

# Recommendations for Expanding the Drop-off Recycling Program and the Feasibility of a Countywide Program for Cardboard Recycling in the Non-Residential Sector

Clarion County



2000 Recycling Poster Contest Winner  
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## **BACKGROUND**

The Pennsylvania Department of Environmental Protection (PaDEP), the Governor's Center for Local Government Services, the Pennsylvania State Association of Township Supervisors (PSATS) and the Solid Waste Association of North America (SWANA) formed a training partnership for Pennsylvania local governments interested in achieving higher recycling rates. Through this partnership, Clarion County was awarded \$5,000 in technical assistance services from Gannett Fleming, Inc.

## **INTRODUCTION**

Clarion County has recycling drop-off programs to serve Farmington Township, Paint Township and the Boroughs of Shippenville and Knox. The materials that County residents can recycle at these drop-off bins vary by location, but can include newspapers, cardboard, glass, aluminum cans, bi-metallic (tin) cans, and type 1 and 2 plastic bottles. The County also sponsors Recycling Days, a semi-annual event, which allows residents to recycle batteries and tires.

The Boy Scouts of America operate a drop-off center that is located along Route 66 in Farmington Township. As a non-profit organization, the Boy Scouts have purchased a baler for plastic bottles, a baler for corrugated cardboard and newspaper, a crusher for aluminum cans, and a crusher for glass bottles. The Boy Scouts facility can be referred to as a Material Recovery Facility (MRF) even though local residents refer to it as a drop-off center. Materials are sorted, compacted, and baled prior to hauling by a vendor. The Boy Scout's facility recovered 97 tons of material in 1998.

Clarion Borough is the only mandated recycling municipality in the County, and the Borough is primarily responsible for program administration and reporting recycling rates to the County. Curbside collection of recyclables in Clarion Borough occurs twice a month. Borough residents have the opportunity to recycle newspapers, glass, aluminum cans, bi-metallic (tin) cans, and type 1 and 2 plastic bottles. Clarion Borough received credit for 229 tons of recyclables in 1998 for its 904 performance grant request.

As a County, the overall recycling rate in 1998 was estimated at 18.3%. To improve the overall recycling rate, the County requested SWANA technical assistance for selecting additional sites for drop-off bins, selection of materials to recycle, and the feasibility of a cardboard recycling program for commercial establishments.

### **SCOPE OF WORK**

In a meeting between Twila Rifemberrick, the Clarion County Recycling Coordinator, and Ray Regan of Gannett Fleming, Inc. on January 19, 2001, the following tasks were outlined:

- Task 1:** Assist the County in the process of selecting additional drop-off sites for recycling
- Task 2:** Recommend a list of materials for recycling on the basis of public interest and ease of coordination with local vendors.
- Task 3:** Assess the feasibility of adding corrugated cardboard to the County recycling program for non-residential establishments.
- Task 4:** Suggest educational initiatives to boost the overall recycling rate.

### **TASK COMPLETION**

**Task 1: Assist the County in the process of selecting additional drop-off sites for recycling**

On July 20, 2001, Ray Regan of Gannett Fleming, Rick Schlauder of V-Quip USA Inc., and Twila Rifemberrick of Clarion County visited four potential locations for drop-off bins. Ms. Rifemberrick also evaluated four other locations using the established criteria. **Figure 1** shows the eight evaluated drop-off locations and the four existing locations by reference number. The reference numbers and a description of these locations are presented in **Table 1**. Potential sites were evaluated using the following criteria:

- A. Geographic Location: A centralized location that requires at most a five to 10 mile drive for local residents is ideal.
- B. Surface: A paved, level surface for the drop-off bins is ideal.

- C. Lighting: Lighting should be adequate for visibility and ease of monitoring
- D. Parking: Parking space should be adequate to allow for bin service without a disruption to the other uses of the site.
- E. Frequency of Use: A site that is frequented for reasons other than recycling is ideal, such as for shopping or leisure activities.
- F. Monitoring: An ideal site can be monitored easily to reduce the potential of vandalism or illegal dumping.

