street damage: the impact from one garbage vehicle is comparable to 300 cars.
 - Reduces environmental harm realized through reduced emissions and reduced gas consumption.
 - Minimizes collection schedule confusion for residents and the hauler.
 - Minimizes the amount of noise created by trash trucks by reducing the total number of trash trucks operating and by reducing the number of days when collection occurs.

3.4 Program Participation and Compliance

- The new, convenient program will make participation easy and minimize (not eliminate) the level of enforcement required for residents.
- Facilitates program enforcement with regards to the hauler: the selected hauler will be legally bound by a contract to provide the services in accordance with the executed agreement.
- Municipal contracts can enhance the dispute resolution process for residents and/or the municipality if there is dissatisfaction with the services provided by the contracted hauler.

3.5 Community

- Improves community appearance/aesthetics through program consistency, new containers, and overall improved waste management. Trash and recycling bins are placed out on the same day(s).
- Enhances municipal oversight of the community's safety, health and welfare.
- Comprehensive (e.g. bulky item disposal) services correlate to a reduction in illegal dumping/trash accumulation.

3.6 Recycling

- Will increase the total quantity of recyclables diverted from the landfill.
- Improves accuracy and manageability of recycling data and reporting.
- Improved ability to implement convenient municipal recycling programs, which will be structured as part of the single-hauler contractual service agreement.
- Leaf waste collection can be included (e.g. seasonally) and bundled with other collection services, thus getting “competitive pricing” for the leaf waste portion of the service. When leaf waste is included in the base bid of a contract that also includes trash collection and recycling, the haulers competitively price the total service package to win the contract award; thus lowering the cost for leaf waste collection when compared to treating leaf waste as an option in the bid or as a separate service altogether.
- Under the contract, East Pikeland can direct residential recyclable commodities to a BFI Recyclery and benefit financially from recycling revenue.

3.7 Managed Competition

- True hauler competition is preserved and managed through the recurring bid process. Competition for service will occur each time a bid is issued for service. Haulers wishing to capitalize on the business opportunity of servicing the entire Township will keep service costs competitive.
- Municipality can be responsive to residential needs by making service adjustments during the rebid process.

3.8 Administration, Billing Options and other Opportunities & Advantages

- Simplifies effective waste and recycling program administration: one hauler and a standard program are easier to administer.
- East Pikeland can choose the billing service set-up (e.g. by municipality, hauler, third-party billing service, etc.).
- Bid specifications can be included to address special needs customers and the elderly.
- Low-volume discounts can be included within the bid for customers like elderly persons who generate small quantities of trash (e.g. one bag per week or less). Typically, the number and addresses of low volume customers are identified by the Township and provided to the hauler as part of the bid process and contract negotiations. The low-volume discount is provided and billed to customers as part of the contractual obligations of the selected hauler. The Township may need to survey households prior to bid release to verify the number of households that are eligible (i.e. will put out a limited number of trash bags). In programs where low-volume discounts are offered, usually a maximum set-out of one(1) bag per week qualifies the household for the discount.

- The municipality can elect to include the cost of a billing service equitably across all residents in their taxes, thus eliminating a separate waste/recycling bill.

3.9 Disadvantages and Barriers

In comparison to an open, multi-hauler waste collection system there are very few disadvantages to a contractually-based waste management program. Notable disadvantages or barriers can include:

- Some increase in oversight and program involvement required by the Township as compared to the low-level of involvement in the individual subscription system that requires little municipal involvement.
- Public resistance and negative media can hinder the Township from moving forward with bidding.
- Political barriers and dynamics may cause a lack of support and failure to proceed with issuance of a bid document to secure service.

Barriers can be minimized through a carefully planned media and education campaign.

4.0 PRELIMINARY COST ANALYSIS

GF conducted a preliminary cost analysis in the following two sections that includes: cost savings achieved through a reduced municipal-wide trash system, cost achieved through the competitive bidding process, and revenues generated from sale of recyclables. Also addressed is an administrative fee built into the cost per household charged for collection service.

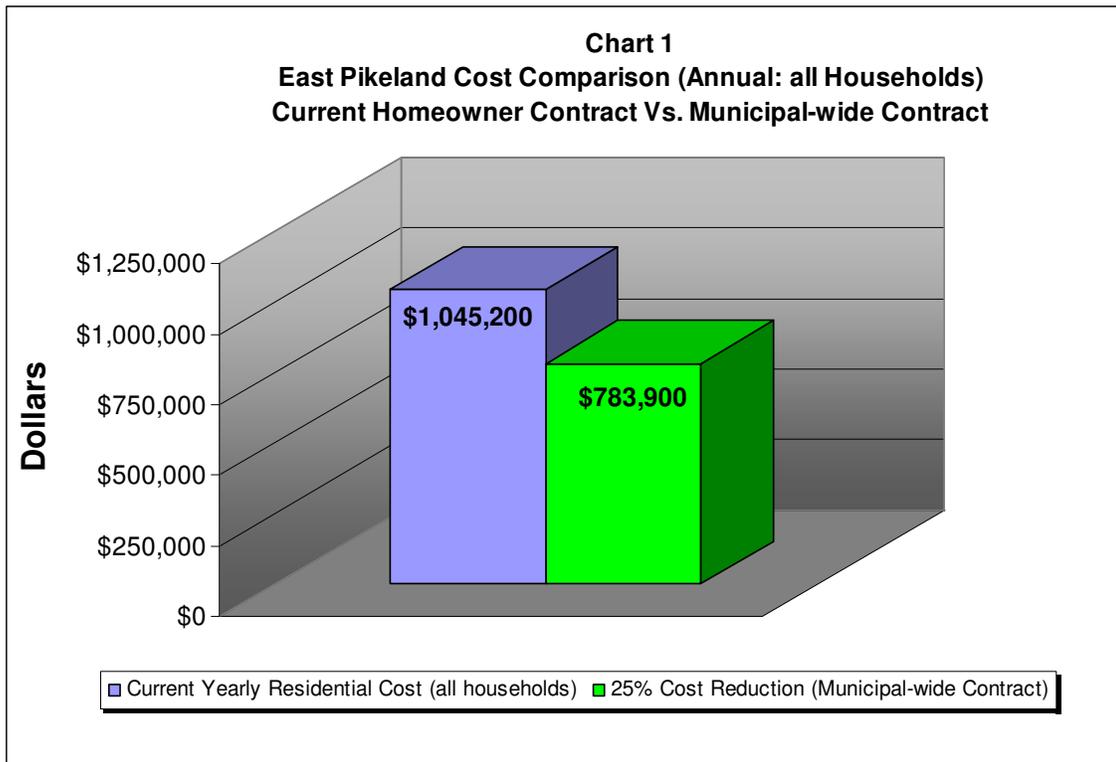
4.1 Reduction in the Bottom Line Trash Bill

