

February 26, 2007



Ms. Helen Greer
Executive Secretary, Recycling Coordinator
Westtown Township
P. O. Box 79
Westtown, PA 19895

Subject: Westtown Township Technical Assistance

Dear Ms. Greer,

The purpose of this letter report is to present the results of the solid waste collection contract review and Pay-as-You-Throw (“PAYT”) program implementation research conducted for Westtown Township (“the Township”) by R. W. Beck, Inc. (“R. W. Beck”).

This project has been completed through a technical assistance program sponsored by PA DEP and SWANA.

Executive Summary

Problem Description

The Township currently contracts a single hauler to collect curbside residential trash and recyclables on a weekly basis. The current contract is a three-year contract with a two-year renewal option at a set price. Due to the increase in fuel costs, the Township opted for the contract renewal, which will end in 2007. Westtown has procured the assistance of R. W. Beck to evaluate their current contract in an effort to ensure that the 2008 bid for services will include contract language that contains a reasonable cost structure, and supports the goals and service needs of the Township.

The Township also requested that an emphasis be placed on the implications of a PAYT system, as they are considering implementing such a program. As such, the project approach and research emphasis were developed accordingly. R. W. Beck therefore interviewed surrounding townships in Chester County to provide the Township with insights regarding the experiences and impressions of communities that have already implemented a PAYT program locally. In addition, although not specifically requested by the Township, R. W. Beck has included a summary of different types of PAYT programs (and advantages and disadvantages of each type) to further assist the Township with their consideration of a PAYT program.

Approach

R. W. Beck reviewed the existing contract, in an effort to provide recommendations for changes and/or new language to consider for improving the Township’s contract.

R. W. Beck also interviewed officials from municipalities in Chester County that have PAYT systems in place. Questions focused on the details of implementation, current charges for the

service, whether the service is optional, logistics, and public opinion. R. W. Beck also reviewed the Township's January 2006 survey results related to PAYT and solid waste services in general.

Observations and Recommendations

Based on our research, R. W. Beck has made the following observations and recommendations:

- The current collection contract lacks adequate specificity with regard to hauler responsibilities related to recycling education. Specific clauses from benchmark contracts have been suggested and provided as part of this report, which could be used in lieu of current language.
- The current collection contract does not provide an indexed approach to determining equitable and documented rate increases. To address this, R. W. Beck has explained and provided a full appended example of the Refuse Rate Index ("RRI") approach to rate increases, as well as a more simplified Consumer Price Index ("CPI") approach.
- With regard to PAYT program implementation, evidence exists to support a hybrid PAYT system rather than a pay-per-bag system. R. W. Beck recommends that the Township consider a hybrid option in their next collection contract. Details regarding implementation of this program in surrounding Chester County communities are documented in this report.
- The Township should consider implementing an option for a pay-per-bag system for small waste generators. This would help increase positive public opinion of the program, and would be greatly beneficial to fixed income seniors who may not be able to afford, or need, collection for larger quantities of waste. Details regarding the impact of a PAYT program on small waste generators in the responding communities are provided where available.

Complete details are contained in the full report.

Introduction

This report summarizes the data collection methods, underlying assumptions and research results related to the examination of the Township's current collection contract, as well as the research related to the implementation of a PAYT system in neighboring communities.

Data Collection

Data collection consisted of several concurrent processes, including:

- Research and investigation of other recent collection contracts as a benchmark against the Township's current contract.
- Telephone and internet research of other municipalities in Chester County reported to have implemented a PAYT program.
- An independent review of the Township's survey research data regarding possible collection options.

Underlying Assumptions

The results presented herein have been summarized in the context of the following assumptions:

- R. W. Beck's review of the Township's current collection contract focused solely on changes and/or additions to the language to better serve customers with regard to cost increases/uncertainty, services, and helping the Township with improving recycling education and awareness efforts. A comprehensive review of every facet of the Township's collection contract is beyond the scope of this project.
- Language changes or additions suggested herein are subject to current hauler approval. Consequently, the Township should collaborate with the hauler well before the current contract expires (or as soon as possible) so that the details related to changing the contract and/or language specifics will not cause an abnormal delay in drafting and finalizing the new collection agreement. If an RFP is issued, the Township should consider holding stakeholder meetings with possible proposing haulers to seek their input regarding contract changes being considered.
- It is ultimately the Township's responsibility to seek legal counsel before implementing any of the suggested contractual changes presented in this report.

Research Results

General Contract Considerations

As the Township considers issuing an RFP for collection services, it is important to consider a wide array of factors that would shape the RFP or contract language. For example:

- 1) Are there other jurisdictions the Township would consider partnering with? Although the Township has indicated that they would likely not partner with another jurisdiction at this time, several PA communities have successfully increased their bargaining power by joining together to issue an RFP. Assuming the community is located next to Westtown Township, this would provide the hauler with a larger contiguous area to serve, thereby increasing economies of scale, and perhaps saving Westtown Township money by reducing costs.
- 2) Are there additional services that the Township would like to see their hauler provide? Examples of typical services, include:
 - a. Education and outreach activities;
 - b. Expanded customer service;
 - c. Reporting;
 - d. Improved or expanded bulky waste collection services;
 - e. Improved or expanded yard waste collection services;

- f. Including commercial and/or industrial/institutional or multi-family households in the collection program;
 - g. Roadside cleanup near disposal facilities; and
 - h. Servicing of recycling drop-off sites.
- 3) Does the Township desire to make significant changes to the existing programs? Examples include:
- a. Single-stream and/or automated collection of recyclables;
 - b. Pay-as-you-throw program (Described in more detail below, in response to the Township's stated interest in such a program);
- 4) Do the haulers in the area have the appropriate equipment, and are the material recovery facilities ("MRFs") in the area equipped to handle the programs desired?
- 5) Is there more than one recycling processing facility located in close proximity? If so, it might be possible to contract separately for processing of recyclables, perhaps with the Township receiving a revenue share. The Township should note that it could potentially piggyback onto the Chester County Solid Waste Authority Processing and Marketing Contract, if the Township determines they wish to contract separately for recyclables processing.

Table 1 provides a list of items that can be specified in a bid/contract for solid waste/recycling collection contracts.

Table 1
List of Items that Can Be Specified in a Bid/Contract

Collection	Public Relations/ Public Education	Processing/ Marketing	Term/Termination of Contract	Program Re-Evaluation Legal and Insurance Requirements	Payments and Records
<ul style="list-style-type: none"> ▪ Residential Recyclable Materials ▪ Commercial Recyclable Materials ▪ Curbside Collections <ul style="list-style-type: none"> ▪ Schedule of collections ▪ Holiday collections ▪ On-premises collection for disabled, elderly, or absent residents ▪ Missed pickups ▪ Resident preparation requirements ▪ Truckside sorting ▪ Rejecting unacceptable materials ▪ Truck appearance ▪ Crew appearance ▪ Type of recycling container ▪ Purchase and distribution of recycling containers ▪ Replacement of recycling containers 	<ul style="list-style-type: none"> ▪ Brochure ▪ Driver "Education Tags" (to be left in bins) ▪ Phone Answering System ▪ Relations with Site Hosts ▪ Instructional Signs at Drop-Off Sites ▪ Container Compartment Labels ▪ Other Public Education Opportunities 	<ul style="list-style-type: none"> ▪ Processing or Transfer of Materials ▪ Marketing of Materials ▪ Disposal of Reject Materials ▪ Interim Storage of Mixed-Color Glass ▪ Processing / Marketing of All Other Recyclables ▪ Buy Back Operations ▪ Processing / Marketing Data ▪ Monthly and Annual Processing / Marketing Reports 	<ul style="list-style-type: none"> ▪ Length of Contract Term ▪ City's Extension Options ▪ City Retains Right to Extend and Postpone Contract Termination Date ▪ Termination of Contract Due to Contractor Defaulting <ul style="list-style-type: none"> ▪ Failure to perform ▪ Violation of any law or regulation ▪ Filing for bankruptcy or insolvency ▪ Assignment of this Contract ▪ Contractor Termination of the Contract Services 	<ul style="list-style-type: none"> ▪ Ownership and Responsibility of Material ▪ Indemnification ▪ Independent Contractor ▪ Contractor Performance Bond ▪ Worker's Compensation Insurance ▪ Comprehensive General Liability Insurance ▪ Auditing ▪ Non-Discrimination ▪ Assignment and Subcontracting ▪ Compliance with All Laws, Rules, Regulations and Licensing Requirements ▪ Liquidated Damages <ul style="list-style-type: none"> ▪ Missed stops ▪ Failure to clean up after collections 	<ul style="list-style-type: none"> ▪ Monthly Invoices ▪ Service Components <ul style="list-style-type: none"> ▪ Processing Fee for Residential Recyclables Processed ▪ Less Revenue (Risk) Share Credit (Charge) ▪ Payment for Services <ul style="list-style-type: none"> ▪ Payment methodology ▪ Service units and adjustments ▪ Payment for partial month services ▪ Compensation / Prices for Contract Services <ul style="list-style-type: none"> ▪ Processing price for contracted processing services ▪ Less revenue (risk) share ▪ Records of Expenses and Revenues ▪ Data Practices

