Practice Guide #37

Fall 2015

Establishing Successful Recycling Programs in Multifamily Developments

by

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Introduction

The United States has seen a steady increase in municipal solid waste production over the last few decades. Similarly, there has also been an increase in recycling rates over the same period, though it has not kept pace with waste production. As recycling programs become increasingly common and more accessible for many residents throughout the country, the most recent data available on waste generation in the U.S. show that Americans recycle 1.5 pounds out of the 4.4 pounds of waste they generate daily (U.S. Environmental Protection Agency [EPA] 2012); approximately 33 percent of waste is recycled.

Establishing a recycling program has its challenges though and this is particularly true for multifamily developments (MFD) where units range in number from two to a few hundred. Multifamily recycling programs manifest themselves quite differently than residential recycling programs for single-family properties, and similarly have different issues in terms of efficacy and efficiency, such as lower participation rates relative to single-family properties. Multifamily waste represents a fairly small fraction of the waste stream. Despite the perception that they are not being served, recycling service is offered at approximately 82 percent of multifamily developments nationwide. In two-thirds of these areas, all multifamily units are covered (Stopwaste.org 2008).

This resource guide and collection of tips will be useful to those initiating new programs or seeking to improve existing efforts. This practice guide addresses some of the issues faced when implementing a recycling program in MFD and offers suggestions on how to overcome these obstacles. Case studies are presented that offer insight into how different municipalities successfully implemented recycling programs and additional resources are referenced.

Best Practices for Implementing and Improving On-Site Efficiency and Participation

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The success of any program depends largely on how it is implemented. Following best practices can ensure buy-in from both MFD staff and residents and result in higher diversion rates which benefit everyone. These practices include recruiting support, using clear, educational signage, and determining the right size and style of containers to use.

Designing your Program

- Identify a Program Leader, a resident who can engage, motivate, and support other residents in their efforts to recycle.

- Enlist staff support, with training for communication and outreach.

Contracting with a Collector

- Contact current waste collector. If recycling services not offered, consider recycling service or self-haul to a facility

Signage

- Clear and visible signage should be used to indicate containers are for recycling only as well as list the materials that are acceptable.
- Educational materials need to be posted in common areas (laundry, mail rooms, lobbies, and leasing offices).
- Ask haulers if they make educational posters available. Local landfills, recycling centers, and some government agencies may also provide educational materials.

Container Size and Placement

- The number of containers should be based on estimated pounds of materials that will be generated on a weekly basis.

For once-a-week collection (the norm), a reasonable rule of thumb is to provide ¼ cubic yard (y^3) of container capacity for every three residents. This can be a mix of garbage bins and recycling carts (or bins), with about half of the volume for garbage and half for recycling. For example, a 60-unit complex with average occupancy of three people per unit would require 15 cubic yards of capacity (0.25 y^3 x 60). If the collection company uses 4-cubic-yard bins for garbage and 64-gallon carts for recyclables, this could be served by two bins and 22 carts. It is good practice to provide 20 percent to 35 percent excess capacity for seasonal variation, so in this example the design objective should be to accommodate three bins and 28 carts. Local demographics may change these assumptions; large or extended families will require more space, and senior citizens living alone may require less. Waste haulers may be able to assist in determining the size and number of external containers as well as level of service.

Local government planning agencies may be able to assist in determining best location for containers. Typically, containers are placed as close as possible to garbage containers to increase the convenience to occupants. This area should be easily accessible. In complexes with underground parking, storing bins underground is not recommended unless ceilings are 20 ft. or higher in order to provide clearance. In complexes with exterior parking lots, the typical practice is to provide walled enclosures that contain bins and carts. These are more attractive and help confine discards to a specific area. Many cities have specific, highly detailed enclosure ordinances that govern size, appearance, access, durability, and other factors.

From the residents' perspective, trash enclosures should not be right below the window, but should be within a reasonable walking distance from their door.

Occupants should be provided with an in-unit container. If this is not feasible, it is recommended that property management informs occupants of various ways recyclables can be stored inside the residential unit (through bins, cloth bags, boxes, laundry nets, and so on).