**Table 1:** Existing Drop-off Locations and Site Criteria Checklist for Proposed Drop-off Sites

Figure 1 Ref #	Potential Site	A. Geographic Location	B. Surface	C. Lighting	D. Parking	E. Frequency of Use	F. Monitoring
1	Battery Warehouse Shippenville	Existing Drop-off Location					
2	Farmington Township Boy Scouts Drop-off	Existing Drop-off Location					
3	Paint Township Municipal Building	Existing Drop-off Location					
4	Shippenville Boy Scouts Drop-off	Existing Drop-off Location					
5	Knox Township Tom’s Riverside	+	+	+	O	+	+
6	Richland Township Municipal Building	--	+	+	+	--	O
7	Ashland Township Municipal Building	O	+	+	+	O	+
8	Clarion Township Walmart Supercenter	+	+	+	+	+	+
9	Rimersburg Borough Municipal Building	+	+	--	--	O	O
10	Rimersburg Borough Tom’s Riverside	+	+	+	--	+	+
11	Rimersburg Borough Union High School	+	+	+	+	+	O
12	New Bethlehem Municipal Building	+	+	+	+	+	+

Key: + is good, O is neutral, and – is poor

Of the potential drop-off locations for recycling, several sites appear to be good candidates, including the WalMart Supercenter in Clarion Township, the Union High School in Rimersburg Borough, Tom's Riverside in Knox Township, and the New Bethlehem Borough municipal building. Additionally, these locations will compliment other existing drop-off locations in Clarion County. The municipal locations in Richland and Ashland Townships and Rimersburg Borough have some of the ideal site characteristics for a drop-off recycling program, but available space and geographic location are likely to hinder performance.

At this time, the County does not have agreements in place to use the properties for the purpose of recycling. Once some agreements are reached and before the County applies for a 902-grant, Guy McUmbler, the DEP regional recycling coordinator, should be contacted for a pre-application meeting at 814-332-6848.

**Task 2:       Recommend a list of materials for recycling on the basis of public interest and ease of coordination with local vendors.**

With a plan for additional locations for drop-off recycling bins, the County also requested assistance with developing a list of materials for recycling on the basis of public interest and ease of coordination with local vendors. Often, the most popular items for recycling among residents are PET plastics (soda bottles) and HDPE plastics (milk containers), newspaper, and aluminum cans. For selecting materials to include in a drop-off program, it is also important to generate a list of materials that local vendors will accept. A list of vendors and the materials that are currently accepted is located in **Table 2**. Country Sanitation and Shirey C Sanitation do not provide recycling services.

Rather than procuring a local hauling vendor to service, drop-off bins, the V-Quip USA Haul-All system is another alternative. The system consists of self-dumping six cubic yard drop-off bins, specialized collection vehicles, and a transfer system to consolidate loads. The advantage of the Haul-All system is that the truck can service multiple containers in a single trip, and will service as many containers as possible on a route until it is full, which will reduce operational costs over

time. This alternative can be especially advantageous if several neighboring counties choose to select the Haul-All system for servicing drop-off bins. For more information on the V-Quip Haul-All system, Rick Schlauder can be contacted at 1-800-567-0103.

**Table 2:** List of Hauling Vendors Contacted and Materials Accepted

<b>Vendor</b>	<b>Contact</b>	<b>Phone</b>	<b>Materials Accepted</b>
County Environmental Clarion, PA	Todd Klimoski	814-744-8220	<input type="checkbox"/> Plastics (Types 1 to 7) <input type="checkbox"/> Aluminum cans <input type="checkbox"/> Bi-metallic cans <input type="checkbox"/> Glass bottles (3 colors) <input type="checkbox"/> Cardboard <input type="checkbox"/> Newspaper
Superior Inc. Brockway, PA	Rick Stewart	814-265-1975	<input type="checkbox"/> PET and HDPE plastics <input type="checkbox"/> Aluminum cans <input type="checkbox"/> Bi-metallic cans <input type="checkbox"/> Glass bottles (3 colors) <input type="checkbox"/> Cardboard <input type="checkbox"/> Newspaper <input type="checkbox"/> Magazines
Tri-County Industries Grove City, PA	Deb Burdette	724-748-4705	<input type="checkbox"/> PET and HDPE plastics <input type="checkbox"/> Aluminum cans <input type="checkbox"/> Bi-metallic cans <input type="checkbox"/> Glass bottles (3 colors) <input type="checkbox"/> Cardboard <input type="checkbox"/> Newspaper

Clarion County can choose either to purchase drop-off bins or rent them from the hauling vendor. If the County chooses to purchase bins, then an awareness of the hauling capabilities of local vendors is important to selecting an appropriate bin design. Tri-County Industries has both front-end loaders and roll-off trucks available for servicing drop-off bins. Superior and County Environmental have roll-off trucks.