Collection	Public Relations/ Public Education	Processing/ Marketing	Term/Termination of Contract	Program Re-Evaluation Legal and Insurance Requirements	Payments and Records
<ul style="list-style-type: none"> ▪ Ownership of recycling containers ▪ Crew public relations ▪ Collection of Drop-Off Recyclable Materials <ul style="list-style-type: none"> ▪ Provide and maintain containers ▪ Servicing containers ▪ Site clean-up ▪ Frequency of collection from unattended drop-off sites ▪ One-day notice for collection of unattended containers ▪ All full roll-off containers to be weighed ▪ Weights in other containers may be estimated ▪ Transition period clean-up services ▪ Collection Records <ul style="list-style-type: none"> ▪ Set-outs by route ▪ Weights ▪ Periodic "splits" by material category 				<ul style="list-style-type: none"> ▪ Failure to service and collect full drop-off containers ▪ Failure to provide monthly and annual reports ▪ Failure to submit a copy of buy back price changes ▪ Failure to respond to legitimate service complaints in a timely manner as required by the Contract ▪ Failure to appear at a scheduled, attended collection event ▪ Failure to maintain equipment in a safe and sanitary manner ▪ Failure to have vehicle operator properly licensed ▪ Failure to properly cover materials in vehicles 	<ul style="list-style-type: none"> ▪ City Record of Complaints ▪ Inflation Adjustments <ul style="list-style-type: none"> ▪ Annual rate adjustment methodology ▪ Transition Period Clean-Ups

Collection	Public Relations/ Public Education	Processing/ Marketing	Term/Termination of Contract	Program Re-Evaluation Legal and Insurance Requirements	Payments and Records
<ul style="list-style-type: none"> ▪ Monthly and Annual Collection Reports ▪ Rights of other haulers ▪ Required Use of a Specified Recycling Facility ▪ Collection of MSW ▪ Contractor's office ▪ Emergency service provisions 				<ul style="list-style-type: none"> ▪ Failure to comply with hours of operations as set forth in the Contract ▪ Failure to obtain approval for route changes ▪ Dispute Resolution Process ▪ Contact Persons for Legal Notices ▪ Performance ▪ Conflict of Interest ▪ Severability ▪ Governing Law ▪ Modification ▪ Integration ▪ Right to Require Performance 	

Review of Westtown Township's Current Contract

R. W. Beck has reviewed collection contracts and Request for Proposal ("RFP") documents in six benchmark communities to provide recommendations regarding contract language. The focus of this review pertained to clauses that would increase benefits to citizens and/or help with recycling participation education. Additional review of the contract for clauses or additions that could reduce the Township's exposure to cost uncertainty has also been performed.

With regard to recycling education, the central finding is that the Township's current contract limits hauler participation in education/outreach, as delineated in Sections 4.02 and 5.05 (b) of the Township Specification document to providing 50 percent of the cost of the Township newsletter, and brochure distribution, as specified in Section 4.02. It might be beneficial for the Township to enhance hauler participation regarding education and outreach in the community. For example, Section 4.02 could indicate that the hauler must distribute brochures explaining which materials are to be recycled, how they are to be recycled, and why it is important to recycle them. R. W. Beck has researched clauses in regional benchmark contracts in an effort to suggest alternative language. Note that this language can be adopted in whole or in combination in the Specifications document, based on the Township's ultimate goals and desires.

R. W. Beck has identified the following alternative approaches for increased hauler responsibility. The complete language of the clauses is attached as Appendix A.

Education and Outreach

- **Truck Demonstrations and Public Outreach.** One benchmark community requires up to 40 hours per year from the hauler (truck and driver) for public outreach events, with a five-day notice period. Recycling demonstrations are part of Public outreach events held in the community, which are designed to increase awareness and education regarding recycling.
- **Education via Distribution of Educational Information to Each Residence.** Another community requires that door hangers, stickers, magnets, and/or flyers, or some other medium be distributed to residential and commercial customers as requested. This language could replace the current initial sentence in Section 5.05 (b).

Another strategy for the Township to consider involves non-collection notices. While none of the benchmark communities require non-collection notices, other communities that R. W. Beck has assisted in contracting development have included clauses requiring the hauler to leave a "non-collection tag" on the recycling bin detailing why certain materials were not collected. This protocol helps to address specific set out violations, and targets education efforts to the violating households, where they can be most effective.

An alternative solution would involve adding language to Section 4.02 that requires that educational materials be included with the brochure that is distributed to each residence. Redesign of brochure content can be a collaborative effort between the Township and the hauler, whereby the Township would agree to seek input and approval from the hauler, to ensure that

the hauler perspective is covered by the brochure. Also, a clause could be added to Section 4.02 that indicates that the hauler should distribute educational materials that are provided to them by the jurisdiction, at a minimum of twice per year to each household. This effort would result in limited additional cost, of which some reasonable portion (50 percent) could be the responsibility of the hauler.

Cost Uncertainty

With regard to cost uncertainty, it is evident that the current contract does not contain adequate specificity for rate adjustments. Currently the hauler merely provides a stable price for a certain duration, which is not backed up by documentation of its own cost increases. This lack of specifics may mean that customers are being overcharged for services relative to the increase in fuel costs or other costs, as the increase is not tied to any particular cost component.

- **Development of Refuse Rate Index.** R. W. Beck has assisted several communities with developing a Refuse Rate Index (“RRI”) approach to rate increases (an example of which is attached as part of Appendix B), that is based on a detailed listing of hauler costs in several key cost categories, including (1) labor, (2) fuel and oil, (3) vehicle replacement, (4) maintenance parts & equipment, and (5) other. Each of these factors is assigned a weight, in percentage terms, that represents its perceived contribution to rate increases in any given year. For example, fuel costs might typically have a weight between 5 and 10 percent of total costs.

Based on the hauler’s audited cost statement and specific economic indices as published by the Bureau of Labor Statistics (“BLS”) or by the Energy Information Administration (“EIA”), among others, the annual percentage change in costs for each category is multiplied by that category’s weighting factor (the latter is derived from the cost statement, while the former is a function of the change in each respective index), and summed to arrive at a single RRI percentage. This RRI percentage is then applied to the rates for residential (and possibly commercial) collection services to arrive at the current year’s rates. An example of this is provided in Appendix B. R. W. Beck recommends that the Township compare the current flat rate bids to a calculation of new rates using the RRI approach, and set up the contract so that the Township can choose whichever result is lower. For example, in the 2008 bid year, an annual statement would be provided by the hauler for 2007. The RRI would be computed relative to the last year of the current contract. This RRI percentage would be applied to the current rate, and compared against the fixed pricing bid from the hauler, and the Township would renew at the lower of the two rates.

The advantage to this structure is that costs that are tied to indices may actually decline in the subsequent year, which would result in a deduction contribution to the total RRI. Appendix B provides a complete set of language and documents from a benchmark community that fully demonstrates this RRI computation process. Note that any reference to collection in the commercial sector can be removed from the passages at the discretion of the Township should they decide to pursue this approach.

- **Increases Based on a Direct Index.** As a simpler alternative to the complex RRI computation, rates could also be increased based on a single economic index, using a base month in the preceding year as compared to that same month in the adjustment year. One benchmark community allows for an annual increase (or decrease) based on the percentage change in the CPI from December to December. Appendix B also contains a sample clause from a benchmark contract that stipulates this allowance.

The advantage to this approach is administrative simplicity. Additionally, given the volatility of fuel costs, a CPI only approach could potentially limit increases due to fuel, as the CPI tends to be more stable over time than any fuel index that would be part of the RRI approach. The disadvantage with such a simple approach is that rate increases are not really tied to the true costs of the hauler. Furthermore, haulers may not be accepting of such an arrangement if they perceive that their costs increases are being underrepresented by a single index.

In addition, many contracts call for a fuel surcharge. For example, one benchmark community uses an annual fuel adjustment to account for changes in fuel costs. The basis for this adjustment is a change in the average cost of diesel fuel in the region. The index for the average retail price of No. 2 diesel fuel is published regionally by the EIA. A baseline cost-per-gallon is mutually agreed upon between the community and the hauler to be the base year average price, and a surcharge is computed based on the absolute difference between the average price in the next year as compared to the base year price. Note that this surcharge could be *negative* if prices decline significantly. Adding a fuel surcharge component that differs from the CPI may aid in negotiating this type of indexed rate increase structure with potential haulers. Weekly retail fuel prices are available at the following web site:

http://tonto.eia.doe.gov/dnav/pet/pet_pri_gnd_dcus_nus_w.htm

Adequate Collection Service

R. W. Beck has also reviewed the Township's contract to determine if there were clauses or guidance that could be provided with regard to improvements in the general level of collection service provided by the hauler. The resulting suggestions are provided here, with additional language references provided as needed in Appendix A. The Resource Management ("RM") approach RFP template (the idea for which is detailed below) has been included as a separate Appendix C.

