

November 20, 2007



Ms. Lynn Moss
Planner
Venango County Regional Planning Commission
168 Liberty St,
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Subject: Feasibility of Curbside Recycling for Venango County Boroughs

Dear Lynn:

This report summarizes R. W. Beck's study of the feasibility of establishing curbside recycling collection for 10 Boroughs in Venango County that have indicated an interest in offering this service to their residents. This effort was undertaken as part of the Recycling Technical Assistance program sponsored by the Pennsylvania Department of Environmental Protection (DEP) and the Solid Waste Association of North America (SWANA).

The report is divided into the following sections, which correspond with the Tasks provided in the scope. These sections are:

- Executive Summary
- Background on current recycling system in Venango County
- Strategies to implement curbside recycling
- Solid waste/recycling ordinance updates
- Conclusion

Executive Summary

Venango County is located in northwestern Pennsylvania, and is part of the Tri-County Solid Waste District. The County is comprised of 31 municipalities. In most municipalities, solid waste collection is provided by private subscription services, with many of the haulers not providing curbside recycling collection. Oil City and the City of Franklin, which have contracts for curbside refuse and recycling collection with a private firm, are mandated recycling communities per Act 101. Additionally, the municipalities of Clintonville Borough, Pleasantville Borough and Sugarcreek Borough contract for solid waste collection services with Tri-County Industries.

The Tri-County Municipal Solid Waste Management Plan update for Venango County (August 22, 2005) estimates that the per-capita waste generation rate in Venango County is 4.27 lbs. per person per day (waste disposed is 3.84 lbs/capita/day). The goal of the Plan is to increase waste diversion to 35 percent by 2010. In 2003, the recycling rate was calculated to be 14 percent.

Venango County operates a drop-off recycling collection system consisting of nine (9) drop-off centers across the central and northern parts of the County that are serviced by Tri-County Disposal.

In 2005 a study was done that analyzed the County's drop-off centers and recommended improvements, several of which were implemented in 2006, including:

- Establishing two additional drop-off centers (bringing the total to nine);
- Adding magazines to the recyclable items at one drop-off location; and
- Developing an Enviroscape Landfill Model to supplement educational activities.

Venango County reported in its Act 101 Performance Grant documentation that a total of 83.9 tons of material was recycled through these drop-offs in 2005. This was slightly less than the amount reported for 2003, 88.34 tons. Due to the potential decline in recycling rates where drop-off centers are the only option for residential recycling, Venango County decided to investigate the possibility of curbside recycling for 10 of its municipalities.

An analysis of the County's existing recycling system was done, including documenting the curbside arrangements in Oil City and the City of Franklin. Additionally, amounts of common recyclable materials potentially available from the 10 municipalities interested in curbside recycling were estimated.

Four broad options for implementing curbside recycling within these 10 municipalities and/or county-wide, were identified and described:

- Conduct a competitive procurement and implement a contract for curbside recycling services within these municipal boundaries;
- Enter into franchise arrangements with several haulers, thus allowing multiple private haulers to provide service in specific service areas within each municipality;
- Implement a county-wide ordinance stipulating that haulers who collect trash in the County must also collect recyclables. Variations of this include:
 - Language stipulating that haulers must offer residents a variable rate pricing structure; and/or;
 - Language stipulating that haulers must combine the price for a base rate of trash collection and recyclables collection. This would encourage residents to participate in the recycling program, since they are paying for the service anyway.
- Encourage interested municipalities to implement their own recycling ordinances, which could either:
 - Require private haulers to provide curbside recycling services to residential customers they provide garbage collection to, within the boundaries of these municipalities;

- Require residents to separate recyclables from non-recyclable materials, and haulers to collect them separately (e.g. make recycling mandatory);
- Require haulers to offer variable rate pricing to their customers, to encourage recycling;
- Require haulers to provide curbside recyclables collection and garbage collection for one price, to encourage participation in the recycling program.

The benefits and drawbacks of each type of system were identified. The capabilities of each private hauler currently known to provide recycling services were summarized. Additionally, the cost for recycling bins for residents in these municipalities was calculated, and funding options were presented, including the possibility of DEP Section 902 grant funds. The County's solid waste ordinance was reviewed and two other ordinances with potential applicability to the County's situation were identified and are provided as Appendices to this report.

The recommendation of the report was to conduct further investigation of the three options presented along with all stakeholders, including the municipalities, the haulers, and the PA DEP.

Background

Venango County is located in northwestern Pennsylvania, and is part of the Tri-County Solid Waste District, which also includes Clarion and Forest Counties. According to the Tri-County Solid Waste Management Plan, Venango County has a population of approximately 57,000 that is declining by 3 percent annually. The County is comprised of 31 municipalities, with two mandated by Act 101 to provide curbside recycling services. These mandated municipalities are Oil City and the City of Franklin, each of which has contracted for curbside refuse and recycling collection with a private firm. The municipalities of Clintonville Borough, Pleasantville Borough and Sugarcreek Borough contract for solid waste collection services with Tri-County Industries. The remainder of the County is served by private subscription collection service, with many of the haulers not providing curbside recycling collection service.

The Tri-County Municipal Solid Waste Management Plan update for Venango County (August 22, 2005) estimates that the per-capita waste generation rate in Venango County is 4.27 lbs per person per day (waste disposed is 3.84 lbs/capita/day). The goal of the Plan is to increase waste diversion to 35 percent by 2010. In 2003, the recycling rate was calculated at 14 percent.

Drop-Off Recycling System

To serve the needs of its citizens and increase waste diversion the County has established a drop-off recycling collection system consisting of nine (9) drop-off centers across the central and northern parts of the County. Currently, no drop-off centers are located in the southern part of the County. The current locations each have front-load containers that are owned and serviced by Tri-County Industries, Inc. The Venango County drop-off system serves an area of 677 square miles.

