

January 29, 2008



Mr. Raymond Lopez
Borough Manager
Borough of Pottstown
100 E. High Street
Pottstown, PA 19464

Subject: Multi-Family Recycling Program Evaluation – Final Report

Dear Mr. Lopez:

This report summarizes R. W. Beck’s review and evaluation of the Borough of Pottstown’s (the “Borough”) multi-family recycling program and provides recommendations for the Borough to consider for improving the program and increasing the quantities of recyclable materials collected. The Borough sought assistance because they wish to increase the participation in recycling programs at multi-family dwellings (“MFD”s).

This project was performed as part of the Recycling Technical Assistance program sponsored by the Pennsylvania Department of Environmental Protection (“DEP”) and the Solid Waste Association of North America (“SWANA”).

This letter report is divided into the following sections:

- Executive Summary
- Overview of Current Recycling Program
 - Single-Family Recyclable Materials Collection
 - Multi-Family Recyclable Materials Collection
 - Quantities of Recyclable Materials Collected
- Common MFD Recycling Challenges
 - Site Issues
 - Ordinance/Oversight Issues
 - Education/Outreach Issues
- Recommendations for Overcoming MFD Recycling Challenges and Improving Recycling at MFD Buildings
- Conclusions
- Appendices

Executive Summary

R. W. Beck, Inc. evaluated the Borough of Pottstown's multi-family recycling program and provided recommendations for the Borough to consider for improving the program. One of the biggest challenges for any MFD recycling program is providing recycling information to the residents because of the relatively short period of time that many residents live in multi-family dwellings. Ensuring that new residents receive current recycling information is an ongoing challenge. R. W. Beck provided recommendations not only for improving education and outreach, but also for addressing site issues and ordinance enforcement. Some of the recommendations for the Borough to consider include the following:

- Conduct an inventory of recycling collection containers at all MFD buildings. Recycling containers should be located next to every garbage dumpster so residents have the option to recycle when disposing of their trash. Recycling areas should also be clean and well-lit.
 - Provide small recycling containers or tote bags to each dwelling unit to transport recyclable materials to a central collection location.
 - Discuss with building managers (at feasible sites) the option of providing recycling collection bins on each floor or in a common area inside the building.
 - Develop a recycling brochure or flyer exclusively for MFD residents and mail it to every MFD tenant in the Borough, or work with building managers to distribute the information. Create a "new resident" information packet to be provided to new tenants upon moving into a MFD.
 - Send a separate letter to MFD building managers and landlords referencing ordinance section numbers 205.4.D and 205.6 and offer assistance in the form of a site visit or site audit, especially for buildings that are struggling with participation or contamination issues.
 - Create a database of MFD building managers and contact them annually to inquire about any recycling issues they might have, or the need for more information.
 - Arrange focus groups with Borough staff, recycling collection haulers, landlords/building owners/managers and condominium association representatives to discuss successes, obstacles to collecting recyclable materials, suggestions to increase participation, etc. Encourage working together to solve MFD recycling issues.
 - Enforce ordinance sections 205.4.D and 205.6 requiring MFD buildings to offer recycling services and submit annual tonnage reports. Inform/remind recycling collection haulers of the ordinances and ask that they cooperate with the MFD building owners, landlords, and condominium associations to work together to improve recycling at certain MFD buildings and improve reporting.
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- Consider including MFD recycling collection service in the Borough's single-family residential recycling collection contract in order to have more control over MFD recycling.
- Use pictures on recycling collection carts or dumpsters to assist non-English speaking residents as well as children. Providing pictures may help to decrease the amount of contamination (items not targeted for recycling) in the bins as well.
- Add recycling information to the Borough's website specifically addressing MFD recycling.
- Purchase and distribute promotional items such as pens, magnets, calendars, etc. to convey the recycling message to residents in a way that has the potential to be seen over and over again.