- **Recycling Success Metrics.** The current contract does not contain any language regarding actual recycling quantities or levels that should be achieved in the community. Recycling is mandatory, but there is no explicit way to track recycling participation. One way to address this issue is to provide incentives for the hauler should the recycling rate approach a certain level. Appendix A provides an example clause for this purpose.
- **Liquidated Damages Policy.** Currently, the Township's contract specifies that a performance bond be issued that covers the aggregate value of the service contract. In the event of a default on service or failure to provide adequate service, the Township will be reimbursed in the amount of the bond issued. In addition to a performance guarantee (such as a performance bond, secured savings account, or cashier's check), R. W. Beck suggests

that the Township consider using a liquidated damages policy for instances where service is not provided as specified. A full example clause is provided in Appendix A. This policy contains an itemized list of fines, to be assessed per occurrence for individual failures on the part of the hauler. The advantage of enacting liquidated damages in lieu of having to call a performance bond (or other guarantee) is that liquidated damages are simpler to enforce, and provide incentive to the hauler to provide service to the standards specified in the contract, particularly in instances where infractions do not merit a change of hauler or termination of contract.

- **Resource Management (“RM”) Contracting.** R. W. Beck suggests that the Township work closely with the hauler to develop a Resource Management program as a contract element. According to the U.S. EPA, resource management (RM) compensates waste contractors based on performance in achieving an organization's waste reduction goals rather than the volume of waste disposed. As a result, RM aligns waste contractor incentives with the Township’s own goals as both parties explore innovative approaches that foster cost-effective resource efficiency through prevention, recycling, and recovery. Appendix C contains an entire section of an RFP from a benchmark Pilot program that specifies the initial requirements for a bidder for submittal of an RM based program, along with plans for diversion and recovery efforts, billing, and a statement of intent. These key contract elements have been extracted to illustrate a potential structuring of such an agreement for the Township.

It should be stressed that the full development of a RM based contract may be a lengthy process. Furthermore, haulers in the region may not be initially open to such a drastic change in the incentive and compensation process, particularly since the onus is on the hauler to develop an action plan to implement the RM over a long duration (several years). As mentioned in general with regard to contract changes, a proactive approach to negotiation by the Township of such an approach is necessary to facilitate any success with such a pursuit. Additional information on RM contracting is available at the following web site:

<http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/wrr/rm.htm>

Pay-As-You-Throw

Westtown Township has indicated that some of its citizens, per a recent survey conducted on possible collection program options, would be interested in a pay-as-you-throw program. Thus, an overview of PAYT program types is provided below, along with additional implementation considerations. R. W. Beck also interviewed representatives of communities in Chester County known to be providing PAYT programs. Provided below is a summary of the results of the community interviews.

Pay-As-You-Throw (PAYT) Overview

PAYT, sometimes known as variable rates or volume-based fees, is an approach whereby the generator of the waste generally pays in proportion to the amount of waste set out for collection. Put in simplest terms: the more waste you produce, the more you pay and vice versa.

The goals of a typical PAYT system include:

- Raise sufficient revenues;
- Encourage municipal solid waste (“MSW”) reduction through price incentives;
- Convey a better understanding of the solid waste management costs to citizens and increase their awareness of the related issues; and
- Keep the program simple to use and run.

Potential Benefits of PAYT

Well over 200 municipalities in Pennsylvania have implemented some form of a PAYT program. In fact, Wilkes-Barre has operated a per-bag system for a number of years and reports a significant reduction in the cost of their waste management services. A City representative reported cost reductions of approximately 50 percent due to the per-bag program.

PAYT programs can also yield an increase in recycling. Perkasio Township reported experiencing a 59 percent reduction in the amount of solid waste collected for disposal after implementing a PAYT program, boosting their recycling rate to about 43 percent. Additional benefits may include:

- Increased waste minimization;
- More equitable waste management fee structure; and
- Increased understanding of environmental issues in general.

A properly designed PAYT program, with an equitable rate structure, ideally will encourage residents to generate less refuse by charging them for the amount they place out for disposal. Residents therefore become more cognizant of their disposal habits and look for opportunities to generate less or recover a greater portion of the waste stream through alternative management practices such as recycling and composting. As they become more conscientious, citizens develop a greater understanding of environmental issues and the impact of their behavior on the environment.

Potential Barriers to PAYT

While there are clearly benefits associated with the PAYT programs, there are also potential barriers that must be overcome to successfully implement this system. These potential barriers include:

- A perception of increased costs to residents for the same level of service;

- Challenges associated with building public consensus;
- Enforcement of the system with a private hauler as refuse collector;
- An increase in administrative costs; and,
- A potential increase in illegal dumping;

PAYT Approaches

PAYT systems can take many forms and use a variety of approaches as to how the system works. Rate structures and the type and size of containers are often related, and combinations of techniques are often used. For example:

Bag System – Residents purchase official, specially marked bags at whatever the cost of service per bag is determined to be. They must use those bags to set out their waste on collection day. The resident's annual cost is directly proportional to the number of bags purchased and used throughout the year. If recyclables are collected this way, they typically use clear or translucent colored bags to differentiate them from the waste. Bulky items typically require an official purchased tag or sticker that is affixed to the item.

Tag/Sticker/Can System – Similar to the bag system, residents must purchase tags or stickers at an established price. For the items to be collected, a tag or sticker must be affixed to each can, bag, bundle, or other bulky item to be collected.

Wheeled Carts – This approach utilizes standardized two-wheeled trash carts that are lifted mechanically. The carts have hinged lids and are typically sized in the range of 90-96 gallons. However, they are also available in other sizes, such as 35 or 64 gallons. Prices for collection services are established based on the size of the cart that is used and the frequency of collection, typically once per week for trash. The use of different colored carts (usually smaller) for recyclables collection is also growing. Typically, any out-of-cart set-outs require a pre-paid tag or sticker.

The use of wheeled carts requires a degree of automation in the collection vehicles and methods used:

- **Semi-automated:** This approach uses a hydraulic lifting device which is usually attached to the rear of the collection vehicle, typically a rear-loading garbage truck. The collector wheels the cart from the curbside to the rear of the truck and positions it to be lifted mechanically and emptied into the vehicle's hopper. The worker then returns the cart to the curbside. These lifts can also be used on certain side-loading collection vehicles.
- **Fully-automated:** Fully-automated collection involves the use of a specialized collection vehicle designed for operation by only one person. The vehicle is equipped with a mechanical articulated arm that is used to empty the cart into the collection vehicle. The driver pulls the vehicle to the curb where the resident has placed the cart. Using controls in the cab, the driver moves the vehicle's collection arm to grasp the cart and empty it into the truck, then replace it on the curbside.

Collection performed by one-person fully automated trucks can significantly reduce the cost of collection, although it requires a significant investment in new collection vehicles. It is especially suited for less densely populated areas and areas that have adequate room in the public right-of-way for the collection process.

- **Hybrid System** – This is an approach to PAYT that typically blends rate structures. Some communities charge a fixed base rate to cover the costs associated with the overall provision of collection services (getting the collection vehicles onto the routes and supporting the operations and administration of the services), and establish a unit charge (per bag, per can, etc.) that varies according to the volume of material set out for collection.

Some communities might take a similar approach, but include recycling into the base level of service, and reduce or eliminate the unit charge for recyclable containers that are set out. This provides a financial incentive to the generator to reduce waste by recycling, as well as through source reduction efforts.

Advantages and Disadvantages of Each Program Type

No two communities are exactly alike, and therefore numerous variables will impact the process of designing the best program for Westtown Township. However, within each of the five types of programs advantages and disadvantages exist. These are summarized in Tables 2 through 6.

