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## Multifamily Bulky Waste Pilot – 2021 Report

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### **B&B Leasing Co., Inc. & Clackamas County Sustainability & Solid Waste**

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## Table of Contents

Executive Summary.....	2
Background .....	3
Findings .....	7
Pre-pilot .....	7
Pilot .....	9
Post-Pilot.....	12
Key Findings .....	14
Appendix A – ClackCo Multifamily Bulky Waste Pilot 2021 - Outline.....	15
Appendix B – Participant Multifamily Communities & Service Levels.....	18
Appendix C – Recruitment Emails (Samples) .....	19
Appendix D – Pre-Pilot Survey Emails, Questions, & Results.....	21
Appendix E – Sample Promotional Flyers .....	33
Appendix F – Mid-Pilot Emails .....	38
Appendix G – Pilot Coming To An End Emails.....	39
Appendix H – Sample Pilot Exit Flyers.....	41
Appendix I – Pilot Data.....	45
Appendix J – Post-Pilot Survey Emails, Questions, & Results .....	58
Appendix K – Proposed Post-Pilot Resident Survey.....	68

## Executive Summary

Clackamas County Sustainability & Solid Waste's (SSW) Multifamily Bulky Waste Pilot took place May through August 2021. The purpose of the pilot was to collect information to inform future bulky waste collection as outlined in the 2030 Regional Waste Plan. B&B Leasing provided the collection service and data throughout the project, and six multifamily properties (1,112 units) within B&B's franchised area participated; four in the test group, and two in the control group. Residents at communities in the test group received notification about the pilot and were encouraged to place large, unwanted items in designated areas during certain days/times throughout the pilot. Residents in control communities were unaware of the pilot, but discarded bulky items were collected at those sites.

Throughout the course of the pilot, over 600 bulky waste items were collected and disposed, including 95 mattresses, 69 chairs, and 68 couches. SSW covered the cost of collection during the pilot, which totaled \$5,122<sup>1</sup>. Overall, this calculates out to be \$1.15 per unit per month on bulky waste disposal; \$1.96 per unit per month at test communities, and \$0.53 at control communities. In all instances, this is less than costs reported in pre-pilot surveys, indicating that there may be opportunity to improve collection and lower cost by implementing a similar collection arrangement moving forward.

**Table 1: Bulky Waste Pilot Summary with per Unit per Month Costs**

	Communities	Units	Items Collected	Overall Cost	Pilot	<a href="#">Pre-Pilot Surveys</a>
Test	4	482	477	\$3,782	\$1.96	\$2.23
Control	2	630	151	\$1,340	\$0.53	\$1.35
TOTAL	6	1,112	628	\$5,122 <sup>1</sup>	\$1.15	\$1.73

As a condition of participating in the pilot, property managers were expected to complete pre- and post-pilot surveys to gather baseline and follow-up data. Reported data indicates that pre-pilot, four of six participant communities were using third party haulers for the removal of bulky waste.

The pilot had known limitations and also faced a handful of unforeseen challenges. The original hope was to divert good-condition items to thrift stores; unfortunately, no local thrift stores were accepting furniture at the time the pilot commenced, and therefore, all items were taken to the transfer station for disposal. The participant communities were invited to participate because of pre-identified space onsite to collect bulky items that would not block access to the garbage and recycling receptacles (none provided cover from the elements). Furthermore, SSW staff had worked with the communities in the past, and had an existing relationship with five of the six property managers. There was also an effort to include affordable housing communities and those with a history of bulky waste issues. One unforeseen challenge was a mid-pilot change in one community's property management company.

Overall, post-pilot survey data indicates that participating property managers were pleased with the experience, and four of the five respondents independently indicated they wished the program could continue. All respondents indicated the pilot provided added convenience to their community and freed up staff time. In fact, 80% reported sharing bulky waste disposal information with residents, and three of five respondents indicated they were now providing onsite bulky waste disposal options for their residents (an increase from 0%, as reported in pre-pilot surveys).

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<sup>1</sup> The total cost of the pilot was \$5,512; however, due to untimely circumstances, Week 1 collections data was removed from the data, including this report, as to not overstate the bulky waste generated/collected during the pilot.

## Background

Clackamas County Sustainability & Solid Waste (SSW) has always been interested in better understanding bulky waste collection service at multifamily communities in order to explore options to ensure residents have access to the service. Over the years, it has become an increasingly high priority throughout the region.

The regional [2017 Multifamily Recycling Report](#) identified bulky waste as an opportunity for improvement. While bulky waste was intentionally out of the scope of that project, it repeatedly appeared as a persistent issue (e.g. waste characterization study, resident interviews, etc.). This led to Finding #4 in the report, which states, “Bulky waste is inadequately managed,” and was subsequently stated as an option to be considered in the development of the region’s future waste plan. Bulky waste was eventually incorporated as Action 10.5 in the [2030 Regional Waste Plan](#) (RWP), which calls for “regularly occurring bulky waste collection service, with particular emphasis on multifamily communities and lower-income households.”

Additionally, [Metro’s Solid Waste Administrative Rule 5.15 – 2040 Multifamily Residential Service Standards](#) states, (4) “Ensure provision of regularly-occurring bulky waste collection service by July 1, 2025.”

As for reuse, RWP Goal 8 reads, “Increase the reuse, repair and donation of materials and consumer products.” Additionally, [ORS 459.055](#) (3a) reads, “A commitment by Metro and other local governments in the region to reduce the volume of waste that would otherwise be disposed of in a landfill through techniques such as waste prevention, recycling, reuse, composting and energy recovery.”

### Purpose

**Goal:** The goal of the project was to gather data about bulky waste collection in order to inform future “regularly occurring bulky waste collection services, with particular emphasis on multifamily communities and lower-income households,” as stated in the RWP (Action 10.5). Secondly, SSW would like to explore the possibilities of recovering items for reuse.

### **Objectives:**

- Collect pre- and post-data
- Identify solutions to bulky waste that can be recommended to property managers and/or incorporated after pilot
- Identify viable reuse solutions rather than immediate landfilling of good-condition, usable items

### Budget

SSW budgeted money to cover the cost of this pilot.

### Timeline

The pilot took place May through August 2021. B&B collected bulky waste items weekly from all participating communities (test and control sites).



## Stakeholders

Stakeholders included the following:

- Multifamily communities (residents and property managers/owners)<sup>2</sup>
- B&B Leasing Co., Inc. (Gladstone Disposal and Oregon City Garbage)
- Clackamas County Sustainability & Solid Waste
- Master Recyclers (to help notify residents)

The following were stakeholders to be considered, but did not end up involved because the reuse portion of the pilot did not take place:

- ZipEco
- Red, White, and Blue (or other local thrift stores)

## Equity

In an effort to center equity, three affordable housing communities and those with known bulky waste problems were invited to participate. While all three affordable housing communities were interested, one community was unable to participate due to significant anticipated changes during the course of the pilot period. Of the five additional invitees, another had to decline for the same reason, despite interest.

The participant communities range in size from 44 to 334 units and residents are comprised of a mix of adults and families. The residents at all four test communities received communication about the pilot in both English and Spanish. Depending on the property manager, some communities received flyers on doors; others received the flyers electronically.

Overall, the pilot represented one percent (1%) of multifamily communities and three percent (3%) of multifamily units in Clackamas County.

## Known Limitations in Pilot Design

While the intent of the project was to gather real world data, we acknowledge the pilot has a number of known limitations that prevent gathered data from being extrapolated across all multifamily communities. Some of the limitations that we have identified were intentional to help ensure pilot participation and data collection. The intentional and unintentional limitations we have identified include:

- Single Franchised Collector: We intentionally approached a single collector to streamline the pilot. By partnering with a single franchisee, it allowed us to better ensure consistency of collection, a closed communication loop, and payments to only one instead of multiple collectors. Furthermore, B&B's franchised areas surround the transfer station, which minimizes transportation (costs and emissions), and has a list of bulky waste prices, which allowed us to better estimate costs. Additionally, we have a history of direct and responsive communication with the operations team.

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<sup>2</sup> See [Appendix B](#) for a blind list of participant multifamily communities.

- Property Managers: Similar to the franchised collector, we intentionally approached property managers with whom we've collaborated with in the past, have a track record of being involved in solid waste and recycling in their communities, and are responsive in their communication with our program.
- Multifamily Communities: When identifying communities to invite to participate in the pilot, we considered the following:
  - Located within B&B's franchised area surrounding the transfer station
  - Affordable housing status
  - Physical space to place large unwanted items where they would not block access to the bins/enclosures and would not create a safety hazard
  - Recommendation of collector (bulky waste seen regularly onsite)
- Time of Year: We conducted the bulky waste pilot during the dryer months of the year. We had initially hoped that this would help with donation of good condition items, but also kept items dryer and therefore lighter for handling and disposal.
- Resident Notifications: Property managers from three of the four test communities opted to share bilingual (English/Spanish) flyers about the pilot with their residents electronically. The fourth community received physical flyers at their doors thanks to the help of master recyclers and SSW staff. While we can ensure all households at the fourth community received the flyers, we are trusting that all electronically flyers were also received; however, due to the change in management company midway through, we cannot verify that all residents at Community B received notification.
- Definition of bulky waste: To avoid confusion about what was collectable during the pilot, we defined bulky waste as:
 

“...bulky items that are left next to the dumpster (or sometimes placed into the dumpster and take up excessive space).

Common bulky waste items at multifamily communities are couches, mattresses, bed frames/headboards, chairs, end tables, etc. These items can block access to the bins, become safety hazards, and are generally unsightly. In addition to large items residents may leave, bulky waste items may also include business-generated waste (i.e. old appliances, left-behind item after a move-out, etc.).

Bulky waste is NOT...overflowing garbage bins nor hazardous waste (motor oil, paint, etc.).”
- Bilingual English/Spanish: All resident-facing information was shared in both English and Spanish and not transcreated into other languages.

- Extrapolation: This pilot is a snapshot in time, across specific communities, and cannot be extrapolated to suggest an annual quantity of bulky waste generated at multifamily communities. Aside from anecdotally knowing that waste tends to increase during the holidays (and perhaps again during “spring cleaning”), the numerous variables across communities and limitations noted above prevent the data from being extrapolated beyond this point-in-time study.

### Challenges & Opportunities

While we were able to conduct a successful pilot from start to finish, aside from the known limitations noted above, there were some unforeseen challenges along the way.

- Reuse: The secondary goal of the pilot was to explore the possibilities of recovering items for reuse. Unfortunately, the two, local thrift stores that are in close proximity to the participant communities do not accept large items like furniture and mattresses. Because of time and location constraints, we were unable to line up viable reuse options for this pilot. Additionally, in the franchisee’s experience (and further supported throughout the pilot), perhaps only 10% of items picked up from multifamily communities are in a condition to be donated.
- ZipEco: In concert with reuse, we had identified a partner who may be able and willing to partner on getting usable items donated. Unfortunately, the community where they operate was recently under new management, and therefore, we didn’t believe the timing was appropriate to approach about participation in a pilot.
- Management Changes: Two of our invited communities had to decline because of foreseeable changes in management/ownership. Additionally, one participant (test) community ended up changing property management hands in the middle of the pilot. This resulted in a different property manager completing the post-pilot survey than the pre-pilot survey, and it’s unclear what communication was given to residents about the pilot before the change in management. It is possible residents in Community B never received information about the pilot. Additionally, bulky items were removed from Community B outside of the pilot and not documented due to the new property manager being unaware a pilot was in progress.
- Hazardous Waste: The project excluded any and all hazardous waste.
- Weights: Bulky waste collection data was limited to item and quantity. We did not obtain weights and/or disposal data.
- Accumulation of Bulky Waste Items: Community D had bulky items accumulated from before the pilot began. Unfortunately, the items were not picked up prior to the pilot. Instead, these items were included in the pilot’s first collection, which could distort the pilot data by including bulky items from outside the pilot’s four-month timeframe. Thus, all Week 1 collections have been removed from the data.