Tri-County also suggested two co-mingled bins at each of the selected drop-off locations: one bin for plastic bottles and metal cans and a second bin for newspaper, office paper, and cardboard. County Environmental suggested three compartment bins for newspaper, cardboard, and a commingled batch of plastics, metals, and glass. Superior commented that they would only service roll-off bins with compartments for each recyclable material. They prefer to receive the materials as presorted.

**Task 3: Assess the feasibility of adding corrugated cardboard to the County recycling program for non-residential establishments.**

The County recognizes that a considerable amount of cardboard recycling is performed in the non-residential sectors. Non-residential is a term used to describe commercial, industrial, educational, and institutional establishments. For the purpose of accounting for current recycling efforts in the non-residential sector, as well as assessing the feasibility of a cardboard recycling program for establishments in this sector, we conducted a phone survey.

A phone survey of non-residential establishments was conducted during the week of June 17 to June 22, 2001, and the results are provided in **Appendix A**. The Clarion Area Chamber of Business & Industry (The Chamber) provided a list of members, which is expected to include half of the total non-residential establishments in the county, and a majority of the larger or corporate-based establishments. The member's list was reduced to include only those establishments that are likely to generate cardboard waste. Therefore, doctors, dentists, beauty saloons, and establishments of a similar nature were not included in the survey. At the end of the survey period, 50 non-residential establishments were interviewed. The results provided both a list of establishments with recycling programs, and also insight to the establishment types that are not listed with the Chamber, but are likely to recycle.

**Commercial Recycler Reports**

The four main types of establishments with recycling programs were found to be banks, grocers, housing manufacturers, and corporate retail stores. Banks often shred and recycle office paper. Grocers, housing manufacturers, and corporate retail stores, such as Wal-Mart and Staples typically bail their own cardboard and contract a vendor for pick-up. **Table 3** presents a list of establishments that generate large quantities of office paper and cardboard and who are willing to complete a commercial recycler report annually for the County's 904-performance grant request. The Clarion listings are in Clarion and Paint Townships rather than Clarion Borough.

**Table 3:** List of Non-Residential Establishments to Contact for Commercial Recycler Reports

	<b>Establishment</b>	<b>Location</b>	<b>Contact/ Phone</b>	<b>Material Recycled</b>	<b>Method of Recycling</b>
1	County Market	Clarion Mall Clarion	Gary 226-5830	Cardboard	Pick-up by Baits
2	Dollar Etc.	Clarion Mall Clarion	Connie 226-4140	Cardboard	Pick-up by Superior
3	J.C. Penney	Route 68 Clarion	Doug 226-9160	Cardboard	Pick-up by Superior
4	McDonalds	Exit 9 and I-80 Clarion	Julie 226-5763	Cardboard	Pick-up by Superior
5	Sealy Mattress	Route 322 Clarion	Jim 764-5186	Cardboard	Corporate recycler
6	Staples	Exit 9 and I-80 Clarion	Dan 223-9581	Cardboard	Corporate recycler
7	Wal-Mart	Rural Route 3 Clarion	Phil 226-0809	Cardboard	Pick-up by Johnson
8	National City Bank	Clarion and Shippenville	Carla 437-4135	Office paper	Pick-up by a third party
9	Farmers National Bank	Emlenton	Fred 724-867-2311	Office paper	
10	First United National Bank	Fryburg	Martha Shimp 354-7311	Office paper	Pick-up by IMC
11	New Bethlehem Bank	New Bethlehem	Jim 275-3133	Office paper	
12	Colony Homes	Shippenville	Carol 226-9590	Cardboard	Bail & pick- up by Ace
13	Commodore Homes	Shippenville	Casey 226-9210	Cardboard	Pick-up by Shratzky
14	Temple-Inland	Shippenville	Tracy 226-8961	Cardboard	Corporate recycler
15	Northwest Savings Bank	Rimersburg, Sligo, & New Bethlehem	Dick 226-7873	Office paper	Pick-up by a third party

Through completion of a 904-performance grant application, the County will receive \$10 per ton of material recycled from non-residential (or commercial) establishments in excess of residential tonnage. The establishments should contact their recycling collector for an estimate of the tonnage collected, and have the recycling collector sign the Annual Commercial Recycling Report. All of the tonnage will be considered Commercial Excess and it will not qualify for the Bonus Award. To qualify for the Bonus Award, the County would need to include the

residential tonnage from County drop-off locations. Section 904 grant applications for the year 2000 are due by September 28, 2001.

