

## **ALTERNATIVE RESOURCES, INC.**

### **FINAL REPORT**

#### **TWIN BOROUGH'S TECHNICAL ASSISTANCE REPORT (STROUDSBURG AND EAST STROUDSBURG, PENNSYLVANIA)**

##### **Overview:**

The Twin Boroughs (Stroudsburg Borough and East Stroudsburg Borough) operate a curbside, source-separated recycling collection program in addition to a drop-off recycling center. The recycling program costs are shared equally between the two Boroughs and each Borough provides two employees for manpower. Revenue from the sale of recyclables and any grants received help to offset operational costs. For 1997 the net subsidy to the program was approximately \$40,000 for each municipality.

At the suggestion of representatives of the Pennsylvania Department of Environmental Protection, Twin Borough's applied for a technical assistance grant application to complete an analysis of their program prior to the Department funding additional grant applications. Twin Borough's requested technical assistance from the Solid Waste Association of North America (SWANA) to analyze ways to improve on:

- Recycling center operations (current operations are labor intensive)
- Processing equipment and storage space to accommodate increasing volumes of recyclable materials
- Increase revenues from the sale of recyclable materials
- Cost for annual net subsidy from each municipality
- Information and education program to increase participation

##### **Existing Recycling Center Operations and Recommendations for Improvements**

The Boroughs of Stroudsburg and East Stroudsburg (Twin Boroughs) are required by the State to provide a mandatory recycling program. The Twin Boroughs have met their state mandated Act 101 responsibilities by providing a cooperative municipally operated bi-weekly curbside collection of recyclables to over 4,100 households. Recyclables included in this curbside collection program are; newspaper, magazines, corrugated cardboard, aluminum cans, aluminum foil, PET plastic and HDPE plastic, clear glass, green glass and brown glass.

In addition to curbside collection the Twin Boroughs operate a recycling drop-off center and processing facility. The drop-off facility accepts the ten items listed previously in addition to bi-metal containers and leaf and yard waste.

The Twin Borough's recycling tonnages have continued to increase annually over the past seven years (See Attachment A "Recycling Tonnages 1992 through 1998")

Operations at the drop-off facility have been labor intensive, particularly in terms of processing recyclables for market.

Attachment B is a spreadsheet developed to identify each recyclable material's individual handling and processing method both previous and proposed (See Attachment B "Previous & Proposed Recycling Operations"). Previous handling methods include processes prior to installation of the horizontal baler.

Twin Borough's have continually worked to improve facility efficiency and operations with the assistance of 902 grants. The most recent 902 Grant approved was Agreement #ME96450 which included two major pieces of processing equipment to improve operations at the drop-off facility. Specifically, a horizontal baler and a magnetic sorting conveyor.

The recent purchase and installation of a horizontal baler has reduced loading and handling time when baling newsprint, office paper, magazines, PET plastic, HDPE plastic, bi-metal containers and aluminum cans. The horizontal baler has replaced a vertical baler which was used for corrugated cardboard. Corrugated cardboard is now baled in the Twin Borough's vertical baler which was previously used to bale the items listed above.

A magnetic sorting conveyor is in the process of being purchased. This conveyor will ease loading in the vertical baler in addition to generating higher quality aluminum can bales by the removal of bi-metal and tin cans.

The Twin Borough's submitted a 902 grant application in August of 1998 which has not been approved to date. This grant requested funding assistance for the following building and processing equipment improvements; construction of a new recycling building, paving around building, lift truck hoppers, and a forklift.

Upon review of the facility operations, it is clear that these items are essential if the Borough's wish to reduce handling requirements and increase tonnage thruput.

The construction of a new storage building will greatly increase the capacity of sheltered storage of baled recyclables (currently bi-metal and aluminum can bales are stored outside). Twin Borough's will have greater ability to "play the

market” and temporarily store recyclables when market values are particularly low. Another key benefit of the new storage building is that it will allow the Quonset hut (which is currently used for storage of corrugated cardboard) to be used as a sheltered drop-off area for participating residents.

The lift truck hoppers will be a considerable improvement over the existing fifty-five gallon drums set on top of pallets. Fifty-five gallon drums have little capacity and must be dumped partially by hand. The two cubic yard size of the hoppers in addition to its easy lifting, transporting and tipping ability will decrease handling and processing time. The hoppers are recommended for aluminum cans, bi-metal containers, clear glass, green glass, amber glass and magazines.

The new forklift requested in the August 1998 grant application will be used in conjunction with the lift truck hoppers identified above. The forklift will have the ability to increase the height at which bales can be stacked, thereby further increasing storage capacity in the new recycling building

ARI recommends the purchase of all items requested in the August 1998 grant application. ARI also recommends conversion of the Quonset hut from a storage shelter to a shelter for drop-off containers, to protect participating residents from the weather.