- Day/Time Restrictions: Some property managers at test communities decided to put day and time restrictions as to when items could be placed in designated areas (one property manager did not). This prevented accumulation of items except for on the evening before the scheduled collection. If residents did not adhere to this limitation, the pilot could have ended prematurely.
- Property Managers: The successful rollout and execution of this pilot was dependent on communicative, collaborative property managers. Without involved property managers (or owners), additional challenges would have existed and may have prevented successful completion of the pilot.

## Findings

The findings are broken out in three sections: pre-pilot, pilot, and post-pilot.

### Pre-pilot

#### Service levels

Prior to starting the pilot, B&B provided the current garbage and recycling service levels at each of the participating multifamily communities. SSW wanted to ensure the participant communities were meeting the Opportunity to Recycle requirement to provide recycling service. For a detailed list of weekly service levels, see [Appendix B](#).

#### Bulky collection data

Prior to the pilot, B&B also reviewed service records for bulky waste collections and confirmed that none of the pilot communities had had a bulky waste pickup from their franchised garbage/recycling company (B&B) during the calendar year (Jan. 1 – April 30). However, Community D had an accumulation of bulky items which lead to the exclusion of Week 1 data, as previously noted.

#### Pre-pilot surveys

As a condition of participation in the pilot, property managers were asked to complete a pre-pilot survey to capture baseline data about how bulky waste is handled in the participant communities.

In general, the participating communities did not allow bulky waste to be disposed of onsite and communicated this to residents at move-in, move-out, and when asked (on average, 2-3 times per month). Some communities also stated that residents will be charged if they leave bulky items onsite. All communities reported that bulky waste was considered a problem at their community, though responses varied from a “small” problem to “very much so.”

On average, communities reported finding bulky waste near the dumpster at least weekly; in the dumpster less frequently; and elsewhere on the property monthly. Property managers identified residents (not outsiders) as primarily responsible for the bulky waste left onsite.

Only two (of six) property managers were aware of any money budgeted<sup>3</sup> at their community specifically for the management of bulky waste (approx. \$1000 annually). As reported in the survey, to dispose of bulky waste, all communities contact a company to remove the items; only two contact their franchised garbage company, the other four contact third party hauling companies. Based on responses, it is unclear if all are aware that their regular garbage company offers this service. Responses were split evenly about how frequently they call for pickups: “whenever bulky waste is found onsite” and “when we have enough.”

Based on pre-pilot surveys, the participant communities reported spending the following on bulky waste collection service (approximate):

**Table 2: Pre-Pilot Survey Results - Average Estimated Monthly Spending on Bulky Waste Disposal**

	Average per Unit Cost
Test Group	\$2.23
Control Group	\$1.35
Average	\$1.73

**Table 3: Pre-Pilot Survey Results – Average Minimum Estimated Monthly Spending on Bulky Waste**

	Average Minimum per Unit Cost
Test Group	\$1.76
Control Group	\$1.11
Average	\$1.39

Property managers reported passing the cost onto the resident, if known. Two unique responses were (1) charging a flat fee based on the number of residents in a unit and (2) splitting the cost of the extra disposal between all units.

The pre-pilot data also indicates that staff are spending, on average, a minimum of two hours per week on bulky waste (1.5 hours at test communities and 3 hours at control communities). This presumably results in additional monetary costs for the community (wages), as well as foregone opportunity costs (taking maintenance staff away from maintenance issues/repairs).

**Table 4: Staff Time Spent on Bulky Waste per Month (in hours) Based on Pre-Pilot Surveys**

	Communities	Units	Ave. Minimum Staff Time	Average Staff Time
Test	4	482	6.50	8.66
Control	2	630	12.99	15.16
TOTAL	6	1,112	8.66	10.83

Only one community noted any option/effort to reuse or donate good-condition items amongst residents, and none attempted to donate to charity. While half of the communities reported having space for residents to place bulky waste items where they wouldn’t block the bins, only two indicated that it could be done without creating safety concerns. None identified a place that would be protected from the elements (rain).

<sup>3</sup> Property management companies operate differently. Some budgets are managed by onsite property managers; others are controlled at the corporate level.

The survey and complete results can be found in [Appendix D](#).

## Pilot

Six communities agreed to participate<sup>4</sup>: four in the test group (promote the pilot to residents to encourage participation) and two in the control group (residents were not made aware of the pilot). Flyers<sup>5</sup> were created for the test communities with approval of the property managers and distributed to residents either electronically (3 communities) or hung on doors (1 community) the week before the pilot started.

Four communities (three test and one control) were picked up weekly on Wednesdays, and two (one test, one control) were serviced weekly on Fridays. The driver(s) documented the items they picked up and also captured photos (with a few exceptions). SSW received monthly reports listing the items (and photos) and cost of each weekly pick-up at each community. Data was compiled throughout the duration of the pilot. Both items and cost were tracked by individual community, by test and control groups, and collectively.

Midway through the pilot, property managers reported all was going as planned (see sample correspondence in [Appendix F](#)), with the exception of one (test) community changing management companies and the new manager being unaware of the pilot. It was doubted that residents received notification about the pilot. While other communities reminded residents about the pilot, Community B opted to not promote the pilot at the midway point as to not create additional confusion with the changeover in management.

With approximately two weeks remaining in the pilot, participating property managers were reminded via email (see [Appendix G](#) for sample emails) of the impending end to the pilot. Test communities received two draft flyers and selected one to share and inform residents of the end of the pilot as well as how to dispose of items once the pilot ended (see [Appendix H](#) for sample flyers). Property managers were reminded that they could continue the bulky waste collection at their own expense. The control communities received the same reminder with a standard flyer to educate residents how to properly dispose of bulky waste. Additionally, all were reminded of the post-pilot survey that they would be expected to complete.

### Collection data (test group vs control group)

The tables and chart below summarize the costs of bulky waste collection, along with items collected from the test and control communities (excluding Week 1).

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<sup>4</sup> See [Appendix C](#) for property manager recruitment emails.

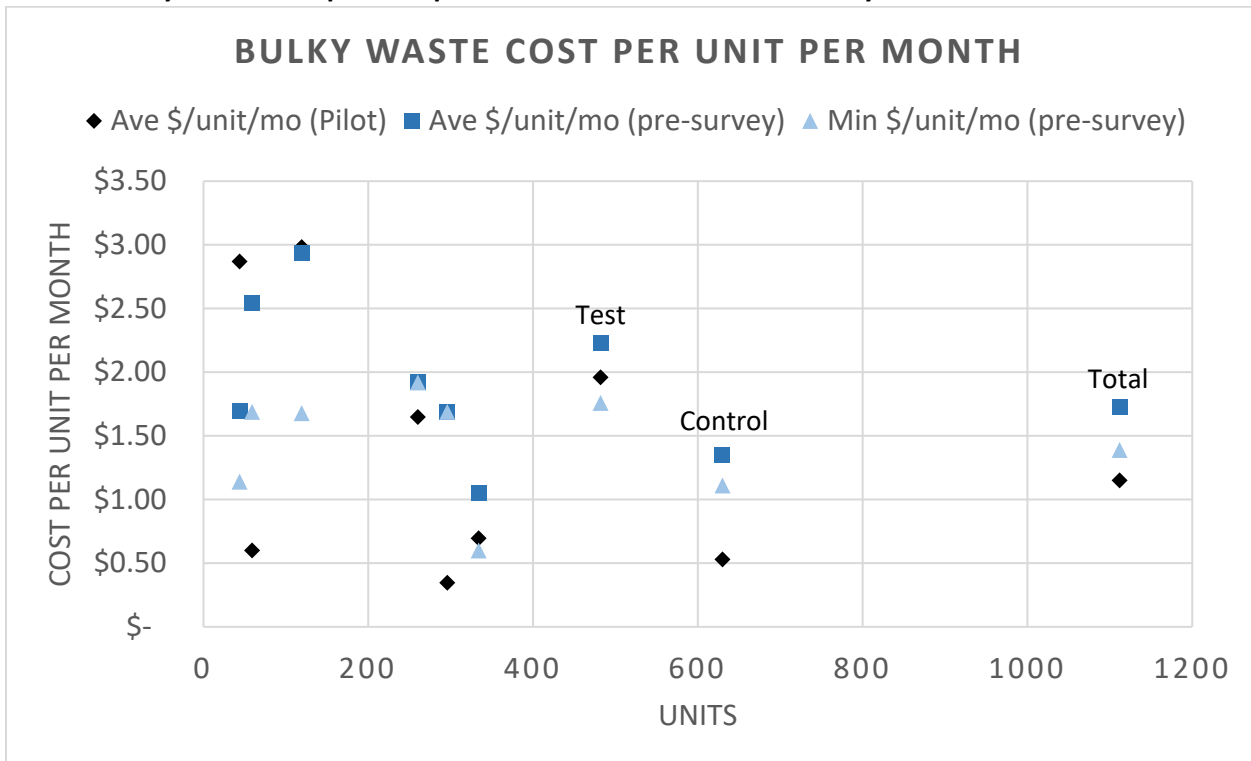
<sup>5</sup> see [Appendix E](#) for sample flyers

**Table 5: Cost of Bulky Waste Disposal During the Pilot - Summary**

	Communities	Units	Items Collected	Total Cost (Pilot)	\$/unit/month (Pilot)	Ave. \$/unit/month (Pre-Pilot Survey)
Test	4	482	477	\$3,782	\$1.96	\$2.23
Control	2	630	151	\$1,340	\$0.53	\$1.35
<b>TOTAL</b>	<b>6</b>	<b>1,112</b>	<b>628</b>	<b>\$5,122</b>	<b>\$1.15</b>	<b>\$1.73</b>

Total Impact of removing Week 1	(36)	(\$390)	(\$0.09)	N/A
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**Chart 1: Bulky Waste Cost per Unit per Month – Pilot & Pre-Pilot Survey Data**



As illustrated in the chart above, with the exception of one community, the per unit monthly cost of bulky waste disposal during the pilot was at or below the average spending as reported on the pre-pilot surveys (the black diamond is situated below the dark blue square). In fact, in three cases, the pilot cost fell below the minimum spending (light blue triangle) as document in the pre-pilot surveys, as was the case with the control group and overall pilot per unit monthly cost.