In order to account for recycling efforts in the County, the establishments listed in Table 3 and other similar ones are a good starting point. The County should consider expanding the list to include automobile service stations and building contractors. These establishment types recycle materials that cannot be included on a 904-performance grant application, but can be included on the annual recycled report to the PaDEP. Automobile service stations recycle tires, various metal parts, and used motor oil. Building contractors often recycle scrap metals, lumber, and other construction materials.

### **Feasibility of a Countywide Commercial Recycling Program for Cardboard**

This section discusses the feasibility of a countywide cardboard recycling program for non-residential establishments. The recycling survey revealed that some establishments have chosen to burn cardboard and office paper rather than recycle it. This section also recommends a County approach to burning ordinances for paper and yard waste.

Of the 50 establishments surveyed, most large quantity generators of cardboard waste recognize the economic value of the product as well as the cost savings in the refuse disposal fees. Most of the remaining establishments claim not to generate a quantity of cardboard sufficient to economically justify recycling. If the company could reduce the size of its refuse bin, from 10 to 6 cubic yards for example, then it could justify recycling because of the reduction in rental fee for the bin.

Since a majority of large quantity generators of cardboard waste have recycling programs, there does not appear to be a need for a County mandate. There are some ways, however, that the County can facilitate the recycling efforts of smaller quantity generators. From the phone survey, we found that both Staples, Inc. in Clarion and Colony Homes in Shipperville operate cardboard balers. The County might consider contacting these two companies about the possibility of collecting and baling cardboard from other local establishments as part of a drop-

off program. In return for the service of baling, the service provider might be content with the proceeds earned from additional cardboard sales. If, however, the market for recycled cardboard is insufficient, the County has the option to share performance grant money with service providers.

The County can also get involved in establishing recycling programs in local schools. There are seven school districts, three private schools, a career center, and a university in the County. We know that the schools in Clarion Borough, which include Clarion University, the Clarion Area School District, and Immaculate Conception Catholic School, have recycling programs as required. Several of the school districts outside of Clarion Borough, however, are not recycling, but could implement programs for cardboard, office paper, and aluminum cans at a minimum.

The County can provide guidance and motivation for schools to establish recycling programs. Most of the effort to establish a program is required at the start. Schools should appoint a full-time employee to act as recycling coordinator. The school recycling coordinator will probably need County assistance with such administrative tasks as researching available markets, revising procurement policies, and procuring recycling containers and storage bins. A guidance document from the PaDEP entitled “Developing a School Waste Reduction and Recycling Program” is presented in **Appendix B**.

The recycling survey revealed that several municipalities in Clarion County allow for burning of paper and yard waste. In order to phase out the burning of waste, it is important to provide opportunities for recycling and composting as well as education on waste reduction. The County might consider working with local municipalities to establish burning ordinances over a period of five years. This time period is important to establish recycling and yard waste composting programs in cases where a State mandate does not take precedence.

**Task 4: Suggest educational initiatives to boost the overall recycling rate.**

The County has used several approaches to providing public information and education on recycling. Some of the approaches include:

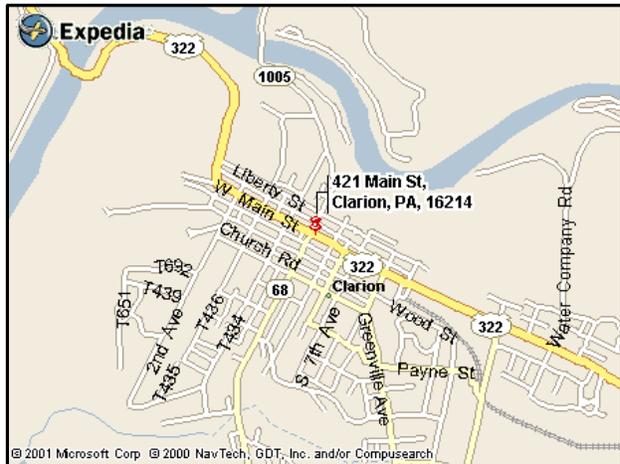
- A County Recycling Flyer, which is included in **Appendix C**
- A Recycling Link to the Community Services Section of the County Webpage, which is located at [www.co.clarion.pa.us](http://www.co.clarion.pa.us), and also included in **Appendix C**.
- School participation in the DEP Poster Contest as shown on the report cover

Two areas of recycling education that the County can focus on include arranging for signs to be placed on state roads, which direct residents to the various drop-off centers and enhancing the recycling homepage on the Clarion County website.

