

ALTERNATIVE RESOURCES, INC. (ARI)

September 20, 2000

Mr. John Marcarelli, Borough Manager
Borough of Lansdowne
12 Baltimore Avenue
Lansdowne, Pennsylvania 19050

Re: Recycling Program Preliminary Report

Dear John:

I have reviewed the information and data you provided regarding the background and current operations of the Borough's recycling program. I have also accompanied the Borough's collection crew on their various routes for the collection of recyclable materials and have interviewed the supervisor and individual crewmembers. Based on these initial efforts, I offer the following preliminary observations, suggestions and recommendation for the Borough's consideration.

OBSERVATIONS

Collection

- Collection of recyclables is currently labor intensive requiring three crews and a supervisor (at a minimum 10 persons).
- The current program requires duplication of effort. One truck is used for collection of cans or glass and two trucks for collection of papers. The truck used for collection of cans or glass (depending on which item is designated for collection) duplicates the collection route for the trucks collecting paper.
- The collections are accomplished using trash compactor trucks. These trucks are specifically designed to collect municipal waste and are not efficient for collection of source segregated recyclable materials and are expensive to operate and maintain.
- Collection of glass and cans creates a particular problem when compacting vehicles are used. The design and function of the compactor truck is for municipal waste, most of which is

containerized in plastic bags. When these trucks are used for recyclable collection of glass and cans this light fraction material glass and cans often overflows the truck collection bin during the loading process. That is, when the collection bin is filled and the scoop plate is open, material flows out of the storage compartment and overflows the collection bin.

This overflow results in glass and metal containers rolling out on the street causing delays, to pick up the material that overflows and could present a safety hazard if all the glass is not properly cleaned up.

- Crews worked efficiently considering the equipment used and were well supervised.

Participation

- Based on my initial observation, I would estimate that participation rate (based on the number of containers set out versus the number of residents) is +/-60%. (Note: some residents may set out recyclables every other collection).

Diversion Rate

- The current diversion rate (amount of material removed from the waste stream and recycled) by the Borough's recycling program is estimated to be 7.5%. This estimate is based on the actual total amount of materials collected by the program in 1998 i.e.: 681 tons. It is assumed, for the use of this estimation, that Lansdowne Borough generates 9,214 tons of municipal waste per year given a population of 11,742 people X 4.3 pounds generated per person/per day (4.3 lbs. estimate is derived from EPA characterization of MSW May, 1998).

Program Economics

- The total income derived from the sale of recyclable material for 1998 was \$2,751.50. Specific information on program operation cost is not maintained separately from total waste management cost; therefore an economic assessment cannot be made at this time.

Since the Borough does not pay a tipping fee for disposal of its MSW, the benefit of avoided cost for disposal is not a significant factor for consideration regarding economic benefit of the recycling program.

SUGGESTIONS

In order for the Borough to achieve its goals; to increase efficiency of the program; expand the types of material collected; increase participation rates and improve program economics a number of modifications and changes to the current program are required.

ARI suggested the Borough consider the following for further analysis to assist in achieving these goals:

- Purchase of collection vehicle(s) that are designed for recyclables and are capable of collecting several different materials simultaneously.
- Potential for expanding program through increasing the types of material collected: 1) Source segregated and @) commingled. (Source segregated would require additional containers, commingled collection would require a larger recycling container to be provided to residents).
- Potential for reduction of the number of crews required for collection given new equipment e.g.: collection of newspaper and recyclables in one vehicle.
- Commingling of cans, clear glass and other materials (excluding newspaper). Commingling would require a larger residential recycling container.
- Exploring alternative markets for sale of recyclables.
- Every other week collection of recyclables.
- Modification of information and educational program for recycling.
- Minimal processing of materials that would enhance market value (e.g.: baling of newspaper and cardboard).

RECOMMENDATIONS

It is recommended that the Borough discuss the above potential changes and modification and those we assess those which interest the Borough under the following scenarios.

1. Base Case "Status Quo", Under this scenario, collections and materials collected would remain the same. New collection vehicle(s) would be used.

2. Case 1 – This scenario would provide for every other week collection of recyclables that is; simultaneous collection of segregated glass, cans and paper provided on an every other week basis. This would require an additional residential container approximately the size of the one in current use.
3. Case 2 – Weekly collection of commingled recyclables and newspapers. Under this scenario, all colors of glass, cans and plastic would be collected. A larger residential container is required to accommodate the expanded types of materials. Paper would also be collected but not commingled with the other recyclables.

Note: Consideration under Case 3 would be given to separate but same day service for newspaper and also simultaneous collection.

Upon the Borough's review of this preliminary report, please call me so that we can discuss, in detail, the Borough's views and opinions so that we can initiate the next steps in the programs assessment.