

April 2, 1999

Mr. Walter Young  
Recycling Administrator/Township Supervisor  
West Mead Township  
1150 Morgan Village Road  
P.O. Box 491  
Meadville, PA 16335

**Subject:** Recycling Program Evaluation

Dear Walter:

This letter is to provide West Mead Township (Township) with the results of R.W. Beck's analysis of the Township's recycling operation. The Township requested that R.W. Beck: 1) evaluate the organizational structure of the program; 2) analyze material handling to identify options to improve operations; 3) conceptualize ideas to expand the program; and 4) determine how to set up a fee structure to make the program self-sustaining.

This analysis will consider these issues primarily in the context of the drop-off collection system and how materials are managed at the Township's Recycling Center.

## **EVALUATION OF RECYCLING DROP-OFF COLLECTION AND PROCESSING STRUCTURE**

West Mead Township started its drop-off recycling program in 1989 to overwhelming response. West Mead Township No. 1 Volunteer Fire Company operates the program, with support from the West Mead Township Supervisors, as a fundraising program for the Fire Company.

### **ORGANIZATIONAL STRUCTURE**

It is R.W. Beck's understanding that the present structure involves a cooperative arrangement between the Fire Company and the Township, and that an advisory committee of Fire Company personnel is responsible for making decisions that affect the program.

The advisory committee only meets periodically, the Township bears primary responsibility for financing the program, and the Fire Company may have less commitment to the program due to poor market conditions that result in reduced revenues. The

advisory committee may be too far removed from daily operations to make the best decisions for the program. The Township may wish to consider establishing a management structure that provides better fiscal controls and protections for the Township, and that grants the Township a greater role in decisions that affect operation of the drop-off program and the recycling center. This may entail placing the primary responsibility for day-to-day decision making with the facility manager, and requiring that decisions involving significant expenditures or changes in operation be made jointly among the facility manager, the advisory committee, and the Township supervisors and administrators.

Because the continued poor or flat market performance that has limited revenues for materials has resulted in relatively low return to the Fire Company and increased cost to the Township, the Township may wish to explore whether or not the Fire Company wishes to continue in its role as operator of the recycling center. There may be advantages to the Township assuming responsibility for operation of the center, including removing an extra layer of administration and providing direct revenues to offset the Township's expenditures.

## **DROP-OFF COLLECTION**

While West Mead's drop-off collection system has functioned reasonably well since its implementation in 1990, providing access to recycling to all Crawford County municipalities, there are a number of potential changes that could be made to improve the system's efficiency, reduce staff time and costs, and increase the amount of material collected.

### **Function of Drop-Off Locations**

The current structure requires a daily commitment to deliver empty containers to and pick up filled containers from the County's 43 remote drop-off locations. By the Township's estimation, at only about one third of the locations are the containers being filled during the 24 hour period when they are onsite for public drop-off. The remainder is being picked up half full or less, with approximately 20 percent of all containers being minimally full. While there have been some attempts to maximize the amount of materials in containers by moving containers with minimal amounts to the next drop-off location, this involves additional time, mileage and maneuvering.

Figure 1 is a map that illustrates how sites are distributed by the estimated fill level of containers.

An analysis was performed of the correlation of fill rates with two different variables-- population and location with respect to major roads. Table 1 provides a comparison among the sites using municipal populations, and Table 2 uses location.

As Tables 1 and 2 illustrate, higher population and locations near major roads appear to be the best predictors of the volume of material collected at any given site. Nine of the 15 sites with containers that are generally full at pickup are in the top third (15) sites as ranked by population. With regard to fill level as related to location, there are no sites located on major roads that were found to be in the "minimal" category, and no sites on minor roads considered to be in the "full" category. As for containers considered to be "half full" at pickup, the results are less definitive, and these results could be related to any of a number of factors. Table 3, for example, suggests that Friday and Saturday sites appear to have the best results, with no containers classified as "minimal" at pickup. These are sites where