**Table 6: Summary of Items Collected During the Pilot – Test vs Control Group**

Items	Test		Control		TOTAL
	Total Count	Per 100 Units	Total Count	Per 100 Units	TOTAL COUNT
A/C Unit	1	0.2	1	0.2	2
BBQ	5	1.0	0	0	5
Bed	4	0.8	1	0.2	5
Bed Frame	23	4.8	7	1.1	30
Box Springs	10	2.1	0	0	10
Buckets (5gal)	40	8.3	0	0	40
Car Part/Accessory	2	0.4	0	0	2
Chair	50	10.4	19	3.0	69
Couch	45	9.3	23	3.7	68
Desk	8	1.7	10	1.6	18
Dishwasher	2	0.4	0	0	2
Door	4	0.8	0	0	4
Dresser	16	3.3	6	1.0	22
Headboard	1	0.2	2	0.3	3
Mattress	53	11.0	42	6.7	95
Microwave	12	2.5	1	0.2	13
Misc. Furniture	10	2.1	13	2.1	23
Misc. Household Item	31	6.4	6	1.0	37
Misc. Metal	3	0.6	2	0.3	5
Miscellaneous	33	6.8	9	1.4	42
Printer	3	0.6	0	0	3
Recliner	5	1.0	1	0.2	6
Refrigerator	4	0.8	0	0	4
Rug/Carpet	33	6.8	0	0	33
Shelving	7	1.5	0	0	7
Sink	2	0.4	0	0	2
Slide	1	0.2	0	0	1
Stove	1	0.2	0	0	1
Table	11	2.3	2	0.3	13
Tires	36	7.5	1	0.2	37
TV	9	1.9	2	0.3	11
TV Stand	2	0.4	1	0.2	3
Vacuum	6	1.2	0	0	6
Washer/Dryer	2	0.4	1	0.2	3
Window	2	0.4	1	0.2	3
Total Items	477		151		628
Total Cost	\$3,782		\$1,340		\$5,122



Mattresses (95) were the most commonly collected item during the pilot. Overall, this is approximately one-in-12 units discarding a mattress during the four-month pilot. Put differently, approximately 11 mattresses were discarded per 100 test units and 6.7 mattresses per 100 units in control communities. While the majority of mattresses (53) were discarded at test sites, 42 (or 44%) were discarded at control sites where residents were not notified of the pilot. Based on the pre-pilot survey data, residents would have been told they were not allowed to leave mattresses at the enclosures, yet these sites still accounted for nearly half the discarded mattresses. It is possible that these could have been left by individuals who don't live at the community, but the pre-pilot survey also indicated that property managers believe the majority of large household items left onsite come from residents.

Pictures taken during the pilot at the time of collection can be found in [Appendix I](#).

## Post-Pilot

### Post-pilot survey

As a condition of participation in the pilot, property managers were also asked to complete a post-pilot survey. Approximately one month after the completion of the pilot, each property manager received an electronic copy of their pilot data, including cost summary, item breakdown, collection summary, and photos. Property managers from both test and control communities were expected to use this data to complete some of the questions in the post-pilot survey.<sup>6</sup>

The post-pilot survey sought to capture feedback on the pilot, any changes that had taken place since the pilot, and thoughts about future bulky waste service. Ultimately, property managers from five of the six participating communities completed the survey.<sup>7</sup>

### Post-pilot survey results

In general, property managers reported that the pilot went well by removing large, bulky items. The pilot freed up dumpsters, saved staff from having to call to request removal, and residents approved. However, it wasn't without challenges. Two (of five) property managers reported that residents placed items out on the wrong day and the increase in items made it more challenging to monitor for illegal dumping.

According to the property managers, the vast majority of bulky waste that was set out came from residents (not business-generated), and they observed a little less than 50% of the items to have been in good condition.<sup>8</sup> Three of the five believed the quantity set out during the pilot was more than usual, and two found it to be about the same. Staff time spent managing bulky waste during the pilot was estimated, on average, to be 1.7 hours weekly, with less reported by property managers at test communities.

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<sup>6</sup> Complete pilot data can be found in [Appendix I](#).

<sup>7</sup> A control community did not submit a post-pilot survey, and is therefore not represented in the post-pilot data.

<sup>8</sup> This is higher than the 10% the collector estimated before the start of the pilot and may be higher than depicted in the photos taken at collection ([Appendix I](#)).

**Table 7: Staff Time Spent on Bulky Waste per Month (in hours) Based on Post-Pilot Surveys**

	Communities	Units	Minimum Staff Time	Average Staff Time
Test	4	482	4.33	6.50
Control	2	630	8.66	10.83
TOTAL	6	1,112	5.20	7.36

When asked specifically how the pilot added value to their communities, in addition to noting freed up staff time, 100% of respondents reported that it added convenience, and 80% (4 of 5) also noted the monetary benefit.

Since the pilot, 80% of property managers reported sharing information with residents about how they can properly dispose of bulky waste, including 60% who reported offering residents a way to dispose of bulky waste onsite (two test sites and one control community). For example, one test community now provides bulky waste collection the last Friday of the month, and residents are asked to place items in designated areas after 4pm the Thursday before.

When asked how they would like to implement/provide regularly-occurring bulky waste service at their communities, 80% reported wanting to encourage residents to donate, swap, or sell items to keep them out of the landfill, and three of those also stated they would like to coordinate with a local reuse organization for monthly collection of good condition items. Separately, two property managers stated they would like bulky items to be set out and picked up from a designated area(s) weekly, and another two stated monthly. The table below illustrates how the property managers might prefer the future service be paid.

**Table 8: How property managers might prefer to pay for regularly-occurring bulky waste in the future**  
(Based on post-pilot survey responses – respondents could mark more than one option)

	Responses	Percentage
Bulky waste collection included in the regular cost of garbage service.	2	40%
Resident to pay garbage company directly per pick-up/item(s).	2	40%
Management to pass the cost of pick-up/item(s) onto individual resident.	1	20%
Management covers the cost - pay per pick-up/item(s) on monthly garbage statement.	1	20%

Additionally, two property managers stated interest in SSW interviewing their residents about the pilot, but unfortunately, no resident surveys were conducted (see [Appendix K](#) for a proposed survey).

Perhaps the most telling information revealed from the post-pilot survey came in the space for property managers to provide any comments, questions, or requests. In free text, four of the five stated that they would like to see the program continue.

The survey and complete results can be found in [Appendix J](#).

#### Post-pilot collection data

As of the writing of this report, post-pilot bulky waste collection data and collector feedback has not been received.

## Key Findings

Overall, the pilot was well-received by participating property managers, as shared informally throughout the pilot and as documented in the post-pilot survey. In fact, four of five property managers shared independently that they would like to see the program continue. Other key takeaways from the pilot include:

- Property managers and/or their companies may not be aware their garbage and recycling company provides bulky waste service and should be contacted to provide the service as outlined in County Code.
- Mattresses were the most-commonly discarded item during the pilot.
- The cost of bulky waste service at the participating communities during the pilot was less than reported on the pre-pilot surveys.
- Staff time spent managing bulky waste decreased, on average, 3.5 hours per month during the pilot.
- All five respondents in the post-pilot survey reported added convenience and freed-up staff time as the ways the pilot added value to the community.
- Following the pilot, four of five property managers reported sharing information with residents about how to properly dispose of bulky waste.
- Four of five post-pilot survey respondents reported that since the pilot ended, they offer residents a way to dispose of bulky waste onsite (e.g. regular pick-up days, coordination with staff, etc.). In contrast, all responses on the pre-pilot survey stated, essentially, bulky waste was not to be left onsite.
- Despite our inability to include reuse/donation as a part of this pilot, the property managers involved reported interest in keeping usable items out of the landfill.

## Appendix A – ClackCo Multifamily Bulky Waste Pilot 2021 - Outline

The outline was shared with property managers during the recruitment process to outline the pilot goals and expectations.

See subsequent pages for the pilot outline.

## Multifamily Bulky Waste Pilot - 2021

Clackamas County Sustainability

**Goal:** Collaborate with B&B Leasing (OC Garbage & Gladstone Disposal) to gather data about bulky waste collection in order to inform future “regularly occurring bulky waste collection services, with particular emphasis on multifamily communities and lower-income households,” as stated in the RWP (Action 10.5). *Secondarily, the County would like to explore the possibilities of recovering items for reuse (documented in italics).*

### Objectives

- Collect pre- and post-data
- Identify solutions to bulky waste that can be recommended to PMs and/or incorporated after pilot (e.g. resident to call for pick-up and pre-pay; coordinate pick-up location – enclosure/parking space?; allow collector to pick up when seen; call when seen by other driver?)
- *Identify viable reuse solutions rather than immediate landfill of good-condition, usable items*

### Background:

- The County has always been interested in better understanding the bulky waste collection service at multifamily in order to explore options to ensure residents have access to the service.
- The regional [2017 Multifamily Recycling Report](#) identified bulky waste as an issue. While bulky waste was intentionally left out of the scope of this project, it repeatedly came up (e.g. waste characterization study, resident interviews, etc.). This led to Finding #4, which states, “Bulky waste is inadequately managed,” and was subsequently stated as an option to be considered in the development of the Regional Waste Plan.
- Action 10.5 in the [2030 Regional Waste Plan](#) calls for “regularly occurring bulky waste collection service, with particular emphasis on multifamily communities and lower-income households”
- [Metro’s proposed rule 5.15 – 2040 Multifamily Residential Service Standards](#) states, (4) “Ensure provision of regularly-occurring bulky waste collection service by July 1, 2025.”
- *Reuse*
  - *RWP Goal 8: Increase the reuse, repair and donation of materials and consumer products.*
  - *ORS 459.055(3) A commitment by Metro and other local governments in the region to reduce the volume of waste that would otherwise be disposed of in a landfill through techniques such as waste prevention, recycling, reuse, composting and energy recovery.*

### Stakeholders:

- Collector: B&B
- Clackamas County Sustainability & Solid Waste
- Multifamily Communities
  - Property managers/owners
  - Residents
- *Possible stakeholders:*
  - *Master Recyclers (to help notify residents)*
  - *ZipEco*
  - *Red, White, and Blue (or other local thrift store)*

**Proposed Multifamily Communities:** 7-10 communities; control (no resident engagement) and test sites (resident education/engagement)

(Detailed community information has been redacted.)

**Timeline:**

- 4 months (May 1 – Aug 31, 2021)

**Challenges:**

- Property manager/owner participation
- Space to place bulky items as to not hinder access to bins
- Resident education
  - Only set out on specific days/times
  - Where to place items
  - Donation options?
  - Regular reminders/promotion of pilot (door hangers?)
  - Transition from pilot (this project will end, how to manage regularly)
- Data collection/invoicing
  - Collector:
    - Collaborate with collector to create record keeping protocol: Itemize each collection from each site (item, location/enclosure, cost, etc.)
    - Collector experience with resident collection: quantity, frequency, items left in correct location (i.e. info that gives us an idea of transaction cost)
    - Invoice ClackCo for collection of items during pilot
  - ClackCo/PMs:
    - Pre-survey (current messaging to residents, how handle bulky, etc.)
    - Post-survey (did pilot add value, convenience, pros/cons, etc.)
- Other:

## Appendix B – Participant Multifamily Communities & Service Levels

To ensure the anonymity of participating multifamily communities, names and addresses have been removed. Each community is identified by a letter.

Community	Units	Low-Income	Pilot Group	Notes (pros/cons)
A	260	Yes	Test	<ul style="list-style-type: none"> <li>Positive relationship w/PM</li> <li>Possible space to place bulky items</li> </ul>
B	59	No	Test	<ul style="list-style-type: none"> <li>New PM</li> <li>History of bulky waste issues</li> <li>Possible space to place bulky items</li> </ul>
C	44	Yes	Test	<ul style="list-style-type: none"> <li>Positive relationship with PM</li> <li>Collaboration on previous event onsite</li> </ul>
D	119	No	Test	<ul style="list-style-type: none"> <li>Possible space in enclosure</li> <li>Recommended by B&amp;B</li> <li>Past interactions with PM</li> </ul>
E	296	No	Control	<ul style="list-style-type: none"> <li>History of resident complaints</li> <li>Bulky waste regularly seen onsite</li> </ul>
F	334	No	Control	<ul style="list-style-type: none"> <li>Positive relationship with PM</li> <li>Collaboration on previous events onsite</li> <li>Bulky waste regularly seen onsite</li> </ul>

The table below documents both the volume and frequency of service for each service stream (garbage, recycling, glass). Per-unit-per-week volumes permits comparison across communities.

