



Caln Township Evaluation of Recycling Program Project #618

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1 STATEMENT OF PROBLEM

Caln Township (Township) is located in Chester County about 40 miles west of Philadelphia. The Township is an Act 101 mandated large community for recycling. In 2010, the U.S. Census Bureau estimated the population to be about 14,000. About 4,800 households are serviced by the Township’s solid waste program. Residents pay a single fixed rate for curbside solid waste services.

The Township has a contract with a private waste hauler for the collection of solid waste, recyclable materials, and yard waste from residents. Solid waste is collected from residents weekly and is limited to the equivalent of 130 gallons each week. The Township issued 65-gallon trash carts to all households and residents may place up to an additional 65 gallons (equivalent containers or bags) of trash for collection each week. Recyclable materials are collected single-stream on a weekly basis from residents in 65-gallon carts that were issued to all households. Materials accepted for recycling include: plastic containers, steel/bi-metal and aluminum containers, newspaper, cardboard, office paper, magazines, and mixed paper. Yard waste is collected every other week curbside from residents and includes fall leaf vacuum and chipping programs.

Commercial establishments in the Township individually contract with private haulers for waste and recyclable material collection services. Some smaller businesses are allowed to participate in the Township’s curbside recycling program that is provided to residents.

The Township estimates their recycling rate to be 26 percent. Technical assistance is requested to provide ideas and recommendations for how the Township can boost waste diversion and reduce the amount of waste collected for disposal.

2 SUMMARY OF WORK PERFORMED

This section summarizes the work activities performed as part of the recycling technical assistance project to Caln Township. The project includes the following tasks:

Task 1 – Data Collection and Site Visit

A representative from SCS traveled to Caln Township to meet with Township staff to discuss the project. SCS requested information and data on the Township's existing solid waste, recycling, and yard waste collection program including material quantities collected, equipment used, and program costs. The meeting was used to fill-in data gaps, discuss program evaluation components, and observe solid waste facilities and collection practices and/or equipment used.

Task 2 – Residential Waste Diversion Opportunities and Recommendations

SCS reviewed data and information from the Township's residential solid waste program. Items evaluated include material quantities, collection frequency, education initiatives, billing rates, and scope of services to develop recommendations that could be implemented to increase diversion and reduce solid waste disposal in the residential sector. Additionally, the Township is interested in identifying potential facilities that could receive their recyclable materials once their current processing and marketing contract expires.

Task 3 – Commercial Waste Diversion Opportunities and Recommendations

SCS reviewed data and information from the Township's commercial/business solid waste program. Items to be evaluated include material quantities, collection frequency, education initiatives, billing rates, number of businesses that participate in diversion programs, and scope of services to develop recommendations that could be implemented to increase diversion and reduce solid waste disposal in the commercial sector.

Task 4 – Final Report

Program information and details obtained as part of Task 1 and the recommendations developed for Tasks 2 and 3 are included in this report.

3 DESCRIPTION OF EXISTING PROGRAM

Caln Township (Township) is located in Chester County about 40 miles west of Philadelphia. The Township is mandated to conduct a curbside recycling program by the Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101). In 2010, the U.S. Census Bureau estimated the population to be about 14,000. About 4,800 households are serviced by the Township’s solid waste program. Residents pay a single fixed rate of \$40 every other month (\$240 annually) for curbside solid waste services. Solid waste charges are billed every other month on their sewer bill. The Township has established four collection areas that are serviced on different days of the week.

Table 1 summarizes the quantities of solid waste, recyclable materials, and yard waste that were collected in Caln Township over the last four years.

Table 1. Residential Solid Waste Tracking Report

Material	2017 Tons	2016 Tons	2015 Tons	2014 Tons
Trash	3,700	3,649	3,656	3,755
Single Stream Recyclables	1,451	1,350	1,338	1,235
Yard Waste	960	899	112	1,608
TOTAL	6,111	5,898	5,096	6,598

Trash

The Township has a contract with a private waste hauler for the collection of solid waste, recyclable materials, and yard waste from residents. Solid waste is collected from residents weekly and is limited to the equivalent of 135 gallons. Residents are allowed to place one bulky item out for collection each week. The Township issued 65-gallon trash carts to all households and residents may place up to two additional 35-gallon containers of trash at the curb for collection.

All commercial properties, institutions, and multi-family residential properties in the Township are required to contract with a private hauler for the collection of municipal waste. The business and hauler negotiate a price and frequency for collection services that will be provided.