The drop-off centers are located in the following municipalities:

- Two Mile Run County Park (Oakland Township);
- Sugarcreek Borough;
- Sandy Creek Township;
- Polk Borough;
- French Creek Township;
- Cherry Tree Township;
- Pleasantville Borough;
- Cornplanter Township; and
- Cranberry Township.

The materials collected at each drop-off center include:

- Aluminum cans;
- Steel/bi-metal cans;
- #1 PET plastic bottles;
- #2 HDPE plastic bottles;
- Three colors of glass bottles and jars; and
- Magazines.

Old newspapers are also accepted at the Sandy Creek drop-off center only, which has a building to store materials.

In September 2005 R. W. Beck completed a study analyzing the County's drop-off centers and recommending improvements. Based on this study, several improvements were implemented in 2006, including:

- Establishing two additional drop-off centers in Cornplanter Township and Cranberry Township (bringing the total to nine);
- Adding magazines to the recyclable items at the Sandy Creek drop-off location; and
- Developing an Enviroscape Landfill Model to supplement educational activities.

The recycling rate in the portion of Venango County being serviced by drop-offs alone has remained stagnant for at least two years. Venango County reported in its Act 101 Performance Grant documentation that a total of 83.9 tons of material was recycled through these drop-offs in 2005. This was slightly less than the amount reported for 2003, 88.34 tons. Due to the potential decline in recycling rates where drop-off centers are the only option for residential recycling,

Venango County wants to investigate the possibility of curbside recycling for 10 of its municipalities.

Curbside Recycling Feasibility

The following municipalities in Venango County listed in Table 1 have expressed interest in curbside recycling, and are the basis of this feasibility report:

Table 1
 Potential Curbside Recycling Communities

Borough or Township	Population	No. of Households	Has a Drop-Off Center?	Solid Waste Collection System
Barkeyville	237	106	No	Open
Clintonville	528	242	No	Tri-County
Cooperstown	460	198	No	Open
Emlenton	774	360	No	Open
Pleasantville	850	369	Yes	Tri-County
Polk	1,031	209	Yes	Open
Rouseville	472	240	No	Open
Sugarcreek	5,331	2,245	Yes	Tri-County
Utica	211	122	No	Open
Cornplanter Township	2,687	1,179	Yes	Open
Total	12,581	5,270		

Additionally, the City of Franklin and Oil City are mandated recycling communities per PA Act 101. Both provide curbside recycling to their residents. The solid waste collection and recycling systems for these cities are summarized in Table 2.

Table 2
 Curbside Recycling in Oil City and the City of Franklin

	Oil City	Franklin
Solid Waste Hauler	▪ Veolia	▪ Tri-County
Recycling Hauler	▪ Veolia	▪ Tri-County
Recyclables Collected	▪ GL, ONP, AL, ST, PL	▪ GL, ONP, AL, ST, PL (#1, #5 bottles)
Collection Frequency	▪ Weekly	▪ Weekly
Processing Location	▪ Mortenson's Recycling, Warren Co.	▪ Tri-County
Recycling Bin	▪ 30-gallon, provided by City	▪ Rolling carts, some automated and some semi-automated collection
Revenue Earned Share From Recyclables	▪ No	▪ No
Contract Term	▪ N/A	▪ Through October 31, 2008
Costs	▪ \$3.80 per month charged to residents for curbside recycling and leaf pick-up, in addition to solid waste service at \$8.70 per month	▪ \$16 per month for combined garbage and recycling services. ▪ \$12.00 per HH is for trash collection, ▪ \$3.50 per household is for recycling, and ▪ \$.50 is the City's administration charge.

Tonnage and Volume Estimates

Table 3 provides estimates of the amounts of recyclable materials that could be expected to be collected by a curbside recycling program. Capture rates, participation rates and recovery tonnages are R. W. Beck's best estimate based on other programs across Pennsylvania and the U.S., and Venango County's results may vary from these estimates. The tonnage estimate is based on the collection of newspapers, magazines, mixed paper, glass bottles (clear, green, and brown), aluminum cans, steel cans, and PET (#1) and HDPE (#2) plastic bottles. Both weekly and bi-weekly totals are presented to accommodate either collection schedule. Weekly curbside recycling is the most convenient for residents and has been shown to result in the highest program participation, although at a higher cost than bi-weekly collection. Bi-weekly collection,

although less expensive, can sometimes require larger, more expensive recycling bins to enable residents to store all of their recyclables.

Table 3
 Material Tonnages and Volumes*

Material	Bi-Weekly Tons	Bi-Weekly Cubic Yards	Weekly Tons	Weekly Cubic Yards
Newspaper (ONP)	3.8	15	5.2	20.1
Magazines (OMG)	2.7	12.4	3.7	12
Mixed Paper (MP)	3.4	23	3.8	26
Plastic Bottles (PET & HDPE)	2.8	112	3.1	125
Glass Bottles (all colors)	3.0	7.5	3.4	8.6
Steel Food Cans	2.6	35	2.9	38.2
Aluminum Beverage Cans	1.1	34	1.2	38.2
TOTALS	19.4	239	23.3	268

Comparison of Curbside Recycling Program Options

Venango County has four basic options for establishing curbside recycling collection in the 10 municipalities that have expressed interest:

1. **Contracted Curbside Collection** – This would entail procuring recycling collection services from a single private hauler under a contract to the County, through a competitive Request for Proposals (RFP) process.
2. **Franchised Collection Areas** – Under a system with multiple franchised collection areas, multiple waste haulers are each granted a territory or service area and would be required to provide solid waste and recycling services in their area, as part of their franchise agreement.
3. **Require Recycling Through County Ordinance** – This system would require all haulers operating in the County to provide curbside recycling services to their customers. Butler County includes recycling collection by haulers in its ordinance by stipulating that the fees haulers charge for solid waste service must include the collection of unlimited amounts of recyclables. An ordinance can also include minimum standards for recycling service (such as collection frequency and types of materials collected) as well as a monitoring and enforcement mechanism. In addition, an ordinance can stipulate that:

* Capture rate assumed to be 75 percent, participation rate bi-weekly assumed to be 55 percent, participation rate weekly assumed to be 75 percent.

