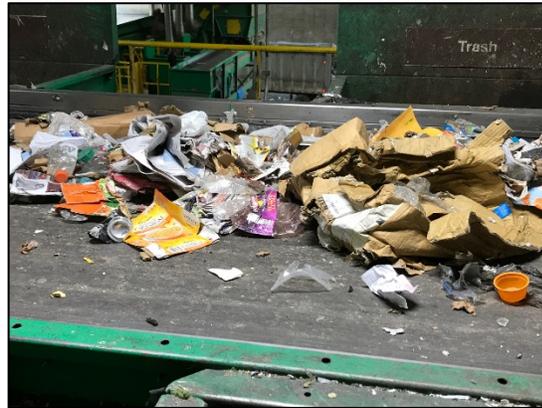


Recycling Market and Processors Review

Montgomery County Recycling Consortium
Cheltenham Township
8230 Old York Road
Elkins Park, PA 19027



SCS ENGINEERS

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1 PROJECT DESCRIPTION

Cheltenham Township is part of the Montgomery County Recycling Consortium (Consortium). Consortium members include the following townships: Abington, Cheltenham, Plymouth, Springfield, Upper Dublin, and Upper Moreland. Additionally, Hatboro Borough is also a member of the Consortium. All Consortium members operate a single stream recycling program with the exception of Abington Township, which operates a dual stream program. The Consortium owns a transfer station in Upper Dublin Township where most recyclable materials collected by Consortium members are consolidated prior to being transported to a processing facility in Birdsboro. The only recyclable materials that are not delivered to the transfer station are the paper/fiber materials collected in Abington Township’s dual-stream program. Paper from the Abington program is consolidated at their public works facility and transported to Newman Paperboard, Inc. in Philadelphia. Recycling Consortium members collect approximately 15,000 tons of recyclable materials annually.

The costs of managing recyclable materials increased significantly upon executing the Recycling Consortium’s six-month contract extension with their current service provider, J.P.Mascaro, in the fall of 2020. The Consortium now pays J.P. Mascaro \$135 per ton, which includes operation of the Consortium transfer station, transportation of materials, and processing at the facility in Birdsboro. In addition, the cost to dispose of residue from recyclable materials increased from \$80 to \$84 per ton. Rising processing and transportation costs, together with contamination issues and the depressed recycling market, required a closer examination of the way the Consortium members operate their recycling program.

This study focused on identifying and exploring recycling markets in Southeast Pennsylvania. Several recycling facilities were contacted to gauge their interest in the Consortium’s materials and to understand what requirements existed for each facility to accept materials.



2 SUMMARY OF WORK

The following summarizes the tasks completed for this project.

Task 1 –Site Visit

This task included a site visit and tour of the Total Recycle, Inc. facility in Birdsboro, which is the facility where Recycling Consortium collected materials are currently processed. The purpose of the site visit is to collect information on current material requirements and contamination issues the facility experiences with the consortium's materials.

Task 2 – Identify Potential Recycling Markets

For this task, the project team researched and identified potential recycling markets that may be interested in accepting Consortium materials either for processing or to broker into the market. As part of this task, the team prepared a questionnaire for the processors/markets identified in order to understand key requirements of a potential agreement with the Consortium. This included information on available capacity, transportation arrangements, material mix, in-bound stream requirements, contamination limits and penalties for exceedances.

Task 3 – Contact Potential Markets/Processors

The project team contacted processors/markets identified as part of Task 2 and interviewed representatives from each company using the developed questionnaire as a guide. The goals of this task were to identify what regional markets may be interested in working with the Consortium and document the requirements by each company for how the municipal recycling programs should be operated/managed in order to facilitate a potential agreement.

Task 4 – Final Report

The research, information, and other details identified as part of Tasks 1-3 are included in this report.