Recyclable Materials

Recyclable materials are collected by a private hauler, Eagle Disposal, from all households in the Township. Recyclable materials are collected single-stream on a weekly basis using 65-gallon carts that were issued by the Township in 2010. Materials accepted for recycling include:

<p>Metal:</p> <ul style="list-style-type: none"> - aluminum beverage cans - steel food and beverage cans - aerosol cans - paint cans <p>Glass:</p> <ul style="list-style-type: none"> - clear, brown, blue, and green food and beverage containers <p>Plastic:</p> <ul style="list-style-type: none"> - #1-#7 clean containers 	<p>Paper, Paperboard, and Cardboard:</p> <ul style="list-style-type: none"> - cardboard boxes - food boxes - paper towel/toilet paper rolls - paperboard packaging - office paper - newspaper and inserts - Magazines, catalogs, and brochures - envelopes and junk mail - paper bags - soft cover books - food and drink cartons
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Commercial properties, institutions, and multi-family residential properties that are small may subscribe to the Township’s recyclable material collection program. Properties that elect to participate in the program are issued a 65-gallon recycling cart. The Township charges \$15 per month per container to provide this service. Large businesses and commercial properties not subscribing to the Township’s recycling program contract with private waste haulers to collect recyclable materials.

Yard Waste

The Township has a number of programs to divert yard waste from disposal. These programs include:

- **Curbside Collection** - This includes every other week collection of yard waste by the Township’s contracted waste hauler. Curbside collection of yard waste starts the end of March and continues until the middle of December. Residents must place yard waste in biodegradable paper bags or bundle it with twine. The Township limits each weekly collection to a maximum of five bags of yard waste, six bags of leaves, and three bundles of braches.
- **Fall Chipping Program** – The Township established the fall chipping program to help residents get rid of branches that result from storms or other weather events. Residents contact the Township to schedule an appointment for chipping during the month of September. Residents are limited to one appointment each fall that lasts for up to 15 minutes. The Township provides specific guidelines for how residents are to prepare branches for chipping. If those guidelines are not followed, the Township will not chip the branches.
- **Leaf Collection** – The Township operates a vacuum leaf collection program in November and December. Participating residents rake their leaves curbside for collection by the Township’s leaf vacuum equipment. Collections are scheduled based on the Township’s trash collection schedule and each residence typically receives three leaf vacuum collections each season.

- **Christmas Trees** – The Township collects Christmas trees from residents curbside during the month of January of each year.
- **Drop-Off** – The Township has established a drop-off location at the Township municipal building for residents to bring yard waste for composting.

4 RECOMMENDATIONS

RESIDENTIAL

Measure Waste Generation

In order to understand the impact and extent of modifying the residential trash collection program, there are two ways the Township could proceed.

- **Updated Survey** – The Township can update and redistribute the residential trash collection survey that was completed in 2008. Over the last 10 years, the Township has made some changes to their solid waste program, including issuing wheeled 65-gallon trash carts to all households. The results of an updated survey could help inform future program changes such as decreasing trash limits and implementing a PAYT program (discussed below) that aims to reduce waste generation and increase the amount of materials recovered for recycling. **Appendix B** includes a sample recycling survey that could be sent to residents.
- **Field Measurement** – The Township or the contracted solid waste hauler (if an agreement can be reached) should track the number of trash and recycling containers placed curbside by residences. Data would include recording how many households place collection containers at the curb, including the Township-issued trash cart and additional refuse containers (one or two). The data will provide information on how many households are using additional waste capacity beyond the size of the Township issued cart. The results from various routes can estimate the proportion of households that may be impacted by reduced waste limits. This information will be useful in helping the Township make decisions on what trash reduction limits are appropriate.

Field measurements can also be used to understand the extent to which residents participate in the Township's recycling program, SCS recommends the Township measure the recycling program set-out and participation rates. These rates are defined as follows:

- **Set-Out Rate** – Average number of recycling carts placed curbside at any one time.
- **Participation Rate** – Average number of homes that have placed their recycling bin curbside at least once per month.

Field measurements to obtain this data should be completed over an extended period. The measurements should encompass many different collection routes in all areas of the Township.

Consider Further Limits to Waste Collection

The Township limits the volume of solid waste residents may set out each collection day. The current collection day limit is 135 gallons of solid waste, which includes the Township-issued

65-gallon trash cart and up to two additional 35-gallon containers. Not included in these limits is bulky waste. Residents may place one bulky item, such as furniture or carpet, curbside each collection day. An effective way to encourage greater participation in the Township’s recycling program is to limit the volume of solid waste that is collected.

In order to understand what, if any, residential trash collection limits exist in Chester County municipalities, SCS surveyed and researched trash collection programs from various Townships adjacent to or near Caln Township. **Table 2** summarizes the results of the research and includes information on Caln Township’s residential trash limits.

Table 2. Neighboring Township Trash Collection Limits

Township	Solid Waste Limit/Collection Day (gallons)	Additional Details
Caln	135	Residents may also set out one bulky item for collection
East Brandywine	105	Includes three 35-gallon containers; residents may substitute one 3x3 foot bundle of material for one 35-gallon container
East Caln	96	Refuse is collected two times per week – one 96-gallon container is allowed each day
West Bradford	96	Residents needing to dispose of more waste must purchase stickers to be placed on bags in order for collection
West Brandywine	100	Residents may also set out one bulky item for collection
West Caln	Varies	Individual subscription private haulers

Information presented in **Table 2** indicates that Caln Township allows the largest volume of trash to be picked-up on each collection day when compared to other adjacent Townships. One way the Township could encourage more and greater participation in the recycling program is by reducing the volume of waste that is collected. This could be done using a phased approach, which might look like this:

- **Phase 1** – Limit garbage collection to what can fit into the Township issued trash cart plus ONE additional 35-gallon container. The total volume of trash allowed would be 100 gallons per week and would be in line with what most of the neighboring municipalities allow.
- **Phase 2** – Depending on the success of implementing Phase 1, the Township could consider limiting the volume of waste that can fit into the Township-issued 65-gallon trash cart to further encourage and prompt residents to participate in the Township’s recycling program.