Table 2
Advantages and Disadvantages of Pre-Paid Bag PAYT Programs

Advantages	Disadvantages
<ul style="list-style-type: none">■ Residents find bag systems easy to understand■ Bag systems might offer a stronger waste reduction incentive than subscription systems because fees typically are based on smaller increments of waste■ Accounting costs are lower than with subscription systems, since no billing system is needed■ Bag systems have lower distribution, storage, and inventory costs than subscription systems when bags are sold at local retail establishments and municipal offices■ Bag collection tends to be faster and more efficient than non-automated subscription collections■ Bags can be used to indicate that the proper fees have been paid for bulky items or white goods, because communities often assess fees for pick up of these items. Communities can ask residents to attach a certain number of bags to the items according to the cost of disposal (for example, two bags for a couch and three-bags for a washing machine)■ Opportunity to offset costs by selling advertising on "official" bags	<ul style="list-style-type: none">■ Greater revenue uncertainty than with subscription system, because the number of bags residents purchase can fluctuate significantly■ If bags are sold in municipal offices, extra staff time will be required■ Residents might view a requirement to buy and store bags as an inconvenience■ Bags are more expensive to produce than tags or stickers■ Bags often are incompatible with automated and semi-automated collection equipment■ Animals can tear bags and scatter trash, or bags can tear during lifting■ Unlike cans, bags are not reused, adding to the amount of solid waste entering the waste stream■ Residents currently using containers may object to having to switch to bags■ Weight of bags due to "stuffing" might be a problem unless weight restrictions are instituted and enforced

Table 3
Advantages and Disadvantages of Tag and Sticker PAYT Programs

Advantages	Disadvantages
<ul style="list-style-type: none"> ■ Tag and stickers are easier and less expensive to implement than subscription systems ■ Residents often find tag or sticker systems easier to understand than subscription systems ■ These systems offer a stronger waste reduction incentive than subscription systems because fees are based on smaller increments of waste ■ Accounting costs are lower than with subscription systems, since no billing system is needed ■ Selling tags or stickers at local retail establishments and municipal offices offers lower distribution, storage, and inventory costs than subscription systems ■ The cost of producing tags or stickers for sale to residents is lower than for bags ■ Stickers can be used to indicate payment for bulky items or white goods, because communities often assess fees for pickup of these items ■ Residents can choose between bags or cans 	<ul style="list-style-type: none"> ■ There is greater revenue uncertainty than with subscription systems, because the number of tags or stickers residents purchase can fluctuate significantly ■ To avoid confusion among residents, the municipality must establish and clearly communicate the size limits allowable for each sticker ■ If tags or stickers are sold in municipal offices, extra staff time will be required ■ Residents might view a requirement to buy and store stickers or tags as an inconvenience ■ Tags and stickers often do not adhere well in rainy or cold weather ■ Extra time might be needed at the curb for collectors to enforce size limits. In addition, there may be no incentive for strict enforcement if haulers are paid based on the amount of waste collected ■ Tags left on trash at curbside could be removed by vandals or by other residents hoping to avoid paying for waste services ■ Tags and stickers are not as noticeable as bags or other prepaid indicators and may slow down collections

Table 4
Advantages and Disadvantages of Subscription/Container PAYT Programs

Advantages	Disadvantages
<ul style="list-style-type: none">■ Revenues are fairly stable and easier to forecast.■ Unlike bags, containers work well with semi-automated or automated collection equipment■ In a manual collection system, residents already own containers of roughly uniform volume, new containers might not be required■ Containers may be labeled with addresses or unique indicators to assist in enforcement	<ul style="list-style-type: none">■ Subscription systems often have higher implementation costs, including the purchase and distribution of containers■ Customers have a limited incentive to reduce waste. Because residents are usually charged on a subscription basis, there is no incentive not to fill containers already purchased. In addition, no savings are possible below the smallest size trash container■ Relatively complex billing systems are needed to track resident's selected subscription level and bill accordingly■ Complex storage, inventory, and distribution systems are required to provide new containers to households that change their subscription level■ A method of collecting and charging for waste beyond subscription levels and for bulk waste collections needs to be established■ At the outset, residents may find it difficult or confusing to select a subscription level■ There may be disputes with residents on the number of containers set out■ Manual collection with containers usually requires greater time and effort on routes than collecting waste in bags■ A cash flow problem may exist due to lag time between paying waste contractors and collecting fees for service based on use

Table 5
Advantages and Disadvantages of Weight-Based PAYT Programs

Advantages	Disadvantages
<ul style="list-style-type: none"> ■ Weight-based systems measure more precise increments of waste generation than volume-based systems, which offer better recycling incentives ■ Encourages waste reduction at all waste-generation levels ■ Fair and easily understood. Favorable customer survey reaction 	<ul style="list-style-type: none"> ■ At present, weight-based residential systems exist only in pilot program form in the U.S. ■ Requires more complicated billing system ■ Special trucks, labeling of cans require extra expense ■ Compatibility between onboard scales and computers and other operational systems can be challenging

Table 6
Advantages and Disadvantages of Hybrid PAYT Programs

Advantages	Disadvantages
<ul style="list-style-type: none"> ■ Offers communities a transition from the traditional financing system to a variable rate option ■ Mitigates revenue risk by recovering some costs through traditional financing method ■ Allows time for customers and officials to develop system familiarity ■ Doesn't "lock-in" a community to a specific type of system ■ Can be implemented quickly, inexpensively, and easily, and can be later replaced or modified into a full subscription, bag, or tag system, under a hand dump, semi-automated, or fully automated system ■ Allows time for further planning ■ Allows time for data collection ■ No new billing system may be needed ■ Generates a more predictable revenue stream than a strict PAYT program, and may encourage more haulers to bid on the program, as they will tend to have less risk/more certainty of revenue 	<ul style="list-style-type: none"> ■ Customer incentives to reduce waste are truncated at the lowest service level ■ Customers may not understand why they have to pay two fees for disposal of solid waste

Implementation Considerations

When deciding to implement a PAYT program, the community must make several decisions, such as:

- 1) Which type of PAYT system will be used? Will the RFP specify, or will the Township simply indicate that the bidder(s) must offer a volume-based program, and see what proposals they receive?
- 2) If carts are to be used, who will pay for them, and how? Who will be responsible for cart maintenance, and who will own the carts?
- 3) If bags, tags, and/or stickers are to be used, where will they be made available, and what will the cost be?
- 4) How will bulky waste be handled? Will it be part of the PAYT program, or managed via a separate program?
- 5) Is the PAYT program's set of options congruent with public opinion regarding which services are needed in the community? What will the reaction of the public be to the particular program?
- 6) How does the program account for small waste generating customers? Are they provided certain specialized program features?

Community Profiles – PAYT Program Implementation

Four Townships in Chester County are known to have a PAYT program. The profiles below provide a description of each program. A summary of the programs is provided in Table 7. In the discussions below, "strict PAYT" means a system in which residents pay a fee for each bag of trash generated. A "hybrid program" refers to a system in which residents receive a certain level of service for a fee, and must pay an additional fee (usually a per-bag fee) beyond the base level generated. Collection of recyclables is generally included in all PAYT programs.

It should be noted that a review of the Township's own survey research responses regarding overall alternatives for collection revealed that some senior citizens, who purport to be smaller generators of waste, claimed that they would benefit greatly from a strictly PAYT system, as they would save money over a flat fee. R. W. Beck, therefore, queried the PAYT communities in Chester County regarding programs designed for small waste generators.

East Bradford Township

East Bradford Township has a population of approximately 9,045 people in 3,076 households. East Bradford has a mandatory hybrid PAYT program with collection service provided by a private hauler. Township officials cite ease of record keeping, and the fact that they are an Act 101-mandated recycling community as the reasons for instituting a mandatory (e.g., all residents must participate) program.

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The collection program costs residents a flat rate of \$16.69 per month for three 32-gallon bags per week. Any additional bags to be disposed of must have a sticker affixed to them, at a cost of \$1.85 per 32-gallon bag (hence the hybrid PAYT). Stickers are sold in sheets of 10 for \$18.50, and are available through the hauler. The hauler also handles billing and customer service. Ancillary program costs, such as educational information distributed via the Township website and newsletter, tire recycling, leaf collection, and holiday tree disposal are all funded via the 904 recycling grant.

Bulk waste collection provided by the hauler is limited to one item per residential unit per month, at no additional charge (unless the bulk item in question contains Freon). Seasonal yard waste collection is unlimited, and is provided at no additional charge by the hauler.

According to a municipal representative, the PAYT program in East Bradford was met with some initial skepticism from residents, but resistance has gradually declined since the inception of the program in 1992. Negative comments are reported to be rare. The only source of complaints relates to residents wanting more frequent collection. Currently, the Township has once-per-week collection through their private hauler, and officials state that the volume of garbage is not significant enough to make twice-per-week collection cost effective. Low waste generators appear to be satisfied with the program. Officials attribute this to the fact that their PAYT sticker sales (estimated to be about 2,400 stickers per year) are low as compared to the number of households in the Township. Therefore, the base charge and allotment of three 32-gallon bags appears to be sufficient capacity for most residents.

