



# Sorting It Out:

## The State of Multifamily Recycling in Washington State

Washington State Recycling Association  
Washington Multifamily Recycling Study Group (WAMRS)  
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# Executive Summary

This report is the culmination of two years of effort by recycling and solid waste professionals to understand and improve multifamily recycling in Washington State. In the spring of 2012, the Washington State Recycling Association (WSRA) convened more than 30 recycling professionals from all around Washington to design and implement a study of multifamily recycling. These and other stakeholders formed the Washington Multifamily Recycling Study Group (WAMRS), and agreed to participate in several committees to accomplish four objectives:



- **Characterize Washington multifamily recycling programs.**
- **Draw greater attention to multifamily recycling in Washington.**
- **Identify best practices in Washington multifamily recycling and food waste composting programs.**
- **Make recommendations for next steps.**

This resulting report briefly contextualizes multifamily recycling in Washington, explains findings and makes recommendations, and is based on the compilation of three research activities:

1. A survey of Washington governmental jurisdictions, primarily cities and counties (“Agency Survey Report”)
2. A survey of property managers and owners of multifamily properties in Washington, including executive interviews with property managers (Survey of Property Managers—Multifamily Recycling Survey Report 2013 by Elway Research and Full Circle Environmental)
3. A review of multifamily recycling programs from across the United States and Canada (“Review of Multifamily Recycling Programs in the United States and Canada”)

The reports developed for each of the three research activities can be found at:

<http://www.wsra.net/?page=WAMRS>

Preliminary findings were presented at the WSRA Washington Recycles Every Day (WRED) special event in June 2013 titled “Sorting it Out: The State of Multifamily Recycling in Washington.” Almost 100 industry professionals and property managers attended. In the preliminary findings, the committee concluded the following:

- ⊕ *In most cities and counties across Washington, there is minimal or no targeted focus on multifamily recycling.*
- ⊕ *Substantially varying perspectives about multifamily challenges and barriers exist, with a wide assortment of attempts to achieve results.*
- ⊕ *Statewide there is a lack of reliable data regarding recycling rates and tonnages specific to multifamily recycling. This prevents adequate documentation of measures to quantify “success.”*

As this work progressed, the WAMRS team further discerned that multifamily recycling success is not found in one strategy, but depends upon three components being simultaneously

employed. This effort did not identify which component had a greater impact on successful recycling programs (i.e. causality). The three components are:

1. Collection logistics
2. Policies and regulations
3. Education and outreach

The key takeaways from each of these components are detailed below.

### ***1. COLLECTION LOGISTICS:***

Successful programs incorporate effective logistics into program design, including:

- Cart placement for convenience, access, and ease of use
- Space needs for containers both inside units and outside buildings
- Collection, storage and transport of recyclables and organics from housing units to collection points
- Container color coding
- Truck accessibility

Appropriate placement of collection containers and placement and design of waste enclosures may help with participation, reduction of contamination and prevention of illegal dumping. Some local governmental solid waste and recycling agencies in Washington provide in-unit and counter top collection baskets or bags for residents to use to collect and transport materials from housing units to outdoor containers.

Color-coded collection containers for recycle, organics and garbage, and the placement of recycling and food waste containers near garbage containers make it more convenient for residents to participate in material diversion programs.

Finally, clear signage, labels, and posters clarify what is and is not accepted in containers. Cameras, lights, barriers, or other mechanisms to prevent illegal dumping may also be helpful.

### ***2. POLICY AND REGULATION:***

Policy solutions exist to address issues such as contamination and illegal dumping through ordinance and contract specifications. Examples of policy and regulations influencing multifamily recycling programs in Washington include:

- Service level ordinances (including mandating recycling programs)
- Jurisdictional contracts (including embedded rates for recycling)
- Building code requirements (solid waste and recycling enclosure standards)
- Funding for waste reduction and recycling (Department of Ecology and county grants)
- The Washington Utilities and Transportation Commission (WUTC) (State regulation of service providers regarding rates, territories, transportation, etc.)

The most influential regulations affecting multifamily recycling and food waste composting programs occur at the city and county levels. Popular examples of underutilized strategies include design standards for waste enclosures that provide necessary space for solid waste, recycling and food waste composting containers; rate structures that incentivize recycling and composting programs and encourage reduction of waste; and service level ordinances requiring recycling or banning recyclables from the garbage.

Significant opportunity exists to utilize these tools to benefit multifamily recycling and food waste composting in Washington.

### ***3. EDUCATION AND OUTREACH:***

Most educational strategies used by property managers and recycling professionals are passive in application such as websites, flyers, brochures, container labels, newsletter articles and posters. Several jurisdictions in Washington have demonstrated that multifamily recycling and food waste collection benefit from more active education methods such as resident orientations upon move-in, door-to-door outreach, and property manager trainings.

With changing demographics in Washington, it is important to address non-English speaking communities about recycling and food waste collection through translated materials, interpreters at events and trainings, and outreach designed for cultural relevance.

Education, employed wisely with smart logistics and policy, is crucial to material diversion.

### ***Recommendations***

The following next steps are proposed for consideration for continued efforts to improve multifamily recycling in Washington:

- Convene stakeholders to determine how to more successfully measure state-wide multifamily tonnages and recycling rates
- Provide a forum to discuss effective outreach tools and strategies, and how to build more active multifamily recycling outreach in Washington.
- Compile and publish evaluated best practices for multifamily recycling logistics, education and policy
- Address illegal dumping
- Better engage recyclers/haulers in future studies

## **Current State of Multifamily Recycling in Washington**

The 1989 “Waste Not Washington Act” formalized the waste reduction and recycling efforts already building in Washington by establishing a hierarchy for solid waste. The top priority was defined as waste prevention, commonly including reduction up front plus repair and reuse.

Recycling was declared the second priority, followed by proper garbage disposal in legal landfills. The Washington State Department of Ecology was authorized to provide grants and support for solid waste programs targeting waste reduction and recycling and has been a significant partner in the efforts of local government. These efforts “caught fire,” resulting in many substantial projects and accomplishments, and a strong recycling rate when compared to other states.