Limiting waste quantities will require the Township to implement extensive public education and outreach initiatives in order to help residents understand the new limits. In order to provide options for residents who require additional capacity for trash, the Township could implement a fee program (discussed below) for residents to join.

Update PAYT Program to Reflect Reduced Trash Limits

One way to increase participation in the Township’s recycling program is to institute a Pay-As-You-Throw (PAYT) program. Hundreds of communities throughout Pennsylvania use PAYT as a way to encourage recycling and reduce the amount of solid waste generated. In PAYT programs, residents pay for waste collection based on how much they generate, which is usually specified in units (carts, bags, and/or by stickers). PAYT essentially transitions a municipal solid waste program to operate similar to other utility programs whereby residents only pay for service that is required. A PAYT program could be part of a plan to reduce the amount of solid waste residents are allowed to place curbside for pick-up each collection day. **Tables 3, 4, and 5** summarize the benefits and challenges of different types of PAYT programs – bags, stickers/tags, and carts.

Table 3. Benefits and Challenges of a PAYT Bag Program

Benefits	Challenges
Compatible with the City’s existing solid waste collection system	Greater revenue uncertainty, with revenue fluctuations based on bag sales
Relatively easy to understand	Additional labor and administrative expense to sell bags
Promotes a stronger incentive to reduce waste generation because fees are based on smaller waste increments	Customers may perceive bags as an inconvenience
Lower accounting and management cost as no billing system is needed	Bags are more expensive than stickers or tags
Typically, lower distribution, storage, and inventory costs than with carts	Can be incompatible with automated and semi-automated collection systems
Bags can be used for bulky waste, white goods, and other items by attaching bags to the item for collection	Bags are more susceptible to damage and tearing
Additional potential revenue possible through allowing advertising on the bags	Bags add to disposal volume
Relatively quick to implement	Bags are subject to overstuffing which causes tears, handling problems, and injury issues for collection staff

Table 4. Benefits and Challenges of a PAYT Tag/ Sticker Program

Benefits	Challenges
Compatible with the City’s existing solid waste collection system	Greater revenue uncertainty, with revenue fluctuations based on tag/sticker sales
Easy to understand and less expensive to implement than bag or container programs	Additional labor and administrative expense to sell and distribute tags/stickers
Promote a stronger reduction incentive as fees are based on smaller waste increments	Customers may perceive tags/stickers as an inconvenience
Lower accounting and management cost as no billing system is needed	Tags/stickers are subject to weather impacts (e.g., adherence problems)
Typically, lower distribution, storage, and inventory cost than bags programs	With a choice of container size, clear limits and rules for disposal (i.e., size, weight) must be established and enforced
Customers can choose to tag/sticker their container of choice (i.e., bag or can), although permanence of stickers on containers would have to be demonstrated	Collections are potentially slowed by checking for tags/stickers and managing enforcement
Tags/stickers can be used to accommodate payment for bulky waste, white goods, etc. by attaching tag/sticker to the item for collection	Tags/stickers are susceptible to vandalism and theft.
Relatively quick to implement	Tags/stickers are not as noticeable as other PAYT methods

Table 5. Benefits and Challenges of PAYT Variable Container Program

Benefits	Challenges
Variable container approach is generally easy to understand.	Higher implementation costs if providing containers/cans, although the City’s current policy is for residents to purchase containers
Program revenues are relatively stable and easier to forecast.	Less incentive to reduce waste disposal

Table 5. Benefits and Challenges of PAYT Variable Container Program

Benefits	Challenges
Containers could be labeled, tagged, or installed with RFID chips for tracking, inventory, billing, and enforcement.	Potential risk for revenue shortfall if assumptions on distribution of container sizes and associated weights are incorrect
Containers often have a more polished/professional look	Billing and tracking systems are relatively more complex to manage
Containers are consistent with the Township’s current solid waste program	Storage space, inventory systems and infrastructure are necessary to manage containers
Residents are familiar with using container programs to dispose of solid waste	Customers may have difficulty selecting an appropriate container size
	Requires a certain degree of field auditing to verify that billing is consistent with the level of service being provided

PAYT Program Type Considerations

The Township could revise the waste collection limit and require residents with additional disposal needs to contract with a private waste hauler for the collection of excess materials. This approach is consistent with the Township’s current program that requires residents to contract with a private waste hauler if more than 135 gallons of solid waste is generated each week. Further limiting solid waste quantities and requiring residents to hire a private hauler to collect additional materials may not meet the service expectations of the community. The following narrative provides some considerations for the Township to evaluate in deciding what approach is appropriate. Based on SCS’s review of the Township’s solid waste program, a bag, sticker/tag, or cart PAYT program could be implemented; however, there are benefits and challenges of each type of program that must be considered.