The Borough should experience an improvement in overall multi-family recycling participation, and subsequently an increase in tonnage, if some or many of the recommendations provided herein are implemented. A successful MFD program will require dedicated Borough staff time, building owner/manager cooperation, collection hauler cooperation, and consistent resident education.

Overview of Current Recycling Program

Single-Family Recyclable Materials Collection

Pottstown Borough has once-weekly collection of recyclable materials from approximately 6,300 single-family homes and approximately 650 small (up to six units per building) MFDs per a contract with J.P. Mascaro and Sons. Recycling is collected in two streams: fiber and containers. Residents are asked to place their commingled plastic bottles, glass jars/bottles, and metal cans in the recycling bin; and their newspapers, magazines, telephone books, boxboard, and junk mail should be bundled or placed in a paper bag on top of the other recyclable materials. The fee for recycling collection services for single-family homes is included in the annual trash fee of \$200 per year or approximately \$16.67 per month, billed quarterly on the water and sewer utility bill.

It is not uncommon, in general, for small apartment buildings (up to six units) or houses that have been converted to apartments to have less recycling participation than single-family homes. Many times the residents do not have room in their apartment to store recyclable materials between collection days. Because the smaller MFD accounts are serviced on single-family collection routes, each unit is responsible for setting out their own curbside recycling bin; most do not have wheeled carts or dumpsters like larger multi-family buildings (of seven units or more) tend to have.

Multi-Family Recyclable Materials Collection

Large multi-family dwellings (seven units or more) are defined as commercial establishments per the Borough's ordinance (Chapter 20, Solid Waste; Part 2, Recycling Regulations; §202) and recycling must be provided by the owner or landlord. Section 205.4.D. states:

“Owners, landlords, or agents of owners or landlords, and condominium associations must provide for collection, transportation, processing and marketing of recyclable materials by:

- (1) Coordinating with local or municipal recycling programs.
- (2) Undertaking the collection, transportation, processing and marketing of materials themselves.
- (3) Entering into contracts with other persons for collection, transportation, processing and marketing of materials.”

The Borough has approximately 155 properties with a MFD building with seven or more units. These large MFD buildings contract with private haulers for collection of trash and recyclable materials. Recyclable materials are usually collected in 90-gallon wheeled carts (Figures 1 through 3) or in dumpsters (Figures 4 and 5).



Figure 1
Multi-Family Garbage and Recycling Area



Figure 2
Recycling Cart for Commingled Containers



Figure 3
Recycling Cart for Newspaper



Figure 4
Recycling Dumpster for Commingled Containers



Figure 5
Recycling Dumpster for Newspaper

For this Project, R. W. Beck conducted a site visit to six randomly-selected apartment complexes in the Borough to make observations about the sites and, when possible, interview the apartment manager. During the site visits, the following observations were made:

- One MFD building had one newspaper cart at one location and one commingled container cart at another location. The label was nearly worn off on the newspaper cart, making it difficult to read.
- At one site, a dumpster for paper/cardboard was provided, but no recycling containers were provided for commingled containers.
- One apartment complex had garbage dumpsters at three separate locations. One location had no recycling receptacles; one had a dumpster for newspaper only; and one had a dumpster for commingled containers and two dumpsters for newspaper.
- One site had two dumpsters, one for newspaper and one for commingled containers, both of which were nearly full.
- At one building, there were four carts for commingled containers, and two carts for newspaper, which were reportedly collected on a weekly basis.

Almost every recycling bin we observed contained plastic bags, even though the Borough's website asks that plastic bags not be placed in recycling bins. Figure 6 below shows a recycling dumpster for commingled containers with plastic bags and yard waste contamination.



Figure 6
Contamination in Commingled Container Dumpster

Quantities of Recyclable Materials Collected

The quantities of material collected for recycling from 2001 to 2006, as reported to the Borough by haulers, are shown below in Table 1.

