

May 18, 1999

Ms. Lou Ann Shontz  
Recycling Coordinator  
Huntingdon County  
223 Penn Street  
Huntingdon, PA 16652

Subject: Evaluation of the Feasibility of Adding Plastics to the Huntingdon County Drop-off Recycling Program

Dear Lou Ann:

This letter is to provide Huntingdon County (County) with the results of R.W. Beck's analysis of the feasibility of adding PET (#1) and HDPE (#2) plastics to the County's drop-off recycling program. This request came about in response to an offer from a site sponsor to operate a pilot program for plastics collection, coordinating with the Centre County Solid Waste Authority to process and market the material. The goal of such a pilot is to determine whether or not adding plastics is a reasonable move.

This analysis considers the cost of adding plastics to the current drop-off program, including equipment and transportation, using a variety of scenarios under which adding plastics might occur. It also suggests a number of low to no cost scenarios that should be explored prior to making any decisions on the higher cost options considered in this report.

## **EVALUATION OF THE FEASIBILITY OF ADDING PLASTICS TO THE HUNTINGDON COUNTY DROP-OFF RECYCLING PROGRAM**

This evaluation considers the following:

- The County will continue using the ten drop-off sites that are being used now.
- Recyclables generation for currently collected materials will continue based on the January-July 1998 pattern.
- Travel from drop-offs to processing/marketing locations will be on larger (US/PA) roads.
- Transportation cost is \$1.50 per mile.

### **ESTIMATED WEIGHT/VOLUME OF PLASTICS**

The combined total of materials delivered to the ten current drop-off locations from January 1 through July 31, 1998 was 299,260 pounds, or 149.63 tons. Included in this total were

newsprint (ONP), clear, green and brown glass, aluminum, and steel/bimetal cans. This is less than the total indicated in reports received by the County from Total Recycling because it is based only on materials received at drop-off sites. Tonnages reported by Total Recycling included steel/bimetal cans recycled from the State Correctional Institution in Huntingdon and magazines dropped off during a spring special collection.

Part of determining the feasibility of implementing a plastics collection program involves estimating the weight and volume of plastics that might be expected. Tonnages from other fairly rural counties that operate drop-off recycling programs that include plastics were used to calculate percentages of #1 and #2 plastics as part of the recyclables stream. These percentages were used to arrive at a potential range for estimating what might be received in Huntingdon County. For comparison purposes, only the materials collected in other counties that correspond with those collected in the Huntingdon County drop-off program were used in calculating percentages. The counties used for these calculations included Clinton (0.1 percent), Beaver (4 percent), Centre (3.5 percent) and Crawford (8.5 percent). Table 1 provides the estimated tonnages and volumes of plastics that might be expected based on the experience of these other counties.

**TABLE 1**  
**PROJECTED PLASTICS COLLECTION FOR HUNTINGDON COUNTY**

Percentage	Plastics Statistics			Total Pounds All Materials (2)
	Pounds	Tons	Volume (1)	
0.1% (Clinton Co.)	513.53	0.26	12.84	513,530.67
2.0%	10,469.74	5.23	261.74	523,486.88
3.5% (Centre Co.)	18,606.84	9.30	465.17	531,623.98
4.0% (Beaver Co.)	21,375.71	10.69	534.39	534,392.86
6.0%	32,745.78	16.37	818.64	545,762.92
8.5% (Crawford Co.)	47,657.33	23.83	1,191.43	560,674.47

- (1) Cubic yards--assumes 40 lbs./cubic yard mixed plastics
- (2) Extrapolated from materials received from 1/1/98 through 7/31/98. Includes ONP, clear, green and brown glass, aluminum and steel cans, plus estimated amount of plastics.

Calculations were performed as follows:

- The total pounds estimated for Huntingdon County (1998) without plastics is 513,017 pounds. This figure was derived by dividing the actual total of 299,260 pounds for

January 1 through July 31, 1998 by seven twelfths (58.33 percent) to derive an estimate for the entire year.