Carts

Implementing a cart-based PAYT program could be done with some ease since residents have already been issued carts and are familiar with this type of a program. Public education on how the program works could potentially be minimized in comparison to implementing a bag or sticker/tag program. Furthermore, the Township maintains an inventory of both 35- and 65-gallon trash and recycling carts, so a significant barrier and cost to implementing a variable rate cart program has been overcome. A variable cart-based program has two notable drawbacks for the Township, including:

- **Billing** – Variable cart-based programs require a more detailed billing system that tracks the size of carts by household and bills residents according to their cart size. This requires tracking the location of carts by address to confirm correct billing rates.
- **Administration** – When implementing a variable rate cart-based program, residents will need to determine their regular service level for billing purposes. There will often be a transition period where the Township will need to respond to requests to change out cart sizes as residents use variable-sized carts.

Residents currently have the option of using a 35- or 65-gallon trash cart to meet their disposal needs. At this time, residents pay the same solid waste fee regardless of the size of their trash cart. Transitioning to a PAYT program would require the Township to set two different rates: A lower rate for households that use a 35-gallon trash cart and a higher rate for households that use a 65-gallon trash cart. Residents who require more disposal capacity than a 65-gallon cart could have the option to request an additional 35- or 65-gallon trash cart at an additional cost. To maximize recycling, the Township is encouraged to allow unlimited recycling at no charge.

Careful consideration will need to be given to the rate the Township charges for servicing variable-sized carts; it will need to be based on a number of factors. One consideration for the Township to evaluate in setting rates for variable cart PAYT programs is not providing a per unit discount to residents that select 65-gallon trash carts. Thus, if the monthly cost for a 35-gallon trash cart is \$20 (\$0.57/gallon), a 65-gallon cart should at cost a resident at least \$37.14 monthly (\$0.57/gallon x 65). To charge less than \$37.14 essentially provides the resident with a discount for producing a higher volume of trash. The City of Austin, Texas charges residents that require larger trash containers (64- and 96-gallon) a higher per unit charge.

Bags or Stickers/Tags

As **Tables 3** and **4** indicate, there are both benefits and challenges of implementing bag or sticker/tag programs. Unlike a variable-based cart program, a bag or sticker program does not have the significant upfront capital investment required. Bags or stickers can be procured for less cost than carts. These programs also do not require a complicated billing system, because residents only purchase bags or stickers when they have more trash for collection than what will fit in their cart.

West Bradford Township (WBT) has established a PAYT program that requires residents to use stickers. WBT charges residents \$241 annually for refuse services. This includes weekly collection of recyclable materials and trash. Trash is limited to what can fit in the WBT issued 96-gallon cart. If residents have excess waste that does not fit in the cart, they are required to purchase stickers to attach to bags of waste that are set curbside next to the cart. Stickered bags must not be larger than 30 gallons. Stickers are obtained from the WBT administration building at a cost of \$2.50 per sticker.

Although these programs are easy to understand, this new program will be unfamiliar to residents so more time and resources will need to be dedicated to educating the community. The Township would also need to arrange for authorized bags and/or stickers to be sold at local businesses to facilitate their accessibility to residents. Since the Township has already

established a cart-based program, introducing residents to a new program that requires bags or stickers may create confusion and prolong the implementation period.

PAYT programs can be an important tool for local governments to motivate residents to recycle and increase waste diversion and reduce waste disposal. The Institute for Local Self-Reliance (ILSR) recently released research that indicates PAYT programs "...are the single most effective way to educate and motivate residents to reduce, reuse, recycle, and compost¹."

COMMERCIAL

In Caln Township, businesses contract directly with haulers to provide waste, recycling, and yard waste collection services. This creates difficult program logistics as haulers often utilize different collection practices and accept different materials for recycling. The Township's recycling ordinance specifies "core" materials that must be recycled at businesses; however, each hauler may accept different materials for recycling beyond the Township's requirements. This section summarizes some recommendations the Township should consider to increase recycling in the commercial sector.

Clarify Required Recyclable Materials

SCS notes that there is an opportunity to clarify what types of materials are required for recycling in the commercial sector. Information provided on the Township's website and in the Township's solid waste ordinance (#2013-13) is consistent with the requirements of Act 101 for commercial, municipal, and institutional establishments. However, educational materials provided to business owners (such as the December 27, 2017 mailing titled Caln Township Recycling Requirements) identify a much broader list of materials that are required for recycling.

It is recommended that all information provided about the business-recycling program be consistent and mirror the requirements of the Township's solid waste ordinance. In finalizing the required list of recyclable materials, the Township should confirm that their requirements conform to the mandates of Act 101. The Township should also work with haulers and material processors operating in the Township to understand what materials they accept for recycling. This would minimize the concern of mandating the recycling of certain materials for which no markets exist, and haulers or material processors do not accept for recycling. This is of particular concern given current recycling market conditions.