Table 1
Annual Quantities of Recyclable Materials Collected (in Tons)^[1]
Borough of Pottstown

	2001	2002	2003	2004	2005	2006
Residential	1,343	1,358	1,427	1,246	1,046	1,021
Commercial	3,193	4,116	3,704	4,852	5,174	2,643
Total Tons:	4,536	5,474	5,131	6,098	6,220	3,664

^[1] The quantities reported equal total tons collected minus estimated tons of residuals. Residuals include items not targeted for collection in the Borough's recycling program. Source: Hough Associates.

The tons are reported by the haulers as either residential or commercial. Because the larger apartment buildings are most often defined as commercial accounts and their recyclable materials are collected with the same trucks that collect materials from businesses, it is not possible to determine from the hauler reports how many tons are collected specifically from MFDs only.

Section 205.6 of the Borough's recycling regulations requires that multi-family housing property owners or landlords submit annual reports: "Owners, landlords, or agents of owners or landlords, condominium associations... shall submit an annual report to the Borough describing the provisions for recycling of collected materials, including the type and weight of materials recycled in the preceding year. The report shall be submitted no later than February 1st of each calendar year." It appears this ordinance is not enforced because the Borough does not have recycling tonnage information for MFD buildings.

The data for the single-family homes and small apartment complexes of up to six units per building (listed as "Residential" tons in Table 1), indicates that the amount of recyclable material collected from residential accounts has decreased in the last three years.

The commercial recycling tons collected in 2006 were much lower than in 2005 – from 5,174 tons in 2005 to 2,643 tons in 2006, a decrease of approximately 49 percent. The haulers did not provide an explanation for the decrease. The overall recycling tonnage decrease between the two years was approximately 41 percent.

Approximately 3,664 total tons were collected for recycling in the Borough in 2006. With a population of 21,859¹ this equates to an average of 335 pounds of recyclable material collected per person per year, or less than 1 pound (0.92) per person per day. The national average of

¹ Source: Hough Associates, Pottstown Borough 2005 Annual Recycling Report.

pounds recovered for recycling is 1.08 pounds per person, per day², so it appears the quantities of recyclable materials collected in the Borough are slightly below the national average.

Common MFD Recycling Challenges

Multi-family recycling at larger buildings (in this case, seven units or more), often presents issues that are unique, compared to single-family recycling programs. Some of the common challenges are listed below, followed by recommendations to overcome these challenges.

Site Issues

Listed below are challenges that many MFD buildings encounter, which may be obstacles to achieving high recycling rates.

- Limited outside space for recycling containers;
- Limited dwelling-unit space for storing recyclable materials; and
- Inconvenience to tenants to deliver recyclable materials to a central recycling area.

Ordinance/Oversight Issues

Recycling ordinances tend to be enforced less frequently than other ordinances in most communities. Ordinances pertaining to health and safety issues are more likely to take priority by code enforcement staff over recycling-related issues. Also, because recycling collection service at MFD buildings with seven units or more is not included in the Borough's contract for residential collection service (each building owner or manager contracts individually with a hauler for this service), the rules and regulations are less likely to be enforced. In many communities, there is just not an adequate number of staff to routinely enforce MFD recycling ordinances.

Education/Outreach Issues

Listed below are issues which may act as barriers to achieving high recycling rates.

- High tenant turnover;
- High building manager turnover;
- Lack of incentive/accountability for managers or owners to provide education/outreach and implement and promote a recycling program;
- Language barriers; and

² Source: U.S. Environmental Protection Agency, "Municipal Solid Waste in the United States: 2005 Facts and Figures." <http://www.epa.gov/epaoswer/non-hw/muncpl/pubs/ex-sum05.pdf>

- Lack of incentive/accountability for tenants to recycle (e.g., it is difficult to pinpoint who is recycling, and who is not).