- Estimated totals with plastics were derived by dividing the 513,017 pound total by the estimated percentage of all other materials—for example, if the estimated amount of plastics as a percent of total recyclables is expected to be 3.5 percent, the estimated total without plastics (513,017) would be divided by 96.5 percent (100 percent minus 3.5 percent) to arrive at a total that includes plastics.
- Estimated totals for #1 and #2 plastics were derived by multiplying the estimated totals with plastics by the potential percentage. Therefore, multiplying 531,623.98 pounds by 3.5 percent would yield the 18,606.84 pound estimate for plastics indicated in Table 1.
- Estimated tonnage is derived by dividing the estimated pounds by 2,000 pounds.
- Estimated volume in cubic yards is derived by dividing the estimated pounds by 40 pounds. The 40 pound per cubic yard figure was provided by Tom Boushel of Vquip, based on their experience with mixed plastics collection in drop-off programs.

Table 2 shows the estimated weights and volumes of material that might be expected at each of the existing sites, based on the percentage of total materials received at each site from January 1 through July 31, 1998.

**TABLE 2**  
**PROJECTED PLASTICS COLLECTION BY SITE**

Sites	Measure	PLASTICS AS A PERCENT OF TOTAL RECYCLABLES					
		0.1%	2.0%	3.5%	4.0%	6.0%	8.5%
Alexandria	pounds	74.46	1,518.11	2,697.99	3,099.48	4,748.14	6,910.31
	cu. yd.	1.86	37.95	67.45	77.49	118.70	172.76
Cassville	pounds	21.05	429.26	762.88	876.40	1,342.58	1,953.95
	cu. yd.	0.53	10.73	19.07	21.91	33.56	48.85
Dudley	pounds	34.41	701.47	1,246.66	1,432.17	2,193.97	3,193.04
	cu. yd.	0.86	17.54	31.17	35.80	54.85	79.83
Jackson	pounds	43.65	889.93	1,581.58	1,816.94	2,783.39	4,050.87
	cu. yd.	1.09	22.25	39.54	45.42	69.58	101.27
Marklesburg	pounds	31.84	649.12	1,153.62	1,325.29	2,030.24	2,954.75
	cu. yd.	0.80	16.23	28.84	33.13	50.76	73.87
Oneida	pounds	44.16	900.40	1,600.19	1,838.31	2,816.14	4,098.53
	cu. yd.	1.10	22.51	40.00	45.96	70.40	102.46
Orbisonia	pounds	36.97	753.82	1,339.69	1,539.05	2,357.70	3,431.33
	cu. yd.	0.92	18.85	33.49	38.48	58.94	85.78

Shirley	pounds	49.30	1,005.10	1,786.26	2,052.07	3,143.59	4,575.10
	cu. yd.	1.23	25.13	44.66	51.30	78.59	114.38
Smithfield	pounds	145.84	2,973.41	5,284.34	6,070.70	9,299.80	13,534.68
	cu. yd.	3.65	74.34	132.11	151.77	232.50	338.37
Warriors Mark	pounds	31.84	649.12	1,153.62	1,325.29	2,030.24	2,954.75
	cu. yd.	0.80	16.23	28.84	33.13	50.76	73.87
<b>Total</b>	<b>pounds</b>	513.53	10,469.74	18,606.84	21,375.71	32,745.78	47,657.33
	<b>cu. yd.</b>	12.84	261.74	465.17	534.39	818.64	1,191.43

For purposes of this analysis, the assumption is made that if plastics were to be added to the drop-off program, Huntingdon County should probably expect around 3.5 to 4 percent—roughly nine to 11 tons--of the total material collected to be plastics. Four percent is used in calculations from this point forward.

## COLLECTION EQUIPMENT NEEDS

Each site currently has drop-off containers configured with separate sections for ONP, clear glass, green glass, brown glass, and all cans (aluminum and steel). These containers could not be reconfigured to handle the volume that plastics would add to the program, so some type of additional container would be needed.

The container choice should be based on:

- accommodating the volume of plastics in such a way that transportation costs are minimized.
- preventing degradation by ensuring that plastics are protected from the elements.
- minimizing contamination.

Options include:

- **Additional closed rolloff containers at each site.** It is believed that the existing rolloff containers are 12 cubic yards. One supplier of these types of containers said that the smallest container they carry is 16 cubic yards. Another carries a range of sizes, starting as small as 8 cubic yards. While adding a larger rolloff container (15-16 cubic yards) would use significantly more space, such a container would minimize the number of trips required to empty containers. Depending on the processor/end market, plastics could be collected commingled or the container could be compartmentalized to accommodate separation by type and/or color.
- **Large open cages.** Clinton County currently uses 17 cubic yard cages that can be pulled behind a truck to the processor/end market, and this seems to have worked reasonably well for that program. This may not be the case for Huntingdon, however, since the

County is dependent on others for the processing and marketing of the material. An advantage to these containers is size, because they can accommodate enough material to minimize trips required to empty the containers. A disadvantage is that the material may be degraded because of exposure to the elements, since many of the containers would probably take some time to fill.