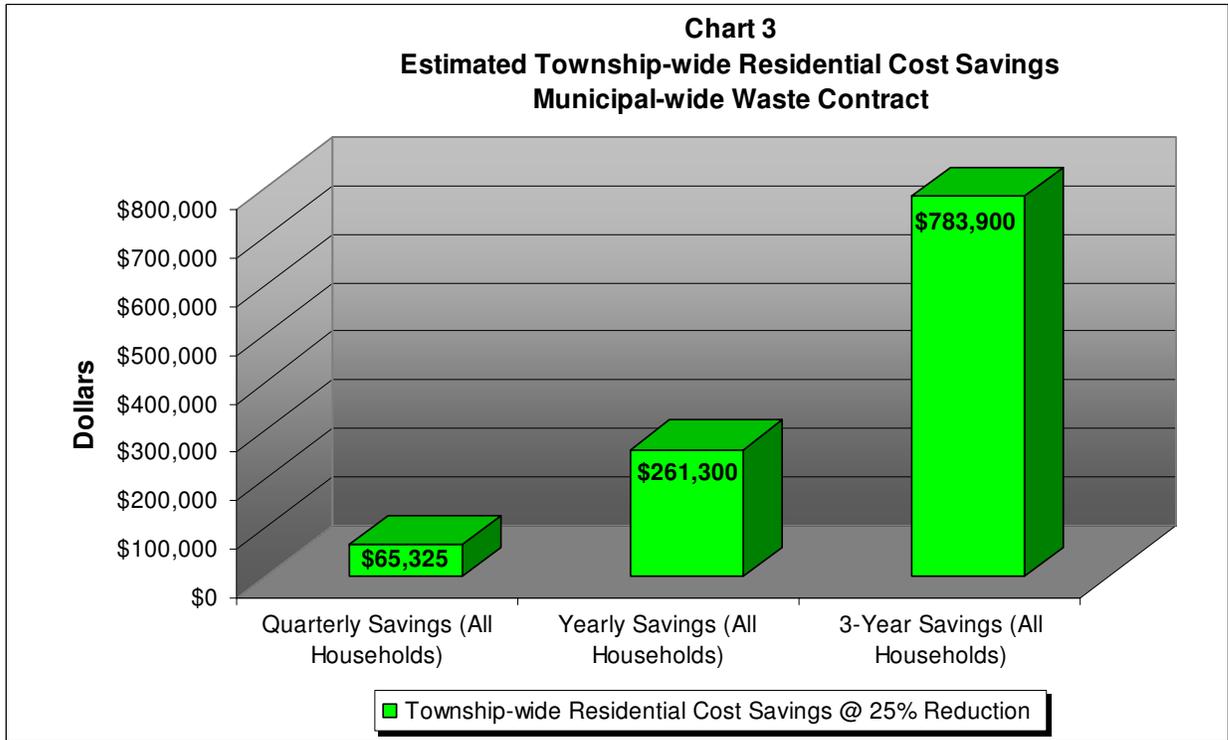
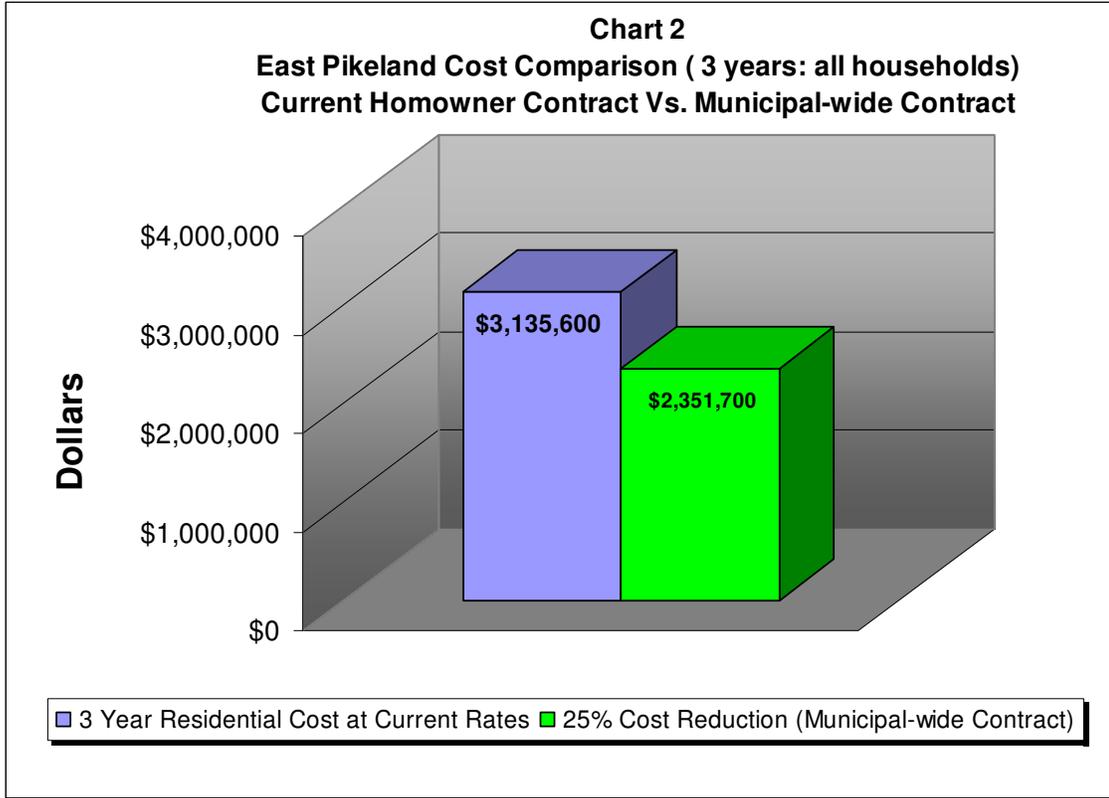
GF verified that residential trash bills can be **reduced by 20-35 percent** via a municipal-wide contract executed by the Township. The potential cost savings is variable. This range has been verified through local and statewide case studies, discussions with waste haulers, and by comparing the average trash bill paid currently by Township residents with trash bills in nearby contract collection programs. The actual savings (compared to the current system) will be influenced by a number of factors associated with the bidding process: the services specified and hauler requirements; number of households an/or commercial units; household density and respective hauling routes; economic variables (e.g. fuel prices and distance to processors); waste tip fees and recycling markets, included in the bid; billing arrangements; inclusion of an administrative fee, etc. Additionally, residents in the Township currently pay a broad spectrum of prices depending on their selected hauler and service package. Under the new program, all households will pay the same fee. Therefore, the total savings realized under the new program will vary among households depending on what they are paying currently for trash service.

