

Recycling Programs

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Purpose: To provide National Apartment Association (NAA) members with the trends, benefits, and methods for establishing effective recycling programs at their communities.

Applies To: All NAA members who are involved in developing and managing recycling programs, especially regional and local property managers, operations and facilities managers, community managers, and marketing and communications staff.

Overview:

Recycling in the United States is a big business with big benefits to the environment and economy. According to the U.S. Environmental Protection Agency (EPA), approximately 94 million tons of municipal solid waste is recycled or composted per year. This tonnage reflects a recycling rate of 32.1%, up from 10% in 1980, 16% in 1990, and 29% in 2000. The EPA estimates this activity saves over 184 million metric tons of carbon dioxide equivalent, comparable to annual greenhouse gas from nearly 40 million cars.

The EPA's Economic Information Report also shows recycling and reuse contribute approximately 757,000 jobs, \$36.6 billion in annual wages, and \$6.7 billion in annual tax revenues. It cites additional benefits for "conserving natural resources, such as timber, water and critical minerals; preventing pollution by reducing the need to collect new raw materials...increasing economic security by tapping a domestic source of materials; [and] supporting American manufacturing."

Rental housing has been an unequal participant in U.S. recycling. For example, Kirkland, Wash. documents how its single-family households recycle about 68% of their refuse, while its multifamily housing properties recycle only about 20%. Montgomery County, Md. shares similar percentages: 61% recycling for all home types versus 27% for multifamily households.

Multifamily dwellings have somewhat lesser access to recycling programs than single-family residences, for which ubiquitous curbside recycling is better oriented. Yet even in "apples to apples" comparisons, multifamily households participate at lower rates than single-family households. In 2001, the EPA published the first comprehensive survey to capture comparative data on recycling within multifamily dwellings. It found that single family households set out an average of 0.23 tons for recycling per year versus 0.14 tons for multifamily households, while diverting an average of 16.0% of refuse for recycling versus 14.6% for multifamily households. The recycling that multifamily households divert typically includes higher levels of nonrecyclables than found with single-family households, which leads to higher contamination rates and processing costs.

Reasons offered for this recycling disparity include diversity and limitations of rental housing infrastructure; property management and staff turnover; resident turnover and language barriers; lack of financial incentives for residents to participate; and regulatory requirements, where multifamily dwellings

may be assigned to commercial recycling programs or even omitted from recycling requirements altogether. Further, according to a study from the Sustainable Packaging Coalition, multifamily dwellings are disproportionately represented in those 20% of locations nationwide where less-convenient drop-off recycling is the only program available.

Perhaps the biggest reason for lower multifamily recycling rates may be property managers' levels of engagement. (Note: A Case Study from Eureka Recycling follows below.) Examples abound of multifamily housing communities that instituted or improved recycling programs, witnessing significant gains from participation. For example, Kirkland, Wash. documents a 180-unit property increasing its recycling capacity from 0% to 40%, while reducing their garbage-service costs by nearly \$20,000 per year; and another 130-unit property increasing its capacity from 14% to 34%, while saving nearly \$10,000 per year. Other properties have seen even greater savings.

Effective recycling programs typically help multifamily housing communities to reduce their waste container sizes and pickups, thus lowering their waste bills. Some waste-haulers offer reduced fees for carting recycles, while others even include carting recycles at no extra charge.

Adding another revenue stream from selling recyclables used to be more of a benefit for properties. However, commodity prices were declining even before China instituted its ban on foreign inflows of waste products in early 2018. According to Wikipedia, China had been the world's largest importer of recycles, accounting for 56% of the global market, but sharply reduced its waste imports by more than 90%. China's ban had many waste processors in the U.S. reducing or eliminating calls for specific plastics and papers, or even going out of business altogether for lack of resale opportunities. Revenue received from selling recyclables now falls short of the estimated total costs of collecting and processing all that material.

Despite these macroeconomic trends, the drive for recycling continues in the U.S. An increasing number of states and municipalities are adopting "zero waste" policies and mandating recycling for multifamily housing communities. They are responding to public sentiment for recycling, which remains high. According to a recent study from the Carton Council of North America, 94% of consumers are supportive of recycling, with 74% saying that recycling is important and should be made a priority. Another 2019 study from The Recycling Partnership found 84% of respondents viewed recycling as "a valuable public service and are supportive of taxes to improve U.S. curbside recycling services." Effective recycling programs thus become an important amenity for property managers to attract and retain these environmentally conscious residents.