Provide Business Recycling Technical Assistance

Recycling at businesses is often more challenging than in the residential sector. Obstacles such as space constraints and employee turnover can create a difficult environment for implementing and sustaining a recycling program. Business owners can be overwhelmed at the thought of beginning a program. The Township could develop a program that specifically helps businesses plan and implement a recycling program.

¹ Seldman, N., PAYT Paves the Way to Zero Waste, BioCycle, October 2018, Vol 59, No. 9, p. 24.

One powerful and effective, but sometimes time-consuming, way to help businesses recycle is by providing recycling technical assistance. Recycling technical assistance can be tailored to individual business' needs. One business may need help understanding the requirements of the Township's recycling ordinance, another might be identifying locations for recycling containers, and still another may be working with employees to reduce contamination. Such a program can complement the Township's recycling ordinance and build credibility between the Township and business community. The Township is not just establishing guidelines and requirements for recycling; it is providing business owners with the tools needed to successfully meet those requirements. This approach to identifying specific challenges and developing solutions fosters a collaborative approach to recycling.

This technical assistance can take on many forms depending on the level of effort put into it. Business technical assistance programs that have dedicated staff to consistently provide assistance and can follow-up on recommendations are the most effective in increasing recycling. Such a program does take staff resources, but the increase in recycling that can result from this technical support to businesses may increase recycling performance grant funds awarded to the Township and save money due to reduced tipping fees at landfills or waste to energy facilities.

Consider Recycling Award Program

Business owners may be motivated to participate in the Township's recycling program if a recycling recognition or award program is established. Such a program can be relatively simple and low-cost to operate, but have the potential to encourage commercial establishments to commit to recycling. Recognition for sustainability can promote a business and raise its profile in the community. Consumers tend to support businesses that are known to employ measures that reduce their impact on the environment.

The recognition or award program can be monthly or quarterly and be based on established criteria (i.e. contamination levels, proper preparation of materials). The Township could solicit prizes (i.e. coupons, gift cards) from local businesses that would be awarded to the winner of the recycling award. Recipients of the recycling award program can be featured in the Township's newsletter, website, and social media. For example, the Montgomery County, Maryland Department of Environmental Protection administers their Recycling Achievement Recognition and Awards program. The program recognizes volunteers, multi-family, and business recycling achievements on an annual basis. More information about Montgomery County's program can be found at www.montgomerycountymd.gov

Expand Educational Initiatives to Commercial Sector

The Township works with their contracted hauler to develop a trash and recycling newsletter that is distributed to all residential properties in the Township and posted on their website. This publication is visually appealing and is produced annually to provide important information on solid waste and recycling collection programs. The 2018 edition of the flyer contains information on what can and cannot be placed in recycling containers, yard waste preparation guidelines, and tips for donating and reusing materials such as mattresses, clothing, and eyeglasses. The Township's processing and marketing contract with Eagle Disposal requires the

hauler to develop, print, and distribute this flyer. This newsletter is directed toward residents in the Township.

The Township also issues a letter each fall to commercial properties that provides information on recycling. The following information is included in the letter:

- Recycling requirements;
- Materials required for recycling;
- Information on the Township’s small/medium-sized business recycling program;
- Act 101 Recycling Compliance Report.

While all this information is important and necessary to facilitate a successful commercial recycling program, including this information in one mailer has the potential to overwhelm business owners and increases the likelihood that important information will be overlooked. A solution for increasing the effectiveness of this educational material is to provide this information in two-to-three mailings over a year. Doing so has the following benefits:

- Provides additional contact points with the business community;
- Reduces the possibility important information will be overlooked;
- Increases likelihood information will be read;
- Facilitates more opportunities for questions on the program;

A drawback of multiple mailings to business owners is the increased costs that will be incurred. In addition, the potential exists for business owners to become fatigued by multiple mailings. If the Township were to complete multiple educational campaigns for the commercial sector, information could be segmented as follows:

- **Program Operations** – To be completed each spring, the Township to provide information on the requirements for recycling and what materials need to be recycled. Information on how businesses can sign-up for the Township recycling program or contacts of hauling companies can be provided.
- **Program Reporting** – To be completed each fall, the Township to provide specific information on reporting requirements and include the Act 101 Recycling Compliance Report.

All information provided in commercial educational mailings should be posted and made available on the Township’s website. The Township can use these opportunities to encourage dialogue with business owners on questions about the recycling program or to request assistance/support in setting-up or maintaining an effective recycling program (see Business Recycling Technical Assistance section above). **Appendix C** contains sample website text the Township could use to increase the amount of information available on the website.

OVERALL

Focus on Recyclable Material Quality

SCS encourages the Township to place an emphasis on getting residents to recycle “right,” rather than on maximizing the quantity of materials residents place in recycling bins. This is especially important in the current recycling market, as increased contamination of recyclable materials has depressed markets and disrupted recycling programs in Pennsylvania and all over the United States. The Township’s contracted hauler, Eagle Disposal, and the processor that receives recyclable materials collected in the Township, Penn Waste, have been impacted by the market downturn. A letter was issued to the Township by Eagle Disposal requesting a change to the pricing in their recycling processing agreement. The request was for the Township to consider accepting \$2 per ton of materials from \$11.50 per ton, as the current contract requires.