Recommendations for Overcoming MFD Recycling Challenges and Improving Recycling at MFD Buildings

Improving MFD Site Issues

To increase recycling participation and hence, quantities collected from MFDs, enhanced efforts would be required of the major participants: property owners/managers, recycling haulers, Borough staff, and the residents themselves. R. W. Beck provides the following recommendations for overcoming common MFD recycling challenges:

- **Limited outside space for recycling containers** - Many times MFD buildings have limited space outside for recycling containers. Many older buildings were designed with only enough space for a garbage dumpster; any extra space is usually used for parking.

Recommendation: Smaller containers such as 90-gallon wheeled carts could be used in place of large dumpsters (in instances where the recycling hauler has fully-automated or semi-automated vehicles specifically designed to collect materials in carts). Recycling containers should be located next to every garbage dumpster so residents have the option to recycle when disposing of their trash. The Borough could consider drafting a new ordinance that requires any new MFD building plan submitted to the Borough for a building permit, must include adequate space for placement of recycling collection containers.

- **Inconvenience to tenants to store recyclable materials inside** - Many residents lack adequate space inside their apartment to store recyclable materials.

Recommendation: Provide small recycling containers to each dwelling unit to transport recyclable materials to a central collection location. Examples include small 5- to 10-gallon bins or reusable cloth tote bags. San Mateo County California, for example, provides a two-pocket tote bag, so that containers and paper can be transported separately, while carrying just one bag. They refer to this bag as a “recycling buddy.” A list of companies that provide apartment recycling bins and tote bags are provided in Appendix A. Another option is to provide recycling collection bins on each floor or in a common area inside the building. However this would require the building staff (or a dedicated resident) to transfer the materials from the inside bins to the larger collection containers located outside. It is also important to ensure that, if possible, central recycling containers are located in high-traffic areas or areas that are frequented by residents – near the trash bin is ideal. The recycling/trash area should also be clean and well-lit.

Enforce Ordinances

Because the Borough already has an ordinance requiring MFD buildings to offer recycling services (Section 205.4.D), we recommend the Borough reference the ordinance in an annual letter to all MFD building owners, landlords, and condominium associations. The letter should also reference Section 205.6 of the ordinance which requires that multi-family housing property owners or landlords must submit annual reports with the type and weight of materials recycled in the preceding year. It should be noted that the fine for violating the Borough's recycling regulations is not less than fifty dollars (\$50.00) and no more than six hundred dollars (\$600.00) plus costs of prosecution for each and every offense. According to Borough staff, this fine has never been levied.

Also, R. W. Beck recommends that the Borough send a letter to all licensed recycling haulers operating in the Borough to inform/remind them of these ordinances and ask that they cooperate with the MFD building owners, landlords, and condominium associations to work together to improve recycling at certain sites and improve reporting.

One option for the Borough to consider is to include MFD recycling collection service into the single-family residential recycling collection contract. Under this scenario, the MFD buildings with existing contracts with haulers could honor those contracts until the original term of their contracts expire. Gradually each building could be incorporated into the Borough's residential recycling collection contract and the Borough would oversee all residential recycling – single-family and multi-family. As a result, the Borough would have more control over service requirements, reporting, recycling education, etc.

Improve Education/Outreach Efforts

- **High tenant turnover** – Because the nature of apartment building living isn't always a long-term living arrangement for a majority of tenants, there tends to be a constant flow of incoming and outgoing residents.

Recommendations: Create a "new resident" information packet specifically designed for MFD residents. Provide packets to apartment managers and ask that they be delivered to each new resident. Or ask apartment managers to provide the Borough with names and addresses of new residents on a monthly or quarterly basis so that the Borough can send out information packets. For examples of multi-family recycling information created by other municipalities as well as MFD recycling resources, see Appendix B.

- **Periodic building manager turnover** – Managers of MFD buildings tend to turn over periodically, although not at as high of a rate as the tenants.