While Washington is nationally recognized as a leader in recycling and composting efforts, there are notable differences across the state. Recycling services, costs, programs and policies vary from city to city and county to county. These variations are affected by many factors, including rural/urban location, proximity to materials recovery facilities (MRFs), jurisdiction budgets dedicated to recycling activities, the density of multifamily properties, and political will.

Washington does not have segregated multifamily recycling reporting within the [Annual Solid Waste Status Report](#). This is partly due to some jurisdictions collecting multifamily recyclables in the same loads with residential single family recyclables. In other places, recyclables are collected in dumpsters (and occasionally in drop boxes or compactors), and serviced on the recycling haulers “commercial” routes.

Each of these configurations depends on a number of factors including how a city contracts with service providers, minimum service levels for county-regulated areas, and service provider preferences and routing efficiencies. Because multifamily refuse and recycling is not segregated from residential or commercial routes, the quantities are mingled with residential and commercial tonnage data, resulting in no concrete (or measurable) breakout for multifamily quantities.

This lack of accurate, identifiable tonnage data along with inconsistency in the methodologies used to estimate multifamily refuse and recycling make it nearly impossible to determine a state wide multifamily recycling participation rate or calculate tonnage of recyclable materials collected from this sector.

There is limited data for identifying how many multifamily properties in Washington have access to recycling service. Data from the Washington State Department of Ecology indicates that 87 percent of Washington residents have access to curbside recycling.<sup>1</sup> All King County cities, which represent approximately 29% of the state’s population<sup>2</sup>, have converted to commingled recycling over the last 10 years. Additionally, twenty-nine percent of multifamily properties responding to the survey reported having single material (otherwise known as source separated) recycling collection, such as cardboard, paper, aluminum or glass. Seventy percent of respondents said they have “all-in-one” containers for recycling.

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<sup>1</sup> [http://www.ecy.wa.gov/beyondwaste/bwprog\\_swCurbsideRecycling.html](http://www.ecy.wa.gov/beyondwaste/bwprog_swCurbsideRecycling.html)

<sup>2</sup> <http://quickfacts.census.gov/qfd/states/53/53033.html>

Forty percent of responding property managers statewide indicated that food waste collection is set up at their properties, while 90% stated that their properties recycle. Seventy-two percent of responding Seattle properties reported food waste collection service for residents, while 26% of properties located in King County outside the City of Seattle reported providing composting<sup>3</sup>.

Less than 25% of properties across the rest of the state offer food waste composting:

- Eastern Washington: 25%
- Far west/Olympic Peninsula: 22%
- North Sound: 19%
- Pierce/Kitsap County: 16%

In Eastern Washington, just 23% of reporting properties provide *both* recycling and food waste composting collection.

### *Varying perspectives about Barriers and Challenges*

The views of local government staff and property managers differ regarding primary recycling and composting challenges at multifamily properties. Recycling professionals view contamination and space as the top two challenges, while property managers cite culture and habits of residents, and illegal dumping as their top two challenges.

Survey responses--Perceived "Top" Multifamily Recycling Challenges		
Ranking	Agency Representatives <sup>4</sup>	Multifamily Property Managers <sup>5</sup>
1	Contamination	Culture & habits of residents
2	Space	Illegal dumping by non-residents
3	Lack of manager support	Lack of resident willingness
4	Resident or manager turnover	No consequences for not recycling
5	Resident knowledge	Resident knowledge
6	Residents won't participate	Contamination
7	Multicultural and language challenges	Space

United States recycling professionals perceive resident turnover as a major challenge to conducting recycling education in multifamily developments<sup>6</sup>.

Similarly, nearly 80% of Washington local government agency respondents reported that resident turnover is a key challenge. This challenge ranked fourth of 13 possible challenges<sup>7</sup>.

<sup>3</sup> Note: As of 2013, Seattle reports a 96% subscription rate among multifamily properties for food waste collection.

<sup>4</sup> "Agency Survey Report"

<sup>5</sup> Survey of Property Managers, p. 19

<sup>6</sup> "Review of Multifamily Recycling Programs..."

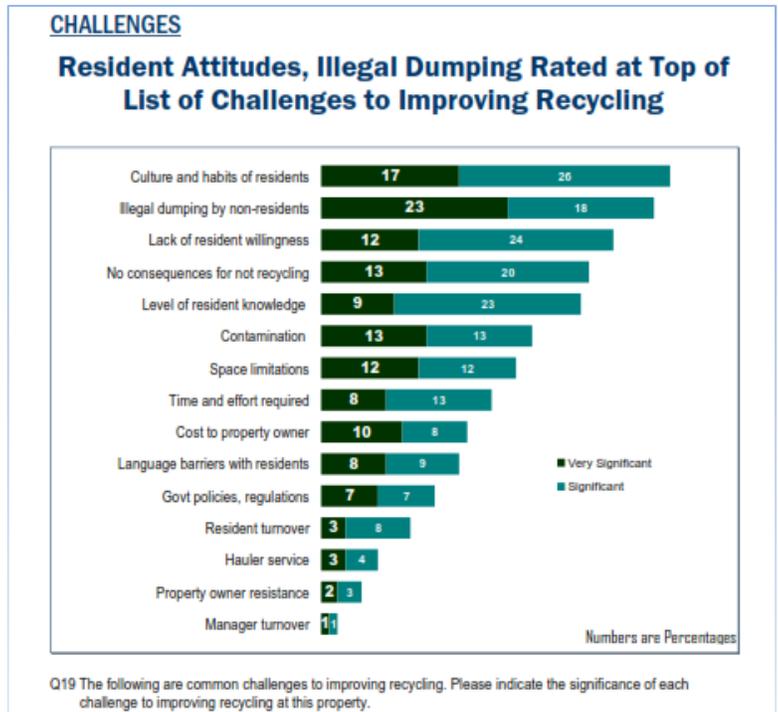
<sup>7</sup> "Agency Survey Report" p.15

Interestingly, *property managers* do not view resident turnover as a primary challenge. For them, turnover ranked 12<sup>th</sup> of 15 challenges. Managers ranked illegal dumping as the second most prevalent challenge. Managers also said that assistance to reduce illegal dumping was the third best strategy for *improving* recycling at their properties.<sup>8</sup>

In addition to illegal dumping, the other top challenges for property managers are each related to the *behaviors* of multifamily residents associated with their knowledge, choices and habits.