- All haulers must offer recycling for residents and a variable rate pricing structure for garbage collection. “Pay-as-you-Throw” collection provides a direct incentive to recycle; and/or;
- Haulers must combine the price for a base rate of trash collection and recyclables collection. This would encourage residents to participate in the recycling program, since they are paying for the service anyway.

Butler County’s ordinance includes both of these requirements, specifying that solid waste set-outs must be in defined quantities for the purpose of setting fee rates, and not allowing haulers to provide discounts for residents who do not recycle.

4. Encourage interested municipalities to implement their own recycling ordinances, which could do one or a combination of the following:
 - Require private haulers to provide curbside recycling services to residential customers that they provide curbside garbage collection to;
 - Require haulers to offer variable rate pricing to their customers, in order to encourage recycling;
 - Require haulers to provide curbside collection of recyclables and garbage for one price, to encourage participation in the recycling program.
 - Establish mandatory recycling by residents. Butler County indicates that its solid waste ordinance provided an incentive for its municipalities to adopt mandatory recycling in their own ordinances.

Option 1: Contracted Service

Venango County is currently served by several haulers under an unrestricted open market system, except in Clintonville, Pleasantville, and Sugar creek Boroughs, which contract with Tri-County Industries. Additionally, Oil City and Franklin are mandated recycling communities that have chosen to manage their solid waste and recycling through an organized exclusive collection systems in the form of contracts with Tri-County Industries (Franklin) and Veolia Waste (Oil City).

Organized collection typically results in the local government having a greater degree of control over the level of services provided, which can result in an improved level of service, a more adaptable program (such as adding additional materials), and/or a more homogenous level of service provided throughout the community. In addition, the hauler can be penalized for providing sub-standard levels of service, if such provisions are included in the contract. Generally, with a contract, the service provider charges the local government entity that holds the contract for the services, based on a negotiated arrangement (in the case of curbside recycling and garbage collection, it is typically per-household) and then the local jurisdiction recovers those funds from the residents receiving the service. Residents can be charged directly, as is done in Oil City and Franklin, or the amount can be recovered from property taxes. This can

be done on an ad-valorem basis, where the cost of recycling is then paid from the general revenue fund, or by a non-ad valorem charge, which is shown on the property tax bill, but then goes into a special enterprise fund to support solid waste services. Under either of these tax-related billing systems, the recycling collection would have to be provided county-wide.

While organized, competitively-procured waste collection does provide local government with more control over waste collection services than an open (subscription) system where residents hire their own haulers, it may not be appropriate for every community. Table 4 highlights the advantages and disadvantages of a subscription-based (also called open) system versus an organized collection system in which a single hauler receives the franchise or contract (organized exclusive).

**Table 4
 Comparison of Subscription and Organized Exclusive Waste Collection**

Service Delivery Model	Advantages	Disadvantages
Subscription-Based	<ul style="list-style-type: none"> ▪ Maximum customer choice ▪ Very limited government involvement required ▪ Provides opportunities for small haulers ▪ Competition encourages haulers to keep prices competitive (although costs may actually be higher than in "organized" systems) 	<ul style="list-style-type: none"> ▪ Increased air quality and road impacts from multiple haulers serving a community ▪ Neighborhood aesthetic impacts ▪ Loss of government control ▪ Lack of uniformity in service levels ▪ Low ability for governmental entities to enforce policies and/or goals ▪ Higher costs to ratepayers because of routing inefficiencies (studies have shown that customers in "open" systems pay more than customers served by public crews, contract haulers, or franchised haulers.)

Service Delivery Model	Advantages	Disadvantages
Organized-Exclusive	<ul style="list-style-type: none"> ▪ Often results in low rates and provides some governmental control over rates ▪ Service providers selected on the basis of technical and financial ability to provide the requested services ▪ Local government has more control -- contract items often include penalties/remedies for poor or non performance ▪ Reduction in number of vehicles results in improved economies of scale, reduced road and air quality impacts, and enhanced safety. ▪ Service levels are more homogenous, and program changes can be implemented with relative ease 	<ul style="list-style-type: none"> ▪ Small haulers may not be able to compete with larger regional or national service providers ▪ Governmental entities must invest resources in managing a procurement ▪ Potential disruption to customers resulting from change in hauler ▪ Transition costs (start-up time for learning new routes, etc.) ▪ Potential quality of service issues due to "low-ball" pricing ▪ Potential for reduced competition in the long-run

In the case of Venango County, contracting curbside recycling to one hauler while retaining an open subscription system for solid waste collection poses several challenges as outlined below.

- It would be relatively complex, involving a Request for Proposals (RFP), a contract, and ongoing contract administration. It would also involve the County in the process of setting rates, billing customers, and other administrative/financial tasks for which it may not be equipped.
- It could result in a competitive advantage being awarded to one hauler, possibly with negative consequences to the other haulers serving County residents. If the County were to establish curbside recycling by some form of managed exclusive service, it would award to one hauler by contract the right to collect recyclables from all households in the specified municipalities. Since the County has not expressed interest in changing its open subscription arrangement for solid waste collection, it is assumed that households would still retain their choice of trash collection hauler and the threat of smaller haulers going out of business is reduced. However, it is still possible that residents would choose to switch all their services to the contracted recycling hauler for the sake of convenience, particularly if the contracted hauler billed the customer directly. The recycling hauler could use his position to solicit new business, which would be unfair to the other haulers and result in competitive disadvantage. The main advantage of increased operational efficiencies - lower rates to customers - may not occur in situations in which the contract does not integrate solid waste with recycling services.

- It would be difficult to administer in only the 10 municipalities that have expressed interest in curbside recycling, and not include the entire County, a situation complicated by the fact that three of the interested municipalities already contract for solid waste collection.