Increasing Diversion Rates through Yard Trimmings

Most communities are finding that to exceed 50 percent diversion of residential waste, it is necessary to recycle yard trimmings and, in some cases, food waste. For enclosure placement and design that will meet this need, the key is to place an enclosure at a location that is convenient for landscapers. This could be a smaller, lockable enclosure (for use by landscapers, not residents) holding large carts or other yard-trimmings containers provided by the collection company.

Property Alterations
If it is determined that structural alterations need to be made to the property to accommodate recycling containers, recycling areas, or recycling enclosures, it is advisable to consult with local Planning departments to learn about applicable local building or zoning codes. This issue may also arise if parking spaces on a property need to be reduced in order to provide adequate space.

Costs

Savings from Recycling in Multifamily Developments

In most communities, MFD solid waste service costs are based on container size and collection frequency. Many haulers (both public and private) collect recyclables and/or yard debris at a lower cost than collection and disposal of an equal volume of trash. Other haulers provide recycling and yard debris collection to their trash customers at no additional cost. According to a nationwide survey conducted by the U.S. EPA, multifamily recycling costs, on average, are $20.50 per household per year. Single-family recycling tends to be more expensive, averaging $28.76/household annually (EPA 2001). In many cases, MFD management will see little cost increase when adding recycling service because recycling pick-up is often cheaper than trash pick-up; in addition, savings may be found when waste containers can be downsized and collected less frequently as is the case when recyclable diversion rates are substantial.

EPA evaluations of MFD recycling provide some insight. San Jose, CA, charges MFDs for trash service and provides recycling and yard debris collection at no additional cost. One San Jose area MFD complex, Blossom Hill Estates, avoided almost $60,000 in trash disposal fees in 1997 through recycling and composting. In many cases, the community or hauler provides collection carts and bins. Apartment management can often reduce their total solid waste management costs if residents recycle enough to reduce needed trash container size or collection frequency. The Commodore Club in Key Biscayne, Fla., reduced trash collection and disposal costs after implementing its recycling program. Building management saves approximately $1,600 per year on waste management costs (California Integrated Waste Management Board 2001).

Most weeks of the year, buildings tend to generate the same amount of refuse in total, and collection rates are based on bin types and sizes. It is important for buildings to match the volume of service to the volume generated and not oversubscribe to service. Remember that diversion discount: by recycling and composting everything that can be recycled and composted, buildings can reduce the number and size of their trash containers, a key to managing disposal costs.

"Pay-as-you-throw" Policies in Multifamily Settings

Pay-as-you-throw (PAYT) policies represent a policy model where users are charged for the waste they generate for collection by local authorities. The most recent data available show that there are over 7,100 communities in the U.S. using some form of PAYT, accounting for just over 26 percent of all U.S. communities and over 25 percent of the U.S. population as of 2006 (Skumatz and Freeman 2006). There are three different kinds of pricing models: full-unit, where a container is purchased in advance of waste collection; partial-unit, where a regulation is created to allow for a maximum number of trash containers, with fees attached to the use of additional containers over the maximum amount; and finally, variable-unit pricing, where containers of various sizes are rentable and users pay a rate

corresponding to their waste generation level. Variable-unit pricing is an attractive option in situations where hauling contracts, fees, or rates are up for renewal; in situations where the landfill is deemed too expensive; where there is a perceived need for more recycling; where the recycling system itself is seen as unfair; and finally, if the jurisdiction is running out of tax authority (Skumatz 1990).

The logic behind such policies is based on two common principles for environmental policies: the polluter pays principle and the idea of shared responsibility. Under PAYT schemes, waste management services can be treated like other utilities. Such schemes also encourage a more deliberate and thorough separation of recyclable material and waste material, which often results in an overall reduction in energy used for transporting waste, an overall reduction in pollution from landfills and incinerators, and higher levels of potentially recyclable material being recycled instead of reaching a landfill (Miranda et al. 1996). The main downside to PAYT policies is that, in some cases, it may incentivize illegal dumping (Fullerton and Kinnaman 1994).

Implementation of PAYT schemes is more difficult in the multifamily housing setting, largely due to common sources of waste collection such as garbage chutes and dumpsters making individual waste production difficult to gauge. While multifamily residences pose particular challenges for variable rate programs due to the commingling of wastes in common trash receptacles, there are some limited solutions to these problems. Skumatz has suggested that bag or tag systems can be used, or the landlord subscribes to the service for the building as a whole (Skumatz 1990). The lack of a one-to-one relationship between the "curbside" and each household makes it difficult to monitor individual household behavior. In addition, high-rise buildings typically have a single trash chute, which makes separation of wastes complicated. Storing separated wastes on each floor of the building increases the incidence of pests and raises labor costs (Bauer and Miranda 1996).