While it is good to have measurable goals for the Township’s recycling program, SCS cautions the Township against establishing arbitrarily high recycling targets that may facilitate “wishful” recycling among residents – that is, residents deliberately placing non-recyclable materials in recycling containers because it is believed that the materials can or should be recycled.

The Township could launch an educational campaign on the residual rate experienced in their recycling program as a way to highlight why it is important to place only acceptable items in recycling bins. Some municipalities, including Arlington County, Virginia, produced a special newsletter highlighting the importance of recycling “right” due to the challenging market conditions that exist for recyclable material. The Township might also consider taking their current curbside recycling-screening program a step further by conducting a study to quantify the types of contamination in recycling containers. Such a study could be designed to focus on the materials collected in specific neighborhoods or areas of the Township to tailor educational programs.

A recycling program that produces quality, marketable materials will be sustainable into the future. The Township should not sacrifice recovering high-quality materials at the expense of recovering more materials.

Utilize Opportunities for Face-to-Face Interaction

The Township should consider increasing opportunities for face-to-face interaction with the public and business community on recycling issues. Similar to reasons why politicians hold rallies and go door-to-door campaigning, face-to-face interaction is effective at prompting people to action.

The Township should identify community events that staff can participate in to share information about recycling. Opportunities to meet with residents and provide information on recycling might include hosting a booth at local special events such as the annual community day, Halloween party, and summer series events. The Downingtown-Thorndale Regional Chamber of Commerce keeps a calendar of events that the Township could participate in to share recycling information (www.dtrcc.com).

Presentations to local groups such as the Rotary Club of Thorndale-Downingtown or the Downingtown-Thorndale Regional Chamber of Commerce can also be effective at encouraging recycling and waste diversion. The Township might consider hosting an annual “Caln Township Recycling Day” where the community is invited to see the Township’s and contractor’s solid waste and recycling collection vehicles and equipment. The event could also include entertainment, kid activities, and food. Prince William County, Virginia holds a similar event each fall at their solid waste complex. County employees lead activities on why recycling is important. Local environmental organizations are invited to have displays on how residents can live more sustainably. Ample entertainment and food is also available as well as drawings for prizes. More information on Prince William County’s recycling day can be found at www.pwcgov.org.

The Township should publicize their availability and interest in providing displays and presentations to groups and at events throughout the community. Planned participation in such events can be advertised on the Township’s social media accounts.

5 CONCLUSION

Caln Township has established a recycling program that serves residents and businesses. The Township enjoys significant participation by the community; however, opportunities exist to expand the program to divert more materials from disposal. Opportunities exist to strengthen both the residential and commercial recycling programs. **Section 4 – Recommendations**, of this report summarizes some opportunities to improve the program. Although all the recommendations made in this report could have a positive impact on recycling in the Township, evaluating opportunities to reduce the amount of trash allowed for pick-up each collection day has the potential to create a direct incentive for residents to recycle more.

Appendix A
Summary of Act 101 Municipal Recycling Requirements

Summary of Act 101 Municipal Recycling Requirements

Overview

Chapter 15, Section 1501 of the Pennsylvania Municipal Waste Planning Recycling and Waste Reduction Act (Act 101), outlines the requirements for large municipalities to recycle. Municipalities, other than counties, with a population of 10,000 or more people or with a population of more than 5,000 but less than 10,000 people, and a population density of more than 300 people per square mile, are mandated to recycle.

Recycling Ordinance

An Act 101 mandated local government must adopt an ordinance that requires recycling. The ordinance shall require the following:

- 1) Recycling at single-family homes and apartments; commercial, municipal, and institutional establishments; and at community activities.
- 2) A scheduled day, at least once per month, when separated recyclable materials are to be placed at the curb or similar location for collection.
- 3) A collection system, including trucks and related equipment, to pick-up separated recyclable materials from the curb or similar location at least once per month from homes and businesses in the municipality. The municipality shall explain how the system will operate, the dates of collection, the responsibilities of persons within the municipality and incentives and penalties.
- 4) Provisions to ensure compliance with the ordinance, including incentives and penalties.
- 5) Provisions for the recycling of collected materials.

Residential Recycling

Residents must separate for recycling at least three materials deemed appropriate by the municipality from municipal waste generated at their homes, apartments, or other residential establishments. Separated materials must be stored at the property until collection. The three materials must be selected from the following:

- Clear glass;
- Colored glass;
- Aluminum;
- Steel and bimetallic cans;
- High-grade office paper;
- Newsprint;
- Corrugated paper;
- Plastics.

Leaf waste must also be separated from municipal waste generated at residential properties and stored for collection, unless residents have already provided for the composting of the materials (i.e. backyard composting).

Owners or landlords of multi-family rental properties with four or more units must establish a recycling collection system at each property. The collection system must include suitable containers for collecting and sorting materials, easily accessible locations for the containers and

written instructions to the occupants concerning the use and availability of the collection system. Owners or landlords that comply with these requirements shall not be liable for noncompliance by occupants of their buildings.