East Bradford Township reports that this hybrid program is unlikely to change without some unforeseen change in state requirements. The hauler contract is renewed annually, at which point a survey is conducted by the Township to measure performance. Overall, Township officials report a positive experience with the hybrid program, and are of the opinion that a hybrid system is less likely to result in undesired program outcomes such as illegal dumping than a strictly PAYT system (e.g., where the resident pays for each bag) would. This is because in a strictly PAYT system, residents might be more inclined to pay nothing for disposal and dump all of their waste illegally, making cost recovery more difficult.

Elverson Borough

Elverson Borough has a population of approximately 959 people residing in 412 households. Currently Elverson has a mandatory strictly PAYT program, with weekly trash and recyclables collection provided under contract by a private hauler. Borough officials state that the only way for a strict PAYT program to be effective is for it to be mandatory (e.g., require that all residents participate).

The Borough charges residents \$2.50 per 30-gallon bag and provides once-per-week collection. Bags can be purchased in either quantities of five or as single bags, and are sold at local businesses throughout the community. The Borough handles customer service for the program. Ancillary program costs such as the Borough newsletter are recovered through means other than the charges to residents for bags (presumably through grants). Borough officials report that the program is well received by residents, and that they have had minimal negative comments.

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Residents reportedly like the savings offered by a strictly PAYT program. It is also believed that small waste generators are observing significant savings over a traditional flat rate.

Bulk and yard waste collection provided by the hauler is unlimited, and provided at no additional charge on scheduled days. Bulk waste does not require an official bag, nor does yard waste.

Elverson Borough reports that this program is expected to continue indefinitely, regardless of any changes to their collection contract terms (which are renewed yearly). Borough officials cite no disadvantages to this system in their view, from which the inference can be made that the impact of illegal dumping is viewed to be negligible. The program "pays for itself" and the mess of empty trash cans all over the Borough roads after a pick-up is also avoided.

West Bradford Township

West Bradford Township has a population of approximately 10,775 people residing in 3,419 households. West Bradford has a mandatory hybrid PAYT program, and collection of trash and recyclables is provided by Township crews. Residents are charged \$81.00 for six months, which allows them to fill of one 90-gallon cart per week. Any waste to be disposed of in a week that is in addition to the 90-gallon cart covered by the flat rate must have a sticker affixed to it. Each sticker costs \$2.00, and can be affixed to a 30-gallon bag. Stickers are available at the West Bradford Township Building. The Township also handles all billing and customer service. Township officials indicate that they expect rates to increase significantly in January 2007.

Bulk item collection is limited to one item per residential unit per month at no additional charge. Yard waste is not collected in the Township. Township officials recommend that yard waste be composted, and/or self-hauled a nearby landfill.

During program inception, a private hauler provided collection under contract. After receiving a large number of complaints about the hauler, however, West Bradford decided to pursue collection themselves, and have been doing so since early October 2006. Since this transition is so recent, Township officials report that it is too early to tell whether the problems encountered with the private hauler have been eliminated as a result of municipalization. With regard to small waste generators, officials report that they may eventually alter some of the program offerings to cater to small waste generators, who see no extra savings with the current rate structure.

A West Bradford representative reports that this program is expected to continue indefinitely. In general, officials cite that the main advantage of a hybrid PAYT program is that every resident does not have to share the cost burden for those residents who generate significantly more amounts of waste. This arrangement is viewed as a more equitable way of charging residents based on the amount of waste they actually generate than a flat-fee system, providing an economic incentive for residents to decrease their waste generation, at least to the base level.

West Whiteland Township

West Whiteland Township has a population of approximately 16,499 in 6,618 households. The Township has a strict PAYT program. Township officials state that an ordinance was the basis for instituting an essentially mandatory (100 percent participation) program. At this time, however, certain apartment buildings are exempt, as they receive waste collection via dumpsters serviced by commercial haulers.

Charges under the current program are \$2.00 per 30-gallon bag, with once-per-week collection of trash and recyclables. West Whiteland handles all of the billing and customer service for the program, with a private hauler providing weekly collection of trash and recyclables. Officials report that all of the program costs are covered by the per-bag charge.

Bulk item collection provided by the hauler is limited to four items per residential unit per month at no additional charge. Yard waste collection provided by the hauler consists of leaf and brush collection. Leaves are collected on six consecutive days by the Township (one day per week for six weeks) during the months of November and December. Leaves must be placed in special biodegradable paper bags. Branches are collected once per year by the Township, and can be at most four feet long and four inches in diameter.

The PAYT program has been operational in West Whiteland since 1991. As such, Township officials do not have recent information regarding public opinion. However, they do note that small waste generators are saving a good deal under the system.

West Whiteland reports that this program will continue indefinitely, unless there is some change to the current Township ordinance. Officials note that the advantage of this system is that it encourages habitual recycling on the part of residents who want to minimize their disposal costs.

Table 7 below summarizes the key information regarding each respondent community's PAYT program.

**Table 7
 Summary of PAYT Program Information**

PAYT Program Information	East Bradford	Elverson	West Bradford	West Whiteland
Hybrid/Strict?	Hybrid	Strict	Hybrid	Strict
Mandatory/Optional?	Mandatory	Mandatory	Mandatory	Mandatory
Why Mandatory/Optional?	Ease of record keeping; ACT 101	"The only way it would work"	Has been mandatory since inception	Ordinance
Public Opinion on PAYT	Initial skepticism; now want 2x/wk collection	Minimal negative comments; people like savings	Indeterminate; contracted collection generated citizen complaints	Public currently pleased with program; program in place since 1991

PAYT Program Information	East Bradford	Elverson	West Bradford	West Whiteland
Response/Savings for Small Waste Generators	Not noticeable due to low PAYT sticker sales	Small waste generators see savings	Currently no savings; program may change for small waste generators	Small waste generators see savings
Advantages/Disadvantages	Hybrid results in more participation; less illegal dumping; easier to collect charges	No disadvantages; program pays for itself and trash cans are avoided	Larger generators of waste are financially responsible for themselves	Enables habitual recycling
Current Rates/Charges	\$16.69/month additional bags cost \$1.85 each	\$2.50 per bag	\$81.00 for 6 months additional bags cost \$2.00 each	\$2.00 per bag
Additional Services Included in Rates	Bulk waste collection (limited) and seasonal yard waste collection	Unlimited bulk and yard waste collection	Bulk waste collection	Bulk waste collection (limited) and seasonal yard waste collection
Service Level	Three 32-gallon bag/wk	30-gallon bags	90-gallon container or 30-gallon bags	30-gallon bags
Service Provider	Private Hauler	Private Hauler	West Bradford Township	Private Hauler
Billing	Hauler	Elverson	West Bradford	West Whiteland
Customer Service	Hauler	Elverson	West Bradford	West Whiteland
Frequency of Collection	1x/wk	1x/wk	1x/wk	1x/wk

Observations and Recommendations

Based on our review of the Township's current collection contract, an independent review of the Township's survey research regarding potential collection options, and the interviews conducted with PAYT communities in Chester County, R. W. Beck has made the following observations and recommendations:

- R. W. Beck has found that the current collection contract lacks adequate specificity with regard to hauler responsibilities related to recycling education. Specific clauses from benchmark contracts have been suggested in lieu of current language contained in Sections 4.02 and 5.05 (b) that have been appended to this report. R. W. Beck recommends that the

Township replace its current clauses with one, or a combination of these benchmark contract clauses. These alternative clauses are included in this report as Appendix A.

- R. W. Beck has found that the current collection contract does not provide an indexed approach to determining equitable and documented rate increases. To address this, R. W. Beck has explained and provided a full appended example (included as Appendix B) of the Refuse Rate Index (“RRI”) approach to rate increases. R. W. Beck recommends that the RRI be computed every year, and compared to the increases in the flat rates proposed by the hauler, and that the contract be structured such that the Township can choose the lower of the two cost options. In lieu of the RRI, the Township could use a more simple adjustment based on a certain percentage of a specified economic indicator, such as the simple CPI approach, which has also been documented with an example clause in Appendix B. It should be noted again that it is ultimately the Township’s responsibility to seek legal counsel before implementing any of the suggested contractual changes presented in this report.
- R. W. Beck recommends that the Township consider the three service-related suggestions for improving the overall service provided to the Township. Incentives for recycling that are tied to quantifiable goals, implementation of a liquidated damages clause, and consideration of a Resource Management (“RM”) requirement as a contract element will all serve to increase the service quality and value provided to customers.
- With regard to PAYT program implementation, evidence exists to support a hybrid PAYT system over a more strict PAYT system. Responding communities cite the fact that in most cases, the allotted base capacity appears to be sufficient for residents. This is the main advantage to the hybrid program, in that customers have the option to purchase additional bags, so that they alone are financially responsible for their additional waste generation. In addition, it is reported that a hybrid system is less likely to result in undesired program outcomes such as illegal dumping than would a strict PAYT system. Additionally, a hybrid PAYT program should be more politically acceptable than a strict PAYT program. R. W. Beck recommends that the Township consider a hybrid PAYT option in their next collection contract.
- Small waste generators, who were reported in the Township’s own collection service survey to favor a strict PAYT program so that they could save money (as they purport to generate less waste on average) are reported to see no significant savings under the hybrid system, but have reacted positively to having a PAYT only option. Consequently, R. W. Beck recommends that the Township consider implementing a special PAYT rate for small waste generators, whereby they would be able to choose a per-bag fee only, or be provided the option of a smaller cart (such as a 35-gallon cart) if a cart program is implemented. This would help increase positive public opinion on the program, further incentivize recycling and waste reduction, and would be greatly beneficial to senior citizens on fixed incomes who may not be able to absorb annual base rate increases.