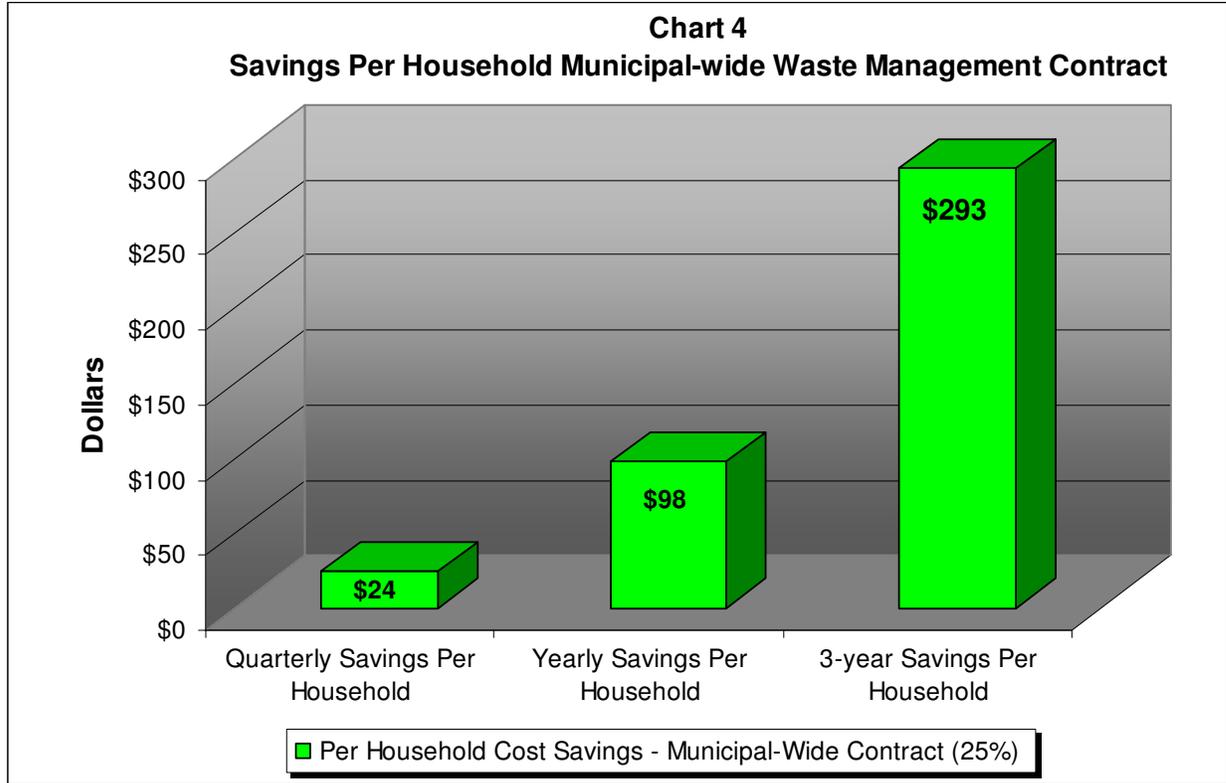
Charts 1-4 demonstrate potential cost savings as reflected in a reduced residential trash bill. The actual cost savings will be verified by the Township when a collector is selected during the bid award process. The amount saved will fluctuate among households since there is a wide range of waste management fees and services in the Township under the current program structure. Residents that do not currently subscribe and pay for trash service will be billed under the new collection system.