	Community A	Community B	Community C	Community D	Community E	Community F	Min.
Garbage	20yd Compactor 1x/wk	6yd & 4yd 2x/wk	(3) 4yd 2x/wk	15yd Compactor 1.5x/mo	10yd & 15yd Compactors 1x/wk	(6) 4yd & (3) 2yd 3x/wk	
Per Unit/Week	46.6 gal	68.5 gal	110.2 gal	38.2 gal	51.18 gal	54.43 gal	20 gal
Recycling	(2) 4yd 2x/wk	4yd & (4) 65 gal 1x/wk	4yd & (4) 95 gal 1x/wk	(3) 4yd 1x/wk & 4yd 2x/wk	3yd & (2) 4yd 3x/wk	(2) 4yd & (20) 95 gal 1x/wk	
Per Unit/Week	12.4 gal	18.1 gal	27.0 gal	34.0 gal	22.52 gal	10.53 gal	20 gal
Glass	(2) 65 gal 1x/wk	(2) 65 gal 1x/wk	(3) 95 gal 1x/wk	(2) 95 gal 1x/wk	(6) 95 gal 1x/wk	(8) 95 gal 1x/wk	
Per Unit/Week	0.5 gal	2.2 gal	6.5 gal	1.6 gal	1.93 gal	2.28 gal	1 gal

*Those in red fall under the minimum per unit per week service levels.*

## Appendix C – Recruitment Emails (Samples)

Redacted email to test communities April 5, 2021; shared the outline from [Appendix A](#), as requested:

<PROPERTY MANAGER NAME>,

Greetings from Clackamas County Sustainability. I hope you are doing well. I'm reaching out today with a proposal for you. 😊

We are embarking on a pilot with <COLLECTOR'S NAME> from **May 1-Aug. 31**. Our goal is to gather data about multifamily bulky waste collection in order to inform future “regularly occurring bulky waste collection services, with particular emphasis on multifamily communities and lower-income households,” as stated in the [2030 Regional Waste Plan](#) (Action 10.5). More specifically, the [multifamily regional service standard](#) states, “Ensure provision of regularly-occurring bulky waste collection service by July 1, 2025.” Data gathered during the pilot will inform the design and implementation of an effective program.

### **We would like to invite you to participate in our pilot!**

What this would mean for you:

- Bulky waste would be collected from your community at least weekly between May 1 and Aug. 31, 2021.
- ClackCo Sustainability would cover the cost of any bulky waste collection from your community during the pilot.
- You would be asked to complete a pre- and post-pilot survey.
- We would work together to notify residents of the pilot (Master Recyclers could hang information on doors):
  - Specific dates of pilot
  - When to set out items
  - Where to set out items
  - How to properly dispose of bulky items when the pilot is over

I would be happy to answer any questions you might have (email, phone, Zoom, etc.). I'd be interested to hear about any challenges you would foresee, so I could attempt to remedy those ahead of time.

I thank you, in advance, for your consideration, and I look forward to hearing from you.

Thanks,

### **Tenille Beseda, Sustainability Analyst**

Pronouns: she/her/hers ([Why pronouns matter](#))

Clackamas County Sustainability & Solid Waste

150 Beaver Creek Road | Oregon City, OR 97045

o 503.742.4451 | c 971.804.5462

[clackamas.us/recycling](http://clackamas.us/recycling)



Redacted email to control communities April 5, 2021:

<PROPERTY MANAGER NAME>,

Greetings from Clackamas County Sustainability. I hope you are doing well. I'm reaching out today with a proposal for you. ☺

We are embarking on a pilot with <COLLECTOR'S NAME> from **May 1-Aug. 31**. Our goal is to gather data about multifamily bulky waste collection in order to inform future "regularly occurring bulky waste collection services, with particular emphasis on multifamily communities and lower-income households," as stated in the [2030 Regional Waste Plan](#) (Action 10.5). More specifically, the [multifamily regional service standard](#) states, "Ensure provision of regularly-occurring bulky waste collection service by July 1, 2025." Data gathered during the pilot will inform the design and implementation of an effective program.

**We would like to invite you to participate in our pilot!**

What this would mean for you:

- Any visible bulky waste would be collected from your community at least weekly between May 1 and Aug. 31, 2021.
- ClackCo Sustainability would cover the cost of any bulky waste collected from your community during the pilot.
- You would be asked to complete a pre- and post-pilot survey.

I would be happy to answer any questions you might have (email, phone, Zoom, etc.).

I thank you, in advance, for your consideration, and I look forward to hearing from you.

Thanks,

**Tenille Beseda, Sustainability Analyst**

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## Appendix D – Pre-Pilot Survey Emails, Questions, & Results

The below emails were sent to participating property managers on April 26, 2021. All pre-pilot surveys were completed by May 27, 2021.

Redacted email to test communities:

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability! We are just a week away from our bulky waste pilot, so I wanted to touch base about next steps.

**Starting next week, <COLLECTOR'S NAME> will be by once a week (Wed or Fri) to pick up bulky items left in the enclosures.** As previously noted, bulky items typically include mattresses, sofas, TVs, etc. Not included in this pilot are hazardous waste (e.g. paint), business generated waste (e.g. appliances), nor garbage overflow (e.g. loose or bagged trash on the ground). Those items will need to be handled per your normal procedures/processes.

### **NEXT STEPS:**

- I still have some logistics to work out with <COLLECTOR'S NAME> (we have a meeting tomorrow morning).
- I will visit your site this week to get photos of the agreed-upon location(s) where residents will be asked to place their bulky items (<PROPOSED LOCATION(S)>).
- I will create a draft flyer and share it with you to finalize.
- I will work with Master Recyclers to hang the flyer on residents' doors (unless you are able and prefer to share electronically) before the first collection day.

As a participant in our bulky waste pilot, we ask that you **complete our 19-question [pre-pilot survey](#)**.

- Please complete the survey **by end of day Friday, May 7**.
- Please let me know if you have any technical difficulties and/or questions.

Thank you again, and please let me know if you have any questions.

### **Tenille Beseda, Sustainability Analyst**

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Clackamas County Sustainability & Solid Waste

150 Beaver Creek Road | Oregon City, OR 97045

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[clackamas.us/recycling](http://clackamas.us/recycling)

Redacted email to control communities:

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability! We are just a week away from our bulky waste pilot, so I wanted to touch base about next steps.

**Starting next week, <COLLECTOR'S NAME> will be by once a week to pick up bulky items left in the enclosures.** I will let you know which day as soon as we have that confirmed.

- Bulky items typically include mattresses, sofas, TVs, etc.
- Not included in this pilot are hazardous waste (e.g. paint), business generated waste (e.g. appliances), nor garbage overflow (e.g. loose or bagged trash on the ground). Those items will need to be handled per your normal procedures/processes.
- We also ask that you continue to provide the same messaging to residents as usual around bulky waste. For instance, if you usually tell residents they cannot place items in the enclosures, please continue to do so. This will help us to gather accurate data about how much material is showing up under regular circumstances.
- <COLLECTOR'S NAME> will invoice ClackCo Sustainability for the bulky item pick-ups that occur during the pilot (May 1 – Aug. 31).

As a participant in our bulky waste pilot, we ask that you **complete our 19-question [pre-pilot survey](#)**.

- Please complete the survey **by end of day Friday, May 7**.
- Please let me know if you have any technical difficulties and/or questions.

Thank you again, and please let me know if you have any questions.

**Tenille Beseda, Sustainability Analyst**

Pronouns: she/her/hers ([Why pronouns matter](#))

Clackamas County Sustainability & Solid Waste

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See subsequent pages for pre-pilot survey questions and results.



Questions Responses 6

6 responses



Not accepting responses



Message for respondents

This form is no longer accepting responses

Summary

Question

Individual

Bulky Waste

1. What is your current messaging to residents about bulky waste disposal AT MOVE-IN?

6 responses

No bulky waste disposal.

All bulky items need to be disposed off property at resident's own expense

Their responsibility to dispose, if left out will be charged

They need to dispose of it themselves either by taking to the dump or hiring a company

Copy of brochure given to us.

That you will be charged for any and all bulky waste left at compactors in or the unit

## 2. What is your current messaging to residents about bulky waste disposal AT MOVE-OUT?

6 responses

No bulky waste disposal.

All personal/household items need to be removed during the move out process

Their responsibility, if left out will be charged

They need to dispose of it themselves either by taking to the dump or hiring a company

We haven't given information to move outs yet individually.

That you will be charged for any and all bulky waste left at compactors in or the unit

## 3. What is your current messaging to residents about bulky waste disposal WHEN RESIDENTS INQUIRE?

6 responses

No bulky waste disposal. If we know who disposes of bulky items we will charge them back.

All bulky items need to be disposed of off property at their own expense

That they may dispose by the dumpster and will be charged the cost for pick up

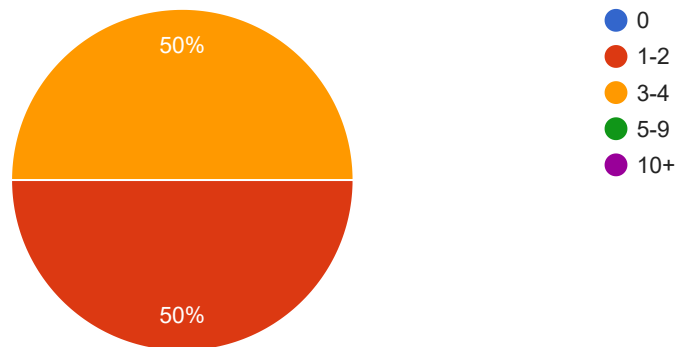
They need to dispose of it themselves either by taking to the dump or hiring a company

We give them the brochure and answer questions they have about the program.

That you will be charged for any and all bulky waste left at compactors

#### 4. Approximately how many questions do you receive a month from residents about bulky waste?

6 responses



#### 5. Do you consider bulky waste to be a problem in your community? Please explain.

6 responses

Very much so.

Yes, we have two different garbage services for apartments vs town homes so it can be confusing

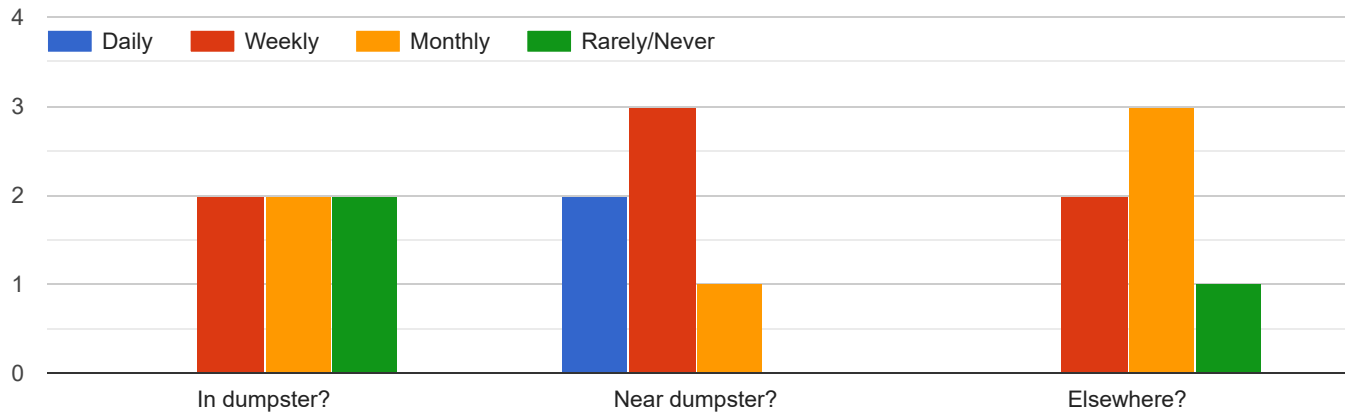
Yes, property doesn't have cameras and often times tenant's will leave out couches, electronics, etc that have to have a hauling company called.