Variable rates

Variable rate programs have proven quite workable in smaller-scale multifamily dwellings, such as garden apartments and townhouses. Technology is now available for high-rise apartments that allows tenants to direct a disposal chute electronically into six different bins. Pilot studies find that households find this technology convenient. It has increased recycling significantly and promises a payback period of three years (Skumatz and Green 1999). Newer multi-story buildings can be designed to facilitate variable rate programs and recycling.

Variable rate programs can be tailored to the particular waste profile of particular communities. Studies of San Francisco's waste stream revealed that food waste comprised a particularly large percentage of the city's mixed refuse after the implementation of variable rates in conjunction with curbside collection of recyclables and yard waste (California Integrated Waste Management Board 2002). After experimenting with a variety of separation options for food remnants, the city developed the "Fantastic Three" program. Households received three carts at no charge (wheeled receptacles): a blue 32-gallon cart for recyclables (paper, bottle, and cans), a 32-gallon green cart for compostable waste (yard remnants, food waste, and soiled paper), and a variable rate black cart, ranging from 20-64 gallons in size, for all other refuse. The City also provided households with a 2-gallon kitchen container for collecting food waste. Targeted neighborhoods achieved 46 percent diversion rate (14 percent for organics and 32 percent for recyclables), a 90 percent increase over prior experience of recycling and trash collection in that neighborhood. Nearly two-thirds of the increase is attributed to the compostable

collection effort and approximately three-fourths of those surveyed preferred the approach to recycling over previous approaches.

Buildings tend to generate the same amount of refuse in total, and collection rates are based on bin types and sizes. It is important for buildings to match the volume of service to the volume generated and not oversubscribe to service. Remember that diversion discount: by recycling and composting everything that can be recycled and composted, buildings can reduce the number and size of their trash containers, a key to managing disposal costs. Another great way for apartment complexes to reduce costs is to roll their bins to the curb on collection day. That eliminates distance and elevation costs, which can add up, especially if a building has a lot of inside bins. The bins typically have handles and wheels, so in most cases an onsite manager or other able-bodied person can wheel them to the curb.

The Role of Municipality Policy in Recycling

Some locales have established local policy that requires owners of high-density MFD to provide recycling options. What follows are two examples of cities that have instituted required recycling mandates. Both Chicago and Boston have seen increases in recycling participation after implementing such policy.

Chicago, Illinois

Illinois passed a state law in 1986 in an effort to address solid waste handling and waste reduction.[1] The state reports that approximately 40 percent of municipal waste in Illinois is recycled or composted. An ordinance named the *Chicago High Density Residential and Commercial Source Reduction and Recycling Ordinance* passed in 1993 requires owners of high-density units to provide residents with recycling programs (high-density buildings are defined in the city code as having more than four residential units and receiving waste collection service from a private hauler). Indeed, each building must have a recycling plan which lists what items on the City's master list of recyclables will be collected.[2] Each buildings' recycling program must include at least two recyclable materials and provide at least two "source reduction measures." The latter include solutions such as energy-efficient light-bulbs, mulching lawn mowers, yard composting, reusable bags, and providing educational materials about reducing consumer waste.

The most comprehensive evaluation of Chicago's multifamily recycling policies, conducted by the city itself, has shown them to be effective. The city's study of the policies found an overall increase in recycling rates across their sample from 4 percent to 11 percent, with some buildings showing increased recycling rates as much as six times higher than pre-implementation recycling rates (Schwebel 2012). It is important to note that improvements across the sample varied significantly – while some buildings improved significantly as mentioned above, others barely improved or didn't improve their recycling rates at all. A more detailed examination of each building suggests the differences in recycling rates are due to differences in the quality of implementation in each building. It would appear that building managers which engaged the program seriously were able to achieve positive results (City of Chicago Department of the Environment 2009).

[1] See http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1588&ChapterID=36 for the full text of the Illinois Solid Waste Management Act of 1986.