3 CURRENT PROGRAM

All members of the Montgomery County Recycling Consortium are Act 101 mandated recycling communities. **Appendix A** summarizes the municipal recycling requirements of Act 101. In compliance with Act 101, each community enacted a mandatory recycling ordinance that requires all residents and commercial, institutional, and municipal establishments to recycle. All Consortium members operate a weekly curbside recycling program. Most communities collect materials via an automated or manual single stream collection program. Only one community, Abington Township, operates a dual stream program whereby paper materials are collected separately from bottles and cans. **Table 1** summarizes each Consortium member's recycling program.

Table 1. Summary of Consortium Member Recycling Programs

Table 2. Consortium Member	Households Served	Program Type	Automated or Manual	Containers	Collection Frequency	Routes Operated per Day	Collection Days per Week	Total Routes	2019 Recycling Quantities (tons)
Abington ¹	18,200	Dual Stream	Automated	35 or 65 gallon carts	Weekly	6 (3 paper, 3 commingled)	5	30	2,910
Cheltenham	9,467	Single Stream	Automated	35, 65, or 95 gallon carts	Weekly	3	4	12	3,008
Hatboro	2,200	Single Stream	Manual	32 gallon containers	Weekly	1	4	4	660
Springfield	6,900	Single Stream	Manual	32 gallon containers	Weekly	1	5	5	2,222
Upper Dublin ²	8,500	Single Stream	Automated	64 gallon carts	Weekly	2	5	9	2,803
Plymouth	4,900	Single Stream	Manual	32 gallon containers	Weekly	2	4	8	1,265
Upper Moreland	7,200	Single Stream	Automated	96-gallon carts	Weekly	2	4	8	2,029
Totals	57,367							76	14,897

¹ Abington's recycling tonnage is lower because paper materials are diverted to another processor and that quantity is not included.

² Upper Dublin operates a cardboard only collection route one day per week in addition to two recycling routes four days per week.

4 MARKETS

SCS reviewed the list of Materials Processing Facilities (MRFs) published by The Pennsylvania Department of Environmental Protection. SCS staff contacted facilities located near the recycling transfer station to survey them on capacity issues, contamination levels, and general interest in working with the Consortium to accept recyclable materials. The following tables and figure are included in this section of the report:

- **Table 2. Potential Market Locations and Contacts** – Summary of the contact information and locations of identified markets.
- **Table 3. Potential Market Opportunities** - Overview of the facilities surveyed for this study. Includes details on capacity, accepted materials, contamination thresholds, general interest in Consortium materials, and other pertinent information shared during the interview.

Table 2. Potential Market Locations and Contact

Facility	Owner/Operator	Address	Distance to Recycling Transfer Station (Miles) (1030 Fitzwatertown Road, Abington)	Contact
Newman Paperboard, Inc.	Newman and Company	6101 Tacony Street, Philadelphia, PA 19135	11	David Newman CEO (215) 333-8700 david.newman@newmanpaperboard.com
Revolution Recovery - Philadelphia	Revolution Recovery	7333 Milnor St. Philadelphia, PA 19136	11	Jamie Wybar Manager (215) 333-6505 jamie@revolutionrecovery.com
King of Prussia Recycling Center	Republic Services, Inc.	220 Saulin Blvd King of Prussia, PA 19406	15	Dominic Fulginiti Area Municipal Sales Manager (610) 205-5401 dfulginti@republicservices.com
Philadelphia Materials Recycling Facility	Waste Management, Inc.	3605 Grays Ferry Ave. Philadelphia, PA 19416	18	Bill Lehman (267) 908-9742 blehman@wm.com
Total Recycle	J.P. Mascaro and Sons	1270 Lincoln Road Birdsboro, PA 19508	48	Terrence (T.J.) Stinson Sales Executive (267) 446-1998 terrance.stinson@jpmascaro.com
Cogle's Recycling	Cogle's Recycling, Inc.	1000 S Fourth St, Hamburg, PA 19526	70	Matthew Cogle Chief Operating Officer (610) 562-8336 m.cogle@couglesrecycling.com