Writing in Resource Recycling, McKenna Morigan of Cascadia Consulting Group concludes from her organization's research: "It is indisputable that multi-family recycling rates currently lag behind single-family rates in virtually every community in the country. But our commonly accepted explanations contain more myth than truth, preventing recycling programs from addressing the real barriers and drivers that affect multi-family recycling rates. The good news is that there are straightforward and affordable actions that any community can take to identify and address the real barriers, dramatically improving the quantity and quality of recyclables collected from multi-family buildings."

Case Study:

Eureka Recycling is a nonprofit recycler serving the Minneapolis-St. Paul metro area. In 1986, it launched a recycling program for multifamily housing. In 2004, Eureka Recycling produced a 64-page toolkit of lessons learned during nearly two decades of developing and managing effective recycling programs for this segment. Although the target audience for this toolkit is municipal recycling coordinators working with

multifamily housing properties, most of its lessons apply equally well to regional and local property managers. The full toolkit may be accessed via Related Links and/or Forms. Chapter summaries are found below.

Step One: Addressing Program Design:

Eureka Recycling recommends learning all that you can about the ordinances, contracts, or franchises that apply to your recycling program – public information accessible in the government or municipal code or by asking the jurisdiction’s attorney. Recycling programs are designed for “organized collection” by municipal haulers or private haulers under a contract or franchise; or “open” or “subscription” hauling, where properties contract individually with licensed haulers. Property managers should recognize that ordinances may contain penalties for properties that lack adherence to the recycling program. On the other hand, property managers may benefit from contracts may require haulers to provide the amount of recyclables collected, route information, contamination problems, and other data of value.

- Assess the legal structure of your program.
- Make service requirements clear in contracts and/or ordinances. Be sure to get legal advice!

Step Two: Tracking Information:

Eureka Recycling suggests not tackling all properties at once before gathering adequate information. What data to collect? Building information could include number of units and building sizes, property managers, sorting systems and haulers, demographic information, a record of any outreach problems, etc. Recycling information could include quantity/quality of materials recycled, duration of recycling program, history of any recycling problems, etc. Additional information could include building layouts and trash systems, plus number and location of cart sites. To start, this information could be compiled on paper or spreadsheets – nothing fancy.

- You need a map! Tracking information about the amount of recyclables collected is a reliable and easy way to make decisions, but is not always possible. Other system information can be important and helpful.
- Decision making: Track as much data as you can about your program and use it to make decisions about where and how to spend your time and resources (and what to avoid!). Decisions made on assumptions alone can be costly and ineffective.

Step Three: Placing of Carts and Signage:

Eureka Recycling cautions that methods and instructions for disposing of recyclables must be as consistently available, convenient and clearly labeled for residents as it is for disposing of trash. Otherwise, contamination will result, program participation will decline, and waste costs will rise. Increasingly, multifamily housing communities utilize “single stream” sorting, where cans, bottles, paper, and cardboard are all collected in the same container. Without clear labeling, cart contents could start to look like trash to residents. Therefore, proper signage throughout the property and on the carts is critical for program success, as is periodic monitoring by property staff. Eureka Recycling recommends investing in large, durable signage. It also advises using color-coding, easy-to-recognize pictures and illustrations, plus inclusive language, i.e., “Our Building Recycles Here.” Less is more, in terms of messaging.

- Carts need to be in a consistent, convenient place for residents. Communicate with residents about where the carts are located. They must understand a recycling system exists in their building.
- Carts must be at least as convenient to residents as the trash containers.
- Recycling carts must be easily distinguished from trash containers.
- The first line of defense against contamination is in the setup. Trash begets trash. Carts need to be regularly serviced to keep them clear of unwanted material by haulers and cart monitors.
- Carts must have easy-to-understand labels and signage. This sets the stage for effective basic education and more complex outreach messages.