[2] See the City of Chicago's "Resources and Frequently Asked Questions for Multi-Unit Recycling" (http://www.cityofchicago.org/city/en/depts/streets/supp_info/recycling1/resources_and_frequentlyaskedquestionsformulti-unitrecycling.html).

Boston, Massachusetts

The City of Boston established its recycling policies in 1990. A 2002 addition specified a mandate for recycling within "large residential buildings with more than six units" (City of Boston Municipal Code 2008). These requirements were goals developed in the *Massachusetts Solid Waste Master Plan* of 1990, and updated in the Commonwealth's *Beyond 2000 Solid Waste Master Plan*, which sets minimum requirements for all municipalities within the State (Massachusetts Dept. of Environmental Protection 2000). A December 2000 Memorandum by the Massachusetts Executive Office of Environmental Affairs states that one of the 'key new initiatives' in the 2000 Plan includes "pursuing multifamily residential recycling legislation to ensure access" (Massachusetts Dept. of Environmental Protection 2000).

Boston's program features a progressively higher floor for minimum recycling rates: 28 percent by 1992; 38 percent by 1995; and 50 percent by 1998. City code additionally stipulates the reporting requirements which include annual rates of participation and volume by district (City of Boston Municipal Code 2008). In 2002, MFR buildings in Boston were specifically included within Boston's Recycling Program (City of Boston Municipal Code 2008). Interestingly, it is not until a MFR resident requests that recycling be established within a certain building that an owner has thirty days to comply by providing access to the City's recycling services through installing and maintaining recycling carts in common areas as close to trash dumpsters as possible. Collection of materials often occurs via recycling carts, typically 30–90 gallon plastic or metal containers, "clearly marked and/or identifiable as a container for recyclables" (City of Boston Municipal Code 2008). In the event that implementation of a recycling collection area is not possible, then the owner of the building must provide specific evidence to request exemption (City of Boston Municipal Code 2008).

Commented [ASS3]: I found a 2012 story that says Boston has only reached a recycling rate of 19 percent for residential garbage despite spending millions on recycling programs. Maybe this isn't a great example to use. "We're trying our best to increase recycling, but we can't force anyone to recycle,'' said Joanne Massaro, the city's commissioner of public works. "What we can do is make it easier to do so.''

www.boston.com/news/local/massachusetts/articles/2012/06/19/boston_lags_behind_other_cities_as_it_promotes_recycling/

In contrast to Chicago's analysis of its MFR recycling policies, Boston's analysis is smaller both in scale and the kinds of information it analyses. Owners of buildings containing seven or more units are required to provide recycling. Data reporting for each MFR is limited to the tonnage of recycled materials collected. Boston's Public Works Department contracts haulers to collect recyclables from MFR units instead of building owners independently hiring haulers. This manner of data reporting is unique amongst MFR policies in the United States. Boston's Annual Reports do not clearly indicate whether the 700 MFR buildings that had tenant requests for recycling reflect all MFR dwellings that would be appropriate for inclusion under the code. It is potentially highly misleading that the actual success rate is the success rate of the Recycling Department in evaluating a building's potential to have recycling instituted However, Boston does send notices of violation to MFR building owners that are not abiding by recycling ordinances and, due to single-stream recycling expanding into parts of the City, buildings that had been exempt due to storage limitations are now obliged to participate via clear plastic bags (Schwebel 2012).

Establishing Stakeholder Buy-In

One of the most consistent elements of successful MFD recycling programs is education of residents and MFD managerial staff about both the environmental and personal benefits of a comprehensive recycling program. This education ensures community buy-in and results in higher participation rates among residents. However, commitment from the property owner/manager is essential. Local governments may provide training sessions for multifamily recycling organizers in many areas. It is advisable to use as many different forms of communication as possible several times per year, **and for move-ins in particular**. Recycling may be included in the lease agreement (see Appendix B for example language of such an agreement). The nature of the audience should also be considered: materials should also be

available in the languages of tenant populations at particular MFDs (Gamba and Oskamp 1993; Katsev et al. 1993).

In Mecklenburg County, North Carolina, multifamily recycling in apartment complexes is "hit 'n miss" (N. Crawford, Senior Environmental Specialist, and D. Harris, Environmental Supervisor, Mecklenburg County (NC) Solid Waste, personal communication, September 5, 2014). Both Crawford and Harris acknowledged that it is "tough to get buy in" from apartment managers and owners but the county is determined to bring more apartment complexes into the recycling program.