Eight out of ten managers said they were willing to do more to encourage recycling, including one in four who were willing to do “much more.”<sup>9</sup>

In addition, property managers reported that the size of the building affected organics collection<sup>10</sup>



Property Size and Organics Collection	
# units	% with composting service
1-20	55%
21-100	42%
100+	27%

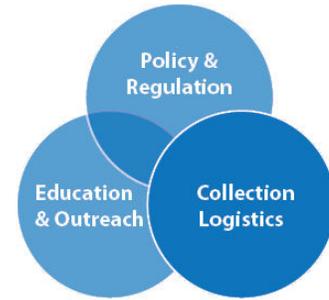
<sup>8</sup> Survey of Property Managers p. 20

<sup>9</sup> Survey of Property Managers p. 21

<sup>10</sup> Survey of Property Managers p.9

# Collection Logistics

Collection logistics are integral to the success of multifamily recycling. How much material is captured and diverted depends upon which materials are accepted in recycling containers, and how those materials get to the bins. Service, container placement, and convenience are all critical factors to consider for multifamily properties.



Multifamily recycling and solid waste collection logistics are impacted by a number of factors in Washington, including the crucial role recycling service plays. Because of the variety of recycling service providers, markets for recyclable materials, and policies which influence recycling logistics, recycling is not the same in every city or county in Washington. These logistics significantly impact how much a given multifamily property can recycle. Notable factors include:

1. The space *inside* of buildings for recycling collection and/or consolidation.
2. The space *outside* of buildings for recycling carts or dumpsters that are serviced by haulers.
3. Availability of recycling collection services: (*Which recyclables are collected, and what are the sorting requirements?*)
  - a. Commingled recycling — cans, bottles, paper, cardboard collected in one bin
  - b. Source-separated recycling — single materials like paper or glass in separate bins
  - c. Food waste and/or organics collection
  - d. Bulky and re-usable items collection

## ***Convenience Makes a BIG Difference***

Convenience was rated as paramount by property managers when asked about the difference between “properties where recycling works well and properties where recycling does not work well.”<sup>11</sup> Specifically, sixty percent of respondents rated “recycle containers near garbage containers” in the top five most successful things they have done for recycling/composting. Twenty-five percent rank it number one. Location of bins was most important, followed by passive information such as signs, and direct efforts like incentives and talks.

When local jurisdictions were asked about the recycling challenges particular to their jurisdiction, they responded<sup>12</sup>:

- Space constraints for recycling containers (70%)
- Hard for residents to access containers (34%)
- Recycling capacity was less than garbage capacity (40%)

### **Tips from the field...**

*“It needs to be as convenient as possible. People will not walk out of their way. The location of bins is important, and if possible, the property should provide a usable recyclable container/bag/can for residents to put recycling in their units.”*

--Property Manager Interviewee #3.

Property managers surveyed also made specific suggestions for convenience in multi-level complexes including:

- recycling chutes,
- in-unit containers or compost bins,
- centralized waste areas, co-located bins,
- and bins on every floor

<sup>11</sup> Survey of Property Managers p. 7

<sup>12</sup> “Agency Survey Report”

Additionally, ten of 13 property manager interviewed<sup>13</sup> made various statements that accessibility and convenience were important. Comments included:

- "...put recycling bins in the laundry rooms on each floor with posters." –*Property Manager Interviewee #7*
- "...multiple areas throughout the property, with garbage and recycling dumpsters always located together." –*Property Manager Interviewee #6*
- "...having access to several different bins. Recycling area is big, and trash looks small so it draws people to recycling." –*Property Manager Interviewee #4*

### Tips from the field...

"While the common wisdom is for containers to be located together, sometimes I find that the level of contamination requires more separation. Setting up one area for garbage and another for recycling and food waste can help reduce that problem."

--Jack Harris, Blue Marble Environmental

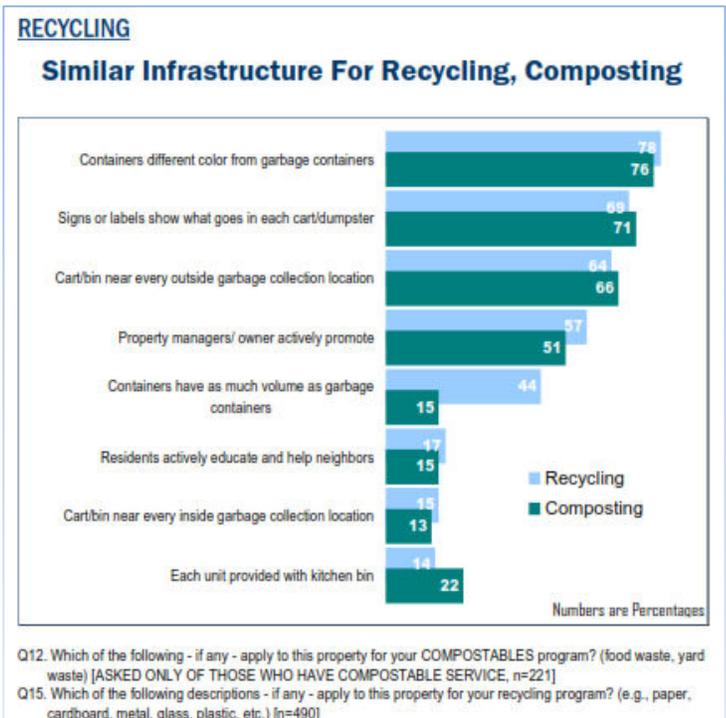
Another solution reported by a property manager of a high-rise property included locating agency-provided small organics carts on each floor of the building, and having staff transport the material to the outdoor container. The manager expressed appreciation for the agency-provided in-unit kitchen compost buckets, which have made food waste collection more convenient for residents.