The Pennsylvania Department of Transportation (PennDOT) provides and posts directional signs to recycling centers along State roads at no cost to the municipality. PennDOT requires that the site is a permanent recycling location and that it accepts at least three types of recyclable materials. For more information on signs, Steve Young, the Recycling Coordinator for the Apex Environmental, Inc. of the Bureau of Environmental Quality, can be contacted at 717-783-3616.

As you know, the internet is a popular source for information. The current recycling link is a good start. To build upon these efforts, the following suggestions are provided for enhancing the website.

- ✓ Provide location maps for drop-off bins in the County, such as the one to the right, which pinpoints the County Courthouse.



- ✓ Ask students in the local school districts to design a logo for the recycling program. Recee the Recycler and Dudley Do-Rot (pictured to the right) create enthusiasm for recycling and composting in the Chester County. Logos can serve as a symbol for all County informational programs on recycling and placed on the drop-off bins as stickers.



- ✓ Provide links to other websites with recycling information. The five websites listed to the right all provide a wealth of information on recycling and composting for local administrators and residents.

- ✓ Department of Environmental Protection (DEP) [www.dep.state.pa.us](http://www.dep.state.pa.us)
- ✓ Environmental Protection Agency (EPA) [www.epa.gov](http://www.epa.gov)
- ✓ Solid Waste Association of North America (SWANA) [www.swana.org](http://www.swana.org)
- ✓ Professional Recyclers of Pennsylvania (PROP) [www.proprecycles.org](http://www.proprecycles.org)
- ✓ National Recycling Coalition (NRC) [www.nrc-recycle.org](http://www.nrc-recycle.org)

## CONCLUSIONS AND RECOMMENDATIONS

- ✓ Several recycling haulers are available for servicing the proposed drop-off bins. They include County Environmental in Clarion, Superior, Inc. in Brockway, and Tri-County Industries in Grove City. The V-Quip Haul-All system is also an alternative for the County, and offers several advantages over other drop-off systems, especially if several neighboring counties decide to also use this system. Selection of the materials to recycle at drop-off locations and arrangements for recycling bins should include suggestions from the selected hauler.
- ✓ A County mandated cardboard recycling program for non-residential establishments does not appear to be necessary. A survey of selected establishments revealed that most large quantity generators of cardboard waste have recycling programs.
- ✓ The County can consider contacting Staples, Inc. in Clarion and Colony Homes in Shippenville about the possibility of collecting and baling cardboard from other local establishments as part of a drop-off program. A working agreement such as this one would give more smaller quantity generators of cardboard waste an opportunity to recycle easily.
- ✓ The County can also consider working with school districts that are outside of Clarion Borough to develop and implement recycling programs.
- ✓ The phone survey of non-residential establishments in Clarion County provided a basis for improving tracking efforts on recycling, and more importantly a sense for the types of establishments that are likely have recycling programs. To reduce administration time, the County can focus on requesting annual recycling reports from selected businesses. Banks, grocers, housing manufacturers, industries, and retail stores can be contacted for annual recycling reports to assist the County with the 904-performance grant request. For the annual recycling report to the PaDEP, the County can also request annual recycling reports from automobile service stations and building contractors.

- ✓ The phone survey also revealed that several Clarion County municipalities still allow for the burning of paper and yard waste. The County can consider working with these municipalities to provide opportunities for recycling and composting as well as education on waste reduction as a first step to establishing burning ordinances.
  
- ✓ The County can consider placing signs along State roads to direct residents to the permanent drop-off locations for recycling. PennDOT will place these signs along State roads at no cost to the municipality.
  
- ✓ The Recycling Homepage on the Clarion County website can be enhanced to include location maps for drop-off bins and links to other recycling websites. Local students can be asked to assist with designing a County logo for recycling.