- **Large dumpsters (6 to 8 cubic yards), either front or rear load, that could be emptied into a packer truck.** These containers are available with side sliding doors, a provision that makes loading easier for those recycling plastics at the drop-off locations. This option would protect the plastics from the elements, and having the ability to compact the material would help with transportation. A possible advantage is that rather than moving one rolloff container or cage at a time, a plastics collection route could be established so that multiple sites could be serviced on a regular basis. The routing and frequency of service would be somewhat dependent on the experience at each site.

The County would need to purchase these containers unless the management option chosen provides for containers. The estimated cost per container and total cost for all sites is presented in Table 3:

**TABLE 3  
PLASTICS COLLECTION CONTAINER COSTS**

Type of Container	Cost per Container	Total Cost—All Sites**
Rolloff Container—12 cu. yd.	\$1,810	\$21,720
Rolloff Container—16 cu. yd.	\$2,000	\$24,000
Cage—17 cu. yd.	\$3,300	\$39,600
Dumpster—6 cu. yd. (front loader)*	\$530	\$6,360
Dumpster—6 cu. yd. (rear loader)*	\$700	\$8,400
Dumpster—8 cu. yd. (front loader)*	\$615	\$7,380
Dumpster—8 cu. yd. (rear loader)*	\$880	\$10,560

\*All pricing includes sliding side doors

\*\*Includes purchase of two additional containers to facilitate exchange, cleaning, etc.

If the County determines that it will implement plastics collection and a hauler or sponsor cannot provide containers, the selected containers can be purchased using a Section 902 recycling program grant that would cover 90 percent of the purchase cost.

## TRANSPORTATION

Transportation costs can vary significantly depending on the containers selected for each site, with container size dictating the frequency of pick-ups. As indicated in Table 4, the frequency of collection is significantly higher for the dumpsters versus the rolloff or cage containers. An issue to consider, however, is how these containers must be serviced. The rolloff and cage containers must be serviced and transported individually to the processing/marketing site, while the dumpsters can be collected and compacted in packer trucks on regular routes.

Assuming there are no options for low or no cost movement of plastics from drop-off sites, for the purpose of this analysis, the following three options for transportation are considered:

**TABLE 4**  
**COLLECTION FREQUENCY BY SITE**

Sites	Cubic Yards	Collection Frequency (per year)				
		12 cu. yd. Rolloff	16 cu. yd. Rolloff	Cage	6 cu. yd. Dumpster	8 cu. yd. Dumpster
Alexandria	77.49	6.46	4.84	4.56	12.92	9.69
Cassville	21.91	1.83	1.37	1.29	3.65	2.74
Dudley	35.80	2.98	2.24	2.11	5.97	4.48
Jackson	45.42	3.79	2.84	2.67	7.57	5.68
Marklesburg	33.13	2.76	2.07	1.95	5.52	4.14
Oneida	45.96	3.83	2.87	2.70	7.66	5.75
Orbisonia	38.48	3.21	2.41	2.26	6.41	4.81
Shirley	51.30	4.28	3.21	3.02	8.55	6.41
Smithfield	151.77	12.65	9.49	8.93	25.30	18.97
Warriors Mark	33.13	2.76	2.07	1.95	5.52	4.14

- Pickup of rolloff containers from all sites as needed, delivery to a single holding/processing site (Table 5)
- Pickup of dumpsters from eight sites on a set route every other month, and pickup of rolloff containers from two sites that receive high volumes (one monthly, one every two months), processing by Parks Sanitation, and final delivery of material to Centre County's Materials Recovery Facility (MRF) (Table 6)
- Pickup of dumpsters from eight sites on a set route every other month, and pickup of rolloff containers from two sites that receive high volumes (one monthly, one every two months), and delivery to Centre County's MRF for processing and marketing (Table 7)

It should be noted that all options are dependent on the willingness of all the players to participate. These options will be discussed in a later section.