Figure 1—Crawford County Sites, Distribution by Fill Level

Available upon request

Contact R.W. Beck at [slsbeck@epix.net](mailto:slsbeck@epix.net)

**TABLE 1**  
**VOLUME OF RECYCLABLES COLLECTED BY POPULATION**

Drop-Off Site	Level of Containers when Picked Up		
	Full	Half-Full	Minimal
Athens Township			699
Bloomfield Township	1,839		
Blooming Valley		391	
Cambridge Springs Boro/Twp.	3,327		
Centerville		249	
Cochranon		1,174	
Conneaut Lake	699		
Conneaut Township		1,399	
Conneautville Borough	822		
Cussewago Township		1,409	
East Fairfield Township		890	
East Fallowfield Township		1,280	
East Mead Township		1,441	
Fairfield Township		997	
Greenwood Township		1,361	
Hayfield Township	2,937		
Hydetown		681	
Milledgeville			789
North Shenango Township		2,069	
Oil Creek Township	2,069		
Pine Twp./Linesville Boro		1,621	
Randolph Township	1,661		
Richmond Township	1,370		
Rockdale Township		1,045	
Rome Township			1,491
Sadsbury Township	2,575		
Saegertown	1,066		
South Shenango Township			1,556
Sparta Twp./Spartansburg	1,957		
Spring Township		1,561	
Springboro		471	
Steuben Township		820	
Summerhill Township		1,264	
Summit Township	1,890		
Townville	358		
Troy Township			1,235
Union Township			895
Venango Borough/Twp.	1,018		
Vernon Township	5,605		
Wayne Township			1,401
West Fallowfield Township		693	

Woodcock Borough		148	
Woodcock Township		2,412	
TOTALS	29,193	23,376	8,066
AVERAGE POPULATION	1,946	1,113	1,152

**TABLE 2**  
**VOLUME OF RECYCLABLES COLLECTED BY LOCATION**

Drop-Off Site	Level of Containers when Picked Up		
	Full	Half-Full	Minimal
Athens Township			3
Bloomfield Township	1		
Blooming Valley		2	
Cambridge Springs Boro/Twp.	1		
Centerville		1	
Cochranton		1	
Conneaut Lake	1		
Conneaut Township		3	
Conneautville Borough	1		
Cussewago Township		3	
East Fairfield Township		1	
East Fallowfield Township		3	
East Mead Township		2	
Fairfield Township		3	
Greenwood Township		2	
Hayfield Township	2		
Hydetown		1	
Milledgeville			2
North Shenango Township		3	
Oil Creek Township	1		
Pine Twp./Linesville Boro		1	
Randolph Township	2		
Richmond Township	2		
Rockdale Township		2	
Rome Township			2
Sadsbury Township	1		
Saegertown	1		
South Shenango Township			3
Sparta Twp./Spartansburg	2		
Spring Township		3	
Springboro		1	
Steuben Township		3	
Summerhill Township		1	
Summit Township	1		
Townville	2		
Troy Township			2
Union Township			3
Venango Borough/Twp.	1		
Vernon Township	2		
Wayne Township			2
West Fallowfield Township		2	
Woodcock Borough		2	
Woodcock Township		2	
<b>TOTAL ON MAJOR ROADS (1)</b>	<b>9</b>	<b>7</b>	
<b>TOTAL ON SECONDARY ROADS (2)</b>	<b>6</b>	<b>7</b>	<b>4</b>
<b>TOTAL ON MINOR ROADS (3)</b>		<b>7</b>	<b>3</b>

(1) Labeled as 1 in table. Major roads include Rts. 322, 8, 6, 18, 19.

(2) Labeled as 2 in table. Secondary roads include other numbered roads.

(3) Labeled as 3 in table. Minor roads do not have a number designation.



**TABLE 3**  
**DROP-OFF CONTAINER FILL LEVELS BY COLLECTION DAY**

Day	Fill Level			Totals
	Full	Half-Full	Minimal	
Monday		3	1	4
Tuesday	2	4		6
Wednesday	3	1	4	8
Thursday	2	4	2	8
Friday	3	5		8
Saturday	4	4		8
Continuous	1			1
<b>Totals</b>	15	21	7	43

containers are available during the weekend when residents may have more of an opportunity to drop off their recyclables. Support from the home municipality in terms of additional public education and promotion may also be a factor.