Recommendations: Create a database of MFD building managers in the Borough and make telephone calls to the managers annually or send an annual form letter asking for updated contact information. Contact each building manager annually to inquire about any recycling issues, or the need for more information packets, signage, etc. The Borough might consider hosting a breakfast or other event periodically where a working session

could be conducted, in order to gain an understanding of specific barriers apartment managers are facing, and allow the sharing of information and suggestions among managers. Functions like these often motivate managers to reinvigorate their recycling program, and also show that the Borough is interested in helping, not just enforcing.

- **Language barriers** – Many communities have large populations of non-English speaking residents which can present a barrier to ensuring recycling education initiatives are effective.

Recommendations: While it may not be relevant to the Borough, in certain communities it has proven beneficial to print brochures and other education pieces in additional languages in an attempt to reach a broader audience. Also, it is recommended that pictures or drawings of the recyclable materials accompany the text. Pictures should also be used on the collection carts or dumpsters to further assist the residents, especially children. Providing pictures may help to decrease the amount of contamination (items not targeted for recycling) in the bins as well. The Borough could research the cost of designing adhesive stickers or decals for MFD recycling containers, or work with the haulers to provide them.

- **No incentive for tenants to recycle** – In most cases, residents in MFDs do not receive a separate bill for garbage and recycling services, as fees for these services are usually prorated and each unit's portion is included in their monthly rent. Consequently, there is not a financial incentive for the tenants to recycle or reduce the amount of garbage they generate. Furthermore, there is little accountability for residents, as it is not known who is recycling and who is not.

Recommendations: In MFD recycling educational tools (printed material such as flyers or brochures), remind residents that garbage and recycling collection services are not free, but are included in their rent. If the amount of garbage increases, it may result in the need for increased collection service (i.e., larger garbage containers or more frequent collections per week), which could result in an increase in rental fees. Another angle is to promote environmental stewardship by recycling, to ask residents to conserve natural resources and to take responsibility for protecting the Borough's environment. The building manager, Borough staff, and/or volunteers (for example, environmental club high school students) could set up a recycling education "booth" on-site (perhaps as people are returning from work) to distribute information about the environmental benefits of recycling. This, in conjunction with the distribution of apartment-sized recycling bins or tote bags, would demonstrate to the residents the commitment to recycling by the Borough and the building manager/owner. It would also provide effective one-on-one recycling education and provide residents with the opportunity to have their recycling questions answered.

Suggested Education/Outreach Tools

Providing recycling information to residences periodically is particularly important for residents in MFD buildings due to the high turnover rate of multi-family residents, as well as periodic changes in property ownership and/or management. As mentioned earlier, it is recommended that each new resident of a MFD building be provided with "new resident" information

regarding recycling. General recycling reminders should be provided at least quarterly, until the manager is confident that the program is being adequately utilized, and at least semi-annually thereafter. Listed below are recommendations for improving recycling education for MFD residents.

- **Brochure or flyer developed exclusively for MFD residents** – A recycling brochure or a flyer should explain the basics of the Borough’s recycling program, including what materials are accepted in the program and how to prepare the items for collection. Ideally, additional information such as where the recycling bins are located on the property would be most beneficial.

Recycling education pieces that are sent through the mail and addressed to the resident by name are more likely to be read than items addressed to “Resident.” However, if the cost of postage is prohibitive, the Borough could hand-deliver brochures to each building or property manager and ask that they distribute to their tenants. In general, brochures are most effective when they are printed in more than one color and have pictures or drawings to emphasize the message. Also, in communities with large populations of non-English speaking residents, brochures printed in additional languages help to educate more of the population. If funds are not available to print a separate MFD education piece, general Borough recycling information should be provided to all MFD residents.

The development and printing (but not postage) of recycling education pieces may be eligible for funding under the DEP’s Recycling and Waste Management Grants (also known as Section 902 grants).