One of the biggest obstacles they have found in getting property managers and owners to set up a recycling program for apartment dwellers is the low tipping fee for trash at the local landfill. The tipping fee for residential trash is $27.50/ton; an estimated cost for commercial businesses is $40-$50/ton. North Carolina does have a statewide law that prohibits the dumping of certain recyclable items (such as aluminum cans and plastic bottles) in landfills, but there is little if any enforcement.

Crawford and Harris have employed several strategies to market the county's multifamily recycling program. Crawford noted that property owner and property manager buy in is necessary to set up a program. But getting the property managers to work with the county to do this is even more difficult if the apartment complex is owned by a large national real estate development company. Crawford's strategy is to start with some of the most senior decision and policy makers; he will approach the regional manager of the facilities and get a commitment to set up a recycling program at the company's apartment complexes located in Mecklenburg County. Once the directive is given from the regional director to set up a multifamily program, the local property managers comply.

Once a program is established, it is essential for residents to understand and be committed to recycling efforts. For example, in Louisville, KY, Sheppard Square, a Louisville Metro Housing Authority (LMHA) HOPE VI Revitalization project, mandates that its residents actively participate in both its recycling and composting programs. Announcements and information regarding recycling had been included in the residents' newsletters. Information about the mandatory recycling procedures and processes are included in Sheppard Square's Enterprise Green Communities Residents Manual. This manual is distributed to each household and referenced in an addendum to the renter's lease agreement with LMHA.

In addition, activities have been organized to educate and motivate residents about recycling. These include:

- A June 2014, LMHA-sponsored Sheppard's Square block party which included recycling-themed games, door prizes, and free recycling tote bags. Children's activities were included since parents often follow the lead of their children when incorporating recycling practices in the home.
- A tenant appreciation day that included gifts such as reusable containers, lunch boxes, dishes, dish towels, dish rags, local food, and snacks.
- A training program about single-stream recycling at a nearby school for residents and school staff; translators were on hand for Somalian residents who did not speak English.
- A dumpster corral that was architecturally designed for the HOPE VI housing project with recycling bins located along a brick wall near the garbage/trash bins.

Other ways to motivate residents include recruiting resident advocates who can reach out to other residents and offering incentives to both advocates and residents who participate in recycling and

encourage others to do the same. Another way to reward residents of MFDs with successful programs is to provide recycling credits on bills for other municipal services, such as municipal water or electric service. While such a system could not reward tenants based on their individual recycling efforts, tenants would receive a savings related directly to the building's recycling progress. The potential for further rate reductions may increase peer pressure on non-recyclers to participate.

Education for Residents

By utilizing a variety of outreach methods (as Sheppard Square did), program managers can be sure their message is communicated effectively to a large number of residents. Additional outreach opportunities include:

- Meetings
- Training sessions with small groups
- Newsletters, brochures, fliers
- Door hangers
- Door-to-door outreach
- Surveys (to understand concerns or increase participation rates)
- Email lists
- Web presence
- Establish occupant volunteers as information sources
- Posters

Important outreach themes might include:

- Stress benefits of recycling for individuals, communities, and the planet.
- Materials accepted and not accepted
- How to prepare recyclables
- Where receptacles are located
- Whom to contact with questions

Elements of Successful Multifamily Recycling Policies

There are common characteristics of successful multifamily recycling policies which may serve as a guide to readers or others considering such a policy for their own locality. Successful programs do most or all of the following:

- Utilize single-stream recycling in order to maximize efficiency and minimize amounts of non-recyclable waste in the recycling process;
- Mandate recycling by local ordinance, including the creation of penalties for non-abiding owners and managers and reoccurring audits to ensure compliance;
- Mandate the use and provision of totes in most cases or other containers where space is more constrained;
- For high-rise buildings, locate recycling collection near each floor's trash room or in a cart which is easily transportable to the collection area;
- Mandate that new buildings include a "recycling chute" along with traditional garbage chutes;
- Mandate notices on every floor of an MFR which explain the local recycling program, including acceptable and non-acceptable items and how to participate. These notices should be produced in multiple languages as applicable;

- Conduct periodic audits to track progress towards diversion rate goals, inspect sites and properties participating in MFR recycling to observe the extent of compliance;
- Provide up-to-date websites with comprehensive information on both the use and effectiveness of the local recycling program