**Drop-Off Program Cost Considerations**

While the fee is not excessive for the service, many of the municipalities hosting the containers have expressed concern over the \$50 per pull charge instituted by the Township. However, the Recycling Center operator reports that the \$50 charge does not cover the cost to service each site. Table 4 shows the estimated cost per site for transportation alone, with transportation costs estimated at \$1.50 per mile. The average cost for transportation alone, as indicated Table 4, is calculated to be approximately \$51.70 per site, which supports the operator’s claim that the pull charge does not cover the cost of services. On the other hand, it is understandable that the sites that pay at that rate for containers being pulled with minimal amounts of material--which tend to be the smaller, less populated municipalities--are unhappy about the cost.

It is reported that Crawford County has submitted an application for a grant to purchase the Haul-All system (VQuip) for 12 sites throughout the County. This system would: 1) allow for each site to be permanently placed and hold greater amounts of material with materials protected from the elements; 2) permit the Township to collect materials from sites on a circuit, without placing and pulling rolloff containers as is required by the current system; and 3) allow for compacting materials to facilitate hauling of larger amounts of material. The vendor claims the Haul-All system, with containers placed in visible, convenient locations, will boost the amount of material collected.

The current system has inherent inefficiencies and tends to be costly. The Township should consider reconfiguring the system to reduce the number of sites that are serviced as a means of reducing the time and transportation costs required to support the system. Criteria to be considered are: 1) current volumes received; 2) accessibility/reasonable distance for County residents; and 3) use of equipment that maximizes volume collected by site.

**TABLE 4**  
**TRANSPORTATION COST BY SITE**  
**(AT \$1.50/MILE ROUNDTrip)**

Drop-Off Site	Mileage to Site	Transportation Cost
Athens Township	20	60
Bloomfield Township	26	78
Blooming Valley	8	24
Cambridge Springs Boro/Twp.	15	45
Centerville	24	72
Cochranton	12	36
Conneaut Lake	14	42
Conneaut Township	24	72
Conneautville Borough	19	57
Cussewago Township	21	63
East Fairfield Township	7	21
East Fallowfield Township	22	66
East Mead Township	5	15
Fairfield Township	15	45
Greenwood Township	14	42
Hayfield Township	11	33
Hydetown	26	78
Milledgeville	16	48
North Shenango Township	22	66
Oil Creek Township	29	87
Pine Twp./Linesville Borough	20	60
Randolph Township	11	33
Richmond Township	15	45
Rockdale Township	21	63
Rome Township	37	111
Sadsbury Township	14	42
Saegertown	8	24
South Shenango Township	26	78
Sparta Twp./Spartansburg	30	90
Spring Township	20	60
Springboro	22	66
Steuben Township	20	60
Summerhill Township	17	51
Summit Township	13	39
Townville	17	51
Troy Township	22	66

Union Township	7	21
Venango Borough/Twp.	12	36
Vernon Township	6	18
Wayne Township	14	42
West Fallowfield Township	17	51
Woodcock Borough	9	27
Woodcock Township	13	39
<b>Average Mileage/Cost</b>	17.2	\$51.70

There are currently a number of sites in close proximity to each other. The sites that receive minimal amounts of material could probably be discontinued without major inconvenience to County residents. A major reduction in tonnage can probably be prevented if there is a comprehensive effort to notify County residents about these changes. This kind of education should entail cooperation involving the Township, the County and each municipality and site. Ideally, the Township should look toward reducing the number of sites to 12 that are serviced by the Haul-All system for which the County hopes to receive a grant. If it is felt that there are some remote areas of the County that would be underserved with only 12 sites, the Township could place the existing containers in selected locations, preferably on a permanent basis, with pick-ups to be scheduled on an as-needed basis to eliminate trips to collect nearly empty containers. In all cases, close cooperation between the Township and host sites is very important to ensure smooth operation and minimal problems with contamination and overflow.