### The Container Matters

*All the education in the world won't help if there isn't a place to put that bottle or can.*

When asked which factors make the most difference between sites that recycle well and those that recycle poorly, managers rated bin convenience, container size, and signage over educational strategies.<sup>14</sup> Logistics were also cited by interviewed agency representatives from across the country as a significant issue for multifamily recycling. Active promotion by managers of recycling/composting programs ranked fifth, below locating recycling and composting containers near garbage containers, posting signs at collection points, providing recycling information to all residents, and utilizing different-colored containers.<sup>15</sup>

Having enough space for recyclables in the recycling container impacts the amount of recycling collected. Interestingly, in



<sup>13</sup> Survey of Property Managers appendix p. 10-25

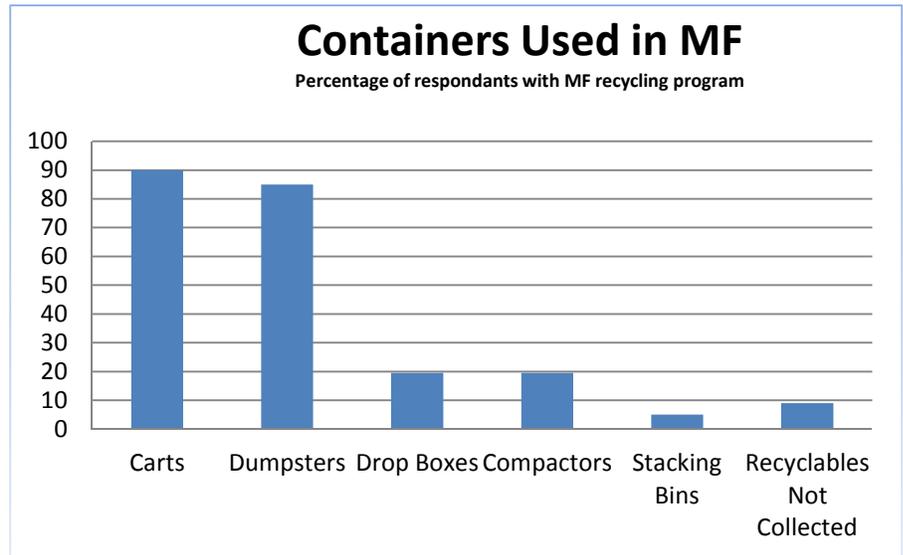
<sup>14</sup> Survey of Property Managers p. 22

<sup>15</sup> Survey of Property Managers p. 17

Washington, garbage capacity is as still reportedly more than recycling capacity at a significant percentage of multifamily properties. Only forty-four percent of property manager respondents reported “[recycling] containers have as much volume as garbage containers.”<sup>16</sup>

Since 56% of properties have less recycling capacity than garbage, even if multifamily residents are motivated to recycle, they may not have the container space to do so.

Agency survey respondents identified carts and dumpsters as the primary collection containers used and most reported using more than one type.<sup>17</sup>



### ***Potential Logistics Solutions to Identified Challenges***

Agency staff and recycling service providers have an opportunity to enhance multifamily recycling by improving container logistics for both indoor and outdoor collection points. Whether this is through providing indoor containers for floors of high rises, providing counsel upon set up of indoor containers in common areas, or through grouping containers outdoors where residents have easy access, these partners play an important role in creating the logistical foundation that can enhance a program.

During the Survey of Property Managers interviews several challenges were expressed related to the logistics of recycling collection. While anecdotal, property managers and recycling professionals offered the following potential solutions to some of the identified challenges in multifamily properties:

#### ***INDOOR COLLECTION CHALLENGES:***

- Each unit in a multifamily building may not have been built with space for a recycling or composting container in the same location as the garbage bin (i.e. under the kitchen sink).
  - ✓ Consider providing a compact recycling bin or bag for collection for each unit.
- Larger buildings may have trash chutes or trash rooms on each floor which may not have sufficient space for recycling or food waste collection.
  - ✓ Consider providing “porter” service daily for recyclables collected on each floor.
  - ✓ Consider additional signage at trash chutes that discourage recycling in the garbage, such as: “No recyclables in trash chutes please. Recycling is located at X.”

<sup>16</sup> Survey of Property Managers p. 15

<sup>17</sup> “Agency Survey Report” p. 9

***OUTDOOR COLLECTION CHALLENGES:***

- Carts or dumpsters need to be large enough and located with successful recycling in mind.
  - ✓ Consider increasing the volume of recycling capacity available and potentially reducing garbage capacity.
- Property managers and recycling service providers decide where and how to place bins and residents have little input in these decisions.
  - ✓ Consider how to make recycling most convenient for residents while also attending to space and truck access constraints.

***Conclusion***

It is important to ensure that collection logistics are thoughtfully employed when setting up or working to improve a multifamily recycling system at a given property. Convenience factors and the types of containers are also critical to consider when planning local government recycling programs. The types of containers, how materials are sorted, and even the color of bins can have a significant impact on recycling efforts, as logistics play a key role for successful multifamily recycling.

## Policy & Regulation Influences

Appropriate policy and regulation contribute significantly to the success of multifamily recycling and food waste composting programs. Currently in Washington, regulations affecting multifamily recycling programs exist primarily locally, at the city and county level. With the exception that curbside collection programs must exist in urban areas, little policy governing multifamily recycling exists at the state level in Washington. However, several regulatory policies and mandates at the county and city levels impact multifamily recycling in Washington:



### ***Service level Ordinances—Including Mandatory recycling***

Service level ordinances and contracts which require “embedding” recycling service costs within solid waste rates are increasingly common at the city and county levels, and significantly help increase multifamily property participation in recycling. City ordinances in Marysville and Seattle mandate that all multifamily properties must have recycling containers on site (with reasonable exemptions for hardship or lack of space). In 2011, Seattle mandated food waste cart subscriptions for all multifamily properties.