Step Four: Utilizing Basic Outreach:

Eureka Recycling observes that outreach efforts to residents often leads to a “bump” in recycling participation. But sustaining that bump requires “a building that already has good hauling, a good recycling setup, and adequate information recorded.” Outreach methods and channels would be similar for most other communications employed by property managers: Brochures, flyers, posters, door hangers, postcards, kits, commitment cards, surveys, and newsletter announcements, coupled with electronic messaging via emails, portals, websites, social media, etc. Your waste-hauler may be able to provide samples and templates. Outreach must be ongoing and consistent – every four-to-six months at minimum.

Eureka Recycling also suggests taking advantage of resident goodwill towards recycling by enlisting monitors in exchange for modest reductions in their monthly rent (\$50-to-\$150). These monitors can help spread outreach to building residents, while tracking building progress – thus freeing up property managers from these tasks.

- Foundational elements must be in place before your outreach will be sustainable.
- Frequent and timely communication about the basics is key to sustaining recycling levels. Other targeted outreach can provide additional gains.

Guidance:

1. Waste Audits:

Writing in Multi-Housing News, Graham Rihn, CEO of RoadRunner Recycling, advises property managers to conduct a waste audit on a semi-annual or annual basis. Although seemingly daunting at first, this audit will help property managers to assess their recycling operations for decision-making and action.

Writes Rihn:

“Properties should audit their residents’ waste for one week and use their current dumpsters/containers as storage for the materials being audited. Next, they should collect and store all waste and recycling materials and sort them by stream. These include landfill waste (everything that can’t be recycled), mixed paper, compost, single-stream recyclables (plastics, metals, glass) and any other materials they generate in high volume. Next,

operators should analyze the results, by weighing each stream, to determine if the actual results match the property's current service levels."

Waste service levels – container sizes, pickups, etc. – could be adjusted per this analysis.

2. Container Capacity and Placement:

In its "Practice Guide #37, Establishing Successful Recycling Programs in Multifamily Developments," the University of Louisville advises, for weekly collection, to provide one-quarter cubic yard (y³) of container capacity for every three residents – with half of this capacity for recycling and half for trash. This capacity should be monitored regularly. Overflowing containers frustrate residents and create sanitary and safety hazards, while underfilled containers represent potential to reduce container sizes and collections, saving costs. Capacity could also be adjusted for the resident mix. Large families may require more capacity, for example, while seniors may require less.

Waste haulers may offer specific guidance to their customers for container capacity and placement problems (i.e., gravel, curbs, steep slopes, steps to navigate, proximate vegetation, pedestrian walkways or busy streets, etc.)

Recycling containers should be easily accessible and placed as close as possible to trash containers, to maximize convenience for residents. In buildings with underground parking, containers are not recommended for placement there unless ceilings are 20 feet or higher to provide clearance. In complexes with exterior parking lots, properties typically provide walled enclosures for placement of recycling and trash containers. These walled enclosures aid property cleanliness and aesthetics, while discouraging nonresident usage, i.e., illegal dumping. Property managers are advised to check local ordinances governing these walled enclosures.

Finally, residents could be provided with an in-unit container to gather their recycles prior to disposing in their building's containers. If unit space restricts such containers, then alternatives could be suggested: Bins, cloth bags, laundry nets, etc. The full Practice Guide may be accessed via Related Links and/or Forms.

3. Fire Codes:

The University of Louisville also advises property managers to be mindful of fire codes and local ordinances. For internal storage: recycling containers typically are restricted from hallways and obstructing exits. There must also be a minimum of two feet of clearance between the top of the container and the ceiling. Rooms used for internal storage "must have an approved, one-hour, fire-rated sprinkler, and 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. For external storage: Recycling containers must have tight-fitting lids and be stored at least five feet away from combustible walls, openings, or roofs.

4. Valet Services

To address recycling contamination (and to offer an amenity to busy and environmentally conscious residents), some property managers turn to valet services. These services employ workers trained and knowledgeable in recycling, who collect all recyclables from residents "at their doorsteps" on scheduled days in clear plastic bags. They bring these bags to the

appropriate recycling containers, open them; and then place recyclables inside, disposing of the plastic bags in trash containers where they belong. Valet services often combine removing trash with recyclables. Property managers can charge residents directly for these services or indirectly through overall rental rates.

