

WYOMISSING BOROUGH

FINAL REPORT

**RECYCLING PROGRAM ASSESSMENT AND
COMPREHENSIVE CURBSIDE COLLECTION SERVICES**

(RESIDENTIAL WASTE, RECYCLABLES, GRASS AND YARD WASTE)

MARCH, 2003

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WYOMISSING FINAL REPORT

Background

Section 1.0

Wyomissing Borough (Borough) is a community of approximately 11,500 people located just west of Reading, PA. The Borough Council has recently appointed a committee to develop recommendations in regards to refuse, recycling, yard waste and grass clippings collection.

Currently the Borough contracts for collection of both recycling and refuse. Recycling consists of weekly curbside collection of clear glass, green glass, brown glass, aluminum cans, steel cans, bimetallic cans, plastic containers, newspapers and magazines. Approximately 750 tons of materials are recycled annually (residential). Refuse is collected twice per week with a maximum of six (6) 30-gallon bag setout per collection. The Borough generates approximately seven thousand tons per year of residential waste of which it estimates that one third is yard waste and grass clippings.

The Borough pays \$52.00 per ton to landfill this organic matter. The Borough's contract for collection services will run out in December of 2002.

Introduction

Section 2.0

The Borough wishes assistance in assessing additional materials for inclusion in its recycling program and with development of a curbside grass/yard waste collection system. The Borough's Refuse and Recycling Committee (Committee) has surveyed its residents regarding additional types of materials to be included in its recycling program and the initiation of a grass and yard waste collection system (for the purpose of composting). The survey responses (31% of residents responded) strongly favored program expansion to include additional materials and establishment of a separate collection for grass and yard waste for the purpose of composting.

The Committee wants to assess various types of recyclables that could be included in its curbside program and the potential for collection of grass and yard waste. Based on information gathered, the committee will determine a preferred course of action for subsequent development of a Request For Bid for comprehensive curbside collection services for refuse, recyclables, grass and yard waste.

The Committee is also desirous of increasing participation in its residential and commercial recycling programs through improvements to its education/information programs.

Program Expansion

Section 3.0

The Refuse and Recycling Committee requested ARI to address the potential for expansion of its existing recycling program to include the following items:

- Corrugated Cardboard
- Paper-Board
- High Grade Ledger Paper (sorted white ledger)
- All Mixed Residential Paper (i.e.: commingled paper collection)
- Plastics (not currently included in the program i.e.: #3, #4, #5, #6, #7)

In order to determine the feasibility of adding additional items to the current curbside collection program several factors must be considered. These factors include: availability of markets for the products (within a reasonable haul distance); collection i.e.: will current collection practices accommodate additional items or will a separate collection be required, willingness of citizens to participate and cost.

Markets

Section 3.1

ARI's first task was to identify markets (within a 50 mile radius of the Borough). Listed below are the markets identified and the types of recyclables accepted.

COUGLE'S RECYCLING

100 South 4th Street
Hamburg, PA 19526
(610) 562-8336

All glass, plastics #1 and #2 (PET and HDPE), aluminum and bi-metallic cans, newsprint, cardboard, office paper, paperboard, phone books, catalogs, magazines, junk mail, ferrous metals, motor oil, transmission fluid, and appliances no freon

RECYCLING

6101 Tacony Street
Philadelphia, PA 19135
(215) 338-5050

All glass, plastics #1 and #2 (PET and HDPE), aluminum and bi-metallic cans, newsprint, cardboard, office paper, phone books, magazines, junk mail, ferrous metals

DAMORE BROTHERS

Commons Corporate Center
1122 Commons Boulevard
Reading, PA 19605
(610) 926-6551

Office paper, cardboard (bales only)

GOLDSTAN TRADING INC.

822 Buttonwood Street
Reading, PA 19603
(610) 372-9855

Aluminum cans, cardboard, office paper, ferrous and non-ferrous metals

ST. JUDE POLYMER CORP.

110 Industrial Pk.
Frackville, PA 17931
(570) 874-1220

Plastics #1 and #2 (PET and HDPE)(bales only)

Of the markets identified only two (2), Cogle's Recycling and US Recycling accept the majority of the material being considered i.e.: corrugated, paper board, high grade ledger, and mixed residential paper. None of the markets contacted would accept commingled #1 through #7 plastic and exhibited no interest in segregated plastics #2 through #7. Problems sited relative to recycling #2 through #7 plastics included; contamination of material particularly #7 food containers which are not properly cleaned, (improperly cleaned containers also attract vectors and vermin); like resin types may have different properties e.g.: resin code #2 appears on both blow-molded containers (bottles) and injection molded containers (tubs). Different properties (melt viscosity) are required for the separate processes and therefore these materials must be processed separately.