### ***Jurisdictional Contracts***

In Washington, incorporated cities have the authority to set rates and collect solid waste from residents and businesses. This work can either be carried out by the city or contracted out to a private collection company. Cities enjoy a unique position, as they can set rates to support their solid waste programs. Recycling is incentivized by folding its cost into the garbage rate. Moreover, the garbage rates can be set on a Pay As You Throw (PAYT) basis, where the larger volume containers cost significantly more. This method further incentivizes recycling by encouraging residents to think about the amount of material disposed.

Just one of the responding 48 agencies within Washington reported a rate structure in which recycling collection is more expensive than garbage collection. In addition, over half of agency respondents noted that the fee for collecting recyclables is embedded in the garbage rate. Therefore, the customer has no choice to pay additional for recycling, and is in fact incentivized to recycle. Many communities have increased their multifamily recycling participation rate from the low twentieth percentile to the seventies, eighties and nineties as a result of an embedded rate for recycling services, along with targeted multifamily outreach and education programs (see box).

Since the majority of multifamily complexes fall within incorporated city limits, cities have a tremendous amount of

#### **Tips from the field...**

Embedded rate policies established in jurisdictions such as Snohomish County and the cities of Everett, Arlington, Marysville, Edmonds and Lynnwood, coupled with promotional outreach and education programs, have increased recycling participation rates from 20% to 80-90%.

The City of Olympia has compulsory (mandatory) garbage for all customers. In 1994 Olympia made the decision to provide recycling to multifamily residents at no additional fee. This resulted in over 95% of properties including recycling service on site.

influence on the success of multifamily recycling programs through their rate-setting authority.

Cities can leverage their influence when negotiating contracts with private hauling companies. Requirements such as education programs, quality assurance of the recycling stream, and performance measures for overall system performance can all be incorporated into contract terms. If a city elects to provide its own collection service, program costs can be integrated into their operations through customers' rates. The city can also set program outcome targets, and staff can track and enforce them.

In cases where cities opt to contract out their collection services, performance measures can also be included in the contract, such as:

- Contamination rate studies
- Education for chronically poor-performing accounts
- Outcome-based targets (vs. output based), i.e. contamination thresholds
- Providing on-site assistance for multifamily accounts

### ***Building Code Requirements for Recycling Container Enclosure Standards***

Some jurisdictions, such as Olympia and Kitsap County, have implemented policies requiring adequate space for recycling and food waste composting containers in remodeled and new multifamily solid waste enclosures which make on-site recycling more feasible and functional.

### ***Funding for Waste Reduction and Recycling Efforts***

The model for funding recycling programs in Washington is fairly universal – a combination of tipping fee revenues and state-provided grant funding. The most consistent and significant source of supplemental funding to local governments in Washington is the Coordinated Prevention Grant (CPG) Program. This program is funded through the Model Toxics Control Account (MTCA) – a tax on petroleum and other toxic products sold in Washington. In the 2013-2015 biennium, this program will distribute \$28.24M to local government solid waste programs and health departments, based on population.

The revenues from these sources are split among high priority programs in most cases, such as moderate risk waste (MRW) facility operations, disposal system operations, or broader recycling outreach. In many cases, multifamily recycling falls to the bottom of the recycling funding priorities, behind commercial and single-family residential sectors. This was evident in the agency survey, where less than half of jurisdictions under 100,000 in population allocated funding for multifamily recycling outreach.<sup>18</sup>

Another tool local governments and waste collection companies can employ to implement more robust recycling education programs are revenue-sharing agreements. These agreements are used in unincorporated areas where tariffs are governed by the Washington Utilities and Transportation Commission (WUTC). Recent changes to solid waste transportation regulations allow solid waste collection companies to retain up to 50% of the revenues from recyclables collected, if that additional funding is used for programs that are consistent with the solid waste management plan in that particular county, and if the company has an agreed-upon plan with

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<sup>18</sup> "Agency Survey Report" p. 2

county government to institute programs to increase recycling. Currently King and Snohomish counties have implemented such agreements with their certificated companies. The agreements in those counties have significantly enhanced the focus on multifamily recycling education programs, including pilot projects to increase diversion during the fall of 2013.

### ***State Regulation of solid waste and recycling service: WUTC***

A relatively unique collection system occurs in the unincorporated parts of Washington. Collection companies are issued exclusive rights to collect garbage and residential recyclables in a given territory. Rates are set by the WUTC, based on a cost of service plus reasonable profit model. The purpose of this system is to provide universal service to all customers within a given boundary, regardless of how geographically remote the customer is. Since multifamily complexes are often classified as residential accounts, their recycling often falls within a WUTC certificated area, and its established rates.

In these WUTC areas, access to curbside recycling is limited to areas that are designated as urban in the county solid waste management plan, unless a specific service level ordinance has been enacted by the county to expand that boundary. If a service level ordinance is passed by the county, the collection company can incorporate the expanded boundary or mandatory collection of recyclables into their tariff with the WUTC, pursuant to the local ordinance. Snohomish, King, Pierce, and Kitsap Counties are good examples of such ordinances. A few cities such as Everett, Edmonds and Lynnwood are WUTC regulated.

Since the rates established under this system reflect actual cost of service, plus a set profit margin, the cost of recycling can only be incentivized to a limited extent. In some cases, downsizing a garbage container and adding recycling service can be cost neutral, or even cost the rate-payer more. The cost of recycling cannot be “embedded” into the cost of garbage or appear as “free” on the rate-payer’s bill, nor can the cost for garbage collection be inflated to offset the cost of recycling.

By implementing a service level ordinance, county governments can influence the access rate-payers have to recycling collection services. If access areas are expanded, and service is optional, low subscribership could result in rate increases due to efficiency losses on collection routes. These problems can be somewhat mitigated by including mandatory recycling service in the ordinance.