Table 3. Potential Market Opportunities

Facility	Capacity (tons per year)	Available Capacity?	Materials	Contamination Limits	Penalties	Notes; pricing
Newman Paperboard, Inc.	>167,000	Yes	Paper: Cardboard, office paper, junk mail, newspaper, magazines/catalogs, junk mail, paperboard, cartons, books, coffee cups, shredded paper	No formal limits; work with customers individually with issues	N/A	Accepts all paper and fiber from Abington Township; Significant interest in working with all Consortium members; Establish multi-year contracts that include rebates for materials
Revolution Recovery - Philadelphia	~170,000	No	Cardboard; metal; plastic; wood	Unknown	Unknown	Currently do not accept household recyclable materials although it is a possible area of expansion
King of Prussia Recycling Center	100,000	Yes	Paper: Cardboard, office paper, junk mail, newspaper, magazines/catalogs, junk mail, paperboard, cartons, books, coffee cups, shredded paper Metal: Food and beverage containers, foil, trays/plates, kitchen cookware; Glass: Bottles and jars; all colors Plastics: #1 - #7 rigid containers, clean film (R-flex program)	10%	Varies by contamination level	Requires single stream materials

Facility	Capacity (tons per year)	Available Capacity?	Materials	Contamination Limits	Penalties	Notes; pricing
Philadelphia Materials Recycling Facility	168,000	Yes	Paper: Cardboard, office paper, junk mail, newspaper, magazines/catalogs, junk mail, paperboard, cartons, books, coffee cups, shredded paper Metal: Food and beverage containers, foil, trays/plates, kitchen cookware; Glass: Bottles and jars; all colors Plastics: #1 - #7 rigid containers	10 - 15%	Varies by contamination level	Single stream processing, but would consider special pricing for dual stream material that may need less processing
Total Recycle	240,000	Yes	Paper: Cardboard, office paper, junk mail, newspaper, magazines/catalogs, junk mail, paperboard, cartons, books, coffee cups, shredded paper Metal: Food and beverage containers, foil, trays/plates, kitchen cookware; Glass: Bottles and jars; all colors Plastics: #1 - #7 rigid containers, clean film (R-flex program)	10% additional screening; 20% oftentimes load rejection	Penalty/fee based on the size of the contract and required clean-up expenses (i.e. hazardous waste)	Material pricing based on level of processing required; potential preferential pricing if material is delivered dual stream
Cogle's Recycling	Unknown	No	Paper: Cardboard, office paper, junk mail, newspaper, magazines/catalogs, junk mail, paperboard, cartons, books, coffee cups, shredded paper Metal: Food and beverage containers, foil, trays/plates, kitchen cookware; Glass: Bottles and jars; all colors Plastics: #1 - #7 rigid containers	N/A	N/A	Interested in Consortium's recyclable materials; however, cannot accommodate materials (or bid on the RFP) until facility expansion is complete (2021)

5 FINDINGS

Based on the information provided by the facilities and processors listed in Section 4, SCS offers the following guidance regarding recycling markets.

MARKETS

- **Three Immediate Markets Identified** – Research SCS completed as part of this study revealed that at least three entities have interest in procuring the recyclable materials collected by the Consortium, including the following facilities:
 - Total Recycle in Birdsboro – Owned and operated J.P. Mascaro and Sons
 - King of Prussia Recycling Center – Owned and operated by Republic Services
 - Philadelphia Materials Recovery Facility – Owned and operated by Waste Management, Inc.

Each of these three facilities accept the mix of recyclable materials that are included in the Consortium's recycling program. Additionally, each facility has the capacity to process the estimated 15,000 tons of materials collected annually by Consortium members.