The advantage of this approach, however, is that small haulers would not be forced to purchase recyclables collection equipment, and routing could likely be performed relatively efficiently if one hauler serviced all households. Some of the drawbacks described above could be mitigated if:

- The interested municipalities, either jointly or independently, issued an RFP for recyclables collection, such that not all municipalities were impacted; and/or
- The County or municipality that issued the RFP also administered the billing for the program such that the contracted hauler would not be as likely to impinge on garbage collection business. This would, however, require the use of municipal or County staff.

Option 2: Franchised Collection

The issue of providing curbside recycling to only the 10 interested municipalities could be addressed under a franchise system. Franchise territories could be within the boundaries of these municipalities, either individually or combined in terms of geographic proximity or population. Additionally, the concern over restricting competition would be partially addressed by awarding several exclusive franchised areas to different local haulers. In each franchised area, then, residents would have their choice of garbage haulers, but if they chose to participate in curbside recycling, they would be required to use the County's designated franchise hauler for that area. Enforcement of such a requirement, however, could be problematic.

Under a franchise collection system, the County would establish one or more franchise areas and would award a collection franchise through negotiations or a competitive procurement. The franchise is a property right for the designated hauler(s) for the term of the franchise agreement. Thus, if the County were to determine at any time during the franchise agreement to end the franchise (except for reasons of non-performance) the franchisee(s) would need to be compensated for lost earnings.

Franchises can be exclusive or non-exclusive – that is, either one hauler or more than one can be allowed to operate within the franchise area. Service can be mandatory, in which residents are required to use the services provided by the franchised hauler, or non-mandatory, in which residents who voluntarily chose to use the service would be required to use the franchised hauler. Franchises can be limited to certain generating sectors and waste streams, such as residential curbside recycling collection of certain materials, or they can be more encompassing, for example providing all solid waste and recycling services to both single-family and multi-family households. Franchised haulers typically bill their customers directly for their services. Sometimes rates are fixed by the local government in the franchise agreement. A franchise fee may also be paid to the jurisdiction by the franchisee, based on the value of their customer base

or another negotiated basis. It should be noted that there are no known franchises in Pennsylvania for trash or recyclables collection.

For Venango County, the disadvantages to a franchise system are similar to a contracted system – the County would be much more involved in the administration, setting rates, and management of the system. While the County would not be involved in billing or payments, they would most likely be required to set fees and monitor the agreement.

For purposes of illustration, Table 5 presents a potential collection scheme for the Boroughs that have expressed an interest in curbside recycling. Such a scheme could be used to organize either a contracted or a franchised approach to curbside recycling. This is a purely theoretical approach, based on proximity of these municipalities to each other as appears on a Venango County map.

**Table 5
 Potential Curbside Recycling Collection Areas**

Community	Households	Combined Households for collection	Actual Stops Per Day at 55% Participation	Actual Stops Per Day at 75% Participation
Barkeyville	106			
Clintonville	242	708	389	531
Emlenton	360			
Cooperstown	198			
Polk	209	529	291	397
Utica	122			
Pleasantville	369	609	335	457
Rouseville	240			
Sugarcreek	2,245	3 days at 748 per day	411 per day	561
Cornplanter Township	1,179	2 days at 590 per day	325 per day	443

Option 3: Curbside Recycling through County Ordinance

In order to extend curbside recycling services to the interested Boroughs and boost its recycling rate, Venango County could modify its solid waste ordinance to require all solid waste haulers operating in the County to provide curbside recycling services and to set standards for how recycling will be provided. The ordinance would apply to the haulers and their service areas across the entire county, not only the interested municipalities. The ordinance, as mentioned above, could require haulers to provide curbside recycling services to their residential garbage customers, and/or require residents to separate recyclables from their garbage; require haulers to provide garbage and recyclables collection for one price (thus encouraging participation); and/or

require haulers to offer customers variable rate pricing for garbage collection, in order to encourage them to participate in the program.

Such an ordinance would provide the County the ability to impose identical requirements, with a level of detail comparable to individual contracts, on a larger group of service providers without directing them to any particular territories. Specifically, ordinances can:

- Require waste collection service providers to also provide customers with recycling collection services for designated materials or other service requirements such as pay-as-you-throw;
- Link service providers to customers by regulation of groups of customers;
- Designate service areas;
- Specify permit requirements;
- Specify services in detail; and
- Specify financial assurance requirements.

Based on R. W. Beck's review of Pennsylvania's solid waste management laws and regulations, it is most likely possible for the County to update its ordinance to require haulers to provide recycling, but not make participating in recycling programs mandatory for all residents. In this way, the municipalities interested in offering curbside recycling to their residents would be able to do that, but others would not be forced to do so. A model for this type of ordinance is Butler County. The provision of their ordinance that requires haulers to provide recycling is in Section VI, (c) as follows:

The base fee charged by the collector for residential waste shall provide for the collection of only one thirty (30) gallon container or one thirty (30) gallon disposable plastic bag and unlimited amount of recyclables. For the collection of residential municipal waste in excess of one 30-gallon container/bag, the hauler's rates shall vary from the base fee in specific volume increments based on common container sizes (i.e. 36 gallon, 64 gallon, 96 gallon) or specific number of bags. No discount shall be provided for accounts not participating in curbside collection of recyclables. Purchase of disposable waste containers shall be the responsibility of the resident. Haulers may provide containers as part of the variable rate service. Separate containers for recyclables shall be provided to the resident at no cost or for a deposit. The hauler shall charge additional fees for the curbside collection of bulk items. Yard waste shall be collected under separate specifications.

The majority of counties and municipalities that do require recycling services from their haulers also have mandatory recycling. In these communities the haulers' recycling requirements, and consequently the services they offer their customers, reflect the overarching public policy of mandatory recycling by residents and businesses. Butler County reports that its ordinance provided an incentive for its municipalities to adopt their own mandatory recycling ordinances.