Commercial, Municipal, and Institutional Recycling

Occupants of commercial, municipal, and institutional establishments are required separate and store for recycling of the following materials at a minimum:

- High-grade office paper
- Aluminum;
- Corrugated paper;
- Leaf waste.

Occupants of commercial, municipal, and institutional establishments may be exempt from the requirements of this law if those persons have otherwise provided for the recycling of materials they are required to recycle. To be eligible for an exemption, the commercial, municipal, or institutional generator must provide written documentation to the municipality annually.

Community Activity Recycling

Organizers of community events must provide for the separation, storage, and collection of high-grade office paper, aluminum, corrugated paper, and leaf waste at the events. Community activities required to recycle include events sponsored in whole or in part by a municipality or held within a municipality and sponsored privately. Events include fairs, bazaars, picnics, or sporting events that will be attended by more than 200 or more people each day of the event.

Leaf Waste Diversion

Municipalities mandated to recycle under Act 101 must require residential and commercial establishments to separate and store leave waste for collection. Leaf waste includes leaves, shrubbery, tree trimmings, and similar materials, excluding grass clippings. These materials must be collected at least monthly. In order to comply with Act 101, mandated municipalities must at a minimum:

- 1) Implement an ordinance that requires leaf waste to be separated from municipal waste for recycling at residential and commercial, municipal, and institutional establishments, AND
 - 2) Establish a scheduled day, at least once per month, when leaf waste is collected curbside or similar location, OR
 - 3) Establish a scheduled day, no less than two times per year and preferably in the spring and fall, when leaf waste is collected curbside or similar location from residential and commercial establishments, AND facilitate a drop-off location or other collection alternative approved by the Pennsylvania Department of Environmental Protection that allows persons to drop-off leave waste for composting at least once per month. A leaf waste drop off site can be in a neighboring municipality or at a private establishment provided there is an agreement in place to utilize the site, and residents and occupants of commercial establishments are informed of the drop-off location at least every six months.
-

Municipalities are encouraged to manage source separated Christmas trees as leaf waste for processing at DEP approved composting facilities.

Public Education and Outreach

Municipalities subject to the requirements of Act 101 must implement a comprehensive and sustained public education program. This program is to provide residents and owners/tenants/occupants of commercial, municipal, and institutional establishments with information on recycling program features and requirements. The educational program includes two features:

- **Initial Education** – At least 30-days prior to the start of a recycling program notify all persons occupying residential, commercial, municipal, and institutional establishments of the recycling requirements as contained in the ordinance.
- **Sustained Education** – Every six months the municipality must inform and remind all persons occupying residential, commercial, municipal, and institutional establishments of the recycling requirements.

Numerous forms of educating the public are acceptable and include:

- Newspaper advertisement circulating in the municipality;
- Public notice posted where such notices are customarily posted;
- Notices in other official notifications (i.e. utility bills);
- Website;
- Newsletter;

A combination of forms are acceptable and at least one form must be in print annually.

Implementation

Municipalities may implement their responsibilities for the collection, transportation, processing, and marketing of recyclable materials in one or a combination of the following ways:

- 1) Collect, transport, process, and market recyclable materials themselves;
- 2) Enter into a contract(s) with other entities for the collection, transportation, processing, or marketing of recyclable materials. If contracting for recycling services, the entity being contracted is responsible to the municipality for implementing of recycling activities.
- 3) Contract with a landfill or material recovery facility, in lieu of a curbside recycling program, that guarantees by contract that at least 25 percent of the waste received is recycled. The technology utilized in this program must have prior approval from DEP.
- 4) Utilize a recycling facility that demonstrates that the materials separated, collected, recovered, or created by the facility can be marketed as readily as materials collected through a curbside recycling program. In addition, the mechanical separation technology used by the facility has been demonstrated to be effective for the life of the facility.

Exceptions

The municipality is not required to collect, transport, process, or market recyclable materials or contract for these services if all of the following conditions are met:

- 1) The municipality is not collecting and transporting municipal waste from such establishment or activity.
- 2) The municipality has not contracted for the collection and transportation of municipal waste from such establishment or activity.
- 3) The municipality has adopted an ordinance as required, and the establishment or activity complies with the provisions of the ordinance.

Act 140

Requirements for Section 904 Recycling Performance Grants

Overview

Act 101 was amended in 2006 by Act 140 to establishment requirements for the use of Section 904 Recycling Performance Grants.

Requirements:

Municipalities mandated to recycle under Act 101 and receive more than \$10,000 in funding from recycling performance grants must meet the following requirements:

- 1) Requires, through ordinance, that all residents have waste and recycling service.
- 2) Has an implemented residential recycling program and facilitates a commercial recycling program or participates in a similar county or multi-municipal program.
- 3) Has a residential and business recycling education program.
- 4) Has a program of enforcement that periodically monitors participation, receives complaints and issues warnings for required participants and provides fines, penalties, or both, in its recycling ordinance.
- 5) Has provisions, participates in a county or multi-municipal program or facilitates a private sector program for the recycling of special materials.
- 6) Sponsors a program, facilitates a program or supports an organization to address illegal dumping and/or littering problems.
- 7) Has a person or entity designated as recycling coordinator who is responsible for recycling data collection and reporting recycling program performance in the municipal or municipalities.