- **Capacity Limited at Some Facilities** – SCS's research revealed that some recycling processing facilities are operating at capacity and are currently unable to accommodate (and bid) the materials collected by the Consortium. In these cases facility representatives indicated they are expanding (Cougles Recycling) or diversifying their scope of services (Revolution Recovery) in the future. However, until facility expansions occur those facilities will likely not be in a position to work with the Consortium.
- **Location** – Recent recycling studies completed by SCS Engineers for municipal clients in the Mid-Atlantic area reveal that transportation costs to processors greater than 40 miles can be up to two or three times higher than actual material processing costs. This suggests that the Consortium would benefit from using local markets. Both the King of Prussia Recycling Center and the Philadelphia Material Recovery Facility are located within 20 miles of the Recycling Transfer Station in Abington. As discussed earlier, interviews with staff at these facilities indicate there is interest in working with the Consortium to process materials. These two markets are about 30 miles closer (60 miles round-trip) to the recycling transfer station than the Consortium's existing material processor.
- **Contamination** – Interviews with material processors provided some general guidance on material contamination thresholds. Generally, penalties for recycling contamination begin when visual inspection of a load is estimated to contain more than 10 percent non-program materials. Rejection of a load of recyclable materials may occur when contamination levels exceed 20 percent by visual observation (J.P. Mascaro). Actual penalties for recycling contamination vary from one processor to another and are based on observed contamination levels and processor expenses in cleaning up contaminants (i.e. hazardous materials and chemicals). Regardless of the processor the Consortium contracts with for managing their material, emphasis should be placed on reducing contamination levels. The anticipated material audit scheduled for early spring 2021 should provide the Consortium with an update on their current contamination levels. The Consortium should strive to get

contamination levels below 15 percent at a minimum, with additional steps to get contamination levels below 10 percent. This would put the Consortium on a path to receive premium pricing for their materials.

MATERIAL MIX

- **Keep Material Mix Simple** – SCS understands the need to balance maximizing material recovery and reducing recycling contamination. Recent volatility in the recycling market coupled with high contamination rates has resulted in higher recycling processing costs across the U.S. While local governments can do little to impact existing market conditions, efforts to reduce contamination impacts the marketability of the materials. This requires careful consideration to the types of materials that are accepted for recycling. One strategy adopted by many U.S. municipalities is to focus on material types with long-term established markets (cardboard, aluminum cans, PET/HDPE plastic bottles, etc.) and limit less abundant material types with more volatile markets (such as mixed plastics and cartons). A targeted short list of accepted recyclable materials has the following benefits:
 - Simplifies messaging;
 - Facilitates harmonization (see below);
 - Reduces resident confusion;
 - Can lead to reduced contamination.

Giving preference to a targeted short list of materials simplifies the recycling program and results in a more straightforward and clear program that residents can understand.

- **Consider Separation of Paper** – Transitioning to a dual stream recycling program that includes the separate collection of paper may seem like taking a step backward. However, conversations from processing facilities and the experience from Abington’s dual stream program have shown that markets exist for clean streams of paper. An interview with David Newman, CEO of Newman Paperboard in Philadelphia (Newman), indicated that his company, located only 11 miles from the Recycling Transfer Station, is interested in working with all Consortium members to buy paper collected through their programs. There is an interest and desire to establish long term contracts that include floor and ceiling pricing that may result in more resilient recycling programs for Consortium members. In late 2020, Abington Township estimated Newman was paying the Township \$46 per ton of paper delivered. There are additional collection and transportation costs associated with a dual stream recycling program as well as the requirement to provide residents with a second bin or cart. Each community should consider the benefits and challenges of collecting paper separately. Considerations and cost estimates for dual stream recycling collection are provided in the report titled, “*Dual Stream Recycling Program Considerations and Costs*,” facilitated by Springfield Township.
- **Evaluate Glass Collection Options and Pricing** – Glass containers pose challenges for recycling programs, particularly single-stream collection programs. When glass containers are mixed with other materials the containers break and make it difficult to recover the glass at a MRF. Additionally, glass shards mixed with other materials (i.e. paper) further contaminate these materials.