There are **2,680 households** in the Township according to 2008 tax rolls. According to costs provided by several Township residents using different waste haulers, the current average cost for weekly trash and recycling service is approximately **\$390 per year**. Some residents pay considerably more and some pay considerably less. For this analysis, GF assumed that all 2,680 households will participate and that a 25 percent cost reduction is realized through the bid and hauler contract process.

Chart 1 shows the annual average current cost paid for all households is \$1,045,200 and this cost can be lowered to \$783,900; an estimated Township-wide **savings of \$261,300 per year**. **Chart 2** estimates the municipal-wide savings over a three-year contract term is **\$783,900**. **Chart 3** breaks out quarterly, yearly and 3-year savings for all households. **Chart 4** shows the savings per household; the average resident (paying \$390 per year now) will save nearly \$300 over a three-year contract period. Note: calculations are rounded.







4.2 Revenues from Sale of Recyclables

As with many commodities, the market values for recyclables is highly variable. However, spurred largely by the unquenchable demand for U.S.-generated recyclables by India and China, the recyclables markets in Pennsylvania have continued to remain strong. Revenue from the sale of these recyclables should benefit the Township and be factored into a Township-wide contract with a private hauler. With the recyclables marketing arrangement in place and administered by the Chester County Solid Waste Authority, East Pikeland Township can make **\$20,000 to \$50,000** annually by directing recyclables to the BFI Recyclery through the Chester County Processing and Marketing Agreement. Upper Uwchlan Township is very comparable to East Pikeland (~2,300 residential units), and received over \$28,000 in 2006 and over \$48,000 in 2007 from sale of recyclables to BFI through this contract.

5.0 WASTE AND RECYCLING BID SPECIFICATION REVIEW

In order to provide guidance related to proposed bid specification that will be used to secure a waste hauler to provide waste and recycling services in the Township, GF reviewed RFP examples from the following municipalities located in the region:

- Uwchlan Township
- Caln Township – GF contacted

- Borough of Downingtown
- Recycletown Council of Governments
- East Bradford Township
- West Bradford Township

It was not in the scope of this study to develop bid specifications for East Pikeland Township. However, GF applied the information from the review of the bid specifications, and with consideration of the waste and recycling markets in Chester County Pennsylvania to develop a baseline waste and recycling structure that can be reflected in the bid specifications and resultant waste contract. The baseline structure is presented in the following section.

6.0 BASELINE WASTE COLLECTION AND RECYCLING STRUCTURE

Through the development of bid specifications for waste and recycling service, the Township will clearly define and shape the new municipal waste and recycling program. The accuracy and completeness of the data provided to prospective bidders will make the bids more competitive, increasing the Township's leverage for a competitive contract price.

Fundamentally, the program that is reflected in the details of the bid specifications should secure a program that is convenient for residents, cost effective, implementable and should effectively and safely manage waste while diverting materials to recycling. To the extent feasible, it is also recommended the Township implement comprehensive curbside waste and recycling programs consistent in structure, methods and requirements for nearby successful municipalities.

As the baseline structure of the waste collection system is finalized and incorporated into bid documents, this should be done with a solicitor and as needed, a consultant, to ensure the final details will secure services consistent with those desired for the Township's new program. Some specifications included under the contract terms with the hauling entity should be reinforced through updated ordinance(s) with respect to hauler and residential compliance.

6.1 General Structure

- Clearly defined waste management services secured through the competitive bid process and the resulting executed contract(s) for the identified service area. At least one pre-bid conference/meeting is recommended to invite haulers and the Township to discuss the program specifications and work through any possible issues.
- Program should comply with Act 101 of 1988 and Act 140 requirements of 2006.
- The waste and recycling program should be mandatory and implemented by an updated ordinance(s). Update the Ordinance (preferably through Resolution and separate Rules and Regulations) to reflect the new program and as applicable, the recently incorporated Act 140 recycling requirements. Where applicable, the ordinance should coincide with the Chester County Solid Waste Plan.

- The Township should **designate a Recycling Coordinator** to manage waste and recycling data and programs.
- All single-family households should be included under the contract with the exception of townhomes and condos under an existing waste management contract. Allow existing townhouse and condo areas under contract for trash and/or recycling service to continue service until their contract expires. Negotiate with these associations early on and encourage them to join the new contract at start up if this can be accomplished without legal conflict and/or financial risk to any parties.
- **Allow small to mid-sized businesses to “opt-in” to the residential waste and recycling program.** These commercial customers would receive the same trash and recycling services and could be billed the same fee amount as other residential units (saving the businesses dumpster fees). Encourage the same business to contract independently for a cardboard collection and/or office paper service if the generated volume of these commodities warrants collection. It may be beneficial to also allow for a bid option to include commercial recycling services.
- Ongoing recordkeeping, cost tracking, and program evaluation.

6.2 Administration

- **Billing conducted by the contracted waste hauler.** East Pikeland does not have the infrastructure in place to efficiently bill all customers included under the contract. Billing by East Pikeland would increase the level of administration required by East Pikeland Township.
- **Recover a fee** for administration and ongoing beneficial waste and recycling programs.
- Establish a **dedicated waste and recycling program fund** to manage funds from Recycling Grants, revenues generated from recyclables, the administrative fees and any other waste management based sources of income. This fund should be allocated to sustain beneficial waste management programs and to maintain affordable waste management costs for residents. GF encourages full cost accounting for the program and recommends a separate budget specifically for the waste and recycling program. A dedicated funding mechanism will help sustain and improve upon the waste management system and allows the Township financial flexibility. The Township can apply funds accumulated in this account to specific programs. Funds can be applied so that the residential trash bill increases can be stabilized or moderated, and this would not be done through a tax.
- **Apply for Recycling Grants.** The Township may increase its Act 101 Recycling Grant awards through increased recyclables collection and properly reported recyclables tonnages. PADEP has implemented new requirements that require mandatory trash collection in municipalities submitting Act 101, Section 904 Recycling Grants. Recycling Grants may be available for recycling ordinance preparation, recycling collection bins, and other eligible capital equipment. Act 101 Section 904 grants may be used for these purposes as well.