If these requirements are not satisfied by the municipality, then the grant funds awarded under this section must be expended by the municipality only to satisfy these requirements. If all these requirements are satisfied, then the grant funds awarded may be used for any expense as selected by the municipality.

Appendix B
Sample Residential Survey

Caln Township Residential Solid Waste/Recycling Survey

Caln Township is evaluating the current residential trash and recycling collection program. The Township seeks to continue providing a high-level of service to residents while encouraging recycling and other waste diversion initiatives.

- 1) How important is recycling to you?
 - a. Very important
 - b. Important
 - c. Not important
 - d. Absolutely not important/no interest

 - 2) How often do you set out recycling for collection?
 - a. Weekly
 - b. Bi-weekly
 - c. Monthly
 - d. Less than 12 times per year
 - e. Never/I don't participate in the curbside recycling program

 - 3) ONLY if you answered "e" in question 2, why do you not recycle?
 - a. No recycling cart
 - b. Not convenient
 - c. Don't understand what I can recycle
 - d. I recycle materials myself or donate recyclable materials to charities
 - e. No interest in recycling
 - f. Not aware recycling program exists in the Township
 - g. Other (please explain)

 - 4) How familiar are you with the requirements of the Township's recycling program?
 - a. Very familiar
 - b. Basic knowledge/not familiar with details
 - c. No knowledge/have no idea

 - 5) How can the Township improve their recycling educational program (check all that apply)?
 - a. More frequent information distribution
 - b. Expand use of social media
 - c. Increase information availability on the Township's website
 - d. No change/frequency and amount of information available is sufficient
 - e. Other (please explain)

 - 6) How often do you have more trash than can fit in the Township provided trash cart (i.e. you need to set out one or two additional containers of trash for collection)? Please do not consider bulk trash in answering this question?
 - a. Weekly
 - b. Bi-Weekly
 - c. Monthly
 - d. Quarterly
 - e. Bi-Annually
 - f. Annually
-

g. Never

7) Please provide any additional information or comments you have on the Township's trash and recycling collection program.

Appendix C
Sample Commercial Recycling Website Text

SAMPLE WEBSITE LANGUAGE

COMMERCIAL RECYCLING IN CALN TOWNSHIP

WHAT

Did you know **ALL** businesses, commercial properties, and institutions in the Township must recycle? This is a requirement of Township Ordinance # 2013-13 that amends Chapter 87 of the Township's Code for "Garbage, Rubbish, and Refuse). Caln Township is mandated by the Pennsylvania Waste Reduction, Recycling and Planning Act of 1988 (Act 101) to have a recycling program for businesses.

HOW

There are two options for arranging for recycling collection services:

- 1) **Arrange with the Township** – Businesses generating small amounts of recyclable materials may subscribe to the Township's recycling program at a cost of \$15/month. This includes weekly collection of a 65-gallon recycling cart provided by the Township. Additional carts may be obtained if necessary. Please contact the Township at [PHONE] for more information. You may also sign-up for the Township's program by completing the online **FORM** [live link to form].
- 2) **Contract with a Private Hauler** – Business owners may arrange with a private hauler for the collection of materials for recycling at the owner's expense. For a listing of haulers servicing the Township, please check the phone directory.

Each business must arrange for the separation and collection of all recyclable materials. The Township can help your business decide what commercial recycling program would best fit your business.

Materials

At a minimum, the following materials **MUST** be recycled by businesses in the Township!

- Paper, including:
 - Newspapers
 - Cardboard/paper bags
 - Junk mail, envelopes, and inserts
 - Magazines/catalogs
 - Office paper
 - Paperback books
 - Telephone books
 - Boxboard/paperboard (i.e. cereal boxes, beer and soda cases)
- Aluminum cans and clean foil
- Steel/bimetal cans (including empty aerosol cans)
- Glass bottles and containers
- Plastic containers labeled #1-#7 (NO expanded polystyrene or Styrofoam®)
- Yard waste – Leaves, grass clippings, garden residues, shrubbery and tree trimmings, and similar materials.

Customer Recycling

Businesses frequented by the public (i.e. restaurants, stores, malls) are reminded that they need to have recycling containers in accessible locations for use by their customers. Recycling bins must be labeled with the types of materials that are accepted for recycling in their business.

Reporting

As part of the requirements for commercial recycling in the Township, business owners must submit an annual compliance report to the Township documenting the amount and types of materials that are recycled each calendar year. This report must be submitted to the Township by January 31 for the preceding calendar year. The reporting form is available on the Township's website at [Form link].

Assistance

Township staff are available to help you set-up your business recycling program and review how it could be improved upon. If you would like to request assistance and support on your business recycling program please call (610) 384-4043.