### **Proposed Haul-All Drop-Off System**

Without actually implementing the Haul-All system in Crawford County it is impossible to know whether or not more materials can/will be dropped off. The ideal placement for containers in this system is in high visibility locations like grocery stores and shopping centers. Crawford County does not have an abundance of these types of sites. The Township should work with the County to try to locate these types of sites for placement of the system where possible. Where this type of site is not available, the goal should be to use the more visible and easily accessible municipal locations. It should be noted, however, that having permanent sites that are convenient will probably offset reduction in sites and lack of extremely high visibility locations.

One problem with this change is that it will be difficult to assess fees for collection of the materials in a way that guarantees fairness for all municipalities with participating residents. One method is to estimate what it will cost to service the sites under a new configuration and negotiate prorated payments based on population. Another is to work only with municipalities that are willing to pay for the cost to service a site. However, it should be noted that the Haul-All system is expected to reduce servicing costs. The reduced cost, combined with greater volumes of material collected (if Haul-All's claims are accurate) may negate the need to collect fees. It may be a good idea to service each site for

some period of time to determine what the actual cost will be, then determine whether or not to implement a fee structure.

**PROCESSING AT THE WEST MEAD RECYCLING CENTER**

The Township has expressed interest in boosting volumes by bidding for Meadville's curbside materials, attempting to capture more of the commercial/institutional market, and perhaps by accepting some additional materials from Erie County sources. While the current processing system, established to manage a drop-off program that takes in separated materials, has been successful, the Recycling Center's lack of a processing/picking line to remove contaminants, and perhaps some additional mechanized processing capability, will make it difficult to manage additional volume that might result from a major marketing campaign.

As illustrated in Table 5, on average the Recycling Center manages less than one quarter of the recyclables generated in Crawford County. Table 6 shows that based on 1998 figures alone, adding Meadville's materials would boost the volume of materials to be processed by approximately 38 percent. This is a very significant increase and it is unlikely that such an increase could be handled smoothly immediately.

**TABLE 5  
REPORTED TONNAGE--WEST MEAD/CRAWFORD COUNTY**

Reporting Entity	1996		1997	
	Reported Tonnage	% of Total	Reported Tonnage	% of Total
West Mead	1,200.9	25.7%	1,310.1	21.5%
County	4,673		6,086	

**TABLE 6  
REPORTED TONNAGE--WEST MEAD/MEADVILLE**

Reporting Entity	1996		1997		1998	
	Reported Tonnage	% Increase	Reported Tonnage	% Increase	Reported Tonnage	% Increase
West Mead	1,200.9	25.8%	1,310.1	29.9%	1,370.0	38.1%
Meadville	309.8		391.2		521.3	

The greater problem, however, is that the Recycling Center is not equipped to manage commingled materials. Meadville currently contracts with Tri-County Industries for

municipal waste and recycling collection, processing and disposal services. Its curbside materials are collected commingled and taken to Tri-County's recycling facility for processing/marketing. For West Mead to be able to compete for this material, it would need, at a minimum, to be able to process commingled materials. It may need to get into the curbside collection business as well, unless it can negotiate with Tri-County and/or Meadville to have the materials delivered to its Recycling Center. This may be difficult since the current contract covers both waste and recycling, which is generally the most cost-effective approach. If separating the services increases the cost to Meadville, it is unlikely that West Mead will have the opportunity to process Meadville's recyclables unless Tri-County opts to discontinue its recycling services.

It is assumed that the balance of tonnage attributed to Crawford County is commercial/institutional materials. These are less difficult to manage from a processing standpoint, because they are usually segregated by material type--primarily corrugated cardboard (OCC) and office paper--at the source. However, the Recycling Center would likely encounter some difficulty in processing large additional volumes of even these types of materials without having the ability to perform additional processing. Hand picking of materials dumped on the processing floor is labor intensive and would not be efficient for larger volumes of material. Having a sorting line leading to a conveyor feed would make it possible to process more material more effectively.