### **Identify Current Markets, Required Material Specifications and Prices (\$/ton).**

A major economic impact to all recycling programs in this region has been the declining market values for almost all recyclables handled. Attachment D “Historic Market Values by Recyclable” displays the decline in market value of materials in recent years.

The current markets utilized and materials specifications are identified in Attachment A “Previous & Proposed Recycling Operations”. The 1998 average market values can be found in Attachment C “1998 Revenue by Recyclable”.

### **Survey Results From Select Alternative Markets**

At the request of Twin Borough’s representatives, the following selected markets for recyclables were contacted and current prices and specifications were obtained.

Wellman, Inc. located in Shrewsbury, New Jersey was contacted regarding current pricing for PET (#1) plastic. Wellman expressed interest in the Twin Borough’s bales of PET plastic and quoted a current price of \$0.05 per pound for a 35,000 pound load of mixed clear and green plastic. This price includes Wellman hauling the bales, Freight On Board (FOB) from the Twin Borough’s

recycling center (See Attachment E for Wellman, Inc.'s price quote and specifications).

Brenner Recycling located in Hazleton, Pennsylvania was contacted regarding the current pricing for bi-metal containers. Mr. Brenner expressed interest in both aluminum and bi-metal containers processed by the Twin Borough's program. The bi-metal bale price was estimated at a range of \$5 - \$10 per gross ton for a tractor trailer load. This price includes hauling the bales, FOB from the Twin Borough's recycling center. Aluminum can prices for a tractor trailer load were quoted at \$0.38 per pound delivered or \$0.40 per pound FOB. Mr. Brenner stressed that the aluminum bales must not include any bi-metal.

ARI contacted Connie Hall of Alcoa Recycling located in Maryland (which is Alcoa's regional office) to request current aluminum can market information. Ms. Hall provided a price range of \$0.48 - \$0.495 per pound for a tractor trailer load of baled aluminum cans, FOB from the Twin Borough's recycling center. This price quote is based on a successful audit of the Twin Borough's aluminum can processing and handling procedures. The audit would be conducted by an Alcoa representative to ensure aluminum quality.

### **Recommendations for Marketing Recyclables**

The following provides a recommended marketing approach for each type of recyclable collected at the recycling facility (given the proposed processing and storage methods).

For the past three years recyclable market prices have in general been declining. During this period of low prices paid by recycling markets it is important to:

- Produce quality product meeting the specifications of high end markets
- Have the ability to store recyclables to enable the program to take advantage of spot markets
- Utilize local markets to minimize haul cost

The Twin Borough's program has to a large extent taken advantage of the previous items. Below is a listing of each recyclable marketed and either a recommendation to continue status quo or suggestions for market strategies once the new building and equipment is in place.

### **Newspaper**

Twin Borough's has a long term relationship with the Rock-Tenn Company Papermill which is located in the Delaware-Water-Gap, Monroe County, Pennsylvania. This relationship has provided a consistent market outlet for

newsprint at fair market values and it is recommended that the Borough's continue to utilize this local market. The Borough's should take advantage of the recently purchased tractor which is capable of hauling an additional 20,000 lbs. of baled newspaper. This will decrease haul costs by almost one half.

### **Computer Paper**

Twin Borough's has a long term relationship with the Rock-Tenn Company Papermill which is located in the Delaware-Water-Gap, Monroe County, Pennsylvania. This relationship has provided a consistent market outlet for newsprint at fair market values and it is recommended that the Borough's continue to utilize this local market. Currently, one bale of computer paper is shipped with each trailer load of newspaper. It is recommended that the bales of computer paper be stored either in a separate trailer or in the new recycling building until market prices are favorable or a trailer is full.

### **Corrugated Cardboard**

Under the new processing method corrugated cardboard is baled with the higher density vertical baler. (This has increased bale weight from 900 lbs. to 1300 lbs.) The Borough's currently use US Recycling which hauls Freight On Board (FOB). Currently, market prices for corrugated cardboard are low. Therefore, it is recommended that the Borough's store the corrugated cardboard in the new recycling building until market values increase.

### **Aluminum Cans**

Twin Borough's currently sells bales of aluminum cans to D. Katz & Sons, Inc. scrap yard located in Stroudsburg, Monroe County, Pennsylvania. The bales of aluminum are stored until the market value increase to an acceptable amount and are then picked up FOB. It may be possible with the new magnetic sorting conveyor that the aluminum can specifications would be acceptable to companies such as Alcoa who would likely pay a higher price while still picking up FOB. The facility would first require an audit by an Alcoa representative who would verify aluminum quality.