Prices for corrugated and post consumer paper products being considered for inclusion in the program are based on industry indices such as the Official Board of American News and post consumer prices paid for corrugated. Price for paper products vary with grade, level of contaminants, volume and pre-processing (baling).

Historically, the corrugated and paper market has been one of the most volatile of the recyclable commodities (particularly corrugated). Markets over the past few decades have seen corrugated at highs in excess of \$100.00 per ton to lows in the range of negative \$25.00. Prices paid for the materials being considered will largely be dependent on the collector's ability to maintain product quality (meet market specifications) and the quantity of materials available to market.

Market representatives contacted did not provide definitive prices paid for the materials being considered stating a variety of reasons.

The following are the average prices listed in the Waste News Commodity Pricing Report (September 2, 2002) New York:

- Corrugated - \$20.00/ton
- Mixed Residential Paper - \$ 5.00/ton
- Sorted White Ledger - \$53.00/ton
- Sorted Office Paper - \$23.00/ton
- Paper-Board - Not Listed

Collection

Section 3.2

To add any additional materials to the existing materials collection program will require some level of modification to the existing program. Extra time will be required for collection, additional containers may be required for collection and perhaps an additional collection required (e.g.: mixed residential paper be collected). The factors that will determine the level of modification required include the number and types of materials collected and the estimated amount of material that can be captured/diverted from the waste stream i.e.: level of participation.

Willingness To Participate

Section 3.3

Based on the survey conducted by the Borough, it is apparent that the majority of respondents support the expansion of the recycling program. However, based on the historical capture rates, the level of participation in the recycling program has remained relatively flat from its initiation in 1998 through 2000.

| | <u>Newsprint</u> | <u>Commingled</u> |
|------|------------------|-------------------|
| 1998 | 357.33 TN | 188.62 TN |
| 1999 | 309.15 TN | 188.26 TN |
| 2000 | 341.30 TN | 188.42 TN |
| 2001 | 300.53 TN | 174.99 TN |

During 2001, the amount of newspaper collected (diverted from the waste stream) declined by 12% and commingled recyclables by 7%. In that the total municipal waste generated by the Borough in 2001 was 6675.85 TN and that 475.52 TN were recycled 7.1% of the waste stream was diverted.

Comments and Recommendations

Section 3.4

- Improvements to the Borough's public education/information program could substantially increase the level of participation in the current recycling program resulting in much higher diversion rates.
- Borough's avoided cost of disposal for 2001 was \$22,824.95 in that 475.52 tons of recyclables were collected (475.52 TN X \$48.00/TN Disposal Rate). Increased participation in existing program (without adding materials) will result in additional savings through avoided disposal costs.
- ARI suggest that corrugated cardboard be added to the recycling program. Corrugated will have minimal impact on the existing collection program i.e.: it can be bundled in a similar way and sized as newspaper and presumably collected in the same bin, it will also divert a reasonable amount of material from the waste stream.
- It is recommended that, paperboard and high-grade ledger should receive additional consideration. However, the volumes of this waste stream are not substantial for residential collection.
- Mixed residential paper is not recommended. This material is usually collected in a loose state, can or bag, and requires a great deal of space, demands a low market price and could negotiate a separate collection.
- A comprehensive and sustainable education/information program is paramount to the success of the existing program and any expansion of the program.
- Through education, a greater reduction of the residential waste stream can potentially be accomplished for the existing program.

Development of a Comprehensive Education Program

Section 4.0

The Borough has provided various forms of information and educational materials to its residents regarding its recycling program since its inspection. However, program participation has shown no increase over the past four (4) years of the program. This static situation is not uncommon, residents start out with zeal but over a period of time loose that enthusiasm and participation levels decline. Householders will participate in the recycling program, but they need a jumpstart to rekindle their enthusiasm and some friendly reminders and stimulus on a

regular basis to maintain it. This situation is true of the commercial/ institutional sector also. With the advent of an expanded grass and yard waste collection program, additional educational efforts will be required to gain public interest and participation.

Initially, the education/information program needs to gain the attention of the public. The Borough's recycling survey was a good first step. Based on the positive and high percentage of responses, to the survey (31%), and public interest exhibited for recycling, composting and waste reduction it appears residents are more than willing to participate, they just need guidance and purpose.