The Pennsylvania Department of Environmental Protection (DEP) has approved one Section 902 grant application for facility upgrades and equipment, and another application has been submitted and is awaiting approval. While a good portion of the funding will cover the purchase of some equipment, including a new two ram horizontal baler and scales, most of it is dedicated to building a storage structure. It is clear that there is a need for more under cover storage, but the Recycling Center also needs to improve its processing capabilities to improve efficiency and make it possible to boost the volume of material it can manage efficiently. This would require substantial reconfiguration of the facility and planned upgrades to accomplish. The goal is to reduce handling of materials to a minimum, because every time materials are handled it adds cost to processing.

The most important issue to consider in reconfiguring the facility is the addition of some type of sorting mechanism. This allows for minor mechanical and more effective manual sorting of materials by commodity. There are two basic options available for sorting—a straight-line conveyor system with a picking platform, or a rotary picking platform. Most facilities in Pennsylvania have used the straight-line picking system, though it has been reported that Township personnel have been looking at a rotary picking system offered by a company in the Pittsburgh area.

Use of a well-designed sorting system would have an immediate impact on productivity. Materials would be dumped into a tipping area and fed directly into the sorting system, where it is easier to see and remove contaminants as they pass by pickers. Hand picking can be reduced further by having an overhead magnet at the beginning of the line to

remove all ferrous metals. Managing materials through a formal sorting system is inherently more efficient and produces a cleaner product than a system that relies on hand picking materials off a truck or the floor.

Depending on market conditions, having a well-designed sorting system also enables the Center to sort as much or as little as necessary to obtain optimal revenues for the materials. For example, at present the price differential between mixed plastics (PET and HDPE) and separated plastics is minimal. When weighed against the extra space required to store each of the current categories separately (PET, HDPE color and HDPE natural) until there is a full load, the Center may find that it makes better economic sense to move mixed loads quickly because it results in lower storage space requirements and more regular cash flow.

The Township should consider the following in choosing a sorting system, as well as any other equipment that would be included in a retrofit:

- How materials are received (commingled or separated, level of contamination)
- Quantity of materials received, allowing for reasonable expansion
- Space available and an efficient configuration based on the other factors cited above

Even if West Mead's Recycling Center were to expand to manage the equivalent of the total recyclables generation in Crawford County, it would still be a small facility, and this should be a factor in equipment selection. This includes selection of a new baler, a purchase that is already planned. While there is a temptation to purchase equipment that has a maximum number of features and can process significantly more material than is anticipated—especially when grant funding is available to pay for it—most equipment performs best when used at or reasonably close to its rated capacity.

With regard to the issue of reduction in handling, it was suggested that activities could probably be eliminated with no negative outcomes. Currently, the Recycling Center fluffs its newsprint and magazines prior to baling. This has been necessary because the current baler has not been reliable and fluffing improves the quality of the bales. Office paper is currently shredded for the same reason. The new baler should eliminate the need for this extra step in the processing of these materials. (NOTE: Other public facility operators throughout Pennsylvania have reported that using a two ram horizontal baler has eliminated pre-processing at their facilities.) While performing the extra step may improve bale quality, the extra cost that results from this extra handling will probably not be recovered through additional revenues. Fluffing or shredding should only be used in cases where it is required—for example, shredding of confidential documents required by some businesses.

Figure 2 provides a conceptual drawing of a simple processing operation for a small recycling facility. While this particular layout may not be the optimal one for West Mead, the Township should review its current plans for upgrades with an eye toward reconfiguring the processing system to improve efficiency. Some of the grant funds could

be reallocated to help accomplish this reconfiguration. For example, assuming the Haul-All system is implemented for drop-off collection, it may be that the Collection Equipment category can be reduced since it is less likely that the same number of current drop-off containers will be needed.

The Township should take time to investigate measures to reconfigure the operation to make functional changes to handle a larger volume of materials. Visits to other operators are often helpful in identifying changes that would be applicable to the Township's operation.