### **Aluminum Scrap/Aluminum Foil**

Twin Borough's collects a small amount of aluminum scrap and aluminum foil both of these items are sold via the dump truck to D. Katz & Sons, Inc. scrap yard. Given the limited amounts of aluminum scrap/foil collected and the close proximity of the scrap yard, this method of marketing is acceptable.

## **Bi-Metal Containers**

Twin Borough's currently sells bales of bi-metal containers to D. Katz & Sons, Inc. scrap yard. The bales of bi-metal containers are stored until the market value increase to an acceptable amount and are then picked up FOB. The market value for bi-metal containers has been on the decline and therefore the Borough's have been storing bales until the market rebounds. A recent call to Brenner Recycling located in Hazleton indicated the market value of \$5-10 per gross ton FOB, while Katz is offering \$40. per ton FOB. As with aluminum, it may be possible for a steel mill representative to audit Twin Borough's operations and authorize shipment of bi-metal bales directly to the mill which would likely result in a higher market value.

## **Clear, Green and Amber Glass**

Glass is separated by color and currently sold to Todd Heller Recycling Inc. located in Northampton County, Pennsylvania. Once the large storage bins are full, Twin Borough's contacts Todd Heller who hauls the material FOB. The prices for glass have been on a slow but steady decline in recent years. Haul cost to end markets are prohibitive, and the prices paid by Todd Heller for glass FOB is the best current option available.

## **Magazines**

The Borough's currently use US Recycling which hauls FOB. It is recommended that the Borough's store the baled magazines in the new recycling building and attempt to market when values are high.

## **PET Plastic**

The Borough's currently use D. Katz & Sons, Inc. scrap yard which hauls FOB approximately two times per year. Wellman Inc. has also been contacted and have expressed interest in the Twin Borough's PET plastic (they would also be willing to haul FOB). It is recommended that the Borough's store the baled PET plastics in the new recycling building and attempt to market when values are high.

## **Milk HDPE and Colored HDPE Plastic**

The Borough's currently use Graham which hauls FOB approximately two times per year. It is recommended that the Borough's store the baled HDPE plastics in the new recycling building and attempt to market when values are high.

## **Information and Education Program Recommendations**

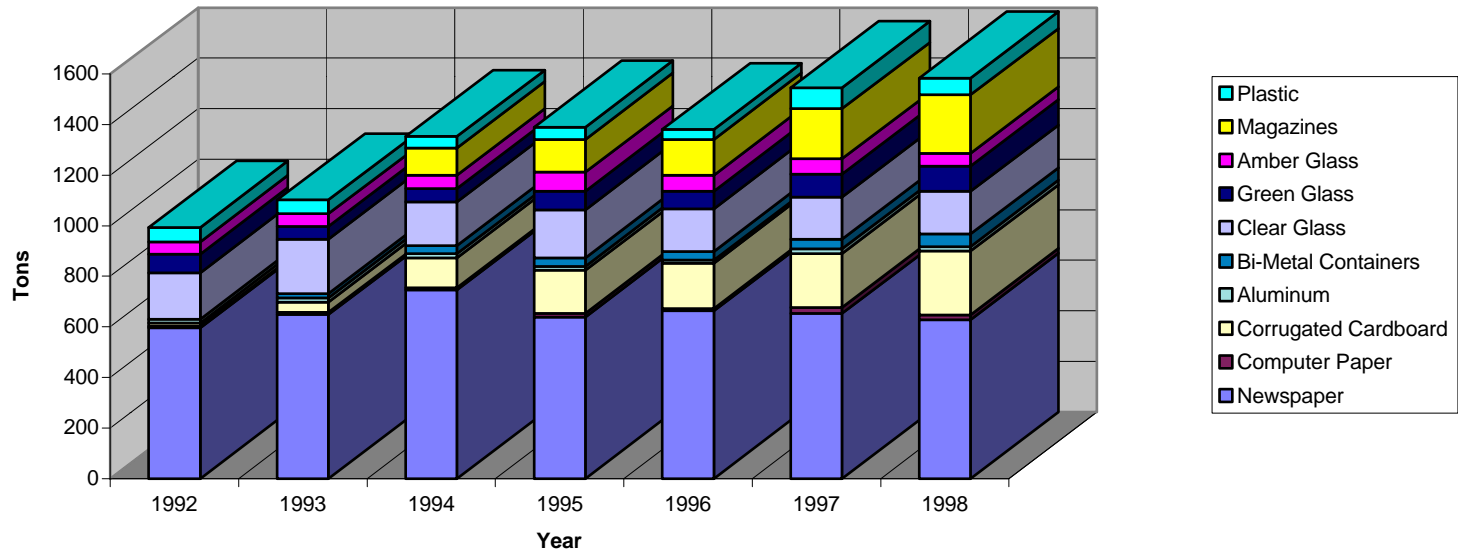
With the enhanced processing and storage capabilities, via Act 101, Section 902 Grants, operations at the drop-off facility will become more efficient, allowing workers to handle increased volumes of recyclables. Commercial establishments could provide the additional tonnage of quality recyclables that Twin Borough's need for increased revenues from the program.