Common Issues and Solutions[3]

Increasing Participation Rates

Consider incentivizing recycling and/or adopting the role of resident advocate. Create a friendly competition. Highlight and thank resident advocates and others who participate in ways beyond recycling their own waste. Another way to reward residents of MFDs with successful programs is to provide recycling credits on bills for other municipal services, such as municipal water or electric service. While such a system could not reward tenants based on their individual recycling efforts, tenants would receive a savings related directly to the building's recycling progress. The potential for further rate reductions may increase peer pressure on non-recyclers to participate. (De Young et al., 1995)

Mixed Use Developments

These developments may have retail and/or office space on the ground floor and several stories of residences above, with frontage on a commercial street and parking behind (or, sometimes, in an underground garage). Businesses' needs for garbage and recycling space depend on the types of activities they are engaged in. Note that garbage compactors can hinder recycling by taking up space and preventing the monitoring of discarded materials. There may be opportunities for residents to make use of recycling amenities installed for businesses. For example, if the businesses use a cardboard baler and have a cage where cardboard is accumulated, residents may add their cardboard to the cage if they have access. Or, if food outlets use a special container for food waste recycling, it could be upsized to handle food waste from residents as well. Even the smallest cafes can generate significant quantities of food waste – coffee shops and juice bars in particular — so it could be well worth planning for food waste collection to serve both the building's commercial and residential occupants.

Fire Codes

Internal Storage

- Internal storage of recycling containers may conflict with fire safety codes.
- Recycling bins are typically not allowed to be stored in hallways.
- Containers may not obstruct exits and, generally, must leave a minimum of 2 feet of clearance between the top of the container and the ceiling.
- Rooms used for inside storage must have an approved one hour fire-rated sprinkler, an automatic sprinkler system, and a 20 minute self-closing fire door with a latch.
- Equipment rooms, attics, and similar spaces cannot be used for combustible storage.

External Storage

- Dumpsters and other metal containers must have tight-fitting lids and be stored at least five feet away from combustible walls, openings, or roofs.

[3] Adapted in part from Twin Cities, 2014.

Addressing Fire Code Issues

- Be sure to check your local regulations and ordinances for compliance.
- Do not provide indoor communal bins.
- Provide individual units with a small recycling bin designed for in-unit storage.
- Use a laundry room or other area that already has sprinkler coverage as the communal recycling area.

Conclusion

As shown throughout this guide, MFD recycling has its challenges and its benefits. Educating both staff and residents can ensure buy-in and full participation rates which leads to economic and environmental benefits for everyone. As recycling becomes more common, and even mandated in some jurisdictions, options for dealing with waste will become even more accessible. Creating the right program for any development is essential to the program's success. While initial efforts may need to be revised, committed residents and MFD staff can work together to refine recycling programs so that high levels of participation are reached. As these programs become established and gain support, all stakeholders will reap the benefits.

Resources

Stopwaste.org (http://stopwaste.org/)
Beginning in 2002, Stopwaste.org has provided grant funding, technical assistance and resources to members. Approximately $130,000 in funding has been awarded and outreach has been conducted to over 20,000 units. The average cost for program implementation was less than $10 per unit. Based on the results, the grant program appears to be successful and cost effective.

National Recycling Coalition (http://nrcrecycles.org/)
The National Recycling Coalition is a non-profit organization focused on promoting and enhancing recycling in the United States. Their network of more than 6,000 members extends across waste reduction, reuse, recycling, and composting. They also provide educational resources and webinars for related topics.

Biocycle Magazine (http://www.biocycle.net/)
Published since the 1960s, Biocycle presents up-to-date information on processing remains of organic products into value-added products, including compost, fertilizer, biogas-derived electricity, and vehicle fuels. This magazine, while not squarely aimed at MFD recycling, offers solutions for promoting sustainability that MFD residents and others may wish to adopt.