Recommendations for Development of Public Education in Programs

Section 4.1

The challenge the Borough faces is two fold:

1. To rekindle/rejuvenate the interest and enthusiasm in the recycling program and
2. To provide direction and gain public support for the planned grass/yard waste collection program.

Recycling

Section 4.2

To meet these challenges, it is recommended the Borough consider the following:

- Place an ad (one that will get noticed) in a paper of general circulation detailing program and start-up-date. This is particularly important for the planned leaf and yard waste collection program. Note the positive aspects of waste reduction and avoided lost.
- Prepare and distribute news releases and public service announcements to the local media, churches (for inclusion in bulletins) and schools. Provide program, details program kick off date and importance of the program e.g.: waste stream reduction, saving on disposal fees, saving/reuse of valuable resources, reduction of dependence on disposal facilities and, of course, it's the law.
- Development of a slogan e.g.: send your grass to a mulch better place, recycle today for a better tomorrow. Slogans help with program identity and purpose.

- Develop a logo representing the program(s) that will be readily identifiable. The logo can act as a constant reminder (particularly if its placed on a refrigerator magnet).
- Prepare an instructional flier, door hanger or brochure, one that is eye catching, direct and to the point: (i.e.: who, what, where when and why). The flier, door hanger or brochure could be distributed by volunteers or sent with the Borough's Newsletter, utility or tax bills to save on mailings. Additional brochures (and posters) could be placed in public buildings and local businesses.
- A banner or banners can help publicize the program (particularly for leaf and yard waste collection). A banner could be used at the beginning of leaf collection, and a second banner used for grass collection (each programs first month). A banner could also be used for recycling re-enforcement (e.g.: a reminder used for earth day and other events). These banners could be used repeatedly season after season.
- Distribute promotional items that encourage participation, e.g.: a refrigerator magnets collection calendar, pencils, pens, rulers (made from recycled materials). Items that are seen or used regularly and will act as a constant reminder.
- Development of a portable recycling/composting display outlining the programs benefits, charting participation and avoided cost of disposal, etc. The display could be placed in the Borough Hall and used at various civic events and in schools.
- Encourage and assist the school district to provide for recycling/composting education programs. Youth "will" be constant reminders to adults regarding recycling and composting.
- Provide schools with information sources (see attachment) for educational material promoting recycling.

Grass and Yard Waste

Section 4.3

The yard waste and grass collection program is a new program and therefore it will require greater effort on behalf of the Borough to inform and educate its residents of the importance and particulars of the program. Re-enforcement in the form of reminders will be required to sustain the program. At a minimum, ARI recommends that the Borough:

- Prepare a block advertisement (and place it in a newspaper of general circulation) a press release and PSA providing; the schedule for collection, locations where bags can be purchased; the cost per bag; particulars on bagging the material (i.e.: what can and can not be placed in the bag); and when and where the bags are to be placed for collection.
- Prepare a flier, brochure or door hanger providing the information noted above. The flier, brochure or door hanger should be distributed two (2) to three (3) weeks prior to the program start up (otherwise it gets lost and/or forgotten). Distribution can be done by mail but it is preferable to deliver the educational material by use of a volunteer groups (e.g.: church or civic groups, boy scouts, girl scouts, etc.). This adds emphasis to the program and has a greater personnel impact.
- Print information and supportive messages on paper collection bags for grass clippings and yard waste.
- Educational material should accompany the first sets of bags distributed.
- Provide information to civic organizations and churches to include in bulletins and newsletters. Posters/fliers can also be provided and placed in meeting rooms and at clubs.
- Distribute posters/fliers to grocery stores, shops and public buildings, etc.
- For the grass and yard waste program, the educational materials should include some details regarding positive aspects of using paper bags e.g.: they are biodegradable and will compost, waste reduction (i.e.: not using plastic bags). Plastic bags add cost to collection in that they must be emptied prior to composting and many compost facilities will not accept plastic bags, etc.
- Emphasize the amount of waste diverted through grass and yard waste collection and the substantial savings in avoid cost of disposal

Commercial/Institutional

Section 4.4

- Commercial/institutional members of the community must also be a target of a comprehensive education/information program. The recommended programs noted above can be modified as discussed at committee meetings for use with commercial/institutional establishment.

Educational Material

Section 4.5

Also accompanying this report (Attachment B) is a number of Fact Sheets developed by PADEP and examples of educational materials. Attachment B also includes materials covering programs for curbside collection, commercial/institutional recycling, leaf and yard waste collection and waste reduction.