As required under Act 101 at least once every six months mandated communities must:

“notify all persons occupying residential, commercial institutional and municipal premises within its boundaries of the requirements of the ordinance.”

Twin Borough's has done an excellent job with educating the residents and keeping them informed and participating in recycling at both the curbside and drop-off facility. However, as with many other mandated communities commercial information and education has been to a certain extent overlooked. The Department of Environmental Protection has recognized this fact and recently began a campaign to increase commercial recycling. This campaign includes the development of information/education materials (See Attachment F “Commercial Recycling Information and Education”) which assist businesses in designing a program. These types of educational materials are 902 grant fundable and when combined with specific information on the Twin Borough's recycling drop-off center could provide an excellent opportunity for small businesses recycle. Additionally, the Monroe County Municipal Waste Management Authority's commercial recycling specialist, Cindy Shoemaker, has been and will continue to work with Twin Borough's toward increased commercial recycling.

### RECYCLABLE TONNAGES THROUGH 9



Recyclable	9	9	9	9	9	9	9
<b>Newspaper</b>	595.28	648.22	745.58	637.96	662.61	652.62	628.66
<b>Computer Paper</b>	6.74	8.56	8.95	14.91	9.99	23.35	18.16
<b>Corrugated Cardboard</b>	13.34	40.96	118.61	170.24	179.25	213.58	252.12
<b>Aluminum</b>	15.17	16.95	15.32	15.56	11.62	17.78	18.62
<b>Bi-Metal Containers</b>		17.27	33.53	34.39	35.08	39.3	49.27
<b>Clear Glass</b>	183.73	214.03	172.52	189.59	168.75	166.72	168.32
<b>Green Glass</b>	73.4	51.27	52.66	74.1	69.41	90.93	100.09
<b>Amber Glass</b>	48.05	49.88	51.95	74.36	62.9	59.49	50.69
<b>Magazines</b>			108.06	129.82	141.15	198.73	231.41
<b>Plastic</b>	57.14	54.75	45.57	48.58	39.12	83.11	66.55
<b>Totals</b>	922.85	1101.89	1352.75	1389.51	1379.88	1545.61	1583.81