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- Should the opportunities for joint contracting improve in the regions close to the Township, R. W. Beck recommends that the Township consider pursuing these possibilities. A joint RFP would provide the hauler with a larger contiguous area to serve, thereby increasing economies of scale, and perhaps saving Westtown Township money by reducing costs.
- The Township should consider the possibility of contracting separately for processing of recyclables, perhaps with the Township receiving a revenue share. Ideally, this would take place if there is more than one recycling processing facility in close proximity to the Township. The Township should note that it could potentially piggyback onto the Chester County Solid Waste Authority's Processing and Marketing Contract, if the Township determines they wish to contract separately for recyclables processing.

It should be stressed that a thorough review and understanding of the alternative language provided in Appendix B, rate structure approaches provided in Appendix B, and example resource management-based RFP template provided in Appendix C will be beneficial to the Township in developing their RFP or contract language. A thorough solicitor's review of bid documents is necessary to ensure that the language in the RFP documents is fully understood by all parties. Furthermore, alterations to contract language, particularly when they place more responsibility on the hauler, can be expected to take a significant amount of time. As such, the Township should be proactive about investigating these options within a relatively short timeframe. As mentioned above, soliciting feedback from the potential bidders regarding alternative services and contract language will also be beneficial to the Township.

Should you have any questions or concerns regarding the data, research methods, or recommendations presented in this report, please do not hesitate to contact us at your convenience.

Sincerely,

R. W. BECK, INC.



Navid Nowakhtar
Analyst

NN:ls

Appendix A

ALTERNATIVE CONTRACT CLAUSES AND COLLECTION POLICIES

Public Awareness Program

Use of Collection Vehicle/Staff at Public Events

The Contractor agrees to cooperate in complying with requests of up to forty (40) hours per year from the Township to supply a Recycling or Solid Waste truck and driver at public outreach events, provided that notice of at least five (5) Work Days is given. It is understood and agreed that there shall be no charge to the Township by the Contractor for compliance with any requests to provide a demonstration Collection truck and driver in response to the Township's request. In the event that the Township's notice for the Contractor's cooperation under this Section is less than five (5) Work Days, the Contractor, at its sole discretion, may agree to provide the requested demonstration truck and driver.

Distribution of Education/Outreach Materials

The Contractor shall assist the Township with the Public Awareness Program by distributing door hangers, stickers, flyers or other medium to residential customers as requested by the Township. Additionally, it is the Contractor's responsibility to provide information about those customers who repeatedly do not prepare or set out their Recyclable Material or solid waste as specified within this Contract to the Township. The contracted hauler will also distribute notifications to commercial customers regarding the availability of recycling programs and the fact that recycling of certain materials is mandatory in the Township. The Township will develop the educational materials, and the contractor will be responsible for distributing them at least twice per year.

Recycling Rate Incentives

The Contractor and the Township shall decide upon a mutually acceptable recycling rate goal for the contract period. If this goal is met on an annual basis, the Contractor shall receive a recycling participation bonus, in an amount not to exceed _____, which will be payable at the end of the contract year. There will be no penalty for not meeting this goal unless specifically agreed upon in writing by the Contractor and the

Township. Recycling rates shall be calculated using total tonnage data provided by the Contractor to the Township on a monthly or annual basis, as available.

Sample Liquidated Damages Policy

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

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

1. Failure to clean up solid waste spilled by Proposer within six (6) hours of oral or written notification..... \$50.00 each instance.
2. Failure to maintain vehicle in a manner which prevents nuisances such as leaky seals or hydraulics..... \$100.00 each instance.
3. Failure or neglect to collect solid waste, recycling, (or yard waste/bulky goods if part of the proposal) at those times provided by the Agreement within 24-hours after either oral or written notice by Township \$50.00 each instance.
4. Failure or neglect to provide notice to resident upon solid waste refused for collection for cause \$25.00 each instance.
5. In addition to above, failure or neglect to correct chronic problems will be considered a Breach of Contract..... \$50.00 each instance.
6. Chronic problems shall be construed to be three or more occurrences of items (1), (2) or (3) immediately above at the same address within any period of six (6) consecutive months whether or not remedied within 24-hours or four hours in the case of spilled solid waste.
7. Failure to collect recyclables, which are properly prepared and placed for collection as part of the collection program..... \$25.00 each instance.
8. Missing entire blocks/neighborhoods. A missed block is defined as a block where residents from at least three (3) households within two intersections of that block or cul-de-sac report that their material was out before 7:00 a.m., the material was not picked up and the addresses did not appear on the records as unacceptable setouts\$250.00 each instance.
9. Township-wide collection not completed. The failure to complete a majority (50% or more) of pickups within the Township on the scheduled collection day without following proper notification procedure \$2,500 per instance.

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

ALTERNATIVE CONTRACT CLAUSES AND COLLECTION POLICIES

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

Appendix B

EXAMPLE RRI ADJUSTMENT SCHEDULE AND CPI ADJUSTMENT CLAUSE

The adjustment shall be calculated in the following manner:

The hauler is required to establish the required annual adjustment in an auditable form as specified in Exhibit 1. The adjustment shall be determined by actual expenses as shown in the Contractor's annual audit. The adjustment shall be made to the combined category of Residential Solid Waste Collection Service and to Residential Recycling Collection Service. The adjustment shall be based solely on the Refuse Rate Index (RRI), as presented below.

Refuse Rate Index

The Refuse Rate Index adjustment shall be calculated in the following manner:

- 1) The revenues and expenses of the residential operations for the previous calendar year shall be prepared in the format as designated in Exhibit 1.
- 2) The expenses of the residential operations shall be broken down into one of the following five cost component categories: Labor, Fuel, Vehicle Replacement, Maintenance, and Other. Each cost component category is assigned a weighted percentage factor based on that cost component's percentage total of all cost component categories.

NOTE 1: The "Other" category includes the balance of revenue dollars to cover normal Overhead expenses. This portion will be adjusted by 75% of the percentage change in the Index.

Overhead includes: All insurance including general liability, fire, truck damage, extended coverage and employee group medical and life; rent on property, truck licenses and permits; real and personal property taxes; telephone and other utilities; employee uniforms; safety equipment; general yard repairs and maintenance expenses; customer billing expenses; office supplies; postage; trade association dues and subscriptions; advertising; employee retirement or profit sharing contributions; and advertising.

- 3) The following indexes are used to calculate the adjustment for each cost component category. The change in each index shall be calculated on a January - December basis for the previous calendar year.

Cost Component

Labor	INDEX National Employment - Hours and Earnings: Sanitary Services (SIC 495) Average Hourly Earnings of Production Workers SOURCE Employment and Earnings (E&E), Published Monthly by Bureau of Labor Statistics. (BLS)
Fuel	INDEX Consumer Price Index (CPI) (Unadjusted) U.S. City Average, All Urban Consumers, Gasoline SOURCE Consumer Price Index (CPI), Published Monthly by Bureau of Labor Statistics. (BLS)
Vehicle Replacement	INDEX Producer Price Index (PPI), Trucks over 10,000 lbs. GVW (WPU 141106) SOURCE Producer Prices and PRICE Indexes, Published Monthly by Bureau of Labor Statistics. (BLS)
Maintenance	1/3 LABOR: INDEX: National Employment, Hours and Earnings: Sanitary Services (SIC495) Average Hourly Earnings of Production Workers SOURCE Employment and Earnings (E&E), Published Monthly by Bureau of Labor Statistics. (BLS)
	2/3 PARTS: INDEX: Consumer Price Index (CPI) (Unadjusted) U.S. City Average, All Urban Consumers, Motor Vehicle Maintenance and Repair. SOURCE Consumer Price Index (CPI), Published Monthly by Bureau of Labor Statistics. (BLS)
Other (Note 1)	INDEX 3/4 Consumer Price Index (CPI), U.S. City Average, (Unadjusted), All Urban Consumers, All Items. SOURCE Consumer Price Index Detailed Report, Published Monthly by Bureau of Labor Statistics. (BLS)

EXAMPLE RRI ADJUSTMENT SCHEDULE AND CPI ADJUSTMENT CLAUSE

If any of these indices become obsolete during the term of this contract, an alternative, related index may be used, as agreed upon between the Contractor and the Contract Administrator.

