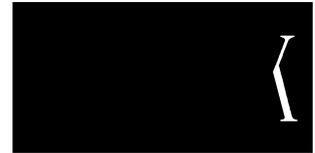


September 15, 2003



Mr. Jeffery Helm
Assistant Zoning & Planning Official
Columbia Borough
308 Locust Street
Columbia, PA 17512

Subject: Columbia Borough Technical Assistance Project

Dear Jeffery:

This letter summarizes the findings of our evaluation of the recycling collection programs and public information in Columbia Borough. The evaluation was performed as part of a Recycling Technical Assistance program provided by the Pennsylvania Department of Environmental Protection (DEP). Details of the current collection system and of our analysis are provided in the sections below.

Existing Conditions

Columbia Borough residents and businesses are mandated to recycle glass bottles, aluminum cans, steel/bi-metal cans, newsprint and yard waste through Municipal Ordinance 716. This ordinance also requires commercial establishments to recycle office paper and corrugated containers. Currently, ten waste haulers provide refuse and curbside residential recycling service to the Borough. Haulers collect curbside recyclables once per week on the same day as refuse. Service is generally provided Monday through Thursday. The Borough provides 18-gallon bins to residents of single family and multi-family homes at a cost of \$3.00 per bin. The containers are placed in the bin and the old newspapers are tied or bundled in kraft bags and placed on top of or next to the bin.

Recycling service is also provided to the commercial accounts in the Borough. This recycling collection is geared toward old corrugated containers (OCC) however some accounts also recycling high-grade office paper. The commercial accounts participating in recycling generally place the OCC in frontload or rearload bins provided by the hauler. Bagged mixed office paper is either collected in the OCC recycling container or collected at the curb.

Table 1 shows the tons of refuse generated from residential and commercial sources in Columbia Borough during 2001 and 2002. This data was obtained through the waste manifest system that Lancaster County has implemented. This system requires each hauler to complete a manifest for each load of refuse or recyclables generated, including origin and type of material. From this data the County can track waste and recyclables and generate reports.

A diversion percentage was developed from the tonnages collected by the County. Columbia Borough currently is diverting 14 percent of the waste from the incinerator or landfill. The

average diversion rate for the entire County is 35 percent showing that the Borough has room for improvement.

Table 1 Residential and Commercial Recycling Profile [1]

Tons Generated	2001 Columbia Borough	2002 Columbia Borough	2002 County Average
MSW Tons	10,801	7,539	301,166
Recycle Tons	1,483	1,277	163,923
Total Tons	12,284	8,816	465,089
% Diversion	12%	14%	35%

[1] Data from 2001 & 2002 Lancaster County Residential and Commercial Recycling Profile Report supplied by Tim Breneisen.

Table 2 shows the results of a detailed study the County performs each year. The County collects data from each municipality on the number of units provided collection service and the amounts of refuse and recyclables generated. This report also illustrates that the Borough recycling program, with a residential recycling rate of 8.4 percent, has room for improvement.

Table 2 Household Participation and Recovery [2]

	1999	2000	2001	2002	2002 County Avg.
Participating Households	3,020	2,505	2,505	2,618	10,2174
Avg. Household Recycling Pounds per Month	222.0	307.4	317.4	282.3	195.5
Avg. Household Refuse Pounds per Month	15.4	25.9	30.5	25.9	31.9
Residential Recycling Rate	6.5%	7.8%	8.8%	8.4%	14.0%

[2] Data from 2002 Lancaster County Municipal Residential Recycling Program Performance Profile Report supplied by Tim Breneisen.

Increasing Diversion

R.W. Beck facilitated a meeting with the haulers that serve Columbia Borough on March 26, 2003. Three of the ten haulers were represented in the meeting. Those haulers attending represented 70 percent of the residential collection and 25 percent of commercial collection in the Borough. The attending haulers included:

- Jack Gamby from Gamby Disposal;
- Bob Kline from River Valley Disposal; and,
- Ted Johnson from Johnson Incorporated.

BFI and WM are the largest haulers in the County and did not attend the meeting. The other haulers that did not attend were very small haulers with only a small percentage of the accounts.

The purpose of the meeting was to identify strategies to increase participation in the Borough's recycling programs, which will result in more recyclables being diverted. To accomplish this, the meeting first focused on existing challenges and then participants were requested to identify solutions. R.W. Beck supplemented these recommendations with specific action items.

Challenges Facing Single-Family Recycling

As demonstrated by Table 2, participation in the Borough's residential recycling program has increased during the last four years. Borough representatives believe this increase is the result of a newspaper article on recycling, as well as the enactment of Municipal Ordinance 716.

While this ordinance requires all residents to recycle, haulers indicated that residents do not comply with setout and material requirements. Due to this, some haulers collect using trailers or smaller dumpbody trucks. They are also starting to collect recyclables first so contaminants could be left for refuse collection. The collectors do not have time to separate all contaminants. Scavenging is a continuing problem as all aluminum is taken out of bins during the night before collection.

