

Via Facsimile

October 13, 1998

Ms. Rosemary Bradley
Executive Director
Twin Rivers Council of Governments
509 Walnut Street
McKeesport, Pennsylvania 15132

Subject: **Analysis of Municipal Yard Waste Management Issues and Options for Delivering Recycling Materials Collected by Twin Rivers Council of Governments**

Dear Rosemary:

The purpose of this letter is to provide the Twin Rivers Council of Governments (COG) with the results R. W. Beck's analysis of options for delivery of collected recyclable materials and sustaining the current woody waste recycling program serving COG member communities.

Currently, the recyclable materials collected by the COG are delivered to intermediate markets that are not logistically convenient from points within the COG service area. Therefore, the COG is looking at alternatives that are more geographically convenient. The primary option available is the McKeesport Recycling Facility.

Additionally, the COG is concerned about the sustainability of a woody waste recycling program, due to the lack of equipment to process the materials delivered from sources within the COG communities. The primary issue is the need to replace an existing tub-grinder that is beyond repair. The old grinder, owned by a local nursery operation, Grandview Nurseries, was used to process woody waste from COG members for the past five years.

To address these two concerns, R. W. Beck has identified options for the COG to review and consider. The following are the factors considered for this analysis:

- Identify a more local alternative for processing and marketing recyclable materials collected by the COG.
- Define the most effective method for the COG members to manage yard waste on a regional basis.
- Minimize, to the greatest extent possible, the distance any one municipality would have to travel to deliver yard waste materials collected to a site approved for processing the materials.
- Maximize the use of equipment purchased to manage the yard waste materials collected from member municipalities.

ANALYSIS OF REGIONAL PROCESSING/MARKETING OPTIONS

UTILIZE MCKEESPORT RECYCLING FACILITY

The City of McKeesport owns and operates a recycling center where City staff consolidate selected recyclable materials into transport containers to ship to intermediate processing facilities. Presently, McKeesport collects old newsprint (ONP), old corrugated cardboard (OCC), mixed metal cans and clear glass. Materials delivered to the facility are dumped on the floor and loaded into roll-off containers with a small front-end loader. When the containers are full they are shipped to an intermediate processing facility for processing and marketing.

The building used as the Recycling Center is approximately 50 feet by 80 feet, having a total working area of 4,000 square feet. There are no loading docks, so all materials are loaded into the consolidation containers from floor level with the small front-end loader.

In order for this facility to serve as a site to deposit materials collected from the COG member communities there are a number of issue to consider. These include:

- Presently, the COG communities are collecting two additional items, green and brown glass, that are not being handled at the McKeesport Recycling Center and would require additional consolidation containers to handle.
- The facility is smaller than what would be required to handle the additional materials that would be delivered from the COG communities.
- Materials are being double handled. Dumping directly into the consolidation containers would be more efficient.

While delivering recyclable materials to this facility would be more geographically convenient, the physical restrictions of the building would have to be addressed to meet the needs of the COG recycling program. For instance, the building would need to be enlarged to handle the additional items and volume of materials that would be delivered to the facility if the COG directed its recyclable materials to this operation. Additionally, cutting a grade to install loading docks to enable materials to be tipped directly into consolidation containers, or to be pushed into the containers with a loader if materials are tipped on the floor, would improve the efficiency of the operation and enable the facility crew to better handle more materials. These facility improvements would be instrumental to ensuring the success of the COG utilizing the Center for delivery of materials collected in the COG recycling program.

The site where the facility is located has some limitations with respect to enlarging the facility and installing a split grade to accommodate loading docks to off-load collected materials. However, within the limits set by the site, some upgrades could be implemented that would improve natural handling and enable the facility to accommodate more material.

Further evaluation by a structural engineer could provide insights into how the facility could be configured to meet the COG community needs within the existing site

constraints. At a minimum, the facility's size should be doubled to accommodate handling of paper items such as ONP and OCC inside the building for protection of materials from moisture. Glass and cans can be stored in their respective containers outside the building.

An Act 101 Section 902 grant could be applied for in the Spring 1999 grant round requesting money to assist with the facility upgrades. Table 1 summarizes the potential estimated costs associated with the facility upgrade.

Table 1
CITY OF MCKEESPORT RECYCLING CENTER ESTIMATED COSTS TO UPGRADE FACILITY

<i>ITEM</i>	<i>ESTIMATED COSTS</i>
Construction Cost for Additional 4,000 Square Feet at \$30/Square Foot	\$ 120,000
Site Work to Install Split Grade	\$ 16,000
Purchase Additional Roll-Off Containers 4 @ \$6,000/Container	\$ 24,000
Engineering / Contingency (Project Development)	\$ 20,000
TOTAL ESTIMATED COSTS	\$ 180,000

Based on the cost estimates shown in Table 1, the COG could upgrade the McKeesport Recycling Facility for approximately \$180,000. With a 90 percent State Grant Match, the facility upgrade would cost the COG approximately \$18,000.