To learn more about the regulated solid waste system in Washington, visit the Washington Utilities and Transportation Website at [www.utc.wa.gov](http://www.utc.wa.gov)

### ***Barriers and Their Potential Policy Solutions***

A number of policy solutions exist to address issues such as contamination and illegal dumping which agency and property managers stated were high priorities.

Several challenges were consistently cited by property managers as barriers to implementing successful recycling and food waste composting programs.

**CONTAMINATION:** Contaminated recycling is frequently cited by recycling professionals as a significant problem. Interestingly, just one in four Washington multifamily property managers indicated ever being charged a contamination fee by their collection company.<sup>19</sup> The overwhelming majority of these managers reported receiving fees “a few times,” and just 3% of all managers said they were charged for contamination “often.”

While not well quantified in most jurisdictions, the hands-on and anecdotal experience of collectors, agency staff, consultants and other recycling professionals indicates that multifamily contamination is a significant issue in Washington.

Cities contracting with waste collection companies, or self-hauling, might add and enforce contract language to reduce contamination, including establishing maximum allowable contamination percentages, providing effective education, prescribing material composition studies, assessing fines for accounts that repeatedly fail to meet contamination standards, requiring collection companies to identify contaminated bins, and ensuring agency enforcement of established contamination thresholds, among others.

**ILLEGAL DUMPING:** Illegal dumping was rated by Washington property managers as the second most significant challenge to improving recycling at multifamily properties (only “culture and habits of residents” ranked higher). Forty-one percent of managers stated that it was either a “very significant” or “significant” challenge.<sup>20</sup> Similarly, when property managers were asked what strategies would help them improve recycling at their properties, they ranked “help with stopping illegal dumping” at number 3, with 33% of managers selecting that option. No single solution exists to curb illegal dumping, but many strategies are commonly recommended for multifamily properties. Many cities and counties in Washington have established illegal dumping policies, coupled with enforcement through Health Districts and law enforcement agencies.

Data from the solid waste agency survey revealed that just 51% of jurisdictions mandate on-site garbage service. In the executive interview portion of the property manager

<sup>19</sup> Survey of Property Managers p. 14

<sup>20</sup> Survey of Property Managers p. 19

### Tips from the field...

The Oregon Department of Environmental Quality provides these suggestions to property managers:

“Illegal dumping at businesses, apartment buildings and other private property is a serious problem. Some dumpers are individuals or businesses that dump in your dumpster to avoid paying for garbage service. Others haul junk for a small fee and then dump the loads illegally.

Illegal dumpers often use the same sites over and over. If you've been a victim of illegal dumping, take the following measures:

- **Clean up.** Any site with an old tire or a bag of trash tends to act as a magnet for additional trash. Keep sites such as parking lots and areas around dumpsters neat and clean.
- **Post signs.** Install signs to let potential dumpers know that unauthorized dumping is a violation of local and state ordinances and that they risk being identified and prosecuted.
- **Install lights.** Most dumping occurs at night when dumpers are least likely to be seen. Installing motion sensor lighting around waste containers and in parking lots will eliminate the factor dumpers depend on the most to avoid detection—darkness.
- **Use vehicle barriers.** In some cases, it may be feasible to place waste containers behind a barrier (such as a steel post) that prevents vehicles from driving up to the containers. The barrier is removed only for scheduled pickup by your waste hauler.
- **Lock up.** Lock your dumpster lid or secure it behind an enclosure to deter small-scale dumpers looking for an accessible container.

survey, a property manager observed that mandating residential and commercial garbage collection could curb illegal dumping in multifamily complexes. Minimizing self-haul garbage customers could potentially reduce the need for some to illegally dump in the large, open containers often found in apartment complexes.

By making legal disposal of materials convenient and illegal disposal inconvenient, the local costs of preventing illegal disposal can be reduced. Solid waste codes, ordinances, and permits are all effective tools in preventing illegal dumping. They can require permits for waste management activities, establish mandatory refuse collection programs, set fines for illegal disposal offenses, require fencing of vacant properties, and provide administrative abatement, settlement, and citation authority to local government.

### ***TRACKING MULTIFAMILY RECYCLING SUCCESS/MEASUREMENT***

As the WAMRS team conducted its survey of local governments across Washington, it became very clear that one of the major underlying problems facing multifamily recycling is that many governments have little or no data to describe recycling in the multifamily sector. All but a handful of jurisdictions replied to the survey with little to no data on their multifamily tonnages, and some that replied had concerns about the quality of their data. Multifamily accounts often get rolled into a commercial or residential route, depending on the collection mechanism, resulting in an inability to segregate accurate multifamily recycling data. The lack of collected data and uncertainty of reported data make it nearly impossible to determine a state wide recycling rate for the multifamily sector.

This might be the most complex and fundamental problem to overcome. In order for local governments and the state to establish goals, there needs to be a baseline to work from. Additionally, gauging the success of programs is extremely difficult when there is no way to measure effectiveness. To make a statewide change, a statute revision would likely be necessary to ensure that sector-specific data is collected universally. This process is often challenging, at best. Local governments can assert more influence through implementing data collection parameters in city contracts, revenue sharing agreements, and service level ordinances. These requirements can go a long way in influencing collection companies to segregate the multifamily sector and provide good multifamily data.

#### **Tips from the field...**

The City of Olympia goes to great lengths to understand its multifamily recycling rate. The city calculates the entire volume of commercial garbage, carefully subtracting out multifamily garbage tonnage using a conversion factor determined from a city study of its tonnage. The city also collects multifamily recycling via a separate truck which allows for determination of actual recycling tonnage. This approach allows the city to confidently determine a recycling rate for its multifamily sector.

### ***Conclusion***

Multifamily policy and regulation through state, county or city laws, ordinances and contracts can significantly increase recycling participation and material tonnage diversion from the landfill, and curb illegal dumping and contamination occurrences – particularly when coupled with thoughtful collection logistics and education and outreach programs.

# Education and Outreach

Education, in partnership with appropriate service levels and effective site logistics, will improve recycling and reduce contamination.