Additional Opportunities For Recycling

Section 5.0

As requested by the Committee, ARI has compiled a listing of additional opportunities for recycling e.g.: shoes, clothing, electronics, various plastics and other items are included in Attachment A.

Refuse & Recycling Committee – Recommendations to Wyomissing Borough

Section 6.0

The following summarizes the Committee's recommendations:

- The Committee finalized the specifications to be included in the Request For Proposals for refuse and recycling collection. The Committee anticipates a new three-year contract that must be in place for service to begin in January 2003. However, there must be sufficient time in December for the Borough to educate its residents about the new regulations for refuse and recycling collection. The Committee plans to present the Request For Proposals to Council for action at the October 8, 2002 Council meeting. Bids would be received in time for Council to make the bid award at the November Council meeting.
- In deciding what to include in the specifications, the Committee considered both the results of the refuse and recycling survey completed by residents and recycling research findings presented by recycling consultant Patrick J. Calpin of Alternative Resources, Inc. The following issues were addressed:

Grass/Yard Waste: The Committee noted that the majority of Borough residents were in favor of yard waste collection. The Committee recommends yard waste collection once a week, on a day to be determined, from April through November. Yard waste will consist of grass clippings; garden waste; and sticks of a specified length, either in bags or bundled separately. Residents will be required to purchase approved, biodegradable yard waste bags at locations and at a cost to be determined. The Committee is in favor of providing five free bags to each household to get the program started. Thereafter, residents will purchase bags as

needed at specified locations, preferably the Borough Hall and one other location. Residents will be informed that details of the yard waste collection program will be worked out during the first three months of 2003. The Committee also suggested that this is a trial program that may require modifications over time.

Plastics: The Committee decided not to include additional plastics other than PETE1 and HDPE2. At this time, the consultant's research indicates that recycling additional plastics would not be economically feasible because there is not a significant market for them.

Cardboard: The Committee notes that depending on the market, it may or may not be economically feasible to recycle cardboard. Also, the difficulty of collecting may increase the contract price. Although residents indicated in the survey a desire to recycle cardboard, there is the problem of educating residents as to what qualifies as cardboard. For instance, cereal boxes are paperboard, not cardboard. The consultant has indicated that the cardboard market is historically one of the most volatile. The Committee was in agreement not to include recycling of cardboard, but will provide information about what constitutes cardboard and where residents can take cardboard for recycling.

Number of Pickups and Containers: The Committee recommends continuation of twice weekly trash collection, but to reduce the number of allowable containers from six (6) to four (4) per pickup. The Committee is in favor of encouraging trash to be in cans/containers, not plastic bags that can break or be opened by birds or animals. The refuse hauler will be asked not to collect more than the allowable number of containers, and not to collect trash that is not bagged or in a container, which may result in a lower contract price. The Committee felt that maintaining the twice a week collection but reducing the number of cans or containers would not be a hardship for residents.

- The Committee again emphasizes the need for educating Borough residents about recycling. Information will be included in the November newsletter. The Committee intends to carry out other educational programs.

Outcome

Section 7.0

Listed below are the outcomes that resulted from this work effort.

Service Contract

Section 7.1

- The RFP was distributed and the bid/contract was awarded to the lowest responsible qualified bidder.
- The contract includes:
 - Twice weekly collection of waste (4 (30 gal) container per collection).
 - Weekly collection of recyclables.
 - Weekly collection of grass and yard/waste, April through November, and delivery of same to a regional compost facility.

Education

Section 7.2

- Notices were placed in newspapers detailing programs.
- Information was provided at public meetings.
- Media contacts were made regarding program(s) particulars.
- Information on programs has and will continue to be included in Borough's newsletter.
- Volunteers delivered one (1) free biodegradable bag to each household along with educational materials.
- A comprehensive education and information program is being developed.

Grant Assistance

Section 8.0

ARI informed the Refuse and Recycling Committee that PADEP had (October 10, 2002) noticed its intent to accept applications for Act 101 Section 902 Recycling Development and Implementation Grants. Grant applications would be accepted from October 12, 2002 through January 24, 2003.

Grant eligibility is limited to municipalities seeking funding for the collection and/or processing of source separated food scraps and leaf and yard waste (organic). This situation is unfortunate in that it eliminates (for this Grant period) funding of the Borough's planned recycling efforts.

ARI recommended that the Borough maintain records of eligible expenditures relative to its recycling program, these could potentially be reimbursed through a future Section 902 Grant. Cost incurred for the Borough's leaf, grass and yard waste composting program (i.e.: public information and education) will be eligible for funding under Section 902. ARI would be pleased to assist the Borough in the preparation of a Grant Application.