Sometimes. Mattresses and dressers for the most part

Yes. We have many tenants put bulky waste in our dumpsters which isn't allowed so this solves that problem.

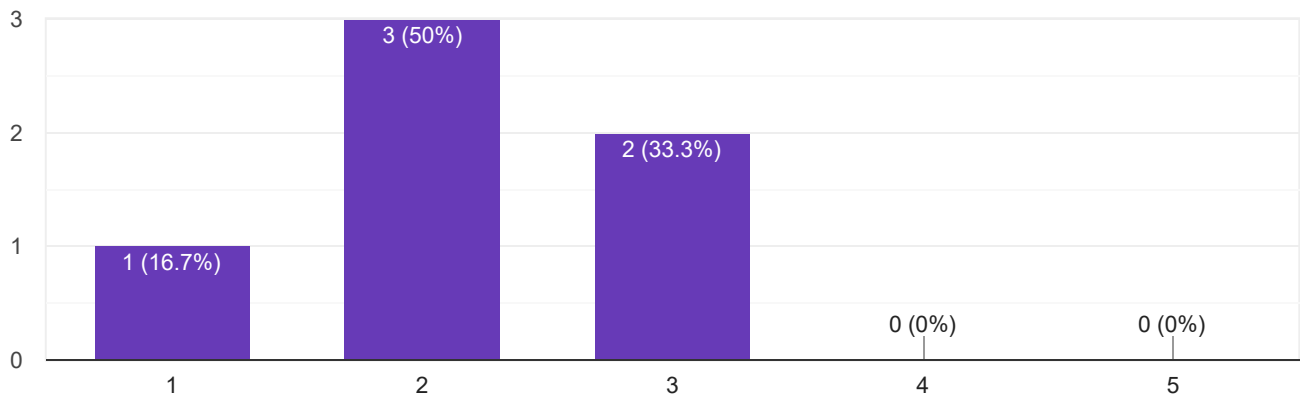
Its a small issue yes. Mostly it's not even our residents. People come through and dump waste who do not live here.

6. How often do you find bulky waste:



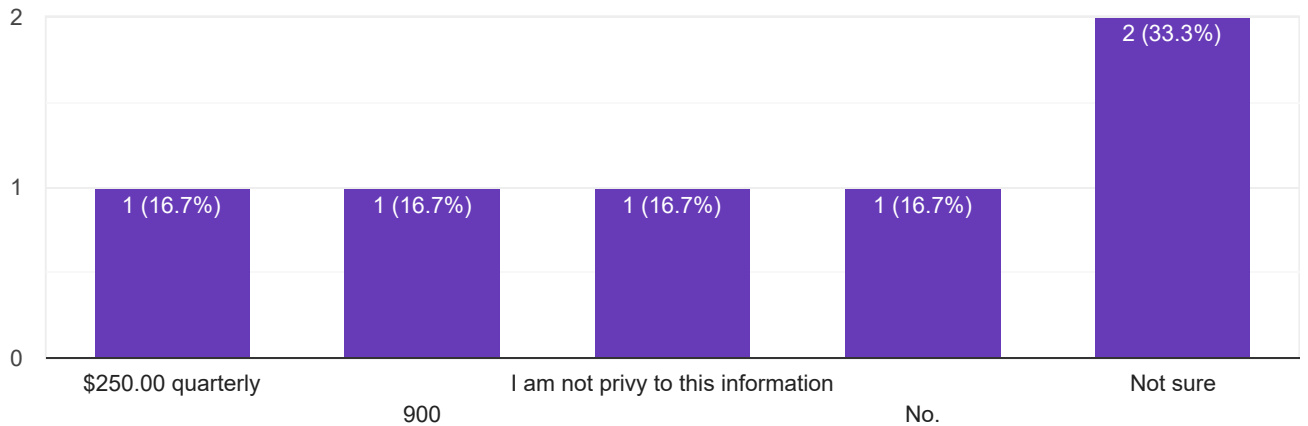
7. On a sliding scale with 1 being 100% residents and 5 being 100% non-residents (3 would be a 50/50 split), who do you think leaves the bulky waste?

6 responses



### 8. Is any money budgeted for bulky waste management? If so, approximately how much?

6 responses



### 9. What is your current process for dealing with bulky waste that shows up on-site?

6 responses

We have a company remove the bulky items

We store it until it is overflowing or unsightly enough to not be able to handle it and call OC Garage Company to clean up the area

Check to see if management can identify resident to charge, if not, contact hauling company.

to call a company to dispose of it

We collect it in a garage until we get a dump box.

Hire junk/garbage removal



10. Who (what company) do you call to pick up bulky waste?

6 responses

Waste Recove

OC Garbage Company

Callaway Hauling

mike & dads

Oregon City Garbage

Deco Prop

11. Why do you call this company (instead of another) to pick up bulky waste?

6 responses

Hard ti find anyone to pickup bulky items.

They already service our property and tend to be less expensive

Approved vendor

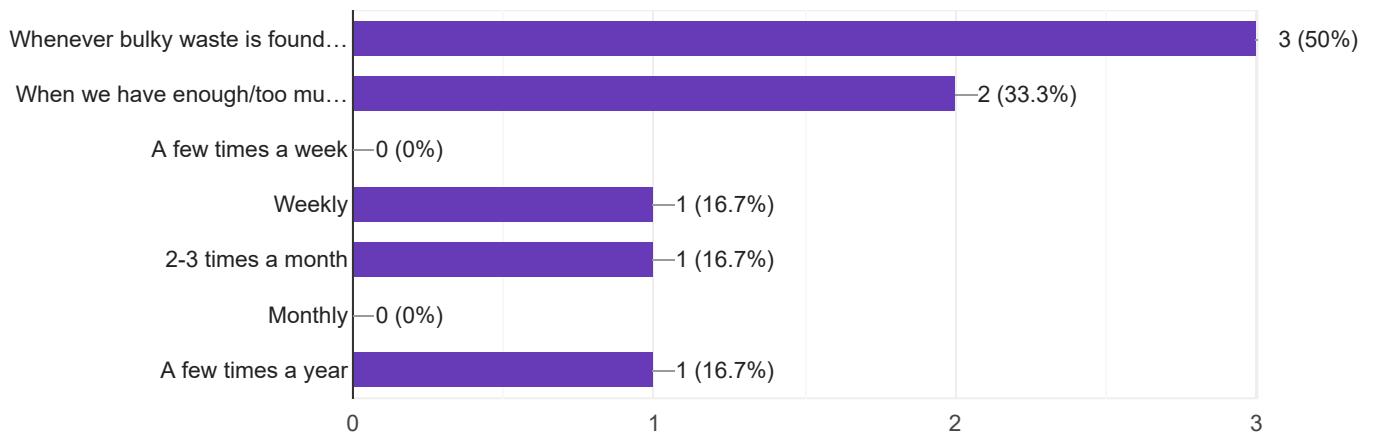
company policy

They bring the dump boxes

We have a good relationship with them. Quick and helpful service.

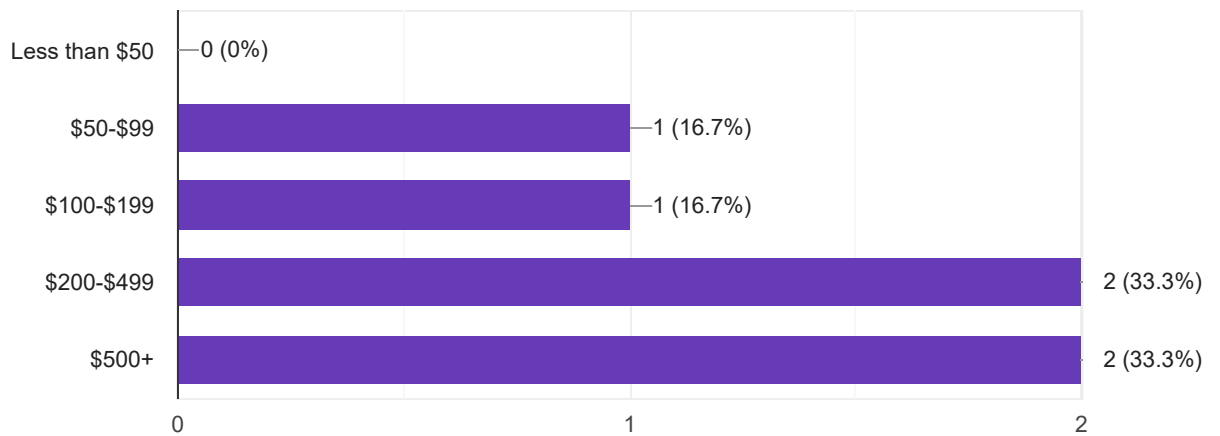
### 12. When/how often do you call to have bulky waste picked up? (Check all that apply)

6 responses



### 13. How much do you spend a month on bulky waste disposal (approximately)?

6 responses



14. Do you pass any of the cost of bulky waste disposal onto residents? If so, how? (e.g. at move-out, if residents unable to dispose of on own, shared garbage bill, etc.)

6 responses

Residents pay a flat fee for the number of residents in their apartment

For the apartments yes--shared. Town house would be charged individually

Yes. It would be on a move out statement, balance statements with hauling invoice attached.

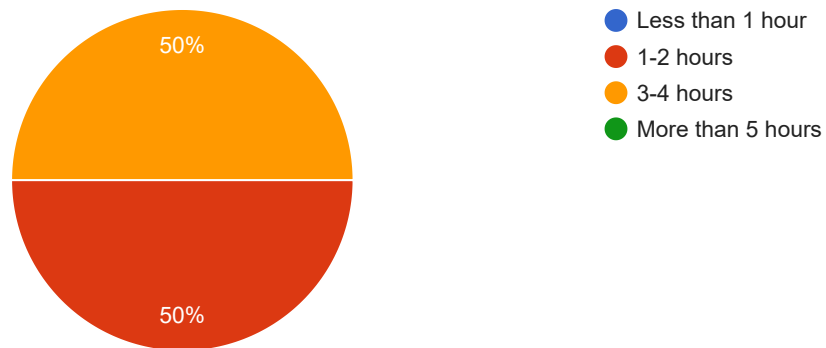
If we can charge back we will

If we catch who put bulky waste into the dumpsters we will charge them or they can come pick it back up and dispose of it themselves.

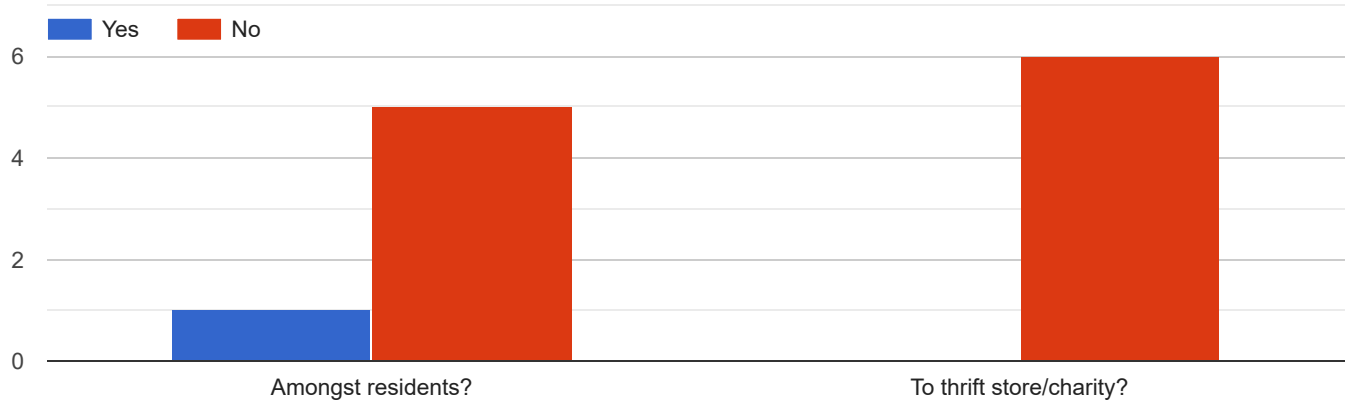
We can only pass the cost to them if it is left in the unit at move out, they inform us they are dumping, or we witness them dumping.