Challenges Facing Multi-Family Recycling

Haulers expressed concern about the amount of refuse generated by the multi-family units, and that the recycling rate has not increased at the same rate. However, high contamination levels are the most serious problem the haulers identified. High debt has been a serious problem, but is becoming less of a problem as landlords are now providing the service and paying the bill. Landlords are charged quarterly for a flat monthly rate for refuse and recycling collection.

Challenges Facing Commercial Recycling

The type of recycling program (i.e. totes, containers, bags) varied by attending hauler. Some may use rearload containers, some carts, and others would like customers to separate OCC into bundles and mixed paper into bags which are placed at the curb for collection.

Based on feedback provided by the three haulers that attended the meeting, a significant problem exists with commercial accounts selling recyclable material directly to markets and not reporting the tonnage to the Borough. Borough representatives concurred with this and indicated that Borough staff does not have time to obtain information on all of those accounts and the tons recycled. Additionally, Municipal Ordinance 716 does not require commercial establish to track or report the quantity of material that they recycle.

BFI and Waste Management are the largest haulers of commercial waste in the Borough so they would be most knowledgeable in discussing commercial hauler problems. However, as previously discussed, they did not attend the meeting.

The haulers that attended did feel that if a commercial recycling program results in less refuse being set out by their customers, the customers would request that the hauler renegotiate the refuse contracts. Most of the haulers do envision charging for recycling services. The barriers to implementing a commercial recycling program are (1) talking the customers into taking the time to recycle and (2) finding the space to store the recyclables.

Recommendations

Meeting participants made the following recommendations to increase recycling:

- The Borough should develop a public education program to increase recycling rates in the Borough which would include an instructional welcome packet that to be placed in bins when they are purchased.
- The Borough needs ongoing reminders for residents. Ideas included delivering a brochure with every purchase at the local grocery stores, recycling education programs at the schools, or even have the Boy Scouts deliver brochures to every resident.
- Residents need information on how to package materials such as ONP (tied or in kraft bags), glass jars washed, tops off plastic bottles, and plastic bottles flattened.
- Haulers should submit a list of non-participants to Borough. This should include single family, multi-family, and commercial accounts.
- A suggestion was made that all recycling collections could be made on a single day, but that system would not work for the three largest local haulers.
- The Borough must develop a reporting method for those accounts because the Borough staff does not have time to track down all the data from all accounts.

- The Borough may want to consider modifying Municipal Ordinance 716 to require commercial establishments to report recycling quantities.
- The Borough could best assist the private sector haulers implement commercial recycling programs by requiring all commercial customers to recycle and to report the tonnage recycled to the Borough recycling office.

Action Items

PUBLIC EDUCATION

The Borough of Columbia is small - only 4,595 housing units according to the 2000 Census, with 1,689 of those being renter-occupied units - and needs a targeted approach to build enthusiasm that will boost participation in the curbside recycling program. To accomplish this, R. W. Beck researched a variety of educational, promotional, and advertising alternatives and recommends the following approach.

- Limited newspaper advertising;
- Refrigerator magnets;
- Public outreach; and
- Education in the schools.

LIMITED NEWSPAPER ADVERTISING

Newspaper advertising is a traditional component of most outreach initiatives and should be used to promote Columbia's curbside recycling program. The daily newspaper, The Columbia Ledger, serves all of the Tri-Borough area, however the ad can be limited to be included in papers delivered only to Columbia Borough. R. W. Beck recommends purchasing a ½ page ad at the beginning of the program to announce its establishment and to prompt reporters to generate articles about the program. The cost for purchasing a ½ page ad in The Columbia Ledger is \$375.

REFRIGERATOR MAGNETS

After the initial notification stage, residents will need to be constantly reminded about what to recycle and how materials should be prepared to facilitate the success of Columbia's program. R. W. Beck recommends that the Borough use 3" x 5" refrigerator magnets to accomplish this because they are:

- 1) Durable;
- 2) Large enough to provide material and preparation information; and
- 3) Regularly seen by the intended target audience.

R .W. Beck estimates the cost for two-color 3"x5" refrigerator magnets to be approximately \$2,500 for 2,000 magnets.

PUBLIC OUTREACH

The Borough could also engage in other activities that are fun, inexpensive, and bring attention to the recycling program through public outreach. Some potential public outreach activities for consideration might include:

OBTAIN COMMITMENTS

Research has shown that individuals who make either a written or oral commitment to recycle will recycle more frequently and in larger quantities than those who were merely informed of the recycling program. To illustrate, one study asked individuals to sign a pledge to recycle newspapers during a two-week period. Not only did the majority of individuals who signed the commitment recycle their newspapers during that time frame; but these same individuals continued their recycling behavior after the two-week period.