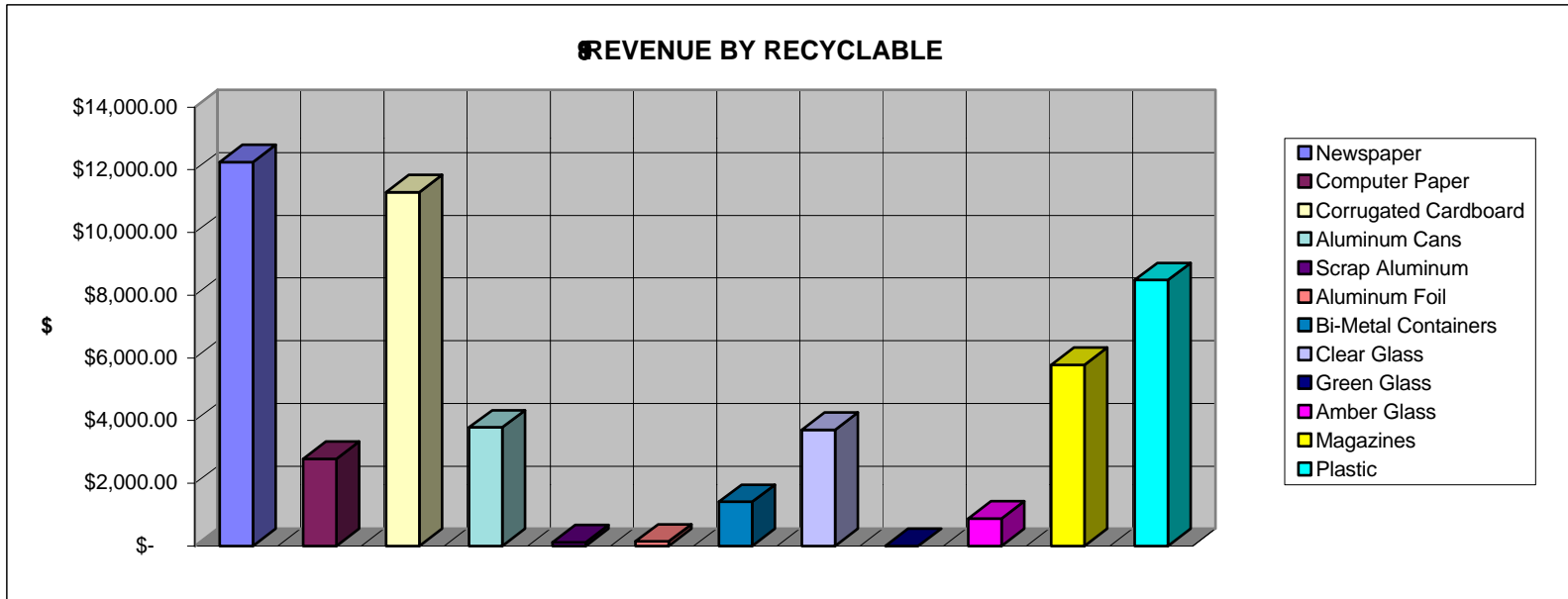


TWIN BOROUGH RECYCLING PROGRAM

Recyclable	Previous Collection Container Type	Proposed Collection Container Type	Previous Handling/Processing Method	Proposed Handling/Processing Method	Previous Recyclable Specification	Proposed Recyclable Specification	Previous Storage
Newspaper	Shed	Shed	Forklift transports full shed to vertical baler, which is manually loaded	Forklift transports full shed to new horizontal baler, the newspaper is manually loaded into the hopper	1,400 lb. bale of manually sorted newspaper with fillers	1,200 lb. bale of manually sorted newspaper with fillers	Bales are loaded into Twin Borough owned trailer
Computer Paper	Gaylord boxes	Gaylord boxes	Gaylord boxes are temporarily stored in quonset hut, when 2 Gaylord boxes are filled the forklift transports boxes to vertical baler which is manually loaded	When 2 Gaylord boxes are filled the forklift transports boxes to new horizontal baler, the computer paper is manually loaded into the hopper	1,400 lb. bale of manually sorted computer paper or high grade office paper	1,200 lb. bale of computer paper or high grade office paper	Bales are loaded into Twin Borough owned trailer
Corrugated Cardboard	Wooden cage or for large commercial customers directly to old vertical baler	Wooden cage or for large commercial customers directly to vertical baler	Forklift transports wooden cage to the old vertical baler which is manually loaded	Forklift transports wooden cage to the vertical baler which is manually loaded	900 lb. bale of manually sorted corrugated cardboard	1,300 lb. bale of manually sorted corrugated cardboard	Bales are stored inside quonset hut
Aluminum Cans	55 gallon plastic barrels on pallets	2 cubic yard self dumping hoppers	Forklift transports full barrels to 30 cubic yard roll-off container until enough cans to make a bale has been collected (manually loaded into vertical baler)	Forklift transports self dumping hopper, to 30 cubic yard roll-off container a magnetic conveyor feeds aluminum cans into hopper of new horizontal baler	900 lb. bale of manually sorted aluminum cans	800 lb. bale of magnetically separated aluminum cans	Bales are stored outside processing building
Aluminum Scrap	55 gallon plastic barrels on pallets	55 gallon plastic barrels on pallets	Full barrels are stored until a dump truck load has accumulated	Full barrels are stored until a dump truck load has accumulated	loose manually sorted aluminum scrap	loose manually sorted aluminum scrap	bose stored in 55 gallon plastic barrels on pallets along side of quonset hut
Aluminum Foil	55 gallon plastic barrels on pallets	55 gallon plastic barrels on pallets	Full barrels are stored until a dump truck load has accumulated	Full barrels are stored until a dump truck load has accumulated	loose manually sorted aluminum foil	loose manually sorted aluminum foil	bose stored in 55 gallon plastic barrels on pallets along side of quonset hut