15. On average, how much staff time is spent on bulky waste WEEKLY? (e.g. ensuring garbage/recycling bins are accessible, coordinating pick-up, removing bulky waste, etc.)

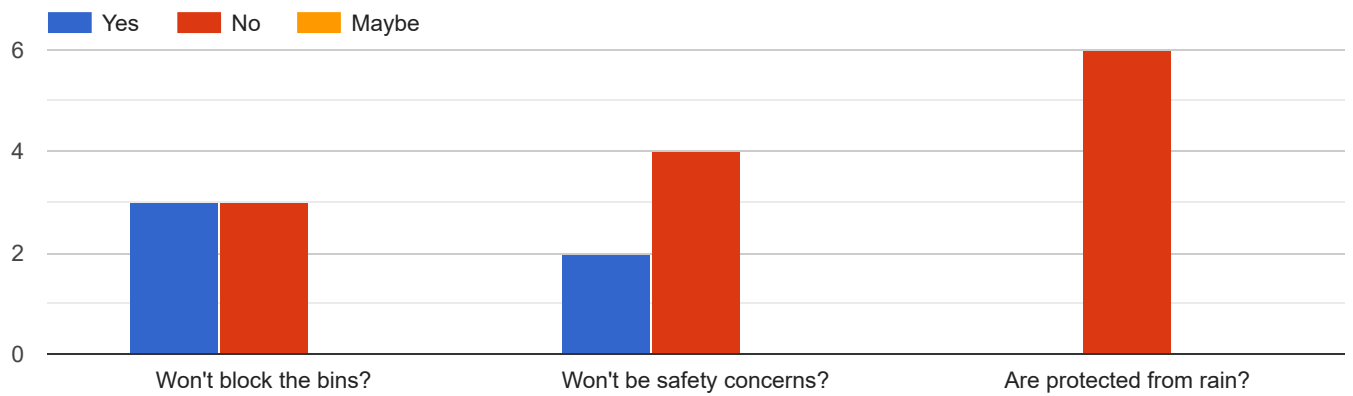
6 responses



16. Is there currently any option/effort to reuse or donate good-condition items:



17. Do you have space for residents to place bulky waste items where they:



18. Please share any additional comments you may have about bulky waste in your community.

6 responses

N/A

Residents complain about the mess in and around our dumpsters

We would like to stream line this more and have all residents be able to utilize a bulky item area without a cost going back to residents

I don't really want to encourage it but it will always happen so I'm looking forward to the pilot

We have only been doing this program for a month and it is working very well. We are very happy as it helps so much for the residents and staff.

19. Please provide the name of your community.

6 responses

**Thank you!**

## Appendix E – Sample Promotional Flyers

All flyers were created with input from, and support of, the property manager at each community. Flyers were shared with residents approximately one week before the pilot commenced. Of the four test communities, three<sup>9</sup> shared the flyer electronically, and one had a master recycler hang flyers on clips by each door.

See subsequent pages.

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<sup>9</sup> Due to the change in management at Community B, it is unclear if electronic flyers were received by any/all residents.

# WE'RE PILOTING A NEW SERVICE AT <COMMUNITY NAME>!

Do you have large, bulky items that you no longer want and are unable to donate (e.g. an old sofa)?



From **MAY to AUGUST**, leave large, unwanted items  
in the parking spaces near the recycling area



 **Accepted Items**  
Furniture  
Mattresses  
TVs/Electronics

 **Items NOT Accepted**  
Hazardous waste (oil, batteries, etc.)  
Garbage that fits in the garbage bins

Questions? Please contact the office at <555-555-5555>.



## ¡VAMOS A PONER A PRUEBA UN NUEVO SERVICIO EN <COMMUNITY NAME>!

¿Tiene artículos grandes y voluminosos que ya no quiere y no se puede donar (p.ej. un sofá viejo)?



De **MAYO a AGOSTO**, deje los artículos grandes que ya no desea en los espacios de estacionamiento al lado del área de reciclaje



**✓ Artículos aceptados**  
Muebles  
Colchones  
Televisores/electrónicos

**✗ Artículos NO aceptados**  
Residuos peligrosos (aceite, baterías, etc.)  
Basura que cabe en contenedores de basura

¿Preguntas? Comuníquese con la oficina a <555-555-5555>.





# WE'RE PILOTING A NEW SERVICE AT <COMMUNITY NAME>!

Do you have large, bulky items that you no longer want and are unable to donate (e.g. an old sofa)?



From **MAY to AUGUST**, place large, unwanted items **near the garbage areas ON THURSDAYS AFTER 4 PM** (without blocking the bins) for Friday pick-up.



**IMPORTANT:** Only leave items out on **THURSDAYS AFTER 4 PM**. Items left out other days/times may result in the pilot ending early.

 **Accepted Items**  
Furniture  
Mattresses  
TVs/Electronics

 **Items NOT Accepted**  
Hazardous waste (oil, batteries, etc.)  
Garbage that fits in the garbage bins

Questions? Please contact the office at <555-555-5555>.



# ¡VAMOS A PONER A PRUEBA UN NUEVO SERVICIO EN <COMMUNITY NAME>!

¿Tiene artículos grandes y voluminosos que ya no quiere y no se puede donar (p.ej. un sofá viejo)?



De **MAYO a AGOSTO**, deje los artículos grandes que ya no desea **al lado de áreas de basura LOS JUEVES DESPUÉS DE LAS 4 PM** (sin bloquear los botes) para la recolección del viernes.



**OJO:** Por favor solo deje los artículos **LOS JUEVES DESPUÉS** de las 4 PM. Los artículos que se dejen a otros tiempos puede causar que el programa termine temprano.

**✓ Artículos aceptados**  
Muebles  
Colchones  
Televisores/electrónicos

**✗ Artículos NO aceptados**  
Residuos peligrosos (aceite, baterías, etc.)  
Basura que cabe en contenedores de basura

¿Preguntas? Comuníquese con la oficina a <555-555-5555>.



## Appendix F – Mid-Pilot Emails

On July 1, property managers at all participating communities (test and control) received an email from ClackCo staff to check-in at the midway point in the pilot. It was during this process that it was realized that Community B had a complete change in management company, and the new property manager was unaware of the pilot in progress.

Redacted email to test communities (included a PDF attachment of their promo flyer):

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability. I hope you're doing well, and I hope the recent extreme heat didn't cause excessive issues for you/your residents. I also apologize for emailing you during rent time. I just wanted to check in on the bulky waste pilot. If you have any comments, please feel free to share. Also, I've attached the original flyer if you'd like to resend to residents electronically, as a reminder that they can still place large items in the designated area until the end of next month.

Between now and the end of the pilot, I will be in touch with you to discuss how you'd like to transition out of the pilot. I will create flyers to help educate residents about that plan. I mention this now, only for you to start thinking about it.

Again, thanks for your collaboration on this pilot, and again, I apologize for bothering you during rent week (I will be on vacation next week).

Thanks Again,

**Tenille Beseda, Sustainability Analyst**

<email signature>

Redacted email to control communities:

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability. I hope you're doing well, and I hope the recent extreme heat didn't cause excessive issues for you/your residents. I also apologize for emailing you during rent time. We are midway through the bulky waste pilot (May-August), and I just wanted to check in on the bulky waste pilot. If you have any comments, please feel free to share.

Thanks again for your collaboration on this pilot! Again, I apologize for bothering you during rent week (I will be on vacation next week).

Thanks Again,

**Tenille Beseda, Sustainability Analyst**

<email signature>

## Appendix G – Pilot Coming To An End Emails

On August 12, property managers at all participating communities (test and control) received an email from ClackCo staff to check-in as the end of the pilot neared. As noted below, emails started a plan for informing residents at test communities about the end of pilot and posed the idea to all participant communities to continue the program at their own expense. Emails included a draft flyer for consideration by the property managers at control sites and two flyer options at test communities..

Redacted email to test communities (included a PDF attachment of their promo flyer):

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability! I'm not sure how it's August already, but it is. Which means the bulky waste pilot will be coming to an end at the end of the month. I realize you are probably busy, given the heat this week, but I wanted to get you some **draft flyers** (final version will be English/Spanish) ASAP to give you time to review and choose which you think will work best for your community. **I'm happy to make any edits you'd like – content-wise or format. The hope is to get a flyer out to residents next week to remind them to get any materials out by the <date before final pickup>, and then let them know what to do after that.** The draft flyer lays out three options:

1. donate
2. self-haul
3. work with mgmt. to have <COLLECTOR'S NAME> pick up

I'm happy to work with you on the last option to identify how best to facilitate that (e.g. having them pay <COLLECTOR'S NAME> directly or adding it to your monthly bill and you passing the cost on, etc.).

Also, there may be other options. For example, perhaps you'd like to continue to designate <those/that location(s)> a bulky waste collection site, and you could have <COLLECTOR'S NAME> continue to pick items up weekly; however, that would be at the expense of the community. If you're interested, I can calculate how much that has been for the first three months of the pilot. Or perhaps you allow residents to place items there the last Thursday of the month to be picked up the last Friday. I'm happy to brainstorm additional options.

I realize this was a lot of info. Let me know what you're thinking (even if it's just "I'm overwhelmed"), and we'll figure something out. If you'd like to set some time aside to discuss over the phone or via Zoom, I'm happy to set that up. Or just let me know which flyer you prefer and/or any edits you'd like. I can also modify the flyer post-pilot so you have a standard flyer to provide residents at move-in or move-out specifically about large, unwanted items.

I want to thank you again for participating in this pilot, and I look forward to helping create a long-term plan that works for you and your residents. And just a reminder, post-pilot there will be a post-pilot survey to be completed (Sept/Oct).

Thanks again, and I look forward to hearing from you.

**Tenille Beseda, Sustainability Analyst**

Redacted email to control communities:

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability! I'm not sure how it's August already, but it is. Which means the bulky waste pilot will be coming to an end at the end of the month. I realize you are probably busy, given the heat this week, but I wanted to touch base with you before the end of the month.

**The last bulky item pickup day at <COMMUNITY NAME> will be <DAY, DATE>.** After that time, I will process the data collected during the pilot and let you know how much was collected from your community over the four-month period. I will also be sending out a post-pilot survey for you to complete (probably September).

As I will be offering other participating communities, I'd be happy to create a flyer for you to share with residents at move-in and/or move-out instructing them how to handle large, bulky items they no longer want. I've attached a draft flyer to give you an idea. This one lays out three options:

1. donate
2. self-haul
3. work with mgmt. to have garbage company pick up

I'm happy to work with you on the last option to identify how best to facilitate that (e.g. having them pay <COLLECTOR'S NAME> directly or adding it to your monthly bill and you passing the cost on, etc.) or other options. For example, designating a location(s) where residents could place large, bulky items on set days, and <COLLECTOR'S NAME> could pick them up weekly, monthly, etc. Such options would be at the expense of the community (or residents). If you're interested, I can calculate how much has been picked up/spent the first three months of the pilot, and I'd be happy to brainstorm additional options.

I realize this was a lot of info. There is nothing for you to do now, but if you are interested in a flyer (now or later), I'm happy to create something that meets your needs and/or help create a long-term plan to manage bulky waste that works for you and your residents.