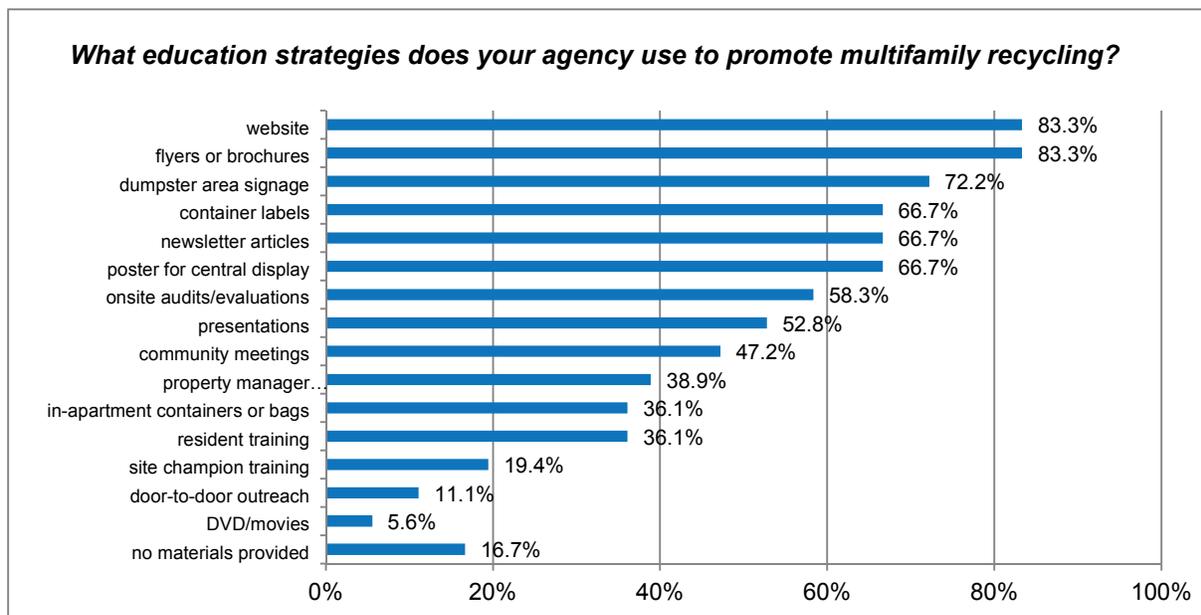
Unfortunately, despite common distribution of recycling information by agencies *and* property managers, and a belief by managers that these materials work, contamination and low participation rates remain prevalent at multifamily properties. While providing recycling information is necessary and useful, community-based social marketing findings demonstrate that more is required to effectively improve recycling behavior.

Providing tools like prompts, pledges, person to person contact, feedback, and starting with small actions actually motivate behavior change.<sup>21</sup>

## *Current Educational Strategies*

A wide variety of strategies are used for both educating multifamily residents about recycling and composting, and for effecting behavior change.

Washington agencies and property managers more frequently report the use of passive outreach tools such as websites and distribution of recycling information to residents than strategies proven to affect behavior change.<sup>22</sup> Only 35% of reporting agencies in Washington provide recycling education to the multifamily sector, with strategies typically focused on traditional, passive methods such as websites, flyers, labels and signage.<sup>23</sup> Many respondents commented that the same materials are used for all recycling customers, and are not specific to or customized for multifamily communities.



<sup>21</sup> Community-Based Social Marketing, [www.cbsm.com](http://www.cbsm.com)

<sup>22</sup> "Agency Survey Report" p. 1

<sup>23</sup> "Agency Survey Report" p. 1

While programs vary across the state, similar educational strategies are often used to capture both recyclables and food waste. Significant opportunities exist to improve both education and diversion at multifamily properties.

Some agencies and managers also use person-to-person methods and door-to-door outreach to educate about recycling and composting, but at a significantly lower rate than passive methods.

### ***Education Practices Seen As Most Successful***

There are significant differences of opinion between managers and agency representatives regarding the major challenges and best strategies to address them. While agency respondents perceive resident turnover as a primary challenge, property managers are far more concerned by illegal dumping. Managers of large and small properties rank the usefulness of recycling education strategies differently:

- Thirty-eight percent of managers of smaller properties (<100 units) ranked education and outreach among the top three strategies that make a difference between sites that recycle well and those that recycle poorly.
- In contrast, just 26% of managers of sites with over 100 units ranked education and outreach in the top three.

However, both agree that flyers, labels and posters for residents are fundamentally needed, to clarify the “rules” for sorting materials. Recycling information handouts were overall rated as the number one way to *improve recycling* in general (39%)<sup>24</sup>

According to property managers, displaying posters or signs in collection areas is the second most successful strategy for multifamily collection, with container positioning ranked first.<sup>25</sup> According to the surveys, both agencies and property managers use recycling handouts as a primary method for educating residents. And, they each believe that these materials help:

- Thirty-nine percent of responding managers said that handouts from agencies would *improve* recycling.
- Twenty-four percent believe that signs/flyers in multiple languages would improve recycling at their sites<sup>26</sup>.

#### **Tips from the field...**

“A vital part of the evolving outreach strategies has been the increasing coordination and use of color so the public associates certain colors with certain collection options. Over the years, blue has become increasingly recognized by the public as the color for a recycling bin. Using these colors across your outreach methods – from the carts on the curb to the colors on your website and brochures – will serve as visual reminders to your residents, and be one more way to reduce confusion and the resulting contamination of recyclables (and organics).”

- Public Outreach for Your Residential Commingled Recycling Collection Program: A best management practices guide for governments – *Washington State Department of Ecology, SW Commingled Report*

#### **Tips from the field...**

Translating materials into languages other than English is important in many communities.

According to the 2010 Census, 17.8% of representatives of Washington state households report that a language besides English is spoken at home, and 12.8 % report being born in a different country.