## **PROGRAM EXPANSION**

The issue of program expansion has been stressed throughout this report. West Mead needs to expand to accommodate more materials to remain a viable entity and provide a reasonable cost of service to its primary target audience, the residents of Crawford County not served by curbside recycling.

Accepting materials from Meadville's curbside program may be a modest way to break into the residential curbside market. However, as noted above, the facility would need to have the capability to sort commingled materials. It would probably be best to start and gain some experience with a program like Meadville's prior to marketing this service elsewhere.

If the Township is not interested in substantially revamping the Recycling Center's operation, then it should not attempt to negotiate for Meadville's curbside recyclables, but to focus instead on expanding the volume of commercial and institutional materials. These materials require significantly less processing than commingled curbside materials. Table 7

Figure 2—Conceptual Materials Recovery Facility Design

Available upon request

Contact R.W. Beck at [slsbeck@epix.net](mailto:slsbeck@epix.net)



**TABLE 7**  
**WEST MEAD'S SHARE OF CRAWFORD COUNTY ACT 101 MATERIALS**

MATERIAL	1996					1997				
	West Mead	Meadville	County*	% Share Processed**	Processed Elsewhere	West Mead	Meadville	County*	% Share Processed**	Processed Elsewhere
Aluminum	9.7	15.8	64.0	15.2%	54.3	13.0		285.0	4.6%	272.0
Steel cans	145.0	43.7	299.0	48.5%	154.0	160.8		226.0	71.2%	65.2
Clear glass	184.9	106.0	327.0	56.5%	142.1	168.6		222.0	75.9%	53.4
Colored glass	101.2	56.0	222.0	45.6%	120.8	79.9		149.0	53.6%	69.1
Plastics	67.0	22.9	163.0	41.1%	96.0	81.1		308.0	26.3%	226.9
ONP/OMG	369.5	65.4	505.0	73.2%	135.5	470.7		490.0	96.1%	19.3
OCC	217.4		1,582.0	13.7%	1,364.6	276.2		2,054.0	13.4%	1,777.8
Office paper	106.2		321.0	33.1%	214.8	59.6		108.0	55.2%	48.4
Commingled			43.0	0.0%	43.0		391.2	535.0	0.0%	535.0
Totals	1,200.9	309.8	3,526.0	34.1%	2,325.1	1,309.9	391.2	4,377.0	29.9%	3,067.1

\*Includes West Mead and Meadville —Meadville only shown for comparison purposes

\*\*Percentage is West Mead total divided by County total

indicates the estimated tonnages of all Act 101 materials in Crawford County (except for yard waste) that are now being processed and marketed elsewhere.

To expand the intake of commercial/institutional materials, the Township would need to undertake some research to determine a strategy for encouraging these materials to be redirected to its Recycling Center. This would require speaking with a variety of businesses throughout the County to find out where their materials are going now, how they are handled on site, how they are getting to the processor/end market, and what it is costing to get them there. Once such information is available, the Recycling Center can develop a plan for managing these materials (which may or may not need to include the option to have materials picked up) that is efficient and cost competitive.

Regardless of the choices made, the Township will need to dedicate significant time and resources to education. The goals of any education program, at a minimum, should be to expand and improve the quality of materials collected in both the drop-off program and the commercial/institutional recycling program.

## **FEE STRUCTURE**

As with program expansion, this issue has been addressed to some degree in earlier sections as well.

Assessing fees for the drop-off program, especially if the Haul-All system is implemented, would be problematic. As discussed earlier, it may be best to determine the cost to service this system first before assessing any fees. If the costs prove to be substantial, then a system that assesses cost on a prorata basis (assuming most municipalities are cooperative) would be fairest. The Township should work with the County Recycling Coordinator if you determine that a fee assessment for this service is necessary.

As for managing curbside materials, any fees would need to be determined based on the cost of services provided. The Township should review what municipalities throughout the region are paying for different levels of curbside recycling services and determine what it would cost for the Recycling Center to provide these services. If it appears the Recycling Center can provide a cost-competitive alternative, then it may want to consider entering this market.