Assuming at this point that all these options are viable, what the analysis in these tables shows is that the least expensive transportation option involves use of rolloff containers at all sites, with materials being moved to a central site in Huntingdon County. Clearly, the least expensive option is moving materials from each site to a central point in Huntingdon Borough, and second is moving the material to the existing site in Shirley Township. The third option is using a combination of dumpsters and rollofs (at the two heaviest use sites) and running a regular collection route, with materials being moved to Shirley Township. There are, however, costs for processing that must be factored into the two options involving Shirley Township that will moderately increase the cost of these options, and

there might be additional cost involved in the Huntingdon Borough option once this option is explored.

**TABLE 5**  
**TRANSPORTATION COSTS--ROLLOFFS/CAGES**  
**OPTION 1**

Sites	Container Type	Trips Required	Hopewell			Huntingdon			Shirley		
			Distance*	Cost per Trip	Annual Cost	Distance*	Cost per Trip	Annual Cost	Distance*	Cost per Trip	Annual Cost
Alexandria	12 cu.yd. rolloff	7	54	81.00	567.00	20	30.00	210.00	50	75.00	525.00
	16 cu.yd. rolloff	5			405.00			150.00			375.00
	Cage	5			405.00			150.00			375.00
Cassville	12 cu.yd. rolloff	2	72	108.00	216.00	36	54.00	108.00	26	39.00	78.00
	16 cu.yd. rolloff	2			216.00			108.00			78.00
	Cage	2			216.00			108.00			78.00
Dudley	12 cu.yd. rolloff	3	40	60.00	180.00	70	105.00	315.00	78	117.00	351.00
	16 cu.yd. rolloff	3			180.00			315.00			351.00
	Cage	3			180.00			315.00			351.00
Jackson	12 cu.yd. rolloff	4	80	120.00	480.00	40	60.00	240.00	74	111.00	444.00
	16 cu.yd. rolloff	3			360.00			180.00			333.00
	Cage	3			360.00			180.00			333.00
Marklesburg	12 cu.yd. rolloff	3	16	24.00	72.00	30	45.00	135.00	64	96.00	288.00
	16 cu.yd. rolloff	3			72.00			135.00			288.00
	Cage	2			48.00			90.00			192.00
Oneida	12 cu.yd. rolloff	4	50	75.00	300.00	4	6.00	24.00	40	60.00	240.00
	16 cu.yd. rolloff	3			225.00			18.00			180.00
	Cage	3			225.00			18.00			180.00
Orbisonia	12 cu.yd. rolloff	4	96	144.00	576.00	52	78.00	312.00	20	30.00	120.00
	16 cu.yd. rolloff	3			432.00			234.00			90.00
	Cage	3			432.00			234.00			90.00
Shirley	12 cu.yd. rolloff	5	72	108.00	540.00	34	51.00	255.00	0	0.00	0.00
	16 cu.yd. rolloff	4			432.00			204.00			0.00
	Cage	4			432.00			204.00			0.00
Smithfield	12 cu.yd. rolloff	13	40	60.00	780.00	4	6.00	78.00	34	51.00	663.00
	16 cu.yd. rolloff	10			600.00			60.00			510.00
	Cage	9			540.00			54.00			459.00

**TABLE 5--CONTINUED**  
**TRANSPORTATION COSTS--ROLLOFFS/CAGES**  
**OPTION 1**

Sites	Container Type	Trips Required	Hopewell			Huntingdon			SHIRLEY		
			Distance*	Cost per Trip	Annual Cost	Distance*	Cost per Trip	Annual Cost	Distance*	Cost per Trip	Annual Cost
Warriors Mark	12 cu.yd. rolloff	3	90	135.00	405.00	50	75.00	225.00	84	126.00	378.00
	16 cu.yd. rolloff	3			405.00			225.00			378.00
	Cage	2			270.00			150.00			252.00
<b>Totals**</b>	<b>12 cu.yd. rolloff</b>				<b>4,116.00</b>			<b>1,902.00</b>			<b>3,087.00</b>
	<b>16 cu.yd. rolloff</b>				<b>3,327.00</b>			<b>1,629.00</b>			<b>2,583.00</b>
	<b>Cage</b>				<b>3,108.00</b>			<b>1,503.00</b>			<b>2,310.00</b>
Transportation Cost--delivery of bales to Centre Co. MRF (110 mi. roundtrip--one trip annually--from Shirley only)											\$165.00