Another option is to provide solid waste and curbside recycling services for one set price, which encourages participation in recycling programs, as residents are paying for the service. Some communities also mandate that volume-based collection programs must be offered by the haulers, to further encourage recycling. If recycling is mandatory, then it follows that recycling service providers must recycle, and must adhere to the very specific Act 101 requirements adopted by local ordinances pertaining to recycling materials, collection systems, collection frequencies, bans on disposal, etc.

Requiring all of the haulers to provide the same level of recycling services would be desirable for Venango County and the residents of all the municipalities, as it would avoid a tremendous amount of confusion by residents over how to choose the best program at the best cost. However, enforcing such a requirement without the “back up” policy of mandatory recycling would require a system in which every hauler in the County was somehow monitored to ensure that they all followed the ordinance requirement to provide the same level of recycling services. Prior to PA Act 90 in 2002, counties and municipalities could require local haulers to obtain local licenses, and these licenses were frequently issued conditional upon a certain level of service from the hauler which could include recycling. However, the Commonwealth of Pennsylvania is now the only entity allowed to license waste haulers, so communities must find another way to specify and enforce recycling requirements for haulers.

A no-fee “registration” process for waste haulers has been suggested as an alternative to licensing, but at this time, no known communities in Pennsylvania use that approach.

Option 4: Curbside Recycling through Municipal Ordinance

Venango County could also work with the municipalities that are interested in curbside recycling to assist them in developing their own individual recycling ordinances. They could make recycling mandatory on an individual local government basis, make it mandatory that the haulers offer recycling collection along with garbage collection to their residential customers, make it mandatory that they provide both services for one price, thus encouraging participation in the program, and/or stipulate that haulers must offer variable rate pricing mechanisms, which would encourage participation in recycling programs. Another option would be for the municipality to start with this last stipulation, which would encourage residents to get in the habit of recycling, before mandating that haulers provide curbside recycling. Haulers could be given a timeframe by which they need to begin offering curbside recycling services, such that they could adequately plan. It might make sense for the jurisdiction to specifically state that a hauler can sub-contract to another hauler to provide curbside recycling, such that small haulers with limited financial resources would not be burdened by having to purchase equipment that they may not be able to afford. The ordinance should clearly stipulate the frequency of collection and the types of recyclables that can be collected.

Review of Venango County Municipal Waste Management Ordinance

Act 101 Requirements

Section 303 of Act 101 spells out the powers and duties of counties with regard to solid waste management and recycling. Counties may adopt ordinances and regulations for recycling and source separation, provided they do not interfere with implementation of required recycling programs. The Act allows for the licensing for collecting and transporting municipal waste, however Act 90, implemented in 2002, revokes this right. The counties that had implemented licensing requirements before that time were allowed to retain their licensing programs; however these programs can be individually challenged and at least one county has abandoned its licensing program as a result of court action. No new solid waste management hauler licensing programs can be implemented for vehicles subject to Act 90.

Venango County's Ordinance

Venango County's current Municipal Waste Management Ordinance (Ordinance) was reviewed to determine updates necessary to provide the framework for curbside recycling services to be offered.

The Ordinance, Number 92-1, was adopted on June 8, 1992 and became effective on July 20, 1992. The main goals of the Ordinance were to impose flow control to direct municipal waste to designated processing and/or disposal facilities, and to establish a licensing program for waste haulers. The Ordinance has not been amended since its effective date.

The issue of the flow control requirements should be addressed with the appropriate counsel for the County, since there have been changes in the ability of local governments and states to impose flow control since 1992. It is beyond the scope of this report to address flow control in detail.

The hauler licensing program was revoked by Act 90 in 2002. Most likely, if any of the haulers' licenses have expired, they may not be renewed under the licensing program, nor may the program be continued or used to impose any requirements on solid waste haulers registered with the Pennsylvania Department of Transportation through Act 90.

If the County wishes to implement a system in which waste haulers are required to provide recycling services, but residents and businesses are not mandated to recycle, it will have to craft a unique ordinance that, to our knowledge, does not yet exist in Pennsylvania. Most non-mandated communities in Pennsylvania have very brief solid waste ordinances with two or three main goals unrelated to recycling, similar to Venango County's existing ordinance, and they have no recycling ordinance at all. Most jurisdictions that do have detailed solid waste ordinances also have mandatory recycling per Act 101. It is difficult to find a precedent for the "middle ground" that Venango County wishes to implement.

Venango County would be allowed by the Commonwealth of Pennsylvania to enact mandatory recycling, even though by the population standards it is not a mandatory community. However, the requirement would apply to the entire county, including its municipalities. While the 10 municipalities characterized in Table 1 have expressed interest in curbside recycling, mandatory recycling is a big step, and one that they may not be willing to make unless required by Pennsylvania law.

If Venango County changes its ordinance to require haulers to provide recycling services to its customers, it must also include language regarding reporting. Amounts of material recycled will have to be reported to the County, and the County will be required to then report these amounts to the DEP. Specific ordinance language will ensure that the County and haulers have a way to work together to report accurately and in a timely manner.

Two solid waste and recycling ordinances that may be used by the County as references are attached as Appendices to this report. Appendix A is Chapter 20 of the Code of the Town of Bloomsburg, PA, entitled "Solid Waste Collection, Storage, Transportation, Processing and Disposal of Municipal Solid Waste and Mandatory Recycling Program." The Town of Bloomsburg revised this ordinance in 2003 to specifically address the implications of PA Act 90 on its hauler licensing and requirements. Bloomsburg does specify specific actions that haulers must take to implement recycling in this ordinance; however, it should be noted that Bloomsburg is a mandated community.