<sup>24</sup> [Survey of Property Managers](#) p. 20

<sup>25</sup> [Survey of Property Managers](#) p. 17

<sup>26</sup> [Survey of Property Managers](#) p. 20

Property managers ranked the following as the most successful educational *practices* at multifamily properties for both compost and recycling.<sup>27</sup>

- Post signs at collection site
- Provide recycling information to all residents

Further, the following educational features were ranked in the same order and used with the same frequency for both recycling and food waste collection by property managers.<sup>28</sup>

- Signs or labels on the containers
- Active promotion by property manager

### ***USING PROMPTS: SIGNS, FLYERS AND LABELS***

Recycling professionals across the United States emphasized the use of photos over text; translating all written materials; and using a variety of promotional tools, such as door hangers, magnets, and campaign signs. Respondents also said that these materials should be distributed frequently, and displayed in multiple locations within a multifamily property. In addition, coordinating colors on educational materials with sorting containers provides quick selection as well as equitable access to people who can't read the text.

From these responses, flyers seem to be an important tool for managers and agencies to provide the basic rules for what is accepted in the containers. However, logistics are also key and person-to-person communications are significant. While useful, a flyer is not enough to make a program successful. It is only part of a toolkit to address a variety of influential factors, from infrastructure to the population of the property. This is particularly important in light of Washington's growing population of immigrants for whom English is not a first language.

In several executive interviews, property managers expressed the desire for hand-outs in multiple languages. In one executive interview, a property manager's request for assistance from a local organization or government included: "Web site availability to download flyers in different languages." More research is needed to understand how or whether this resource could more effectively serve property managers or residents. Efforts to connect with immigrant community organizations as well as provide translation and interpretation may help improve programs at these properties. Currently, local governments reported:

- 62.5% of agencies provide printed materials in other languages.
- 35% of agencies report supplying printed materials only in English<sup>29</sup>

#### **Tips from the field...**

"A prompt is a visual or auditory aid which reminds us to carry out an activity that we might otherwise forget. The purpose of a prompt is not to change attitudes or increase motivation, but simply to remind us to engage in an action that we are already predisposed to do..."

-- *Fostering Sustainable Behavior* by  
Doug McKenzie-Mohr and William  
Smith

<sup>27</sup> *Survey of Property Managers* p. 17

<sup>28</sup> *Survey of Property Managers* p. 15

<sup>29</sup> "Agency Survey Report" p. 14

Twenty-eight percent of managers also said that posters were key to improving recycling.<sup>30</sup> This shows again the basic need for the “rules” to be available for residents to use, but cannot be the only strategy for success.

While agency recycling professionals were not asked to rank education strategies based on success rates, they reported the *frequency* with which different signage methods are utilized<sup>31</sup>

<b>Labels &amp; Signage as Outreach Methods – Washington Agencies</b>		
Method	Organics	Recycle
Flyers or brochures	85%	83%
Poster for central display	77%	67%
Signage for collection areas	61%	72%
Container labels	85%	67%

***“PERSON-TO-PERSON” COMMUNICATION***

During phone interviews, recycling professionals across the United States repeated three educational themes: direct relationships with managers, direct relationships with residents, and the need for continuous outreach. Practices included assigning agency staff to communicate with and assist property managers and residents, and using resident volunteers to educate their neighbors.<sup>32</sup>

City and county agencies in Washington with multifamily recycling programs appear to provide only a moderate level of in-person communication methods such as on-site audits, presentations, community meetings, and resident trainings, while “Site Champion Trainings” are even less frequently employed.

During executive interviews with property managers, several mentioned that move-in orientations with new residents are valuable. According to both the property manager survey and agency survey, direct outreach methods are much less widely implemented than passive measures like flyers and brochures. It is important to consider that hands-on strategies may rank lower than standard strategies for improving recycling because fewer managers have had exposure to them. While 70% of property managers rate recycling information handouts as the top way to improve recycling, only 21% rate training or educational presentations for residents as useful.<sup>33</sup>

**Tips from the field...**

A senior facility of 268 units reported that technical assistance and the City of Seattle mandate helped them improve recycling and start food waste collection, saving \$1,250/month. The facility manager stated:

“If you have any sense of what is happening to the planet, you will want to do it.”

<sup>30</sup> Survey of Property Managers p. 20

<sup>31</sup> “Agency Survey Report” p. 13

<sup>32</sup> “Review of Multifamily Recycling...”

<sup>33</sup> Survey of Property Managers p. 20

In the executive interviews with property managers, specific comments included: “The Assistant Manager is a recycling champion who is constantly promoting it. If you don’t have staff promoting it, it won’t work.” And “Once-a-year trainings, door to door visits” was recommended as a strategy for agencies to help improve the program.

Most education strategies addressed in this study are used at a higher frequency for food waste collection programs than for recycling programs.<sup>34</sup> Person-to-person outreach is an example of this variance:

<b>Person-to Person Outreach Methods</b>		
Outreach method	Organics	Recycle
On-site audits	77%	58%
Presentations	77%	53%
Community Meetings	61%	47%
Resident Training	61%	36%

### ***Conclusion***

Recycling professionals in Washington continue to report that multifamily recycling rates remain low, and contamination high. Recycling and food waste collection may be enhanced by more active education strategies such as new resident orientation, door-to-door outreach, and property manager training.

Education provides a much-needed baseline for program clarity and motivation for resident participation and is most effective when coordinated with a convenient well-sited infrastructure. Expansion beyond flyers and posters is crucial, and customizing outreach according to property features such as size, population, and geographic location is also highly recommended.

In addition, the cultural demographics of the state are changing. For instance, in Seattle, 20% of the population is immigrants. It will support the success of recycling and composting in Washington to be proactive in engaging residents of other languages through culturally-literate strategies, translations, and interpreters rather than relying on conventional English-only mechanisms.

While multifamily recycling and organics collection remain a challenge, improving education is an opportunity to serve residents more effectively and equitably, and to capture valuable resources otherwise headed for the landfill.

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<sup>34</sup> “Agency Survey Report” p. 13