The same holds true for commercial/institutional materials. The Township needs to review the levels and cost of services provided to businesses throughout the County, determine

what the Recycling Center's cost would be to provide these services, and set an appropriate price.

## CONCLUSIONS

- The present organizational structure consists of the Fire Company, the Township, and to some extent, the County.
- The current drop-off collection system is time consuming, inefficient and costly and should be reviewed and restructured.
- The Recycling Center's processing system is labor intensive and inefficient, which would probably limit its ability to manage significant amounts of additional materials.
- The Recycling Center's lack of sorting capability precludes marketing its processing services to Meadville and perhaps to potential curbside programs in Crawford County and existing curbside programs in adjacent counties.
- The Recycling Center is only processing about one third of Crawford County's reported Act 101 recycling tonnage (not including yard waste), so there is opportunity to expand its services within the County.
- Increasing throughput, achieving economies of scale and improving the efficiency of collection and processing should improve the bottom line, result in reasonable return for the Fire Company, and minimize cost to the Township.
- Implementing a fair fee structure for the drop-off program will be difficult, but needs to be done to ensure sustainability of the program.

## RECOMMENDATIONS

- The Township should establish a management structure that provides better fiscal controls and protections for the Township, and that grants the Township a greater role in decisions that affect operation of the drop-off program and the Recycling Center. It should consider assuming responsibility for operation of the center, as there are advantages that include removing an extra layer of administration and providing direct revenues to offset the Township's expenditures.
- The Township should review the locations of its drop-off sites to reduce to 12 locations that are highly visible and distributed reasonably throughout the County to reduce inefficiency and maximize the amount of material collected per pickup. These sites should be established as permanent drop-off locations using the Haul-All system for which the County has applied for funding. If there are gaps or areas that are remote and potentially underserved with this structure, some of the existing containers should be used to provide access to County residents in these areas. Any additional sites using

the current containers should be set up as permanent sites with collection performed only on an as-needed basis.

- The Recycling Center should review its current processing structure and determine ways to reconfigure the system to improve efficiency by reducing materials handling as a means of boosting its capacity to manage more materials and reduce operating costs. Specifically, the Recycling Center should eliminate unnecessary handling, such as fluffing or shredding not always necessary for baling.
- The Recycling Center should consider adding a sorting line to make it possible for the Center to compete for Meadville's curbside materials, possible new curbside programs in Crawford County and curbside materials from existing programs in adjacent counties as a means of boosting its capacity to manage more materials. Having a sorting line will also make it easier to manage materials that might have excessive contamination.
- The Recycling Center should estimate a cost to provide services to the commercial/institutional community throughout the County and market its services to this sector. This sector offers tremendous opportunities to increase the Center's throughput by a significant amount while adding materials that are relatively clean, easy to process, and that offer a fairly reasonable return.
- Because of the difficulty in establishing a fair fee structure for the drop-off program, the Recycling Center should determine the actual cost to operate a more efficient, reconfigured system before trying to implement a fee. Greater efficiency and increased volume may, in fact, eliminate the need to implement a fee. If a fee is determined to be required, the Township should work with the County Recycling Coordinator and municipalities to determine a fair system.
- The Township should do research in the region to see what others are paying for curbside collection/processing services as a means of determining whether or not the Recycling Center can provide a reasonable alternative to existing services.

The West Mead Recycling Center has tremendous potential to provide a valuable, high quality service to the residents and businesses of Crawford County and provide a reasonable return to the Fire Company at a reduced cost to the Township. Under the existing structure, however, we believe it cannot deliver the most efficient and/or cost-effective service possible. If the Township/Recycling Center is willing to implement many, if not most, of the recommendations stated above, this facility will improve its efficiency and its bottom line, and possibly become a model for other facilities throughout the state.

Sincerely,  
R.W. BECK, INC.

Sandra L. Strauss  
Environmental Analyst

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