- **Clear Signage** – Recycling areas should have clear signage, both on containers and above containers, if possible, explaining which recyclable items should be placed in each container. Signage with pictures is generally preferable, however if text is used, it should be large and bold.
 - **New Resident Information Packet** – Recycling information should be incorporated into the informational materials provided to new tenants. Borough staff are encouraged to work with building owners, managers, and condo associations to ensure this is carried out in order to be successful.
 - **Letter to MFD managers and landlords** – By sending a separate letter directed toward MFD building managers and landlords (especially if addressed to the individual by name), the Borough may achieve better recycling participation from MFDs. The letter should not only reference ordinance section numbers 205.4.D and 205.6, but also offer assistance in the form of a site visit or site audit, especially for buildings that are struggling with participation or contamination issues. If at all possible, Borough staff should periodically deliver printed materials to building managers and landlords, and while on-site, visit the recycling area(s). If warranted, suggestions for improving the site should be provided to the manager or landlord.
 - **Website** – Many people look for community information on the Internet, and the Internet is a relatively low-cost means of providing information. It is recommended that the Borough
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add recycling information to its website that specifically addresses MFD recycling, so those residents have a source to turn to for easily accessible information. See Appendix B for examples of other municipalities' websites specifically designed to provide information regarding MFD recycling.

- **Promotional Items** – Promotional items such as pens, magnets, calendars, etc. are an inexpensive way to convey the recycling message to residents in a way that has the potential to be seen over and over again.
- **Door hangers** – Because MFD residents are often “on the go” – delivering door hangers to their apartments may be a convenient and effective means of providing a friendly reminder about the recycling program.

Provided below are recommendations for providing effective recycling education materials. Some of these options may not be financially feasible for the Borough, but they are included here for future consideration.

- When designing recycling education brochures and information pieces, consider using a consistent “look” in all pieces (i.e., use the same font, colors, logo, mascot, etc.). Residents will eventually recognize these as recycling information pieces and will hopefully save them and reference them when needed.
- Include disposal options for other materials such as tires, appliances, scrap metal, electronics, etc. in all printed materials.
- Increase the recycling education budget to expand the visibility of the Borough’s recycling program. It is recommended that at least \$1.50 per household, per year, be budgeted for recycling education.

In addition to the recommendations provided above related to on-site recycling, ordinances, and education, R. W. Beck offers the following additional recommendations for the Borough of Pottstown to consider for improving recycling at MFDs:

1. Document MFD recycling efforts. Currently, MFD buildings located in the Borough offer a varying array of recycling collection services. If the Borough is going to increase participation rates, it will first need to inventory each site to determine what recycling services are currently being offered (i.e., container for paper only, or one set of recycling bins in a complex with several garbage collection sites, etc.). Once the Borough has established a baseline of MFD recycling service, it can work to achieve the following:
 - Determine areas or sites with low recycling participation rates;
 - Target individual neighborhoods or buildings;
 - Determine why residents within these neighborhoods or buildings do not recycle; and
 - Develop specific strategies for increasing recycling within these neighborhoods or buildings.
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2. Work with MFD building owners and managers to obtain their “buy-in” and cooperation. Some building owners may contend that increasing recycling service or adding recycling containers will increase their hauling costs, however they should be reminded that by increasing recycling efforts could result in a reduction in the size and/or number of trash containers required, which may reduce or offset any increased costs to recycle. On-site support will be key to the Borough’s success in improving MFD recycling. As described earlier, the Borough might consider hosting breakfast working sessions, where managers can describe the barriers they face, and share success stories. High school environmental organizations (supervised by an adult sponsor) may be willing to assist with on-site education and outreach to MFD residents.
3. Offer to arrange focus groups with Borough staff, recycling collection haulers, landlords/building owners/managers and condominium association representatives. Discuss what is working, what obstacles to collecting recyclable materials they encounter, what are the obstacles to increasing participation, etc. Encourage them to share ideas and examples of successful programs, and work together to solve MFD recycling issues. This approach allows haulers and managers to see each others’ perspectives, which can be invaluable.
4. Consider conducting a survey of residents from MFD buildings with low participation rates in an attempt to understand residents’ particular needs and obstacles to recycling. A sample survey is provided in Appendix C.
5. Share and celebrate success! It is important to share recycling successes with MFD managers/landlords as well as tenants. Sharing success in newsletters and on the website, and providing coupons donated by local establishments are some ways in which success can be celebrated.
6. Consider hiring a college intern or part-time staff person to help with MFD recycling-related tasks.
7. Consider arranging a tour of a local recycling materials recovery facility (MRF) for MFD managers/landlords. This will allow them to see what happens to the recyclable materials after collection, and will likely enhance their enthusiasm for the program. MRFs the Borough might consider touring include:
 - Blue Mountain Recycling in Philadelphia (highly mechanized, single-stream);
 - King of Prussia Recyclery in King of Prussia (converting to single-stream);
 - Cogle’s Recycling, Inc. in Hamburg (two-stream and source-separated); and
 - A.J. Blosenski, Inc. in Honey Brook (two-stream and source-separated).