\* Assumes roundtrip travel on larger roads

\*\*Does not include transportation for delivery of bales to a processor/market

**TABLE 6**  
**TRANSPORTATION COST**  
**OPTION 2**

<b>Packer Collection Route</b>	<b>Mileage</b>	<b>Pounds Collected</b>
Shirley-Orbisonia	10	257
Orbisonia-Cassville	19	146
Cassville-Dudley	23	238
Dudley-Marklesburg	22	221
Marklesburg-Warriors Mark	35	221
Warriors Mark-Jackson	39	302
Jackson-Oneida	17	306
Oneida-Shirley	20	342
Totals	185	2,033
Transportation Cost per run--185 mi. @ \$1.50/mi. \$277.50		
<b>Rolloff Container Collection</b>	<b>Mileage</b>	<b>Pounds Collected</b>
Alexandria*	50	517
Smithfield*	34	506
* Assumes roundtrip from Shirley Twp.		
Transportation Cost per run – Alexandria \$75.00		
Transportation Cost per run – Smithfield \$51.00		
Transportation Cost for six packer runs annually \$1,665.00		
Transportation Cost annually--Alexandria (six runs) \$450.00		
Transportation Cost annually--Smithfield (12 runs) \$612.00		
Transportation Cost--delivery of bales to Centre Co. \$165.00 MRF (110 mi. roundtrip--one trip annually)		

**ANNUAL TRANSPORTATION COST**

**\$2,892.00**

**TABLE 7  
TRANSPORTATION COST  
OPTION 3**

<b>Packer Collection Route</b>	<b>Mileage</b>	<b>Pounds Collected</b>
Shirley	--	342
Shirley-Orbisonia	10	257
Orbisonia-Cassville	19	146
Cassville-Dudley	23	238
Dudley-Marklesburg	22	221
Marklesburg-Oneida	18	306
Oneida-Warriors Mark	31	221
Warriors Mark-Jackson	39	302
Jackson-State College	20	--
State College-Shirley	55	--
Totals	237	2,033
Transportation Cost per run--237 mi. @ \$1.50/mi. \$355.50		
<b>Rolloff Container Collection</b>	<b>Mileage</b>	<b>Pounds Collected</b>
Alexandria*	105	517
Smithfield*	112	506
* Assumes travel from Shirley to site to State College to Shirley		
Transportation Cost per run— Alexandria \$157.50		
Transportation Cost per run— Smithfield \$168.00		
Transportation Cost for six packer runs annually \$2,133.00		
Transportation Cost annually--Alexandria (six runs) \$945.00		
Transportation Cost annually--Smithfield (12 runs) \$2,016.00		

**ANNUAL TRANSPORTATION COST**

**\$5,094.00**

## PROCESSING

The cost of processing is dependent on the collection option selected. However, further exploration would be needed to determine if the cost would vary under certain sub-options (assuming these sub-options could be employed). Table 8 indicates estimated cost under each option.

**TABLE 8**  
**PROCESSING COSTS**

Activity	Option 1A	Option 1B***	Option 2	Option 3
<u>Expenses</u>				
Baling (\$30/bale)*	630		630	
Tipping Fee (\$5/ton)**		55		55
<u>Revenues (\$30/ton)**</u>	330		330	
<u>Net Cost/Revenue</u>	-300	-55	-300	-55

\*Assumes 21 bales, based on estimated tonnage

\*\*Assumes 11 tons delivered to Centre County MRF

\*\*\*Moving materials without baling will require more trips to deliver materials for processing, resulting in greater transportation costs

Options 1A and 1B are the estimated costs if all materials are moved to Shirley Township. Further research is required to determine what costs might be incurred if materials are picked up and delivered to Hopewell (the former Southcentral Counties, or Bedford-Fulton-Huntingdon, Solid Waste Authority) or to Huntingdon (to site where Huntingdon Borough's materials are processed).

## NET COST

Table 9 illustrates the estimated net cost for each option discussed above. As indicated, all options carry a net cost. Options 1A and 2 are the lowest cost options. They are close enough that it would be difficult to say with any certainty which option would be best. Assuming that Parks Sanitation is willing to operate the collection of materials (which is

unknown at this time), it would probably be best to give them the opportunity to decide which option is best for them.