- 4) The percentage weight for each cost component is multiplied times the change in each appropriate index to calculate a weighted percentage change from January to December for each cost component factor. The weighted percentage changes for each cost component are added together to calculate the Refuse Rate Index, as follows:

Table 1
RRI Sample

Cost Component	Weight	Source	%Change	%Weighted
Labor	33%	E&E SIC495 Average Hourly Earnings	1.20%	0.39%
Fuel and Oil	7%	MLR - Gasoline	-9.17%	-0.64%
Vehicle Replacement	14%	PPI - Trucks	3.74%	0.52%
Maintenance Parts & Equipment	13%	2/3 MLR Auto 1/3 Labor	3.21%	0.42%
Other	33%	CPI - All Items	1.84%	0.61%
Total	100%			1.28% RRI

EXHIBIT 1

Annual Financial Reporting Format
And
Payment Schedule Adjustments

The Contractor shall submit to the Township a certified comparative operating cost statement prepared in accordance with general accepted accounting standards.

The Contractor shall disclose all methods of allocations used to distribute costs between Service Areas for residential operations. The disclosure shall be in narrative form and include the basis for the allocation method.

The Contractor shall provide a description of the expenses classified as Other Operating Expense and Other General and Administration.

The Contractor shall submit to the Township any adjustments made during the annual audit that have an effect upon the previously submitted monthly revenue statements for the twelve (12) months of the Fiscal Year being audited.

Any allocations made will need to be disclosed in a narrative format, along with the basis for those allocations. Additionally, it is understood that each Contractor shall utilize the accrual basis of accounting for income and expenses. And although the Township reserves the right to audit or review the information supplied, the Contractor is not required to provide an audit of the accompanying information.

Attached is the required format for financial statement reporting in accordance with this franchise Agreement.

EXAMPLE RRI ADJUSTMENT SCHEDULE AND CPI ADJUSTMENT CLAUSE

(Contractor)
Statement of Income and Expenses
Residential Service Area (#)
For (month, year) Ended (month, year)

Revenues:

(List by type) \$ _____
Total Revenue \$ _____

Operating Expenses:

Depreciation - Vehicles \$ _____
Disposal fees paid to the Township \$ _____
Franchise Fees paid to the Township \$ _____
Fuel and Oil \$ _____
Labor and Fringe Benefits \$ _____
Other Operating \$ _____
Truck Maintenance – Labor \$ _____
Truck Maintenance – Parts \$ _____
Total Operating Expenses \$ _____

General and Administrative

Salaries and Wages \$ _____
Officer's Salaries \$ _____
Other General and Administrative \$ _____
Total General and Administrative \$ _____

Income before Provision for Income Taxes \$ _____

Provision for Income Taxes \$ _____

Net Income \$ _____

Example CPI Adjustment Clause¹

Rates shall be increased or decreased by the percentage change in the Consumer Price Index (CPI) from the base month, which shall be December of the prior preceding year, to December of the preceding year as contained in the most recent publication of the source index.

The Consumer Price Index (CPI) shall be calculated based on the information from the Bureau of Labor Statistics, for the twelve (12) months ending June 30th preceding each new Agreement Year. If the CPI is discontinued or substantially altered, the Township may select another relevant price index published by the United States Government or by a reputable publisher of financial and economic indices.

The annual adjustment to the Rates shall be based on a fixed seventy percent (70%) of the change in the previous year's CPI. The formula for the annual Rate adjustment shall be as follows:

Customer Rate x (70% of CPI) = subsequent year's Rate.

¹ The term "rates" should be adjusted per coordination with the bidding hauler to ensure that there is agreement between the Township and the hauler as to what charges will be subject to such an adjustment. Note that the language above has been taken from multiple contracts and edited to fit the Township's potential needs. Also note that the 70% multiplier can be negotiated with any bidding hauler to achieve a mutually agreeable value.

Appendix C

SAMPLE RESOURCE MANAGEMENT RFP

TEMPLATE

Introduction

Township Background

Westtown Township (henceforth “Township”), encompassing 22.7 square miles in Chester County.

Statement of Intent

The purpose of the Townships’ Resource Management (RM) program is to obtain expert management services to eliminate, reduce, re-use, recycle and (as a last resort) dispose of all wastes generated in the Township. The Township understands that this program represents a new way of doing business and is prepared to supply an economic incentive for the successful Proposer who can best divert materials currently going to the landfill. It is intended that the successful Proposer will be the driving force behind increased diversion, working in partnership with Township staff.

Program Objectives

The program must meet the following objectives

1. Seek continual improvement in Township resource use and assist the Township in implementing resource efficiency innovations (reduce, reuse, recycle/compost);
2. Optimize current garbage hauling and disposal service;
3. Develop a detailed tracking, reporting, and invoicing system.

Program Expansion (Optional)

Several other Townships are aware of this RFP and the expectation is that if the program is successful in Westtown Township, then the winning Proposer could potentially expand the program to these other jurisdictions.

PROPOSAL GROUND RULES

Acknowledgment of Receipt

Each Proposer must fill out an Intent to Propose form (to be supplied by the Township) acknowledging receipt of the RFP, your intent to propose and whether you will be attending the pre-proposal meeting/site tour. The form must be sent **via email or fax** to the Township by **DATE before TIME EST.**

Queries and Primary Contact Person

All inquiries about this RFP must be made in written form, via e-mail, to the primary contact person of the Township:

Name:
Address:
E-mail:
Phone:
Fax:

In the interest of fairness, all questions and responses will be distributed via email to the designated contacts for all prospective providers who have indicated intent to submit a response. The identity of companies who submitted questions will be kept confidential. All questions must be received by **DATE before TIME EST.** Responses to all questions will be issued to all providers by the Township on **DATE before TIME EST.**

Pre-proposal Meeting

A pre-proposal conference will be held on **DATE from TIME am to TIME EST.** **Proposers who intend to submit a response are strongly encouraged to attend the pre-proposal meeting.** If the Proposer would like to participate in the proposal process, he should provide on the form of notification of receipt the names and contact information of all persons from the Proposers company who are planning to attend the pre-proposal meeting.

The preliminary agenda includes:

- Overview presentation by **COMMUNITY**, including current operations and an explanation of the goals of the RM program
- Q&A by Proposers

Proposal Schedule

The timeline for the RM selection process is presented below. The Township expects to select a RM by **DATE.**

DATE	ACTION
1.	RFP release to prospective service providers
2.	Deadline for submission of Acknowledgement of Receipt and attendance of pre-proposal meeting
3.	Pre-proposal meeting and Township tour
4.	Deadline for submission of questions on RFP
5.	Send out summary of questions, comments and/or amendments of RFP to all candidates
6.	Proposals due

Deadline for Proposals

Complete responses must be received by DATE at _____ Township, ADDRESS, no later than TIME pm EST on DATE.

Proposals and all conditions therein shall remain effective for at least ninety (90) days from proposal submission date. A complete response to this RFP should contain one (1) original copy and (2) hard copies. Proposers are also requested to submit their response via e-mail and must indicate their ability to do so in the Intent to Propose Form.

Evaluation Criteria

The Township, at its sole option, will select the proposal which best fulfills the requirements and provides the *best value* to the Township. The proposals will be evaluated based on the following criteria (criteria are not in order of ranking or weighting):

- Quality and Completeness of response
- Collection logistics
- Cost
- Secondary markets
- Data Collection & information systems
- Creativity/innovativeness to divert materials from the landfill
- Creativity/innovativeness to minimize environmental impacts during the course of business
- Experience/qualifications
- Safety/liability

Additional Information, Investigation and Inspection

The Township may request additional information by suppliers to clarify elements of their proposals. The Township will notify companies after all proposals are received on whether a presentation is required. The Township also reserves the right to make independent investigations as to the qualification of each Proposer. Such investigation may include contacting existing customers or site visits to existing operations.

Proposal Deposition

All materials submitted in response to this RFP will become property of the Township and will become public record after the proposals are opened and read. The Township will not be responsible or liable in any way for any losses that the Proposer may suffer from the disclosure of information or materials to third parties.

Reservations and Limitations

Non-Standard Forms

Proposals which are not submitted on the forms furnished by the Township or do not adequately address the provisions of Section 4 and 5 of this RFP document may be rejected at the Township's discretion.