Bi-Metal Containers	55 gallon plastic barrels on pallets	2 cubic yard self dumping hoppers	Full barrels are stored until enough cans to make a bale has been collected, the barrels are manually loaded into the vertical baler	Forklift transports self dumping hopper, which tips bi-metal cans into hopper of new horizontal baler	1,800 lb. bale of manually sorted bi-metal containers	1,600 lb. bale of manually sorted bi-metal cans	Bales are stored outside processing building
Clear Glass	55 gallon plastic barrels on pallets	2 cubic yard self dumping hoppers	Forklift transports full barrels on pallets to storage bin, the barrels are manually tipped into bin	Forklift transports self dumping hopper, which tips glass into bin	Manually sorted clear glass, broken from tipping into bin,	Manually sorted clear glass, broken from tipping into bin,	Stored in large, open air, three sided bins
Green Glass	55 gallon plastic barrels on pallets	2 cubic yard self dumping hoppers	Forklift transports full barrels on pallets to storage bin, the barrels are manually tipped into bin	Forklift transports self dumping hopper, which tips glass into bin	Manually sorted green glass, broken from tipping into bin,	Manually sorted green glass, broken from tipping into bin,	Stored in large, open air, three sided bins
Amber Glass	55 gallon plastic barrels on pallets	2 cubic yard self dumping hoppers	Forklift transports full barrels on pallets to storage bin, the barrels are manually tipped into bin	Forklift transports self dumping hopper, which tips glass into bin	Manually sorted amber glass, broken from tipping into bin,	Manually sorted amber glass, broken from tipping into bin,	Stored in large, open air, three sided bins
Magazines	55 gallon plastic barrels on pallets	2 cubic yard self dumping hoppers	Plastic barrels are temporarily stored outside quonset hut, when 8 plastic barrels are filled the forklift transports barrels on pallets to vertical baler which is manually loaded	Forklift transports self dumping hopper, which tips magazines into hopper of new horizontal baler	1,800 lb. bale of manually sorted magazines	1,800 lb. bale of manually sorted magazines	Bale are stored in Twin Borough owned trailers
PET Plastic	Wire Cage	Wire Cage	Forklift transports wire cages to the vertical baler which is manually loaded	Forklift transports and tips wire cage of PET plastic into hopper of new horizontal baler	1,200 lb. bale of manually sorted PET plastic	1,100 lb. bale of manually sorted PET plastic	Bales are stored inside quonset hut
Milk HDPE Plastic	Wire Cage	Wire Cage	Forklift transports wire cages to the vertical baler which is manually loaded	Forklift transports and tips wire cage of HDPE (milk) plastic into hopper of new horizontal baler	1,200 lb. bale of manually sorted HDPE (milk) plastic	1,100 lb. bale of manually sorted HDPE (milk) plastic	Bales are stored in small shed along side of Forge Road
Colored HDPE Plastic	Wire Cage	Wire Cage	Forklift transports wire cages to the vertical baler which is manually loaded	Forklift transports and tips wire cage of HDPE (colored) plastic into hopper of new horizontal baler	1,300 lb. bale of manually sorted HDPE (colored) plastic	1,200 lb. bale of manually sorted HDPE (colored) plastic	Bales are stored in small shed along side of Forge Road