Link to Bloomsburg Ordinance:

http://www.dep.state.pa.us/dep/deputate/airwaste/wm/recycle/Tech_Rpts/Bloomsburg.pdf

Mandatory Recycling in Pennsylvania:

Municipalities with populations of at least 10,000 had to implement curbside recycling programs by September 26, 1990. Municipalities with populations between 5,000 and 10,000 and more than 300 persons per square mile had to implement curbside programs by September 26, 1991. Grants are available to all municipalities to establish recycling programs. All disposal facilities provide recycling drop-off centers.

Mandated municipalities collect leaf waste and at least three of the following materials: clear glass; colored glass; plastics; aluminum; steel and bimetallic cans; high grade office paper; corrugated paper and newsprint.

Commercial, municipal and institutional establishments within a mandated municipality are required to recycle leaf waste and aluminum, high-grade office paper and corrugated paper in addition to other materials chosen by the municipality.

Appendix B is a very specific solid waste ordinance from Gwinnett County, Georgia. There is no mandated recycling in Georgia, but Gwinnett County has effectively used this ordinance to require hauler participation in offering recycling services, with positive outcomes. The County has a non-exclusive franchised hauler system. While much of the specific language in the Gwinnett County ordinance would obviously be inappropriate for a Pennsylvania county, the concepts and some of the strategies might be helpful. Gwinnett County has a licensing procedure, referred to as an “Authorization to Provide Service”.

Link to Gwinnett Ordinance:

<http://www.municode.com/resources/gateway.asp?pid=10878&sid=10>

Available Private Service Providers

Currently 10 private haulers provide solid waste collection services in Venango County:

- Tri-County Industries, Inc.;
- Waste Management, Inc.;
- Hefferman Hauling;
- Warrington Disposal Service;
- Strains Refuse Service;
- Hunsberger Sanitation;
- Harry’s Refuse Disposal;
- Bert Klapec, Inc. (includes Klapec Excavating Inc. and Klapec Trucking Co.);
- Constable Refuse Service; and
- Veolia Environmental Services (formerly Onyx).

Only two of these private haulers are known to be currently providing curbside recycling services in Venango County – Tri-County Industries and Veolia Environmental Services. It is possible that other companies also have the capabilities of providing these services. Brief summaries of the services potentially available from Tri-County and Veolia are provided below.

Tri-County Industries

Tri-County Industries, based in Grove City with a recycling processing facility in Mars, is the largest recycling provider in operating in the County currently. Tri-County manages the County drop-off recycling system and also provides curbside recycling under contract for the City of Franklin. Tri-County Industries provides garbage collection service in the following municipalities in Venango County:

- **Barkeyville Borough**
- Canal Township
- Clinton Township
- **Clintonville Borough***
- Cranberry Township
- **Emlenton Borough**
- Franklin City
- French Creek Township
- Irwin Township
- Jackson Township
- Mineral Township
- Pine Grove Township
- **Pleasantville Borough***
- **Polk Borough**
- Richland Township
- Rockland Township
- Sandy Creek Township
- Scrubgrass Township
- **Sugarcreek Borough***
- **Utica Borough**
- Victory Township

The bolded communities in the list above are seven of the 10 municipalities interested in curbside recycling in which Tri-County Industries already provides garbage service. TC Recycling, LLC in Mars has the capability of handling, processing and marketing a wide range of recyclable materials. A TC Recycling representative indicated in an interview for this study that his company would be willing to work with other haulers to process their recyclables.

* Municipalities that contract for solid waste services

Veolia Environmental Services

Based in Warren, Pennsylvania (in Warren County), Veolia is the residential trash and recycling contractor for Oil City. Recycling is collected daily, with one truck operating five days per week to service the entire City. The truck has a 30-cubic-yard capacity, and has an onboard plastic compactor. Veolia owns two of these trucks.

Recyclables are delivered to Mortenson Recycling in Warren County for processing and marketing. Other options may include the Chataqua County landfill recycling center, or the Clearfield County recycling Center. Veolia does not do business with TC Recycling, Tri-County Industries' processing center in Mars. Veolia is assumed to have additional solid waste customers in Venango County municipalities, but it is not know how many or where they are.

Estimated Costs for Curbside Recycling

Recycling Bins or Carts

The County can require the waste haulers to provide recycling bins to their customers through the Recycling Ordinance. However, this would be an additional cost for the haulers. If the haulers passed on the cost of the bins or carts to their customers, it could act as a disincentive to recycling even if the cost was minimal. Therefore, it is advisable for the County and/or the municipalities to purchase the recycling bins up-front, and only require the haulers to undertake the logistics of delivering the bins to the customers.

Section 902 of Act 101 established the Recycling Grants program, which allows counties and municipalities to receive up to 90 percent funding for eligible recycling program start-up costs, including:

- Planning and implementation to establish a recyclables collection program;
- Purchase of recycling education materials, including brochures, flyers, etc.; and
- Containers and equipment required to operate a collection program or drop-off site.

Table 6 presents a cost estimate for bins, assuming that the County, or the County in partnership with the municipalities, would purchase bins and provide them to the households in the municipalities desiring curbside recycling, and that the County would then seek a DEP grant to cover most of the cost. Assuming recycling was not made mandatory, not all households in the County would be provided with a bin. The total number of households requesting bins in the 10 interested municipalities is partially dependent on whether recycling was weekly or bi-weekly, as outlined in Table 3. Table 6 presents estimates of the total cost, estimated DEP contribution (assumed to be 90 percent), and final County cost for recycling bins or carts.