Acceptance or Rejection of Proposals

The Township reserves the following rights and options:

- To reject any and all proposals that fail to meet the literal and exact requirements of the specifications provided in this RFP document
- To accept the proposal that is, in the judgment of the Township, in the best interest of the Township
- To reject any and all non-responsive proposals
- To waive irregularities in any proposal as the Township may elect to waive
- To reject all proposals without cause
- To issue subsequent requests for new proposals
- To discontinue its negotiations after commencing negotiations with a finalist, if progress is unsatisfactory, and commence discussions with another Proposer

Proposer's Self Reliance

Proposers are expected to be knowledgeable about the structures to be served, to understand the Township's terrain, streets and alleys, and locations for containers used for garbage and recycling collection. Proposers are expected to determine the appropriate equipment to provide the required services.

Proposer's Responsibility for Costs

The Township will not reimburse any Proposer for any costs involved in the preparation and submission of Proposals, in making an oral presentation, or in contract negotiations. Proposers are responsible for all costs associated with preparing and submitting the RFP.

Scope of Requirements

Types of Waste

The successful Proposer will manage all waste streams in Township. The following hierarchy should be followed in the management of all operations: 1) Reduce/eliminate; 2) Reuse (return); 3) Recycle/compost; 4) Dispose

Scope of Service

The program will have complete responsibility for all aspects of waste management. The successful Proposer will propose an RM program that delivers the following minimum outcomes:

- Maintain existing waste service levels for a seamless program transition
- Reduce waste through preventative upstream measures
- Improve upon current recycling rates
- Develop other waste and cost reduction initiatives
- Implement energy-saving or environmental impact-mitigating strategies, where practicable

Proposed Program Implementation

The Township proposes the following phased approach to meet the required scope of service.

Program Start Date: The date at which the winning Proposer takes over existing service levels for waste and recycling as outlined in. It is proposed that the program begin on **DATE**.

Phase I. RM Program Transition. Over a three month period from **DATE** through **DATE**, the winning Proposer will become familiar with Township Operations and develop a plan to make improvements. The Township does not expect the awarded Proposer to implement any new programs or change any of the current service levels immediately on the start date. This transition phase is meant to give the awarded Proposer the time to build relationships and verify a baseline from which future cost savings will be measured. Activities should include, but are by no means limited to, the following:

- Become familiar with current Township programs and systems

- Baseline waste and recycling levels
- Communicate and build relationships with key Township personnel
- Develop and prioritize an action plan for full implementation (Phase II)

Phase II. RM Program Implementation. Starting in **DATE**, it is expected that the awarded Proposer will improve upon existing service levels and programs and develop and implement new diversion programs.

Period of Performance

The Township is looking for a strategic long-term partner and understands many resource efficiency initiatives will take time to develop. As such, this contract will be awarded for a minimum period of 2 years with 3 one-year renewal options.

Additional Services

From time to time the RM contractor may be asked to perform extra services not specified within this scope of work. This work will be reimbursed by the Township under a separate purchase order. This type of work may be competitively bid at the Township's discretion.

Proposal Response RM Program (RM) Requirements

Each Proposer must respond to Section 4.1, General Requirements, Section 4.2, RM Service Requirements, and Section 4.3, Data and Billing, with a **text proposal**. Pricing requirements in Section 5 should be completed using the pricing forms.

General Requirements

Program Management

Provide a brief description of your overall management and business systems as they pertain to the following

- Describe your vision of an RM program for the Township.
- Identify what resources (project personnel or teams) that you will devote to a Township RM program.
- Include how staff devoted to the Township's RM program will interact or utilize overall Township resources/expertise (include training they may receive or other resources you may provide that will benefit the Township).
- Employee stability is essential to the program's success. What does your company do to maintain a stable workforce?

Environment and Safety Issues

The RM must comply with all applicable regulations and Township policies governing the recycling, storage, transportation and disposal of waste streams. Lack of knowledge of the Proposer shall in no way be a cause for relief from responsibility or constitute a cognizable defense against the legal effects thereof.

- Describe your environmental and safety programs that apply to managing risks associated with the primary supplier function. Discuss the regulatory expertise of the staffs you propose for your resource management program.

Supplier Capabilities

It is understood that the primary supplier responding to this request for proposal may not have the capability to undertake all the tasks outlined. The successful Proposer may develop agreements with subcontractors in order to provide and manage the full scope of services requested by the Township. The RM contractor has full responsibility for the coordination of the Subcontractor's work, control of the quality, compliance with all federal, state and local regulations and ordinances, and fulfillment of schedules. State if you intend to team on the proposed scope of work and identify any subcontractors you intend to use. The Township reserves the right to reject any subcontractor who does not meet RM program requirements.

Qualifications

List three of your current major customers. Where possible, please include at least one jurisdiction/organization that you provide services to that are comparable to the Township's requirements. For each customer named, indicate: a) number of years as a customer; b) contact names and numbers; c) general type of business of customer, and d) services your company provides and relevant metrics of success.

RM Services Requirements

Program implementation milestones

Comment on the feasibility of meeting the dates outlined in the proposed Phased approach identified in 3.3. Include here any thoughts you may have that could improve the roll out of an RM program as described in Section 3.3.

RM Activities to decrease diversion

Describe generally the types of programs and types of waste streams you intend to focus on to meet the goals and intent of the RM program outlined in Section 1.2 and 1.3. This may include improving on existing recycling programs as well as identifying new programs to reduce/reuse or recycle waste from the Township. It is anticipated that education and outreach will play an important role in a successful program so include in your discussion how you intend to interact with relevant stakeholders.

Billing /Data Information Systems/Performance Targets

Billing

For each location, the Township would like to see line items that list the level of service (container size and frequency of service) along with associated charges. Charges for container rental, hauling and processing/disposal should be a separate line item to the extent possible and appropriate. Recycling fees and waste fees must be separate. Any extra costs for add-on services must be itemized by material and labor.

State your ability to provide monthly billing statements to the Township as described above. You may also provide a sample bill to show the Township your capability.

4.3.2 Data Information Systems

- Identify your data information management tools that will be used to track Township waste streams.
- Propose how you will establish a baseline against which cost savings can be measured. This should occur during Phase I (program transition) as proposed in Section 3.3.

Quarterly Reports

To ensure communication and attention to the RM program, the Township proposes to have quarterly progress reports with the awarded Proposer. Discuss the following:

- The items to include in quarterly progress reports to the Township.
- Your approach for validating cost savings and increased diversion.
- The performance metrics you will employ and your procedures for formally, both internally and with the Township, reviewing and assessing your performance.

Financial Proposal

Base Proposal

While the Township recognizes the typical marketplace approach to RM services is to charge a management fee in addition to the cost of waste hauling/disposal, it desires an alternative approach. The Township seeks an RM Provider that can meet the requirements described in Sections 3 and 4 **on a budget neutral basis** (i.e., at a cost not exceeding that currently paid for waste and recycling services, adjusted for Township-driven changes in waste volumes).

The successful Proposer should provide the requested management services as a **value-added service at no additional charge to the Township**. Expenses incurred in the provision of these services must be covered by waste/recycling hauling services, recycling revenues and/or overall program savings. Sharing a portion of additional program savings with the Township is not required, but will make the bid more attractive to the Township.

The base proposal must consist of two components: 1) costs of services provided; and 2) plans for gain-sharing with the Township.

Cost for Existing Service

It is presumed that the Proposer will start the program by providing the Township with existing levels of service. Prepare your quote for the requested services over a 2 year contract. The contract will have three, one year renewal options.

- Separate costs for hauling and disposal must be submitted where possible.
- Hauling and processing costs for recyclables must be separate.
- Provide revenue estimates or costs for secondary commodities (cardboard, mixed paper, co-mingled glass and plastics). Note that the Township is open to innovative structures such that the Township and the successful Proposer share in the benefits of recycling during high commodity markets and share the risk during low markets.

Incentive structure for RM Services

While the Township recognizes that a portion of program savings will be used to finance the RM services proposed in Section 4, a Proposer's willingness and ability to share further savings with the Township will increase their chances of being selected.

As described in Section 3.3, the successful Proposer and the Township will establish a mutually agreed upon baseline. This baseline will serve as the current level from which improvements and cost savings will be measured. Resource efficiency improvements will yield savings from areas including, but not limited to: avoided hauling costs, avoided disposal costs, avoided taxes, commodity revenue, or other Township cost savings the successful Proposer can document.

Alternate Financial Proposals

Alternative proposals reflecting this solicitation are encouraged to be submitted in addition to, not in lieu of, a fully responsive baseline proposal. The Township would look favorably on proposals that tie gain sharing incentives to mutually agree upon performance targets.

For example, Proposers could propose a fixed monthly cost and guarantee certain reduction in costs and increased diversion over the 2 years. The fixed cost must include all waste, recycling, and RM services and be tied to current waste generation levels.

To facilitate preparation of an alternative proposal, only those differences from the baseline proposal must be included. A statement to the effect that any aspect of the baseline proposal not otherwise expressly modified and set forth in the alternative proposal should be included.