Thanks Again,

**Tenille Beseda, Sustainability Analyst**

Pronouns: she/her/hers ([Why pronouns matter](#))

Clackamas County Sustainability & Solid Waste

150 Beaver Creek Road | Oregon City, OR 97045

o 503.742.4451 | c 971.804.5462

[clackamas.us/recycling](http://clackamas.us/recycling)

## Appendix H – Sample Pilot Exit Flyers

All flyers were created with input from and support of the property manager at each community. Flyers were shared with residents approximately one week before the end of the pilot. Of the four test communities, two shared the flyer electronically, one had staff hang flyers on clips by each door, and Community B did not communicate the end of the pilot, because the new property managers wasn't convinced residents were ever made aware of the pilot.

See subsequent pages.



# AUGUST 24<sup>TH</sup>

IS THE LAST DAY TO LEAVE LARGE, UNWANTED ITEMS NEAR THE RECYCLING AREA



✓ **Accepted Items**  
Furniture  
Mattresses  
TVs/Electronics

✗ **Items NOT Accepted**  
Hazardous waste (oil, batteries, etc.)  
Garbage that fits in the garbage bins

## Options after August 24:



### 1 Donate

For usable items in good condition, call 503.234.3000 or visit [www.oregonmetro.gov/findarecycler](http://www.oregonmetro.gov/findarecycler) to find local donation options; sell or give away online (e.g. Facebook Marketplace, Craigslist, etc.).

### 2 Take to the dump

Haul your unwanted items to Metro South Transfer Station - 2001 Washington St. in Oregon City across from Home Depot. (\$39 for up to 360 lbs.)

### 3 Contact the office

Call us at 503.656.5258 and we can help you coordinate disposal with Oregon City Garbage. (Fees vary by item.)

# LAST THURSDAY OF THE MONTH

Starting in September, place large, unwanted items  
near the garbage areas  
ON THE LAST THURSDAY OF THE MONTH AFTER 4 PM



(Do not block the bins)

**IMPORTANT:** Only leave items out on the **LAST THURSDAY AFTER 4 PM.**  
Items left out other days/times may result in this service ending.

 **Accepted Items**

Furniture  
Mattresses  
TVs/Electronics

 **Items NOT Accepted**

Hazardous waste (oil, batteries, etc.)  
Garbage that fits in the garbage bins

Questions? Please contact the office at <555-555-5555>.



# ÚLTIMO JUEVES DEL MES

A partir de septiembre, deje los artículos grandes que ya no desea  
**cerca de áreas de basura**

**EL ÚLTIMO JUEVES DEL MES DESPUÉS DE LAS 4 PM**



(No bloquee los contenedores)

**OJO: Por favor solo deje los artículos EL ÚLTIMO JUEVES DESPUÉS DE LAS 4 PM.**  
Los artículos que se dejen a otros tiempos puede causar que este servicio termine.

**✓ Artículos aceptados**  
Muebles  
Colchones  
Televisores/electrónicos

**✗ Artículos NO aceptados**  
Residuos peligrosos (aceite, baterías, etc.)  
Basura que cabe en contenedores de basura

**¿Preguntas?** Comuníquese con la oficina a <555-555-5555>.

## Appendix I – Pilot Data

Data was compiled throughout the course of the pilot. Control and test data, along with community-specific data, was shared with each property manager of the participant communities in a similar format to the cumulative data found here (summary information, specific items, and photos).

See subsequent pages for pilot data, including photos.

## Multifamily Bulky Waste Pilot 2021

May-August

	Test	Control	Total
May	\$ 500.00	\$ 50.00	\$ 550.00
June	\$ 1,180.00	\$ 110.00	\$ 1,290.00
July	\$ 737.00	\$ 705.00	\$ 1,442.00
August	\$ 1,365.00	\$ 475.00	\$ 1,840.00
<b>TOTAL</b>	<b>\$ 3,782.00</b>	<b>\$ 1,340.00</b>	<b>\$ 5,122.00</b>
	<i>\$ 330.00</i>	<i>\$ 60.00</i>	<i>\$ 390.00</i>
<b>Ave/Mo</b>	<b>\$ 945.50</b>	<b>\$ 335.00</b>	<b>\$ 1,280.50</b>
	<i>\$ (82.50)</i>	<i>\$ (15.00)</i>	<i>\$ (97.50)</i>
<b>Units</b>	482	630	<b>1,112</b>
<b>Communities</b>	4	2	6
<b>Cost/unit</b>	\$ 7.85	\$ 2.13	\$ 4.61
<b>\$/unit/mo</b>	\$ 1.96	\$ 0.53	\$ 1.15
	<i>\$ (0.80)</i>	<i>\$ (0.04)</i>	<i>\$ (0.09)</i>

	MF	Units	Cost	\$/unit	\$/unit/mo
Test	4	482	\$ 3,782	\$ 7.85	\$ 1.96
Control	2	630	\$ 1,340	\$ 2.13	\$ 0.53
<b>TOTAL</b>	<b>6</b>	<b>1,112</b>	<b>\$ 5,122</b>	<b>\$ 4.61</b>	<b>\$ 1.15</b>
			<i>\$ (390)</i>	<i>\$ (0.35)</i>	<i>\$ (0.09)</i>

**Control:** No outreach to residents. Items picked up weekly that were left at enclosures.  
**Test:** Outreach to residents to place items in designated areas for weekly collection.

*Quantities in red denote the impact from removing Week 1 from the data.*

## Multifamily Bulky Waste Pilot 2021

May-August

Items	Test Group				Total	All Pilot TOTAL
	May	June	July	August		
A/C Unit	0	0	1	0	1	2
BBQ	0	4	0	1	5	5
Bed	1	0	3	0	4	5
Bed Frame	3	7	8	5	23	30
Box Springs	6	1	0	3	10	10
Buckets (5gal)	0	40	0	0	40	40
Car Part/Storage Box	1	0	0	1	2	2
Chair	9	14	5	22	50	69
Couch	3	19	17	6	45	68
Desk	0	2	4	2	8	18
Dishwasher	0	0	0	2	2	2
Door	0	2	2	0	4	4
Dresser	4	2	4	6	16	22
Headboard	1	0	0	0	1	3
Fax Machine	0	0	0	0	0	0
Mattress	8	24	7	14	53	95
Microwave	4	5	0	3	12	13
Misc. Furniture	1	1	1	7	10	23
Misc. Household Item	0	11	7	13	31	37
Misc. Metal	0	1	1	1	3	5
Miscellaneous	1	10	11	11	33	42
Printer	2	1	0	0	3	3
Recliner	1	1	0	3	5	6
Refrigerator	1	1	0	2	4	4
Rug/Carpet	1	1	1	30	33	33
Shelving	3	3	1	0	7	7
Sink	0	2	0	0	2	2
Slide	1	0	0	0	1	1
Stove	0	0	0	1	1	1
Table	1	6	1	3	11	13
Tires	4	13	11	8	36	37
Toaster Oven	0	0	0	0	0	0
TV	2	2	5	0	9	11
TV Stand	1	1	0	0	2	3
Vacuum	3	3	0	0	6	6
Washer/Dryer	0	0	1	1	2	3
Windows	0	2	0	0	2	3
Price	\$ 500.00	\$ 1,180.00	\$ 737.00	\$ 1,365.00	\$ 3,782.00	\$ 5,122.00
<b>Total items</b>					477	628
price/item					\$ 7.93	\$ 8.16

## Multifamily Bulky Waste Pilot 2021

May-August

Items	Control Group					Total	All Pilot TOTAL
	May	June	July	August	Total		
A/C Unit	0	0	1	0	1	2	
BBQ	0	0	0	0	0	5	
Bed	0	0	1	0	1	5	
Bed Frame	1	0	6	0	7	30	
Box Springs	0	0	0	0	0	10	
Buckets (5gal)	0	0	0	0	0	40	
Car Part/Storage Box	0	0	0	0	0	2	
Chair	2	0	5	12	19	69	
Couch	0	2	14	7	23	68	
Desk	0	2	8	0	10	18	
Dishwasher	0	0	0	0	0	2	
Door	0	0	0	0	0	4	
Dresser	0	1	3	2	6	22	
Headboard	1	0	0	1	2	3	
Fax Machine	0	0	0	0	0	0	
Mattress	0	3	24	15	42	95	
Microwave	0	0	1	0	1	13	
Misc. Furniture	0	0	11	2	13	23	
Misc. Household Item	0	2	0	4	6	37	
Misc. Metal	1	0	1	0	2	5	
Miscellaneous	3	2	2	2	9	42	
Printer	0	0	0	0	0	3	
Recliner	0	0	0	1	1	6	
Refrigerator	0	0	0	0	0	4	
Rug/Carpet	0	0	0	0	0	33	
Shelving	0	0	0	0	0	7	
Sink	0	0	0	0	0	2	
Slide	0	0	0	0	0	1	
Stove	0	0	0	0	0	1	
Table	0	0	1	1	2	13	
Tires	0	0	0	1	1	37	
Toaster Oven	0	0	0	0	0	0	
TV	1	0	1	0	2	11	
TV Stand	0	0	1	0	1	3	
Vacuum	0	0	0	0	0	6	
Washer/Dryer	0	0	0	1	1	3	
Windows	0	0	1	0	1	3	
Price	\$ 50.00	\$ 110.00	\$ 705.00	\$ 475.00	\$ 1,340.00	\$ 5,122.00	
<b>Total items</b>					151	628	
price/item					\$ 8.87	\$ 8.16	

## Multifamily Bulky Waste Pilot 2021

May-August

Month	P/U Date	Type	Item(s)	Price
May	5/12/2021	Test	3 Couches, Bed Frame, Chair, Table, Dresser, 2 Printers, Mattress	\$ 70.00
May	5/19/2021	Test	Nothing Out	\$ -
May	5/26/2021	Test	4 Box Springs, 1 Recliner, Misc Shelving	\$ 40.00
May	5/12/2021	Test	Nothing Out	\$ -
May	5/19/2021	Test	Nothing Out	\$ -
May	5/26/2021	Test	Nothing Out	\$ -
May	5/12/2021	Test	Pickup Cover - Microwave - TV - Dresser - TV Stand - Chair	\$ 50.00
May	5/19/2021	Test	Fridge - Microwaves - Chairs - Vacuum - Mattresses - Tires - Misc Mattres Setts, Carpet, Chairs, Toys. Misc Furniture, Shelving, Dressers,	\$ 125.00
May	5/26/2021	Test	Vaccums, Tires	\$ 100.00
May	5/12/2021	Control	Nothing Out	\$ -
May	5/19/2021	Control	TV	\$20
May	5/26/2021	Control	Nothing Out	\$ -
May	5/14/2021	Test	Slide - Headboard - Bedframe - 3 chairs - Twin Mattress	\$ 30.00
May	5/21/2021	Test	TV - Dressers - Bed - Bed Frame	\$ 60.00
May	5/28/2021	Test	Mattresses - Shelving	\$ 25.00
May	5/14/2021	Control	3 large boxes - Metal Shelving Unit - 2 chairs	\$ 15.00
May	5/21/2021	Control	Nothing Out	\$ -
May	5/28/2021	Control	Bed Frame - Headboard	\$ 15.00
June	6/2/2021	Test	1 King Mattress - 3 Twin Mattresses - 4 couches - 2 Desks - Christmas Tree - Lamp - TV Stand - 2 Bed Frames	\$ 220.00
June	6/9/2021	Test	3 Couches - BBQ - 4 Microwaves - Shelves - Printer - Chairs - 2 Mattresses	\$ 125.00
June	6/16/2021	Test	3 Mattresses - Bed Frame - 7 Tires - 3 Tables - Windows - Vaccum - Grill	\$ 135.00
June	6/23/2021	Test	2 Mattresses - 5 Couches - TV - Tables - Bed Frame - Pallet	\$ 150.00
June	6/30/2021	Test	Dresser - Bed Frame - Mattress	\$ 30.00
June	6/2/2021	Test	Nothing Out	\$ -
June	6/9/2021	Test	Nothing Out	\$ -
June	6/16/2021	Test	Nothing Out	\$ -
June	6/23/2021	Test	Rug	\$ 10.00
June	6/30/2021	Test	Fridge - BBQ - 2 Sinks - 2 Doors - Misc Wood	\$ 50.00
June	6/2/2021	Test	4 Mattresses - 2 Shelves - Night Stand - Cat litter - Vacuum - Misc	\$ 80.00
June	6/9/2021	Test	4 Mattresses - 2 Chairs - Bed Frame - Boxes - Microwave - Pool	\$ 60.00
June	6/16/2021	Test	Mattresses Wood Luggage Couch	\$ 40.00
June	6/23/2021	Test	4 Couches - 2 End Tables - Recliner - Wood - Artificial Tree - Dresser Metal Hood - Table - 40 5Gal Buckets - Mattress - Box Spring - Vacuum - 6	\$ 100.00
June	6/30/2021	Test	Tires - Night Stand - Baby Seat - Chair	\$ 75.00
June	6/2/2021	Control	Nothing Out	\$ -
June	6/9/2021	Control	Drawers - Hose - Baby Crib - Play Pen - Pool	\$ 40.00
June	6/16/2021	Control	Nothing Out	\$ -
June	6/23/2021	Control	Nothing Out	\$ -
June	6/30/2021	Control	Nothing Out	\$ -
June	6/4/2021	Test	4 Chairs - Fan - Mattress - Bed Frame	\$ 45.00
June	6/11/2021	Test	Chairs - Fans - TV	\$ 30.00
June	6/18/2021	Test	Nothing Out	\$ -
June	6/25/2021	Test	3 Chairs - 2 Couches	\$ 30.00