Conclusions

By implementing some or all of the recommendations provided in this report, the Borough of Pottstown should experience an improvement in overall multi-family recycling participation, and subsequently an increase in tonnage. MFD recycling is one of the most challenging aspects

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of any municipal recycling program. A successful MFD program will require dedicated Borough staff time, building owner/manager cooperation, collection hauler cooperation, and consistent resident education.

Thank you for the opportunity to provide recycling assistance to the Borough of Pottstown. Please contact me at (651) 994-8415 with questions regarding this report.

Sincerely,

R. W. BECK, INC.

A handwritten signature in blue ink that reads "Mary Chamberlain". The signature is written in a cursive style with a horizontal line at the end.

Mary Chamberlain
Environmental Analyst

RESOURCE LIST OF RECYCLING BIN AND TOTE BAG VENDORS AND MANUFACTURERS

Provided below is a list of recycling bin and tote bag vendors and manufacturers that offer appropriate-sized containers for apartment recycling. R. W. Beck does not endorse any particular vendor or manufacturer, nor does it claim that this list is complete.

Adco Marketing

300 Tamal Plaza, Suite 220
Corte Madera, CA 94925
Phone: 415-927-2881
Toll Free: 888-332-ADCO (2326)
<http://www.adcomarketing.com/totebags.htm>

Awareness Ideas

Flexi Display Marketing, Inc.
801 Stephenson Hwy.
Troy, MI 48083
Phone: 800-875-1725
<http://www.awarenessideas.com/rh251-Recycling-Tote-Bag-p/rh251.htm>

The Bag Connection, Inc.

459 SW 9th Street
Dundee, OR 97115
Phone: 800-622-2448
<http://www.bagitsystem.com/MultiFamily.htm>

Busch Systems International, Inc.

343 Saunders Road
Barrie, Ontario Canada L4N 9A8
Phone: 705-722-0806
Toll Free: 800-565-9931
http://www.buschsystems.com/Catalogue_2007.pdf
(Apartment Recycling Bag and Apartment Recycling Bin, page 2 of catalog.)

Enviro-Tote

4 Cote Lane
Bedford, NH 03110-5805
Phone: 603-647-7171
Toll Free: 800-TOTE BAG (868-3224)
<http://www.enviro-tote.com/index.html>

Recycled.CA

46 LePage Court

Toronto, Ontario Canada M3J 1Z9

Phone: 416-638-9895

http://www.recycled.ca/Products/product_list.htm

Appendix B

MULTI-FAMILY DWELLING RECYCLING PUBLIC EDUCATION EXAMPLES AND RESOURCES

Provided below is a list of various resources and public education examples related to multi-family recycling.