It may not be possible for the Borough to individually solicit written commitments to recycle from every household. Therefore, the Borough may want to target venues where large numbers of residents gather, such as the Holy Trinity Street Fair or the Bridge Bust. However, simply asking residents to commit to recycling is not enough. The "salesperson," as with any selling situation, must be able to persuade and overcome objections to recycling.

LINK TO BOROUGH WEBSITE

The Borough currently has a web site, <http://www.columbiapa.net>. Establishing a recycling page on this web site could serve as a cost-effective mechanism for informing large numbers of Borough residents about its programs and events. For the recycling page to be effective, it should be professional in appearance and easy to locate.

To increase the potential for individuals to access the site when they do not know the exact name of the web site or its address, the Borough could link with other sites that the proposed target audience would view. Individuals and/or groups that the Borough may want to target include:

- Individuals interested in public services;
- Individuals moving to Columbia; and
- Individuals interested in environmental issues

CONDUCT SLOGAN/LOGO/MASCOT CONTESTS

The Borough may want to conduct a contest to create a slogan, logo or mascot to be associated with its recycling program. Having one or more of these things that identify the program would help to increase program visibility. The Borough may want to consider a contest to ask residents to submit a slogan, a logo, and/or a mascot to be considered for use by the Borough, with the winning entry incorporated into future educational materials used by the Borough. If the Borough is unsure of which vehicle might be preferred, it could solicit entries in all three

categories and choose a single winner from one category, or one from each category. This way, there is an option of using any of the winners' submissions, such that the most appropriate one can be selected for a given situation. The winner or winners would be recognized by the Borough in some way, and given some type of reward for their effort. Prizes could be donated by local businesses.

ESTABLISH BLOCK LEADER PROGRAMS

The Borough could establish a "block leader program" to enlist community support to promote recycling throughout the Borough and to engage in friendly competition designed to boost recycling. In this program, individuals could be identified either by block or within established zones. These individuals could be responsible for setting an example for the rest of their area, visiting neighbors to personally encourage recycling and other waste reduction activities, and to distribute materials on behalf of the Borough.

In order to encourage people occupying rental units to recycle, it may be useful to not only have a block leader program, which would catch most new residents, but also have the landlords of rental properties be responsible for disseminating information about the borough's recycling program to their tenants.

PROMOTE GOALS

The Borough could bring attention to recycling goals by developing a visual method of showing progress. The Borough could create a sign that could be placed in a highly visible location (similar to United Way). The sign would show progress toward the goal (a thermometer, a recycling truck traveling to a materials recovery facility, etc.) will help residents see where they are in relation to the goal and encourage them to recycle more to meet the goal.

EDUCATION IN THE SCHOOLS

Educating students in grades K-12 may be a very effective way of reaching Borough residents both now and for the future. Students often become the strongest advocates of recycling, and will ensure that recycling is happening in their homes.

Because Lancaster County itself has a very successful recycling program, the Borough may want to work cooperatively with the county and other communities within Lancaster County to educate students and promote recycling. Of course, teachers often struggle just to teach their traditional curriculum, so the Borough must be sensitive to this and be willing to assist in school-based efforts. Activities that have been used in other areas include:

- A Community sponsored art show and/or "inventions" using recycled materials. This could also take a seasonal form, such as recycled Christmas ornaments. Student creations could be displayed at a local shopping center or other heavily traveled location. It would be particularly helpful to have a local sponsor or sponsors—including a media outlet—to provide funding, awards, and publicity. A jury of art teachers and community leaders could

be used to judge the entries, and could determine what is actually shown to the public if there are too many entries.

- Several performing groups have delivered the recycling message very successfully to schools throughout the Commonwealth. These groups include The Illusion Maker, Timothy Wenk Magic, and the KidsMatter National Theatre. These groups will come into the schools and perform at student assemblies. These programs are eligible for funding through the Section 902 Recycling Program Grants. The application must be made through a municipality or county.
- If the schools are not recycling or if the in-school recycling programs have been struggling, school recycling programs are also eligible for Section 902 grants for containers and educational materials. Some districts have benefited from establishing student committees to promote recycling and help manage the programs. Some have used revenue from materials as incentive for students to participate. The Millcreek School District in Erie County, for example, has used revenue to purchase materials that support class projects.
- Some schools have used recycling as an opportunity to promote exchanges between older and younger students. In Plum Borough (Allegheny County), high school students were trained to teach primary school students about recycling and waste reduction.

Conclusion

Columbia Borough has an opportunity to increase recycling diversion rates. The haulers are willing to help the Borough implement new and improve existing recycling programs. The recommendations drawn from this technical assistance project are:

- Require all commercial establishments to report quarterly recycling tonnage,
- Have the Boy Scouts deliver refrigerator magnets developed by the Borough,
- Start a recycling education program in the schools,
- Conduct a logo, slogan, or mascot contest,
- Develop Borough goals and place a sign indicating progress, and
- Develop promotional literature to be delivered with new bins.

Sincerely,

R. W. BECK, INC.

Name

Title