Although clean streams of clear and brown glass have value, it is not possible to economically separate clear and brown glass collected in a single stream program as the material is typically broken. The three-mix glass material (clear, brown, green) from single stream programs has a negative market value of \$27.50 per ton. On top of the negative market value, the Consortium pays \$135 per ton to tip the glass at the current recycling processing facility. Compounding the impact of recovering glass is that it is used as alternative daily cover as a nearby landfill and therefore does not count for DEP Section 904 Recycling Performance Grant money.

There is an increasing trend in the Mid-Atlantic and Northeast region to remove glass from curbside single-stream recycling programs in favor of alternative collection methods. The Pennsylvania Resources Council has established permanent glass collection sites in the Pittsburgh area to recover large quantities of high-quality glass. Additionally, in the Washington, DC metropolitan area, several local governments (Arlington, Fairfax, and Prince William Counties, City of Alexandria) partnered to establish a network of collection bins across the region for the sole purpose of collecting glass. Material collected through the program results in reduced MRF tipping fees and in some cases even generates revenue. Given the challenges to glass recycling, the following approach is recommended to identify the best glass management option:

- 1) **Get Pricing from MRFs** – The Consortium should use their anticipated material processing bid to obtain information from prospective processors on how glass impacts processing fees. The Consortium should request that bidders provide pricing for recyclable material streams that include and do not include glass. This will help the Consortium better understand the true cost of including glass in the curbside recycling program.
 - 2) **Gauge Interest of Alternative Processors** – Contact glass buyers and processors, such as CAP Glass (Allentown) or Owings-Illinois (Brockport) to gauge their interest in obtaining glass from Recycling Consortium communities. Explore how glass needs to be collected and managed in order for a glass company to be interested in the material.
 - 3) **Compare Requirements and Economics** – Compare the requirements and pricing provided from MRFs (both facilities that accept single stream material with or without glass) and glass-only processors keeping in mind the additional program set-up costs that would be needed if a separate collection system were to be implemented.
- **Focus on High-Value Materials** – When considering what materials to prioritize for recycling, the Consortium should consider materials that have the highest value in the market. Data obtained from RecyclingMarkets.net for February 2021 indicate that aluminum and steel cans (0.56 per lb. and \$72.50 per ton, respectively), natural HDPE (0.75 per lb.), corrugated cardboard (\$77.50 per ton), and mixed paper (\$32.50 per ton) have the highest market values for the Mid-Atlantic and Northeast areas¹.

¹ RecyclingMarkets.net, accessed February 12, 2021

- **Consult Contracted Processor** – In working to simplify the types of materials accepted as part of the recycling program, it is important that the Consortium work closely with the entity that will process the material to make the selection.
- **Harmonize Accepted Material List Among All Consortium Members** – The seven (7) municipalities that comprise the Recycling Consortium are located adjacent to one another. In many cases, an individual may live in one jurisdiction, work in another, and even shop or be entertained in another. The varying recycling messages and requirements across each jurisdiction, although only slightly different, can have a significant impact on resident participation and recycling. With the anticipation of a new recycling processing contract, each Consortium member should agree to a consistent list of materials to target for recycling and coordinate the presentation of the message. This consistency will help coordinate recycling among each jurisdiction and reduce potential for confusion among residents.
- **Avoid Industry Verbiage** - Careful attention must be given to wording used to promote the list of acceptable recyclable materials. For example, indicating that plastic bottles and containers are recyclable and then stating that single use plastics are not recyclable will create confusion. Similarly, although the term “mixed paper” is commonly used in the industry to describe recyclable paper, that term can be confusing to residents. The Consortium should simply state “newspaper, office paper, and junk mail” when referring to mixed paper.
- **Audit Material Mix Annually** – The constant evolution of product packaging and varying market conditions impact the types of materials to include in the recycling program. The Consortium should regularly communicate with the processor to assess materials that should be added or removed from the recycling program. The Consortium’s processing contract should provide for periodic audits of the types and quantities of materials received to assess processing costs and potential rebates.