City of Beaverton, Oregon

“Recycling Services Guide 2007: Apartments and Condominiums”

<http://www.beavertonoregon.gov/departments/recycling/apartments/docs/BOOKLET.pdf>

Eureka Recycling (St. Paul, Minnesota)

“Exploring Multifamily Recycling: Tools for the Voyage”

Multi-family recycling tool kit including sample legal documents, signage and outreach material templates, and guidance documents for setting up MFD recycling programs.

<http://www.eurekarecycling.org/Tools.cfm>

City of Pittsburgh, Pennsylvania

Website for commercial recycling including apartments:

http://www.city.pittsburgh.pa.us/pw/html/commercial_recycling.html

RethinkWaste.org (San Mateo County, California)

Multi-family recycling tool kit including posters, sample door hangers, move-in packet, move-out flyer, etc.

http://www.rethinkwaste.org/mfd_managers.php

Seattle Public Utilities

Seattle, Washington

Website specifically for apartment recycling:

http://www.seattle.gov/util/Services/Recycling/Recycle_at_Your_Apartment/Tenant_Education/index.asp

Stopwaste.org (Alameda County, California)

Guidance document for designing multi-family recycling programs:

<http://www.stopwaste.org/docs/1720381662005mfu-designguidelines.pdf>

Summary of Multi-family recycling programs in Alameda County:

http://www.stopwaste.org/docs/multifamily_rg_matrix.pdf

Stewardship Ontario, Ontario Canada

Case studies and best management practices for MFD recycling programs.

<http://www.stewardshipontario.ca/eefund/projects/mfamily.htm>

City of Toronto, Ontario Canada

Multi-family informational brochure, available in several languages.

<http://www.toronto.ca/garbage/multi/abc.htm>

United States Environmental Protection Agency

Pay As You Throw: Apartments/Multi-Family Housing:

<http://www.epa.gov/payt/top11.htm>

Appendix C

MULTI-FAMILY DWELLING RECYCLING
SAMPLE RESIDENTIAL SURVEY

We need your input!

Hinton Heights Management is looking for ways to improve its recycling program for its residents. Currently, 2 outside recycling bins, near the main complex entrance, are provided for residents to drop off their recycling. The following questions will help management better meet resident's recycling needs. **Please return your completed survey to the Rental Office by Friday, September 14.**

Please check the box most appropriate.

Do you use Hinton Heights's current recycling containers?

- Yes
- No

If "yes", what do you recycle?

- Food and beverage cans
- Glass bottles and jars
- Plastic bottles
- Newspaper
- Mixed paper and junk mail

If "no", which of the following come close to your reasons? (check all that apply)

- I didn't know that there was a recycling program at Hinton Heights.
- There is not an outside recycling bin close to my apartment.
- It's too much trouble to carry out the recyclables.
- I don't have enough space in my apartment to store recyclables.
- I don't have enough recyclables to make it worthwhile.
- I'm not sure how to recycle.
- It's something I just forget to do.
- I don't know what things I can recycle.
- I don't know where the outside recycling bins are.
- Other _____

Who primarily takes out your garbage or your recycling?

- Yourself
- Your child(ren)
- Your spouse/partner
- Other _____

(OVER)

How often is your garbage taken out to the dumpsters?

- Daily
- Once a Week
- Twice a Week
- Every Other Week

How often is your recycling taken out to the recycling bins?

- Daily
- Once a Week
- Twice a Week
- Every other Week
- Never

How could we improve our recycling program for you? (You may check more than one).

- Have outside recycling bins near every garbage dumpster.
- Provide a recycling container to store and carry out recycling to the outside recycling bins.
- Provide pamphlets describing what can be recycled.
- Give out recycling reminders.
- Post better signs at the recycling area.
- Other _____

If additional recycling containers were provided near every dumpster, would you start recycling or would you recycle more?

- Yes
- No
-

Comments: _____

Please return your completed survey to the Rental Office by Friday, September 14.

Thank you for your time. We appreciate your comments!