6.3 Waste Structure

- **Once-per-week trash collection** with trash bag/container curbside set-out limits per household (i.e. establishing a bag and container limits for all households for each collection day, such as a maximum allowable set-out of two trash cans or up to four bags per household). The Township is small enough that trash can be collected on one collection day. GF recommends once per week waste collection service in the Township since: 1) this would be 10-20 percent less cost compared to twice per week collection; 2) the new recycling program will include larger recycling containers plus include more items for recycling and therefore will provide the added capacity needed to manage the residential waste stream. Notably, twice per week trash collection sends a message to residents to dispose more and to recycle less.
- **Collect trash on the same day as recyclables.**
- **Allow/encourage small businesses to “opt-in” to receive residential waste and recycling services.** A letter should be sent to commercial establishments to gauge their interest in joining the program and to request how many bags or containers of waste are disposed weekly. There are over 100 small to mid-sized businesses in the Township.
- **Direct Township-generated waste to the Lanchester Landfill in accordance with the Chester County Solid Waste Plan.**
- **Township pays the waste disposal tip fees.** Paying the disposal fee allows the Township to lower its disposal costs through increased recycling efforts. For every ton of waste the Township diverts from the Landfill, it will save \$58 dollars. This service is a financial incentive two the Township.
- Set weight limits for trash bags and/or containers (e.g. 35 pounds per bag).
- Specify allowable pick-up day/time for the collection days.
- **Weekly bulky wastes collection** service including furniture, non-freon containing appliances, and similar large waste items should be offered weekly. Evidence shows that weekly bulky item service is less expensive than monthly or quarterly since the hauler can collect this material along with other residential trash. When bulky items are collected less often, the volume of material can require separate equipment and staff.
- **Pay-As-You-Throw (PAYT) System:** Generally, in any form of PAYT waste management system, residents pay a fee that is based on the quantity of waste disposed. This approach creates a financial disincentive for trash disposal and thus is an incentive to recycle more material generated in the household. Compared with other programs, PAYT programs achieve significantly higher diversion rates for recyclables, both increasing the quantity of recyclables that can be sold for revenue and avoiding disposal costs.

There are two basic types of PAYT Programs:

- **True PAYT:** Residents pay a fee for EVERY bag or sticker that is place at the curb. Bags are sold to residents at local grocery (and other) stores and/or at the municipal office. Stores will usually carry the bags at no cost and then will remit the monies to

the Township as part of a simple agreement. Bag fees vary, and in Pennsylvania typically range from \$1.75 to \$3.25 per bag. Some haulers in Chester County have indicated they do not want to be responsible for administration/distribution of the bag program; however PAYT waste collection and recycling service can still be competitively bid like other variations of contracted waste collection service. In a true PAYT program there is no billing of residents. It can be difficult to accurately estimate how much revenue will be generated; it varies depending on the actual number of bags purchased.

- **Hybrid PAYT:** In a “Hybrid PAYT” program, there are two tiers for revenue/billing. In the first tier, residents pay a monthly or quarterly fee for “base” or standard trash and recycling services. The base services can include up to three bags of trash per week (for example) plus other services including recycling, leaf waste pick up, and bulky item pickup. As a second tier, residents purchase additional bags, stickers, or additional container capacity to dispose of waste that exceeds the service set-out limit included under the standard waste services (in this example, more than three bags). It is recommended the base service for trash be limited to one toter or one to two bags in order to create a strong incentive to recycle.
- **Townhouse and Condo Associations** – There are a number of Townhouse and condo associations that receive waste and/or recycling services that have been contracted or negotiated with a single hauling company. The Township should verify the status of the contracts and services offered in these Associations. If the Township moves forward with a contract collection system, it should give the Associations the option to enter the contract provided they can legally terminate their obligations with their current hauler. If the Associations cannot join the Township-wide waste contract at start up, then they are obligated to join the contract when their current contract for waste and/or recycling expires. Inclusion of these associations will provide a better economy of scale for the program and potentially additional cost savings.

6.4 Recycling Structure

- **Single-stream recycling** format (one container for commingled container recyclables and for paper items).
- Accept the following recyclable materials (collected in one container):

Container Recyclables

- Clear, brown and green glass
- Aluminum cans
- Steel and bi-metallic cans
- PET #1 and HDPE #2 plastic bottles

Corrugated cardboard (broken down to meet the specified dimensions)

Residential Mixed paper

- #6 Newsprint
- Magazines
- Telephone books
- Mail

- Paper bags
- Cardboard
- Paperboard (cereal boxes, etc.)
- Home, office, and school paper

* BFI will add single stream recycling processing by the fall of 2008 and may expand its list of recyclables).