Select Municipal and State Multifamily Recycling Programs and Guides
Cities, counties, and states throughout the U.S. have implemented recycling programs for residents of multifamily residential complexes. Many of these program guidelines and regulations can be found online on municipal and state websites. Below is a sampling of what is available:

Boston, MA:
http://www.cityofboston.gov/publicworks/wastereduction/recycling.asp

Chicago, IL:
http://www.cityofchicago.org/city/en/depts/streets/supp_info/recycling1/recycling_multi-unitresidentialbuildings.html

Denver, CO:
www.denvergov.org/DenverRecycles

Florida: Mandatory Multifamily Recycling
http://www.hollywoodfl.org/index.aspx?NID=757

Georgia:
www.georgiarecycles.org/environmental-education/citizen-resource-guides/ and Building Multifamily Recycling Programs in Georgia
http://www.dca.ga.gov/development/EnvironmentalManagement/programs/downloads/MultiFamRecycle2010.pdf

Madison, WI:
www.cityofmadison.com/streets/
Marion County, OR:

www.co.marion.or.us/PW/ES/wastereduction/multifamily/index.htm

New York, NY:
www.nyc.gov/recycle

Palo Alto, CA:
www.cityofpaloalto.org/gov/depts/pwd/zerowaste/thingstodo/mfdtoolkit.asp

Phoenix, AZ:
www.phoenix.gov/menu/resutilgarbrec.html

San Antonio, TX:
www.sanantonio.gov/swmd

San José, CA:
www.sjrecycles.org/

Tennessee:
Boosting Recycling in Tennessee
https://www.serdc.org/Resources/Documents/Boosting%20Recycling%20in%20Tennessee%20Workbook.pdf

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Appendices

Appendix A: Sample Talking Points for Door-to-Door Outreach Volunteers

Adapted from www.rethinkrecycling.com;
www.uos.harvard.edu/fmo/recycling/myths.shtml; and
http://www.hennepin.us/~/media/hennepinus/residents/recycling/

Goals of door knocking

- Raising awareness about the new recycling program in this complex.
- Educating residents on how to recycle.
- Gathering support and commitment from residents to recycle.

Tips

- Smile!
- Let residents know you are volunteering to help other residents learn about the recycling program. You aren't a salesperson, and it may be helpful to identify yourself as a fellow resident.
- End conversations with something friendly to avoid "sales pitch" perception.

General Points to Review with Residents

- "I'm here to let you know how you can participate in recycling and contribute to the program's success in our community."
- Review and provide educational materials.
- Ask if residents would like to become advocates themselves, and explain the role (reporting problems, educating neighbors, generally monitoring the program)

The Benefits of Recycling

- Making new products from recycled materials uses less energy and natural resources, and therefore mitigates pollution which would otherwise be generated as new products are made.
- Aluminum, steel cans, cardboard, glass bottles, paper, newspapers, and plastic bottles are all recyclable. These items can be used to make new bottles or cans, or even school buses, playground equipment, and building materials.
- Glass and aluminum do not wear out and can be recycled over and over.
- The amount of energy saved from recycling one aluminum can is enough to power a TV for three hours.

Frequently Asked Questions and Responses

- "What I throw away doesn't amount to much."
    - Explain that small amounts from each individual add up to a LOT in the big picture. Can you think of anything else you can do to help recycling in our community? Do you already recycle, for example, your junk mail? On average, Americans receive 50 pounds of junk mail a year.
- "There is already someone who takes our cans for recycling."
    - More than aluminum can be recycled (go over materials accepted and how to prepare them).
- "We have plenty of landfills and recycling isn't important."

    - Recycling's value comes from preventing pollution and conserving resources and energy, not conserving landfill space.
- "It's someone else's job to separate recyclables from trash, so I don't need to do it."
    - Labor requirements for sorting recyclables from trash after it is mixed are very cost-prohibitive and almost never happen.
    - The only feasible way to separate recyclables is prior to throwing them away and takes minimal effort. Add a second container for recyclables next to your trash can, it's that easy.

Appendix B: Sample Lease Language to Mandate Resident Participation

This addendum serves as your required notification of the recycling program on this property.

(Instructions on how to prepare/separate items for recycling. Be clear and provide references [infographics are a good idea] to show residents how to prepare their waste for recycling pickup.)

It is the tenants' responsibility to participate in the recycling program. You are required to prepare your recycling as covered in the attached recycling guide. Failure to comply will be considered to be a material violation of this rental agreement and local and state law, which could result in termination of your tenancy as permitted by law.

Recycling bins are located on this property at:

_____

_____

Recycling bins are emptied on:

_____

_____

_____ _____

Tenant's Signature Date