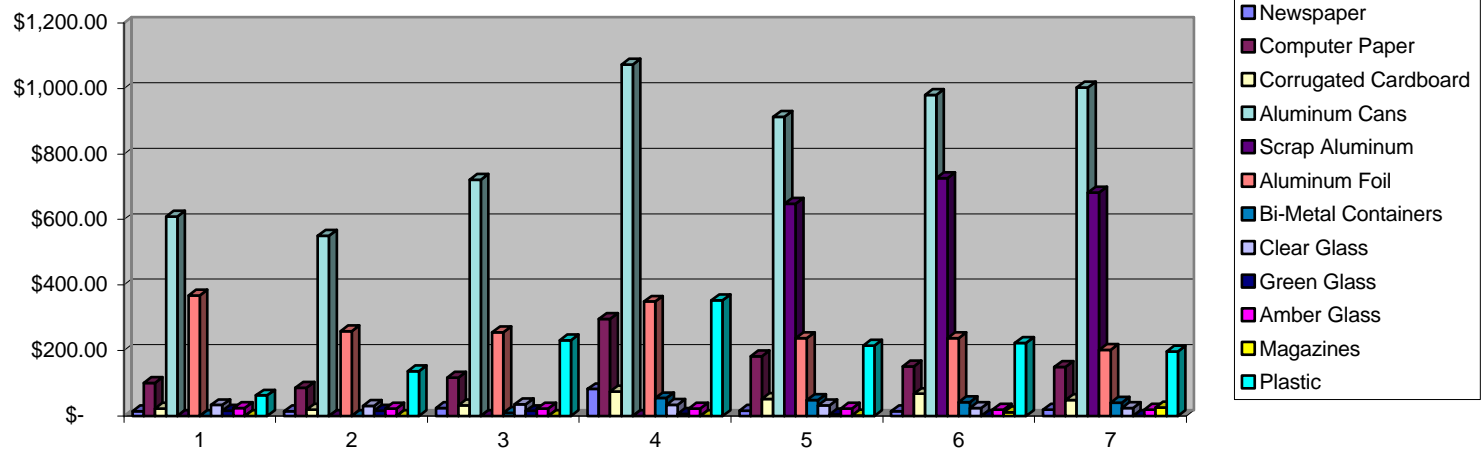
TWIN BOROUGH RECYCLING PROGRAM

Recyclable	Proposed Storage	Previous Shipment to Market	Proposed Shipment to Market	Previous Number of Shipments Per Year (Approximate)	Proposed Number of Shipments Per Year (Approximate)
Newspaper	Bales are loaded into Twin Borough owned trailer	Twin Boroughs haul using their tractor and trailer	Twin Boroughs haul using their new used tractor and trailer	30 times per year	20 times per year
Computer Paper	Bales are loaded into Twin Borough owned trailer	Twin Boroughs haul using their tractor and trailer	Twin Boroughs haul using their new used tractor and trailer	30 times per year (a bale of computer paper is shipped with each newspaper load)	2 times per year (bales will be stored in new metal building)
Corrugated Cardboard	Bales are stored in new metal building	US Recycling hauls (FOB)	US Recycling hauls (FOB)	12 times per year	12 times per year
Aluminum Cans	Bales are stored in new metal building	Twin Boroughs haul using their dump truck or Katz haul (FOB)	Twin Boroughs haul using their dump truck or Katz haul (FOB)	Price dependent (approximately 3 times per year)	Price dependent as little as one time per year
Aluminum Scrap	Bales stored in 55 gallon plastic barrels on pallets along side of quonset hut	Twin Boroughs haul using their dump truck	Twin Boroughs haul using their dump truck	Price dependent (approximately 6 times per year)	Price dependent (approximately 6 times per year)
Aluminum Foil	Bales stored in 55 gallon plastic barrels on pallets along side of quonset hut	Twin Boroughs haul using their dump truck	Twin Boroughs haul using their dump truck	Price dependent (approximately 6 times per year)	Price dependent (approximately 6 times per year)
Bi-Metal Containers	Bales are stored in new metal building	Katz hauls (FOB)	Katz hauls (FOB)	Price dependent (approximately 2 times per year)	Price dependent (approximately 2 times per year)
Clear Glass	Stored in large, open air, three sided bins	Heller hauls (FOB)	Heller hauls (FOB)	7 times per year	7 times per year
Green Glass	Stored in large, open air, three sided bins	Heller hauls (FOB)	Heller hauls (FOB)	4 times per year	4 times per year
Amber Glass	Stored in large, open air, three sided bins	Heller hauls (FOB)	Heller hauls (FOB)	2 times per year	2 times per year
Magazines	Bales are stored in Twin Borough owned trailers or in new metal building if necessary	US Recycling hauls (FOB)	US Recycling hauls (FOB)	12 times per year	12 times per year
PET Plastic	Bales are stored in new metal building	Frackville (FOB) Katz (FOB)	Katz (FOB) Wellman (FOB)	2 times per year	2 times per year
Milk HDPE Plastic	Bales are stored in new metal building	Graham hauls (FOB)	Graham hauls (FOB)	2 times per year	2 times per year
Colored HDPE Plastic	Bales are stored in new metal building	Graham hauls (FOB)	Graham hauls (FOB)	2 times per year	2 times per year