Table 6
 Estimated Capital Costs for Bins for Curbside Recycling

Options	Service Frequency/Assumed Percent of Households Requesting Container	Total Capital Cost for Bins or Carts	DEP Grant Funding	County or Municipal Contribution
Standard 14- to 18-gallon bin at \$8	Weekly Service, 75%	\$31,620	\$28,458	\$3,162
	Bi-Weekly Service, 55%	\$23,188	\$20,869	\$2,219
Rolling 35-gallon cart at \$25	Weekly Service, 75%	\$98,813	\$88,931	\$9,882
	Bi-Weekly Service, 55%	\$72,463	\$65,216	\$7,247

Recycling Education

Recycling programs with effective public education and promotion have higher participation and better recovery rates than programs with haphazard or unclear educational efforts. To be effective, education and promotional programs must be appropriately designed and funded. Appropriately designed educational programs recognize that messages and mediums must be targeted toward defined audiences. Not all residents in a community will respond to the same educational messages. Differences in age, socio-economic background, and environmental values call for different strategies to encourage the highest level of participation. Additionally, communication and education should be conducted frequently and the results should be monitored. A variety of educational tools can be used, including brochures, calendars, media advertising (radio, TV, billboards, etc), appearances at community events and a recycling hot line or web site.

The goal of recycling program promotion and public education is to motivate residents to take action and establish a new behavior – separating recyclables from garbage and placing a bin or cart out at an established frequency. Education should provide specific information about program requirements to reduce confusion and potential contamination of recyclables with other materials.

The County, in partnership with its municipalities, should design and implement the public education for curbside recycling and not depend upon the haulers. The haulers can be the delivery tool for educational materials developed by the local governments.

The Pennsylvania DEP can assist with educational resources. The PA DEP Recycling Home Page, at <http://www.dep.state.pa.us/dep/deputate/airwaste/wm/RECYCLE/Recycle.htm> offers a variety of resources. Section 902 Recycling Grants can also pay for a community's recycling education materials.

Operational Costs

Adding curbside recycling services to the current trash hauling services will impose additional costs on the waste haulers. If haulers were all required to provide these services, a level playing field would be the result, but the issue of ongoing operation costs should be addressed by the County up-front.

The per-household, per-month cost for recycling in Oil City and in Franklin is \$3.80 and \$3.50 per month, respectively. These costs are based on a contract which most likely guarantees this payment to the haulers for each household in the municipality, whether they actually participate in recycling or not.

It is difficult to know what the costs would be for the other haulers, but assuming that recycling was not made mandatory but was made a required service by the haulers through an updated ordinance, they would only have the ability to charge the households that actually participated. If a hauler does not know the level of participation he will have, he will likely have to charge a higher rate to offset that risk. Also, it is challenging to determine a method of charging for curbside recycling that does not act as a disincentive to participate in the program. For example, if garbage hauling currently costs a household \$15.00 per month, and the hauler indicates that he will charge an additional \$5 per month for curbside recycling, many households are unlikely to participate and the County's goal of increasing the recycling rate through curbside recycling is not met. Some haulers will be able to provide the service less expensively than others; for example, by finding room on the trash truck for the recyclables. Others will send a second truck out for the recyclables. While the first method would be less costly, it could compromise the quality of the recyclables and residents, upon seeing recyclables collected in the same truck as trash, may conclude that recycling is not really occurring and react negatively.

As discussed previously in this report, mandatory recycling ordinances help the haulers set fair rates by ensuring them a baseline number of customers. They can also make capital improvements, such as modifying trucks to handle recyclables, with a reasonable expectation of a return on their money. Without mandatory recycling, either county-wide or in the specific municipalities, fair rates for recycling services may be difficult to implement.

Given the number of haulers and their capabilities, the County may wish to involve itself in a process to ensure that participation in curbside recycling is not burdensome for its citizens or its haulers. For example, the County's updated ordinance could stipulate that the price for trash collection for all customers must also include curbside recycling. A detailed rate study which is beyond the scope of this report should be done by the County if there is a concern that requiring curbside recycling could actually deter participation in the program by inadvertently setting costs too high.

Enforcement

The County and the municipalities would need to determine a method to monitor the compliance of the private haulers with the ordinance requiring them to provide curbside recycling. This can

be done by periodic route checks, in which the responsible officer of the jurisdiction randomly chooses neighborhoods to drive through, looking for haulers and checking their loads. If the solid waste disposal site is nearby, spot checks of hauler's vehicles could be conducted, looking for recyclables being disposed (it is generally obvious if source-separated materials are being disposed as opposed to recyclables in the trash of residents who chose not to recycle). Penalties for non-compliance should be imposed in a manner that indicates to the haulers that the County is serious about enforcing the recycling requirement. Language requiring haulers to report amounts of materials recycled will have to be added to the County ordinance, and any local municipal ordinances that mandate or require recycling as well. Enforcement mechanisms for reporting will also have to be developed.

Contribution of Recycling Performance Grants

Act 101, Section 904, indicates that Recycling Performance Grants are available to all Pennsylvania local governments with recycling programs. The grant awards are based on a formula that considers both the total tons recycled and the applicant's recycling rate. The per-ton payment is \$5, plus additional dollars per ton based on the rate. A 15 percent residue rate is assumed and deducted by DEP in calculating the tonnage.

Venango County's recycling rate was 14 percent in 2003; with a total of 6,021 tons recycled. For the purposes of illustration, it can be calculated that the Performance Grant payment was approximately \$97,239. Based on the participation rates and additional tonnage recovered with curbside recycling services (Table 3), the increase in Performance Grant award can be estimated. Table 7 below presents these estimates based on both weekly and bi-weekly curbside collection, assuming the per-ton payment rate remains unchanged.

Table 7
 Recycling Performance Grants

Options	Estimated Tons	Recycling Rate	Estimated Grant Payment
Drop-off Only	6,021	14.0%	\$97,239 ¹
Curbside Bi-Weekly	7,030	16.3%	\$127,278 ²
Curbside Weekly	7,233	16.8%	\$134,027 ³

¹ (6,021 X .85) X \$19

² (7,030 X .85) X \$21.30

³ (7,233 X .85) X \$21.80

Table 7 shows that Venango County could increase its estimated Section 904 Performance Grant payment by approximately \$36,788 if it were to establish a weekly curbside program used by 75 percent of eligible households in its 10 interested municipalities.

The Performance Grant funds could be used to subsidize the cost of curbside recycling if the County chose to assist the haulers in providing the service and encourage residents to use it.