- **Recycling containers should be 64-gallon capacity at a minimum** (for single stream recycling). These large, wheeled recycling containers are more convenient for residents and promote increased participation in recycling when compared to smaller containers. These are found on the Pennsylvania State Piggyback Contract.
- If the recycling containers are not yet procured by the Township prior to bidding the waste contract the hauler should be required to provide recycling containers as part of their collection service bid. Recycling containers should be made available to all customers by the hauler as specified under the municipal contract and should be delivered to customers two months before program initiation. **Ownership of recycling containers should be retained by the Township at completion of the contract.**
- **The Township should retain ownership of its recyclables** in order to benefit from their revenue. Recyclables ownership increases the incentive for the Township to increase the quantity and quality of recyclables collected and improves the Township’s ability to manage costs through material marketing.
- **Kimberton Fair** – The Kimberton Fair is an annual event held each year in the Township. The fair is staffed with volunteers. Managing recycling at the fair has been difficult and even expensive. Act 101 requires that recycling is provided at this type of community event. To reduce the cost for the recycling services for this community event (currently paid for by Kimberton Fair), the Township can include Kimberton Fair recycling service in their bid for the proposed residential curbside waste and recycling service. The Township can request the placement of two 30 to 40 cubic yard recycling containers at central locations at the fairgrounds. The containers should be placed at least one day before the event begins and serviced as needed. The Township may wish to schedule removal of the roll-off containers two or three days following the event to allow time for all recyclables to be collected during final cleanup of the fair. Small “event recyclers” for collection designated recycling containers should be placed across the fairgrounds and located next to each trashcan. Haulers, such as Waste Management, may be able to provide event recyclers (usually made of cardboard). As these event recyclers fill, they should be emptied by Kimberton Fair volunteers into the roll-off containers. It is suggested that the Township request that the bid price for the Kimberton service be listed separately. Knowing the price will allow the Township to pay for this service separately and not add it to the cost of the contract that is paid by the resident for this service (unless this is preferred by the Township). The Kimberton Fair could pay the cost for service, which should be at least slightly lower since the service is included in the competitive bid process as part of a larger waste and recycling contract.
- **Leaf waste management** – The Township operates a successful drop-off site for leaf and yard waste generated by Township residents. PADEP has notified the Township that the current curbside leaf waste program is not in compliance with Act 101 and as a result, the

Township will not be eligible for future Recycling Grants. The Township should include curbside leaf waste collection services in the competitive municipal bid for curbside waste and recyclables collection. At a minimum, curbside leaf waste collection must be provided once in the spring and once in the fall at a nearby compost facility that may offer a zero or low cost tipping fee. The Township’s compost site does not have sufficient capacity to accommodate truckloads of leaf waste plus the Township does not have sufficient manpower to manage addition volume/deliveries of materials.

6.5 Education

- Providing cost effective and convenient options for residents will facilitate education and contribute to an increase in participation and compliance. Convenient and comprehensive waste management services correlate to a reduction in illegal dumping, littering, and other non-compliance issues.
- Require the hauler, as part of the bid specifications and contract, to distribute recycling educational information at least once per year (potentially twice) and when there are changes to services. The Township is required by Act 101 to educate residents and commercial, institutional and municipal establishments about its recycling requirements at least once every six months. The Township website is accepted by PADEP as one of the required educational distributions provided the recycling information is accurate.
- Educational materials should be shared and the process should be a cooperative effort between the contracted waste service provider and the Township.
- Curbside feedback: Case studies show that notices/tags/stickers placed on either trash bags, recycling containers, and/or on the actual item (e.g. a non-recyclable item in a recycling bin) is an extremely effective method of recycling education. This method should be used, at least periodically, in a cooperative arrangement with the waste hauler. The Township can provide these notices to the hauler for distribution to the customer.
- Provide education in a variety of formats: existing publications, a periodic newsletter, flyers, newspaper advertisements, brochures, on-line tools and web sites.

6.6 Enforcement

- A well-designed program with convenient and comprehensive curbside waste and recycling, as spelled out in the bid specifications for waste and recycling services will simplify and reduce (not eliminate) the enforcement required for the program.
- Enforcement should be closely linked with the educational program.
- Municipal officials should work closely with the judicial system (e.g. local district magistrate) to support proper and timely enforcement of the waste management program.
- The waste program should address enforcement through ordinances, education, sound legal waste contracts and enforcement staff. The Township’s ordinance should clarify that it has the power to assign staff (e.g. recycling coordinator, codes officer, zoning officer, etc.) that are “designated to issue **Administrative Tickets** to enforce the waste and recycling program.” The Administrative Tickets will have a fee associated with the type of violation. Persons issued a ticket should be allotted a specific amount of time

(e.g. 30 days) to pay the ticket, thus admitting guilt to the violation. The person may decline payment and choose to appear in court to plead their innocence.

Example Administrative Ticket Structure

\$25 – Administrative Ticket
 \$10 – Late fee (after 30 days)
 \$15 – legal fee

6.7 Record Keeping

- The bidding documents and resulting contract should require the waste and/or recycling service provider to report waste tonnage and recycling volume (or tons) for each municipality on a set schedule and in a preferred format as agreed by East Pikeland Township.
- The Township can obtain updated customer lists from the contracted hauler to verify compliance and participation in the program. Customer list should be kept confidential.

6.8 Program Evaluation

- Program data and costs should be reviewed at least semi-annually to evaluate program performance.
- Residential surveys should be completed at least every two years to evaluate the program.

7.0 SERVICE BY THE BOROUGH OF PHOENIXVILLE

The Borough of Phoenixville is a neighboring municipality and operates a successful waste management and recycling program using municipal-owned equipment and municipal crews. The Borough is currently moving to single stream recyclables collection. GF had discussions with the Borough of Phoenixville who is very interested in working with East Pikeland Township to determine if it would be feasible for the Borough to provide waste collection and recycling services to the Township. The Borough has indicated it has the staff and equipment needed to provide this service to the Township and likely could complete the curbside collection of both trash and recycling in a single day. The Borough would keep accurate waste and recycling records and provide this information to the Township in regularly printed reports. The Borough believes it can provide the Township with a good collection program at a competitive price. Since this work arrangement can be performed through an intermunicipal arrangement, the Township would not be required to bid for this service.