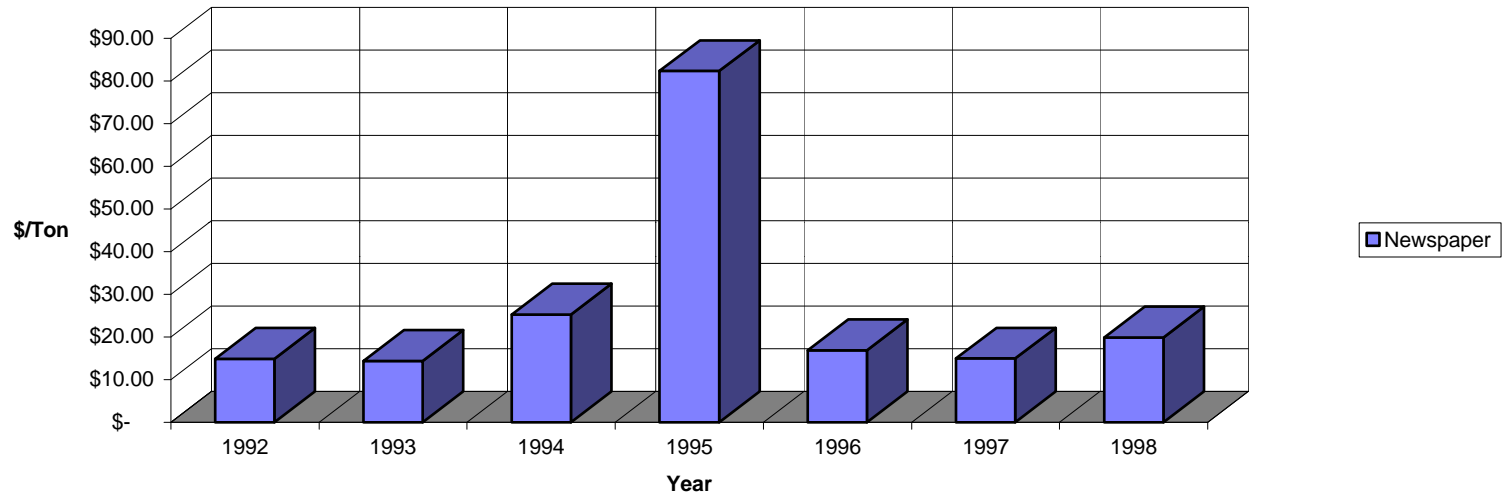
Recyclable	Weigh(tons)	Revenue	Average \$/Ton
Newspaper	616.85	\$ 12,248.40	\$ 19.86
Computer Paper	18.6	\$ 2,777.70	\$ 149.34
Corrugated Cardboard	231.86	\$ 11,283.86	\$ 48.67
Aluminum Cans	3.77	\$ 3,781.50	\$ 1,003.05
Scrap Aluminum	0.18	\$ 122.70	\$ 681.67
Aluminum Foil	0.71	\$ 143.30	\$ 201.83
Bi-Metal Containers	34.29	\$ 1,405.01	\$ 40.97
Clear Glass	148.32	\$ 3,708.00	\$ 25.00
Green Glass	85.09	\$ -	\$ -
Amber Glass	43.69	\$ 874.40	\$ 20.01
Magazines	225.77	\$ 5,776.12	\$ 25.58
Plastic	42.96	\$ 8,481.66	\$ 197.43
<b>Totals</b>	<b>1,452.09</b>	<b>\$ 50,602.65</b>	

### RECYCLABLE MARKET VALUES THROUGH 9



	2	9	9	9	9	9	9
<b>Newspaper</b>	\$ 14.88	\$ 14.34	\$ 25.21	\$ 82.31	\$ 16.82	\$ 14.93	\$ 19.86
<b>Computer Paper</b>	\$ 100.59	\$ 85.65	\$ 117.02	\$ 295.77	\$ 182.67	\$ 151.85	\$ 149.34
<b>Corrugated Cardboard</b>	\$ 22.44	\$ 20.00	\$ 32.76	\$ 75.58	\$ 51.47	\$ 67.60	\$ 48.67
<b>Aluminum Cans</b>	\$ 608.68	\$ 549.77	\$ 721.44	\$ 1,073.13	\$ 913.54	\$ 980.32	\$ 1,003.05
<b>Scrap Aluminum</b>	-	-	-	-	\$ 648.65	\$ 725.92	\$ 681.67
<b>Aluminum Foil</b>	\$ 368.31	\$ 259.63	\$ 255.41	\$ 349.30	\$ 237.34	\$ 237.34	\$ 201.83
<b>Bi-Metal Containers</b>	-	-	\$ 9.41	\$ 54.64	\$ 49.22	\$ 43.07	\$ 40.97
<b>Clear Glass</b>	\$ 33.41	\$ 31.63	\$ 35.39	\$ 34.36	\$ 32.66	\$ 25.00	\$ 25.00
<b>Green Glass</b>	\$ 16.77	\$ 15.75	\$ 15.52	\$ 5.86	\$ 5.00	\$ -	\$ -
<b>Amber Glass</b>	\$ 25.00	\$ 22.34	\$ 22.92	\$ 23.43	\$ 22.78	\$ 20.00	\$ 20.01
<b>Magazines</b>	-	-	-	-	\$ 1.61	\$ 11.60	\$ 25.58
<b>Plastic</b>	\$ 62.78	\$ 136.31	\$ 230.78	\$ 353.84	\$ 215.50	\$ 223.45	\$ 197.43

### NEWSPAPER MARKET VALUES THROUGH 9



	9	9	9	9	9	9	9
<b>Newspaper</b>	\$ 14.88	\$ 14.34	\$ 25.21	\$ 82.31	\$ 16.82	\$ 14.93	\$ 19.86