The funds could be rebated to the haulers that provided documentation of the number of customers served and the tonnage recovered. Rebates could be per-household or per-ton.

Conclusions and Recommendation

Venango County wishes to increase its recycling rate by expanding recycling opportunities beyond its existing network of drop-off centers. Ten of the County's municipalities have indicated an interest in curbside recycling, and Venango County wanted to assess the feasibility of implementing a curbside system in these municipalities.

Three options for providing curbside recycling were evaluated: contracted collection, franchised collection, and establishing collection through an updated Recycling Ordinance. Each approach has strengths and weaknesses. These are summarized in Table 8 below:

Table 8
Summary of Options for Curbside Recycling in Venango County

Option	Strengths	Weaknesses
<p>Contracted Curbside Recycling Service</p>	<ul style="list-style-type: none"> ▪ County has control over services ▪ Program is more adaptable ▪ Potentially reduces truck traffic in neighborhoods (only one recycling truck) 	<ul style="list-style-type: none"> ▪ Administratively complex: requires RFP, monitoring, billing, etc. ▪ Potential perceived competitive advantage to chosen hauler; possible loss of business to other haulers ▪ Could be difficult to implement and administer in only 10 municipalities and not county-wide
<p>Franchised Collection</p>	<ul style="list-style-type: none"> ▪ Fewer administrative requirements than contract ▪ Gives more than one hauler the opportunity to provide service ▪ Franchise service areas could align with municipal boundaries ▪ Award of franchise area could serve as administrative "carrot" to gain compliance, substituting for now-defunct local licensing procedure 	<ul style="list-style-type: none"> ▪ Some administration and oversight still required ▪ Not known to exist in PA; may be difficult politically to sell new concept ▪ ▪

Option	Strengths	Weaknesses
<p>County Recycling Ordinance</p>	<ul style="list-style-type: none"> ▪ Very little ongoing administrative burden on County ▪ Existing County Solid Waste Management Ordinance needs updating - good opportunity to expand to include recycling ▪ Can impose identical requirements on entire set of haulers ▪ Could potentially extend curbside recycling opportunities to all customers of the private haulers, not only the residents of the 10 interested municipalities, which may not be practicable in some municipalities 	<ul style="list-style-type: none"> ▪ May be problematic to implement and enforce since licensing of haulers was revoked ▪ No Countywide precedent in PA ▪ Establishing a “level playing field” with identical service requirements may be difficult, as each hauler has unique set of financial and operational circumstances ▪ Residents may not wish to pay more for trash collection and recycling combined. ▪ The County must work with haulers and municipalities to make sure amounts of materials recycled are documented and reported.
<p>Local Recycling Ordinances</p>	<ul style="list-style-type: none"> ▪ Municipalities are more likely to be able to pass a municipality-wide ordinance than the County would be. ▪ Only the municipalities that are interested in curbside recycling, and that have the population density to support such a program, need to involve themselves with this effort. ▪ The municipalities can implement an ordinance that suits their needs. 	<ul style="list-style-type: none"> ▪ The County would need to work with haulers and the municipalities to make sure quantities of materials recycled are documented and reported.

The County and its municipalities utilize a mostly subscription-based solid waste collection system. While the County is willing to discuss mandatory recycling with the 10 municipalities interested in curbside recycling, it would prefer that the municipalities rather than the County actually establish mandatory recycling. Therefore, this report explored the potential ways in which comprehensive curbside recycling could be offered to residents of these 10 municipalities,

and potentially all of the customers serviced by the private haulers, without the mandatory recycling requirement.

Three options were presented:

- A contract for curbside recycling services within these municipal boundaries;
- A franchise arrangement where multiple private haulers would be granted service areas within these municipalities; and
- A County ordinance, which could make it mandatory for haulers operating in the County to provide their residential garbage customers with recycling services, simply offer these services, offer variable rate pricing to encourage recycling, or make it mandatory that residents separate their recyclables from their garbage, and make it illegal for haulers to dispose of separated recyclables. It should be noted that Butler County is the only county in Pennsylvania currently known to have such an ordinance in place. Work with the interested municipalities to develop municipal recycling ordinances, which are more likely to be passed, and can suit the needs of each individual municipality.

Each of these options has its strengths and weaknesses and each one also breaks new ground in establishing recycling services for residents of several municipalities within a non-mandated County.

Additional recommendations of this study, that apply regardless of the recycling policy chosen include:

- The County and its municipalities should provide the collection bins for the curbside recycling program, and apply for a Section 902 Recycling Grant to cover 90 percent of the cost of bins.
- The County and its municipalities should design and implement a focused and adequately funded recycling promotion and education program to maximize participation in the existing drop-off program and potential curbside program, and also apply for Section 902 Recycling Grant funding to assist with these costs.
- The County could utilize Section 904 Performance Grant funding to rebate the costs of recycling back to the haulers, or to the municipalities, if resources are dedicated to providing and/or administering recycling services. If Venango County implements curbside collection, and between 55 percent and 75 percent of eligible residents use it, the County could increase its Section 904 Performance Grant funding by up to an estimated \$36,788 per year.

At this point, R. W. Beck recommends further study of each option to better determine their feasibility for Venango County. The most likely option is to include recycling in update of the current solid waste ordinance, but specific language to do that in a non-mandated community and the compliance mechanisms necessary must be discussed first among all stakeholders,

Ms. Lynn Moss
Venango County
November 20, 2007
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including Venango County, the affected municipalities, the private haulers, and the Pennsylvania DEP.

I hope that this study and these recommendations are useful to Venango County. If I can answer any questions or provide further information about this study and its recommendation, please contact me at schilds@rwbeck.com or 828-231-1873.

Very truly yours,

R. W. BECK, INC.

A handwritten signature in black ink that reads "Sandi M. Childs". The signature is written in a cursive style with a large initial 'S' and a stylized 'C'.

Sandi M. Childs
Consultant

SMC:ls