**TABLE 9**  
**ANNUAL NET COST/REVENUE**

<b>Activity</b>	<b>Option 1A</b>	<b>Option 1B</b>	<b>Option 2</b>	<b>Option 3</b>
<u>Expenses</u>				
Transportation*	\$2,748.00	\$3,903.00	\$2,892.00	\$5,094.00
Baling (\$30/bale)**	\$630.00		\$630.00	
Tipping Fee (\$5/ton)***		\$55.00		\$55.00
<u>Revenues (\$27/ton)***</u>	\$297.00		\$297.00	
<b>Net Cost/Revenue</b>	<b>-\$3,081.00</b>	<b>-\$3,958.00</b>	<b>-\$3,225.00</b>	<b>-\$5,149.00</b>

\*Option 1B includes additional transportation cost for moving unbaled materials--7 additional trips to State College moving plastics in a packer

\*\*Assumes 21 bales

\*\*\*Assumes 11 tons at \$30/ton minus 10% for administration

It should be noted that there are other possible options that have not been explored in this analysis. These options will be discussed below. If one of these other options can be employed, the result may be that Huntingdon County can add plastics to its drop-off program with little or no operating cost.

Of course, as discussed under "Collection Equipment Needs" above, the County would bear some cost for purchasing equipment. Assuming that the County applies for and receives a Section 902 grant for this purpose, the maximum cash outlay would be approximately 10 percent of the purchase cost of the containers. However, any staff work performed to prepare for this purchase—preparation of specifications, advertisements, review of proposals, etc.--can be used toward the County's 10 percent match. If sufficient time is invested, the County may be able to receive 100 percent of the purchase cost.

Another important issue to consider is public education. If plastics are added to the County's drop-off program, a highly visible, comprehensive and sustained public education effort will be required to get residents to include the right plastic containers with the materials they deliver to the drop-off sites. As with collection equipment, the County can apply for Section 902 funds to cover most of this cost.

## ADDITIONAL OPTIONS FOR ADDING PLASTICS IN HUNTINGDON COUNTY

**Pilot Collection Effort with Parks Sanitation.** Parks Sanitation, who hosts the drop-off site in Shirley Township, has expressed interest in assisting in a pilot effort to add plastics to the items that are accepted at its site. While this is a commendable offer, there are problems with implementing plastics collection as a pilot at one location. Among the concerns:

- Adding plastics at one site will not give a true picture of the volume that might be expected at any given site. It is unlikely that only users of this site will drop-off plastics. Once the word is out, it is possible that this site could be inundated with plastics because there are no other options available for recycling plastics in Huntingdon County.
- The result may be a Pandora's Box that once opened, cannot be closed if the decision is made not to collect plastics because the problems and costs far outweigh the benefits of adding plastics.

If the County chooses to implement a pilot effort at this site, any public education should clearly include the caveat that it is a pilot, and as such, may not continue if the problems and/or costs are unreasonable. In addition, both the County and Parks should be prepared to deal with the possibility that closing down the pilot, if that is the decision, may result in confusion and frustration from the users that have become accustomed to recycling their plastics. Also, some plastics may continue to flow to the site indefinitely either because users have not received the message that collection has stopped or because they have hauled the material to the site and do not wish to haul it back to dispose of it.

It should be noted again here that while some of the options considered above indicate Parks Sanitation's participation in a County-wide program. Parks has indicated that it would be willing to consider this if it could be done at no or minimal cost to the company. These options were included for comparison purposes to help look at potential costs. These scenarios should provide a reasonable estimate of cost should the County decide to seek a private "partner" to operate a County-wide plastics collection program.

**WSI Option.** Drop-off sites are currently serviced by WSI as a condition of the agreement made when WSI purchased the former Southcentral Counties Solid Waste Authority's (SCCSWA) facilities. WSI picks up the rolloff containers on an as-needed basis, which for most sites is approximately every two weeks. The materials are collected in Hopewell Township at the old SCCSWA MRF, and then transported to Total Recycling for processing and marketing. There is no cost to the County for this service.

It is our understanding that WSI has not been approached about adding plastics to the menu of materials now being accepted, and it is uncertain whether or not WSI would be willing to bear the additional cost to handle plastics. Adding plastics would require additional containers, since the current rolloff containers are configured to handle the current materials and are too small for the significant volume plastics would add. This

would mean greater cost to WSI for placing additional containers at each site, moving these additional containers when they are full, and probably for purchasing additional containers as well.

A brief discussion with Dave Eppley at Total Recycling revealed that Total may be willing to accept the plastics. He would not discuss what such an arrangement might entail, only noting that it is something that would need to be resolved between WSI and Total Recycling.