The Borough of Phoenixville has negotiated a fixed tipping fee for waste disposal and may be able to extend these discounted fees for four years to the Township. If the Township waste and recycling services were provided by the Borough of Phoenixville, the services could include (but must be confirmed) the following:

- Single stream recycling of #1-7 plastics, paper items, glass bottles
- Weekly curbside trash (Thursday and Friday, not Monday due to holidays)

- Weekly curbside recycling (same day as trash)
- Bulky items collected weekly
- Separate day for leaf and yard waste (monthly)
- Township residents would be permitted to use the Borough’s compost site, if needed.

East Pikeland should continue discussions with the Borough and invite the Borough to meet with the Township Supervisors to explain their waste and recycling services and costs in more detail.

8.0 ORDINANCE REVIEW AND UPDATE

The Township’s solid waste, recycling and other relevant ordinances (e.g. burning ordinance) should be updated when a significant change is made to the waste management system. For example, if the Township begins a single-hauler contract program (as recommended in this study), it should revise Ordinance 61. With fairly recent emphasis by PADEP related to leaf waste management requirements along with the Act 140 requirements of 2006, the timing is favorable to update the waste and recycling requirements in this legal document. PADEP has indicated to GF that they will not approve the Township’s future grant applications unless revisions are made to the ordinance regarding leaf waste compliance in a manner consistent with Act 140. PADEP will reimburse the cost associated with making the needed revisions to the ordinance. Since GF recommended the Township submit a Section 902 Grant Application in June of 2008, the 902 Grant Application will need to include the cost of the ordinance revisions along with a schedule for when the program will meet compliance and how the program will be enforced.

Through a preliminary review of Ordinance 61, GF notes the following important considerations/components and recommendations to improve the ordinance. GF’s guidance does not replace the expert opinion of a qualified solicitor.

- Due to recent court decisions declaring that certain Pennsylvania municipalities do not have the authority to license waste collectors and charge a fee for this license, the Township solicitor should review the sections that refer to “Licensed Municipal Waste Haulers” and evaluate the suitability of the existing language. The Township should monitor pending legislation that would affect the ability of municipalities to charge such a fee.
- Ordinance 61 incorporates a number of recycling program details that are subject to periodic change (e.g. list of recyclables designated for collection by the Township, recyclables and leaf waste collection schedules and preparation requirements, container specification, etc.). Because these programs details are contained in the Ordinance, it can be time consuming, difficult and costly to go through the Ordinance revision process. For that reason, it is recommended the Township work with a solicitor to develop a separate **Rules and Regulations** document and adopt this via **Resolution**. An example Resolution from nearby Uwchlan Township is provided for reference in **Appendix B**. The Rules and Regulations can include the waste and recycling program requirements; particularly aspects of the program that may change time from to time, or are not in the current Ordinance, or require clarification. Making amendments to the Rules and Regulations via subsequent Resolutions to reflect changes to the waste and recycling

program is much easier, faster, and more cost effective than making revisions to the ordinance. If the Township moves forward with implementing a new contracted waste collection system, it is recommended a new Rules and Regulations accurately reflect the new program. GF provided waste and recycling bid specifications from Uwchlan Township to East Pikeland Township during this project. This document is a valuable starting point in finalizing the Township’s bid specifications.

- In this Report, GF recommends the Township retain ownership of the recyclables in order to market the materials for revenue. However, under “ANTI-SCAVENGING”, the Ordinance states “the recyclable material shall become the property of the municipal waste collector.” Although it should be clear (in the Ordinance) that waste and recyclables are no longer owned by the property owner or tenant when the material is placed at the curbside, GF recommends this statement be removed or changed in a way that does not give ownership of waste and recyclables to the waste collector or at least clarify that the Township is to benefit from the sale of said recyclables.
- Enforcement:
 - It is recommended the Township improve the enforcement section of the Ordinance by indicating that the Township has the ability to designate an enforcement officer (which includes any person such as the Recycling Coordinator that would be sworn in at the local level) to enforce the program Rules and Regulations included under the corresponding Resolution.
 - It is recommended language be added that specifies that the enforcement officer can issue an “Administrative Ticket”. This ticket process is a pre-citation process that legally allows the Township’s designated persons to write a ticket on the spot for certain violations. The person receiving the Administrative Ticket can pay the fine or refuse to pay and go to court (also explained in 5.7).
- It is recommended Ordinance 61 include requirements that any waste and recyclable collector operating in the Township is required to distribute waste and recycling educational materials to its customers at least once per year.
- The recycling reporting requirements for residential units should be clarified and specify when the hauler must submit recycling reports to the Township.
- Under “COLLECTION”, the statement indicating “leaf waste shall be collected in accordance with the schedules established annually” should be deleted. A general statement indicating Leaf waste will be collected in accordance with Act 101 of 1988 and reference to the program details in the Rules and Regulations would be more appropriate. At a minimum, all haulers that operate in the Township should be required to provide at least one spring and one fall collection of leaf waste. The Township should work with a hauler to specify an effective penalty that can be applied to haulers failing to provide curbside collection of leaf waste.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 Conclusions

It is clear to GF that East Pikeland Township, with support from Township staff and the Board of Supervisors, can implement a single-hauler contract collection system that will dramatically improve the existing multi-hauler waste management program. There may also be an opportunity to form an intermunicipal arrangement with the Borough of Phoenixville to provide the same services that could be provide by a contracted private hauler. Although, there will be some added responsibilities and oversight required to implement a new waste management program, the short and long-term rewards will greatly outweigh any implementation difficulties. With rapidly increasing fuel prices and cost increases in many other areas of waste management, the residents of East Pikeland Township will continue to be at the mercy of price hikes by local haulers if the current multi-hauler waste system is left unchanged. Under a contracted program, GF conservatively estimates that Township residents will save approximately **\$800,000 over a three year contract term**, which is a savings to residents of about **\$100 per year per household**. Additional revenues from recyclables that are sent to BFI are estimated to be \$20,000 - \$30,000 annually. The typical household will also see an increase in the level of services provided (e.g. regular pick-ups for bulky items at no extra charge).