ARI suggested that the Borough contact PADEP and their State Representatives to encourage the reinstatement of recycling cost under Section 902 Grant funding.

**ATTACHMENT A
ADDITIONAL RECYCLING
OPPORTUNITIES**

ATTACHMENT A

OPPORTUNITIES FOR RECYCLING ITEMS NOT INCLUDED IN THE BOROUGH'S RECYCLING PROGRAM:

BERKS COUNTY RECYCLING CENTER

HILLTOP ROAD
BERN TOWNSHIP, PA 19605
(610) 387-3040

Material: Aluminum Cans, Glass (Brown), Glass (Clear), Glass (Green), HDPE (High Density Polyethylene), Old Corrugated Containers, Old Newspaper, PET (Polyethylene Terephthalate), Steel Cans.

BUSINESS LINK

314 WEST MAIN STREET
KUTZTOWN, PA 19530-1606
(610) 683-9575

Material: PS (Polystyrene).

EAST PENN MANUFACTURING CO., INC.

DEKA ROAD
LYON STATION, PA 19536
(610) 682-6361

Berks County.

Material: Automotive Batteries.

EXIDE CORPORATION

SPRING VALLEY & NOLAN STREET
READING, PA 19605
(610) 378-0500

Berks County.

Material: Automotive Batteries, Plastics (Mixed Bottles/Containers).

HOPE RESCURE MISSION

6TH AND OLEY ST.
READING, PA 19601

Berks County.

Material: Aluminum Scrap, Automotive Batteries, Clothing, Furniture & Furnishings, Old Corrugated Containers.

DUMONT EXPORT CORP.

PHILADELPHIA, PA
(215) 727-8000

Material: Accepts new and used Shoes For Recycling

EAST PENN MFG. CO.

DEKA ROAD

LYON STATION, PA 19536

(724) 758-2800

Material: Recycles Three Ring Binders

Computers/Electronics

THE CHILDREN'S PROJECT

1920 WEST MARSHALL
NORRISTOWN, PA 19403
(610) 337-4434

Robert Toporek
www.project-2000-computers.com

Material: Refurbish computers and distributes to disadvantaged families

ELEMENTAL, INC.

2371 CHURCH STREET
PHILADELPHIA, PA 19124
(215) 289-1475; FAX (215) 289-4914

Karen Petherbridge
e-mail: eleminc@aol.com
web site: www.eleminc.com

NONPROFIT TECHNOLOGY RESOURCES

1508 BRANDYWINE ST.
PHILADELPHIA, PA 19130
(215) 564-6686

Stan Pokras
www.libertynet.org/ntr/

Material: Refurbish computers and give to low income households or non-profit organizations

LAA LTD.

3327 WEST QUEEN LANE
PHILADELPHIA, PA 19129
(215) 848-1207

www.scrapmarketplace.com (website available soon)
Bob Sheppard

Material: Broker of electronics, scrap, chips, boards

NORTH LIGHT COMMUNITY CENTER

175 GREEN LANE
PHILADELPHIA, PA 19127
(215) 483-4800

Irene Madrak, Ed DiMadia
Material: Repair computers and give to families in need

RUSSELL A. MORELLO AND SONS, INC.

18 MAPLE ST.

CONSHOHOCKEN, PA 19428

(610) 828-1612

Joe Morello

www.ramsrecycle.com?

Material: Recycle electronic surplus, strip for precious metal, send some units overseas.

SECOND SOURCE

1241 WEST CHESTER PIKE

WEST CHESTER, PA 19382

(610) 692-9200

John

www.secondsourceonline.com/

Material: Refurbish and resell computers

KO ENTERPRISES

4204 E. THOMPSON ST.

PHILADELPHIA, PA 19137

(215) 743-9140

Chi Huang

Material: Recycle electronic surplus

ATTCHMENT B

EXAMPLES

**BROCHURES
DOOR HANGERS
FLIERS
NOTICES**

**SCHOOL PROGRAMS AND LESSON
PLANS**

**COMMERCIAL/INSTITUTIONAL
EDUCATION, MOTIVATION AND
REPORTING**

**GRASS AND LEAF WASTE
COMPOSTING EDUCATION**

**COMPUTER CLIP ART/DEP BROCHURE
DEVELOPMENT RESOURCES FOR
DEVELOPMENT OF EDUCATIONAL
MATERIAL**