PROCUREMENT

- **Require Pricing for Bundled and Unbundled Services** – The previous procurement required potential vendors to submit one price for transfer station operations, material hauling, and material processing and marketing. As a result the actual price for material processing is not known. As discussed in the technical assistance study titled “*Procurement Considerations for Transfer Station Operations, Material Hauling, and Material Processing and Marketing*” facilitated by Upper Moreland Township, the Recycling Consortium should request separate pricing for each service required to fully compare quotes. SCS believes separating each service need will increase competition and allow for a more complete comparison of costs by service.
- **Maintain Flexibility in Contract Award** – As a Consortium, reserve the right to award one or multiple contracts to service providers that provide the best value to the Consortium. This approach will open opportunities to companies that specialize in select service areas by giving them the opportunity to bid on the service(s) they provide.
- **Request Pricing for Multiple Material Streams** – In order to quantify the financial benefits of alternative collection programs, the Consortium should request that potential vendors supply material processing pricing for delivery of both single stream and dual stream material. To quantify potential pricing benefits of dual stream collection (see study titled “*Dual Stream*”

Recycling Program Considerations and Costs” facilitated by Springfield Township), the Consortium will be in a better position to know if the costs of making the transition to dual stream can be offset by more favorable processing pricing.

- **Request Pricing for Alternative Material Mix** – The Consortium should give potential bidders the opportunity to provide alternative pricing for processing a material mix that may reduce costs to the Recycling Consortium. For example, in some cases, the removal of glass from the list of acceptable materials has allowed improved pricing that results from cleaner materials being sold into the marketplace. In giving potential vendors the opportunity to submit creative approaches to reducing processing costs, the Recycling Consortium should verify that alternative pricing proposals conform to the municipal recycling section of the Pennsylvania Waste Planning, Recycling and Waste Reduction Act of 1988 (**Act 101**). Act 101 requires that at least three of the designated materials be recycled. The specific municipal recycling requirements for Act 101 are provided in **Appendix A**.
- **Compare Pricing Against MRF Development** – The pricing the Consortium receives as part of the next request for proposal (RFP) process should be evaluated in conjunction with the estimated costs of developing and operating a materials recovery facility (MRF). Permitting and developing a MRF will take considerable time and effort. This will require the Consortium to contract for processing services for the immediate future; however, the long-term benefits of MRF ownership and operation, such as more control over the recycling process, may make that option more feasible in the long-term.
- **Directly Send Procurement Documents to Identified Facilities** – As discussed earlier in this section, at least three processing facilities expressed an interest in receiving the recyclable materials collected by the Consortium. Additional facilities expressed an interest in the Consortium’s materials; however, due to capacity limitations they would be unable to bid on the materials at this time. It is recommended that the Consortium send the procurement documents directly to all the contacts listed in **Table 1** to obtain multiple bids and reinforce the Consortium’s interest in executing a mutually beneficial contract. Even if a particular entity is unable to bid at this time, a connection is established that may lead to additional opportunities in the future.

6 CONCLUSION

Staff from at least three facilities expressed interest in working with the Consortium to process recyclable materials. Additional facilities expressed an interest in the materials; however, because of service limitations or facility capacity they are not in a position to bid on the Consortium’s anticipated RFP at this time. Research from this study indicates that material processors are open to alternative pricing arrangements. This strategy may increase the market value of materials, although some increased value may be offset by increased collection costs for each municipality. The Consortium should request that vendors provide alternative pricing scenarios for multiple material types.

SCS also strongly suggests that the Consortium regularly measure and track contamination in their recycling stream. Reducing contamination is one of the most effective ways to reduce processing costs and command higher prices for materials. Education is central to reducing contamination, which can have a broader impact if the Consortium members have consistent recycling programs (same material types collected by each member jurisdiction). Additionally, limiting the material types

to those that have long-term established markets will both simplify public education and improve marketability of the accepted materials.

Appendix A
Municipal Recycling Requirements of Act 101

Summary of Act 101 Mandatory 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 is in compliance 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.