This additional space would also provide COG with the option of further processing selected items (i.e. baling OCC) and selling a commodity directly to a market if prices are more favorable.

An official from the city of McKeesport has clearly expressed an interest in having the COG take over the facility and the related operations.

Alternatively, if the site constraint restricts implementation of implementation this option, another consideration is procuring different collection equipment. There are trucks available that use hydraulics to elevate the collection bed high enough to dump directly into roll-off containers. This type of equipment is very specialized, so the COG would need to purchase enough to service curbside and drop-off programs, as well as a back up in the event a vehicle breaks down.

Again, 90 percent of the cost associated with purchasing the required number of vehicles could be reimbursed through the State 902 Grant Program.

Beyond the use of the McKeesport facility, options are extremely limited. It appears that transporting materials into intermediate markets within the Pittsburgh City limits

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is the only other alternative, without the COG developing a completely new facility. This option may not be attractive from the state funding prospective since it would duplicate the McKeesport Operation.

YARD WASTE PROCESSING ANALYSIS

Currently, yard waste material collected from sources within the COG service area is largely delivered to Grandview Nursery for processing. The relationship between COG and Grandview Nursery to facilitate this service has been in place since 1993. An Agreement was signed by both parties stipulating that COG municipalities that agreed to participate in the relationship could deliver unlimited amounts of leaves, branches and other raw yard waste materials for processing at Grandview's operation located at Freeman Road, Sewickley Township, Westmoreland County. The Agreement has an effective term that continues through February 28, 2003, with a five-year option for renewal.

As a function of the Agreement, the COG agreed to purchase and lease certain equipment for use in the operation of a leaf composting operation on behalf of COG member participating municipalities. The lease charge for the equipment was stated at \$11.00/per year per equipment item. The Agreement clearly stipulated that title to said equipment should at all times remain in the name of the Twin Rivers Council of Governments.

The equipment covered by the Agreement included a screen/shredder and a water pump. In addition to the equipment leased to Grandview to operate the yard waste processing project, Grandview offered the use of its own tub grinder to process woody waste materials. The tub grinder, well used at the time the relationship was consummated, has since been used to the state of disrepair. To accommodate the continuation of this critical processing component, the COG applied for a 902 grant to procure a new grinder to lease to Grandview. The grant has been denied by the State on the grounds that it represents a public/private partnership, an arrangement which is no longer being funded by the 902 grant program.

To rectify this situation and enable the COG to obtain grant funds to replace the tub-grinder the following argument should be presented to the State:

The relationship between Grandview Nursery and the COG does not represent a public/private partnership. Instead it is a situation where a public entity (COG and member municipalities) have contracted with a private entity to provide a required municipal service. Equipment purchased through the State Grant Program remains in the ownership of the COG and is leased to the private Contractor as a fee for the contractor's services. The key issue is that the COG retains ownership of the equipment.

The letter included with this letter report as Attachment 1 is available as a means of addressing this issue with the Department of Environmental Protection (Department). It basically attempts to assure the Department that the relationship between Grandview Nursery and COG does not fall within the definition of a public/private

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partnership. It also stresses the importance of the tub-grinder to the ongoing sustainability of the COG's yard waste recycling program.

The Department has suggested that the COG could utilize tub-grinders owned by other public and private entities such as South Hills COG and Ag-Recycle. Both entities were contacted but the fee was quite costly on an hourly basis. Also, the fee structure was such that in certain instances Twin Rivers COG would be paying for time that the equipment is not in use.

Purchasing a new tub grinder offers the best option for the ongoing success of the COG Yard Waste Program.

CONCLUSIONS

- The COG could take over operation of the McKeesport Recycling Center to serve as a consolidation/transfer point for recyclable materials collected from member municipalities.
- The facility should be upgraded to accommodate the additional volume of materials and to make material handling more efficient.
- The COG should pursue approval of the grant to purchase the tub-grinder.

RECOMMENDATIONS

- COG should have a structural engineer look at the potential of expanding the McKeesport Recycling Center and installing a split grade for directly tipping recyclable materials into consolidation/transport containers.
- If changes to the facility can be implemented, the COG should take over operations at the center and consolidate materials for delivery to intermediate processors.
- COG should further evaluate the potential of directly marketing selected materials to increase revenues to the program.
- COG should forward the attached letter to DEP regarding the tub-grinder and continue to pursue state funding to purchase a tub grinder.

Please feel free to call me at (717) 730-0404 if you have any questions on the analysis explained in this letter report.

Sincerely,

R. W. BECK, INC.

Richard Schlauder
Director of Environment Services
Pennsylvania Office

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cc: Charlotte Frola, SWANA
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