5. Trash Compactors

Trash compactors can reduce trash volume by up to 80%; however, they can prove problematic for recycling. Recyclables must be pre-sorted. When not using valet services, this pre-sorting requires extra effort and compliance from residents. If proper pre-sorting is not achieved, then trash compactors exacerbate recycling contamination. Some haulers will not accept compacted recyclables, so property managers are advised to first consult with their haulers. Trash balers are an option for recyclable cardboard and soft plastics. Benefits to property managers from using either trash compactors or balers would include reducing waste sizing, collection pickups, waste leaks and odors, plus the potential for rodent infestation.

6. Resident Events:

One multifamily property in Louisville, Ky. implemented a series of events to increase resident participation. It sponsored a block party with recycling-themed games, children's activities, door prizes and free recycling tote bags. It hosted a resident appreciation day that included gifts such as reusable containers, lunch boxes, dish towels, dish rags, local food and snacks. And it provided a training program about single-stream recycling at a nearby school, which included translators on-hand for a population of non-English speakers.

Such resident events are best practice, but property managers must also educate new residents as they move in. Some properties have even added clauses for recycling into their leases.

7. Financial Incentives:

One difficulty in encouraging resident participation in recycling programs is their lack of financial incentives. With effective tracking, however, property managers could monitor recycling participation at the building level; and then pass along incremental cost savings to all residents within those buildings where participation is successful. Such pass-alongs could be credits on bills for other municipal services, such as water or electric, or even funding of a resident appreciation day (see Resident Events, above.) Peer pressure also can be an effective motivator.

8. Additional Approaches

Waste Management Inc. provides recycling toolkits for its multifamily housing customers, often customized for given localities. Several of these toolkits are publicly accessible online and offer excellent guidance and resources for property managers. In one toolkit customized for King and Snohomish Counties, Wash., Waste Management offers these additional approaches to "take your recycling program to the next level:"

Communicate Annual Recycling Goals: Tap into the goodwill of residents for recycling by letting them know of what the property is striving to achieve and how they may help. Provide

materials on the macro benefits of recycling, so that they can feel connected with this broader social movement.

Celebrate Recycling Successes: Let residents know of those buildings participating effectively in recycling programs. Also, communicate those recycling challenges being faced. A typical challenge is residents mistaking Styrofoam, plastic bags, plastic plates and drinking glasses as recyclables.

Address Language Barriers: Depending on building demographics, provide recycling guidance to residents in their preferred language. Waste Management offers its guidelines in Spanish, Korean, Amharic, Russian, Chinese, Somali, Vietnamese and Hindi.

Provide Collection Options for Reusable Items. Set up a shared space where residents can place reusable items they no longer want. Host a textile collection bin for residents to donate reusable clothing. Create an e-waste collection site for unwanted electronic items. Organize a property-wide garage sale. Make arrangements with a local charity to collect reusable items upon request, such as household furniture. Encourage residents to donate reusable books, clothing, housewares, and other items to these charities.

Related Links and/or Forms:

[“Exploring Multifamily Recycling: Tools for the Voyage,”](#) Eureka Recycling, 2004, toolkit.

[“Practice Guide #37: Establishing Successful Recycling Programs in Multifamily Developments,”](#) by David Weinstein, University of Louisville, Dept. of Sociology, Fall 2015, practice guide.

Acknowledgements:

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“Starting Down the Right Stream for Recycling Success,” by Graham Rihn, *Multi-Housing News*, May 28, 2020, <https://www.multihousingnews.com/post/starting-down-the-right-stream-for-recycling-success>

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About NAA:

The National Apartment Association (NAA) serves as the leading voice and preeminent resource through advocacy, education, and collaboration on behalf of the rental housing industry. As a federation of 149 state and local affiliates, NAA encompasses over 93,000 members representing more than 10.5 million apartment homes globally. NAA believes that rental housing is a valuable partner in every community that emphasizes integrity, accountability, collaboration, community responsibility, inclusivity, and innovation. To learn more, visit www.naahq.org. NAA thanks its Strategic Partners Lowe’s Pro Supply and Yardi.

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