If it can be demonstrated that plastics can be added to the drop-off program and managed subject to the sales agreement with WSI, there would be no cost to the County, except possibly to purchase containers through a Section 902 grant. Under this scenario, there is no reason not to add plastics. It is almost certainly not that simple, however, and there would probably be some cost involved. It would be worthwhile to explore the possibilities under the current arrangement with WSI, including purchasing additional containers that will be serviced by WSI and/or asking WSI to manage the material at a reasonable cost as a good will gesture to the County.

**Huntingdon Borough Option.** Huntingdon Borough is the only mandated municipal program in Huntingdon County. The Borough contracts with J&J Hauling to collect and process its recyclables at a facility that is set up with equipment purchased by the Borough using Section 902 grant funds. While the Borough has shown some reluctance to work with the County to handle materials in the past, citing additional cost and wear and tear to equipment as reasons, the County should probably explore what might be needed to encourage Huntingdon Borough to cooperate by either setting up a drop-off location for plastics only or accepting plastics from other drop-off locations for processing. If a reasonable arrangement could be negotiated, this may be a very good option for adding plastics.

**Limited Site Option.** If Parks Sanitation is willing to manage plastics at its site in Shirley Township, perhaps this site could become a permanent plastics collection site and be advertised as such. It may also make sense to explore having a central location in the County, such as the Smithfield Township site (which already is the most used location) or Huntingdon Borough, if an acceptable arrangement can be made with the Borough for processing and marketing the County's plastics along with the materials collected at the curb.

**Galliker Dairy Option.** Galliker Dairy's introduction of yellow milk jugs several years ago caused problems for many recycling programs within the Dairy's distribution area. At that time, many markets would not accept these jugs. In an effort to show good faith and work with the recycling community to solve this problem, Galliker offered to assist affected programs by bearing much of the cost to transport and process plastics. While acceptance of these jugs is no longer a problem, Galliker continues to assist Lewistown Borough (Mifflin County) with its plastics by covering the cost of the fee charged by the Centre

County Solid Waste Authority for processing. Galliker also offered to cover transportation costs, but Lewistown has chosen to bear this cost on its own.

It is our understanding that Galliker may still be willing to provide this type of assistance. The County should contact Charles Price at Galliker to determine whether or not this is the case, and if it is, how much cost Galliker would be willing to bear. Adding plastics may be worthwhile if Galliker will cover most or all of the cost to add plastics to the drop-off program.

## CONCLUSIONS

- There will be operating costs that do not exist now—possibly significant—for Huntingdon County to add plastics to its drop-off collection program unless: (1) some agreement can be made for handling the material under its existing arrangement with WSI; or (2) Galliker Dairy or another partner will agree to bear the cost of collecting, transporting and processing plastics.
- Purchase of additional collection containers would be required, since the size and configuration of the existing containers could not accommodate the addition of plastics.
- A highly visible, comprehensive and sustained public education effort would be required to inform residents that plastics have been added to the drop-off program and to train them as to the types of containers that are acceptable and how they are to be prepared for recycling.

## RECOMMENDATIONS

- Huntingdon County should not conduct a pilot program for plastics recycling at a single site unless it is prepared to address the consequences of ending it or if it is nearly certain that plastics will be added County-wide.
- The County should not implement plastics collection County-wide unless: (1) it can be implemented at little or no cost under the existing program; (2) Galliker Dairy or another sponsor is willing to bear the cost; or (3) the County is prepared to cover the additional collection, processing and transportation costs that would be required to operate the program in the event a low or no cost option is not available.
- If the County chooses to implement plastics collection, it must implement a comprehensive, sustained, and highly visible public education program to educate residents about what materials are acceptable and train them in the proper preparation of the acceptable materials.

We certainly understand the County's interest in providing this additional service to its residents, but suggest caution in pursuing an activity that could result in significant cost

with little return for the effort required. We would encourage that you speak with other counties that currently collect plastics in their drop-off programs to learn about their experiences, and that you also contact some of the entities noted in the section "Additional Options for Adding Plastics in Huntingdon County" as to their interest in participating as partners with the County before a final decision is made.

Sincerely,  
R.W. BECK, INC.

Sandra L. Strauss  
Environmental Analyst

Cc: Kathleen Kilbane, SWANA  
Carl Hursh, DEP  
Debbie Miller, R.W. Beck