The concept that a number of private waste haulers servicing a given area offers low residential prices because of competition has been proven incorrect in many Pennsylvania municipalities. In some ways this misconception is evidenced by the high quarterly bills currently paid by Township residents, averaging \$350 per year for Township households. There are clear economic benefits from a single-hauler collection system (contracted hauler or municipal service), but there are also significant environmental benefits (from reduce fuel consumption and emissions) along with improvements to the public health, safety and welfare for the community.

Through a municipal-wide single hauler waste collection contract, the Township can minimize the burden of excessive enforcement and program administration by providing a consistent waste management program that is convenient for residents and offers a variety of services. Since the hauler will be under contract, the Township will have a legal mechanism to keep the collector operating in a satisfactory manner.

According to PADEP, the Township will be denied all future Recycling Grant funding until it complies with Act 101 and PADEP policies regarding curbside leaf waste collection. To achieve compliance, the Township will need to revise its ordinance and implement an effective enforcement strategy that gets all local haulers to collect leaf waste at the curb as specified. As long as the Township continues the multi-hauler system it will be difficult to enforce curbside leaf waste collection (and demonstrate a successful enforcement program to PADEP); it will be likely that PADEP will not award Recycling Grants to the Township. Enforcement is much more feasible in a contract collection program where a single hauling company executes a legally binding service agreement secured by a performance bond and even liquidated damages.

9.2 Recommendations

A number of recommendations are included in the body of this Report. The following bullets highlight some of the key recommendations based on GF’s evaluation of East Pikeland’s waste management system.

WASTE COLLECTION

- The Township should implement a single-hauler contract collection system for waste, recyclables and leaf waste. This program can be implemented through the competitive municipal bid process and the recommended program structure that is provided in Section 5.0 should be used as a guideline for developing the bid specifications used to secure a qualified hauling company. It is noted that the Township should continue discussions with the Borough of Phoenixville and invite the Borough to meet with the Township Supervisors to explain the waste and recycling services and costs for services the could provide to the Borough via an intermunicipal arrangement. The following are the waste management system concepts and bid provisions recommended for an optimal waste and recycling system for East Pikeland Township, Chester County:
 - Once per week curbside trash collection.
 - Once per week recycling on the same day as trash collection.
 - Single-stream recycling format collecting container recyclables (aluminum, steel/bi-metallic can, clean, green and brown glass, plastic bottles) plus mixed paper and cardboard all in one 64-gallon (or larger) recycling container.
 - Participate in the Chester County Processing and Marketing Agreement for recyclables to receive revenue for each ton of recyclables directed to the specified recycling facility (currently BFI Recyclery).
 - Collect bulky wastes weekly.
 - Curbside leaf waste collection provided at least once in the spring and once in the fall, preferably delivered to the Township’s yard waste drop-off facility without assessment of a tipping fee to the contracted hauler.
 - PAYT bag or sticker program – Provided PAYT implementation does not become a barrier for the Township in the development process, this waste system structure should be given serious consideration. PAYT will improve the overall recycling performance, result in reduced tip fees and a higher volume of recovered recyclables that can be sold to generate revenue. There are two primary types of PAYT programs: “True PAYT” and “Hybrid PAYT”.

In a True PAYT program residents will be required to purchase bags or stickers from the Township office and/or from local stores for each bag of trash they dispose. In this program, there is no direct billing required of households. The Township can purchase the bags in bulk and made available to residents at local stores and/or the Township office.

- **The Township pays the waste disposal tip fees and directs Township-generated waste to the Lanchester Landfill** in accordance with the Chester County Solid Waste Plan.
- Execute an agreement with the Chester County Solid Waste Authority to **secure a reduced tip fee rate** (discounted rate is \$55 per ton).
- **Allow small businesses to “opt-in” to receive residential waste and recycling services.**
- Include **Kimberton Fair recycling** services in the bid specifications for waste services.
- **Program Cost Accounting/Tracking** Create a separate fund for waste and recycling and collection services tax revenue. It is recommended Act 101, Section 904 Recycling Performance grants, revenues from sale of recyclables, and any funds recovered to administrate the program be placed into a single fund to support ongoing successful implementation of programs.

ORDINANCE(S)

- PADEP has indicated the Township is not in compliance with Act 101, regarding leaf waste since the Township ordinance does not accurately specify leaf waste requirements and because the Township lacks enforcement of the curbside collection of leaf waste. Remaining out of compliance will jeopardize the Township’s ability to receive Recycling Grants in the future for recycling equipment and for recycling performance as reported to PADEP. It is recommended the Township update the Ordinance immediately, preferably through a Resolution that enables modifications to a Rules and Regulations document that contains the details of the waste and recycling program (**Appendix B**) contains an example from Upper Uwchlan Township.

GRANTS

- The Township should continue to pursue Act 101, Section 904 Performance Grant funds for the tons of eligible recyclables that are recovered and documented. Act 101 Recycling Grants should be pursued to fund recycling and compost equipment and other eligible program costs.

APPENDICES

Appendix A
Information on the Chester County Processing and Marketing Agreement

Not included in on-line Report

Appendix B
Uwchlan Township Bid and Recycling Resolution
Not included in on-line Report