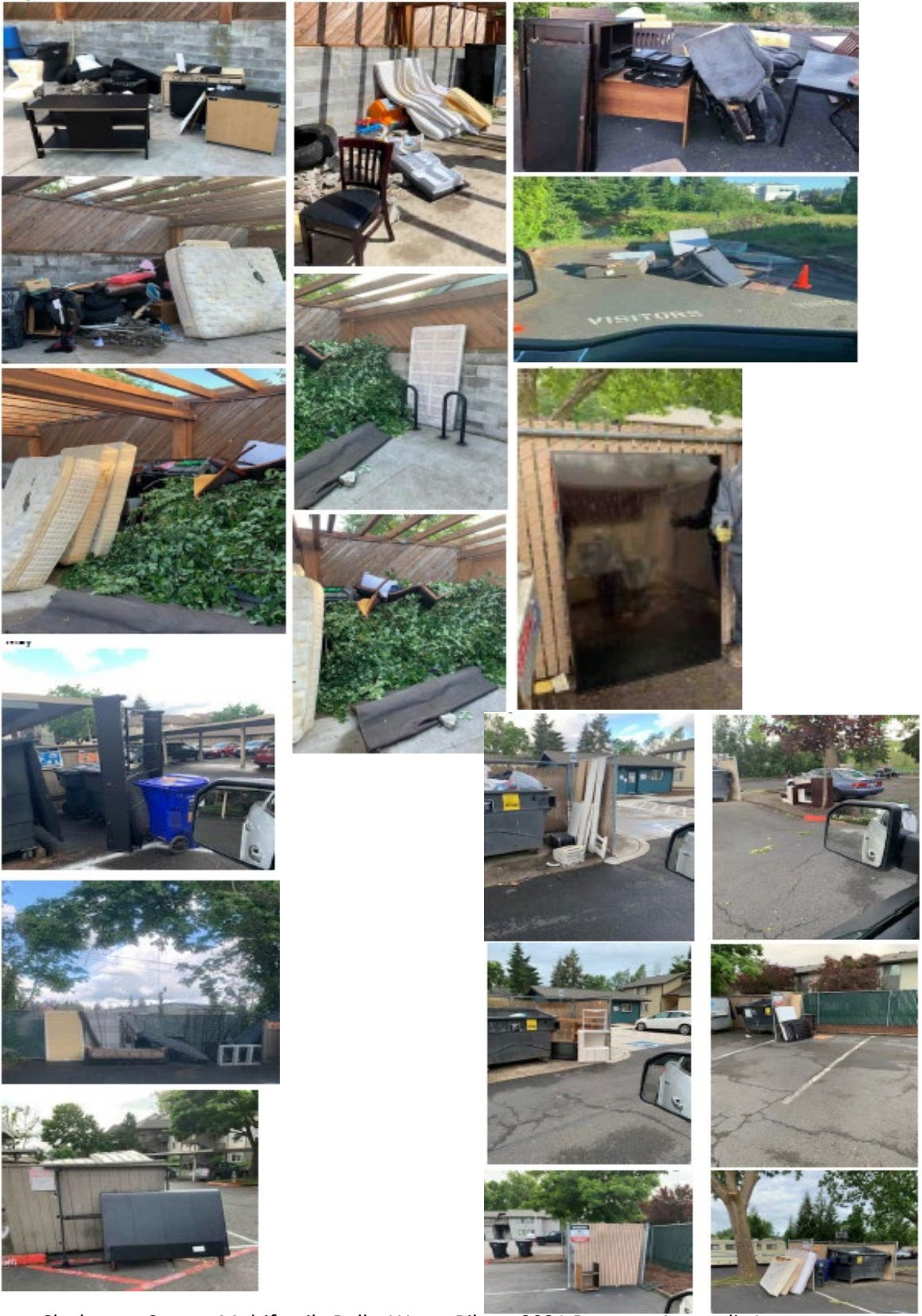
June	6/4/2021	Control	3 Mattresses - Couch	\$	40.00
June	6/11/2021	Control	Couch - Desks	\$	30.00
June	6/18/2021	Control	Nothing Out	\$	-
June	6/25/2021	Control	Nothing Out	\$	-
July	7/7/2021	Test	Bunk Bed - Bed Frame - Table - Love Seat - Wood - Fireplace - 2 dressers - Couch - Chairs - Carpet - Desk - Wood Bed Frame	\$	120.00
July	7/14/2021	Test	4 Couches - Truck Canopy - Bed Frame	\$	100.00
July	7/21/2021	Test	Bed Frame - 5 Couches - Mattress - Desk	\$	60.00
July	7/28/2021	Test	Bed - 2 TVs - Wood - Monitor	\$	40.00
July	7/7/2021	Test	Couch	\$	12.00
July	7/14/2021	Test	Nothing Out	\$	-
July	7/21/2021	Test	1 Door - Chair - Pillows	\$	10.00
July	7/28/2021	Test	Nothing Out	\$	-
July	7/7/2021	Test	Christmas Tree - Shelving - Trash Can	\$	25.00
July	7/14/2021	Test	Dryer - Wood - Bedframe	\$	40.00
July	7/21/2021	Test	5 Mattresses - 2 Desks - 2 Bedframes - Door - Suitcase	\$	75.00
July	7/28/2021	Test	Couch - Bed - Chairs - Wood - Futon - Misc	\$	75.00
July	7/7/2021	Control	Dresser/Vanity - 3 Mattresses - 2 Couches - Cart - 3 Chairs - 3 Bed Frames - 2 Cribs - 2 Night Stands	\$	80.00
July	7/14/2021	Control	Nothing Out	\$	-
July	7/21/2021	Control	Desk - Bedframe - TV - Microwave - End Table - Glass Window	\$	40.00
July	7/28/2021	Control	3 Couches - Wood - Bedframe - Dresser - TV Stand - Metal Bedframe	\$	100.00
July	7/2/2021	Test	Bed Frame - Sewing Machine - AC Unit - 2 Couches - Dresser - Wood Pieces	\$	60.00
July	7/9/2021	Test	Nothing Out	\$	-
July	7/16/2021	Test	Dresser - TV	\$	10.00
July	7/23/2021	Test	Couch - Mattress - 7 Tires/Rims - Bags	\$	55.00
July	7/28/2021	Test	Couch - 4 Tires/Rims - Boxes - Bags	\$	40.00
July	7/30/2021	Test	Bike - TV - Chair	\$	15.00
July	7/2/2021	Control	7 Mattresses/BoxSprings - AC Unit - Dresser - 2 Night Stands - 2 Couches - Bed Frame - Cabinet - Heavy Wood	\$	150.00
July	7/9/2021	Control	5 Mattresses - 4 Desks - Wooden Headboard	\$	80.00
July	7/16/2021	Control	Nothing Out	\$	-
July	7/23/2021	Control	Couch - Bed - 2 Metal Chairs - Metal Table - Futon	\$	75.00
July	7/30/2021	Control	9 Mattresses - Bed Frames - 3 Desks - 6 Couches	\$	180.00
August	8/4/2021	Test	2 Couches - Fridge - Tire - Dresser - Palett - Recliner - 4 Mattress/Boxsprings	\$	100.00
August	8/11/2021	Test	1 Table - 2 Tires - 2 Dressers - 4 Chairs	\$	75.00
August	8/18/2021	Test	2 Mattresses - BBQ - 3 Cabinets - 4 Wheels/Tires - 2 Chairs - Couch - Misc	\$	100.00
August	8/25/2021	Test	7 Mattresses - 4 Bed Frames - Fridge - Microwave - 2 Couches - Lots of Misc wood ect.	\$	350.00
August	8/4/2021	Test	6 Metal Chairs - Toy Car	\$	30.00
August	8/11/2021	Test	Stove - Dishwasher - Box Spring	\$	30.00
August	8/18/2021	Test	Nothing Out	\$	-
August	8/25/2021	Test	Nothing Out	\$	-
August	8/4/2021	Test	30 rolls of carpet - Chairs - Tire - Tables - Misc	\$	100.00
August	8/11/2021	Test	3 Dressers - 2 Desks - 2 Microwaves - 10 Bags of Clothes - 2 Chairs	\$	150.00
August	8/18/2021	Test	Lumber - Washer - Dishwasher - Car Fender - 2 Chairs - Bike - Misc	\$	200.00
August	8/25/2021	Test	Couch - Chair - Wood - 2 Stools - Paint Buckets - Misc Trash	\$	125.00
August	8/4/2021	Control	Chair	\$	10.00

August	8/11/2021	Control	Nothing Out	\$	-
August	8/18/2021	Control	Table - Tire	\$	20.00
August	8/25/2021	Control	2 Chairs - Coolers - Washer - Wall Art/Pictures - Misc Furniture	\$	100.00
August	8/6/2021	Test	Nothing Out	\$	-
August	8/13/2021	Test	Child Seat - Wood Box - Rack - Heater	\$	40.00
August	8/20/2021	Test	2 Reliners - Box - 3 Wood Chairs - Mattress	\$	45.00
August	8/27/2021	Test	2 Mattresses - Bed Frame	\$	20.00
August	8/6/2021	Control	4 Chairs - 5 Mattresses - 5 Sofas - 2 Dressers	\$	125.00
August	8/13/2021	Control	2 Mattresses - Headboard - Chair - Couch	\$	40.00
August	8/20/2021	Control	Couch - Recliner - 6 Mattress - Crib - Wood - Misc	\$	150.00
August	8/27/2021	Control	4 Chairs - 2 Mattresses	\$	30.00
				\$	<b>5,122.00</b>



**Multifamily Bulky Waste Pilot 2021**  
May-August

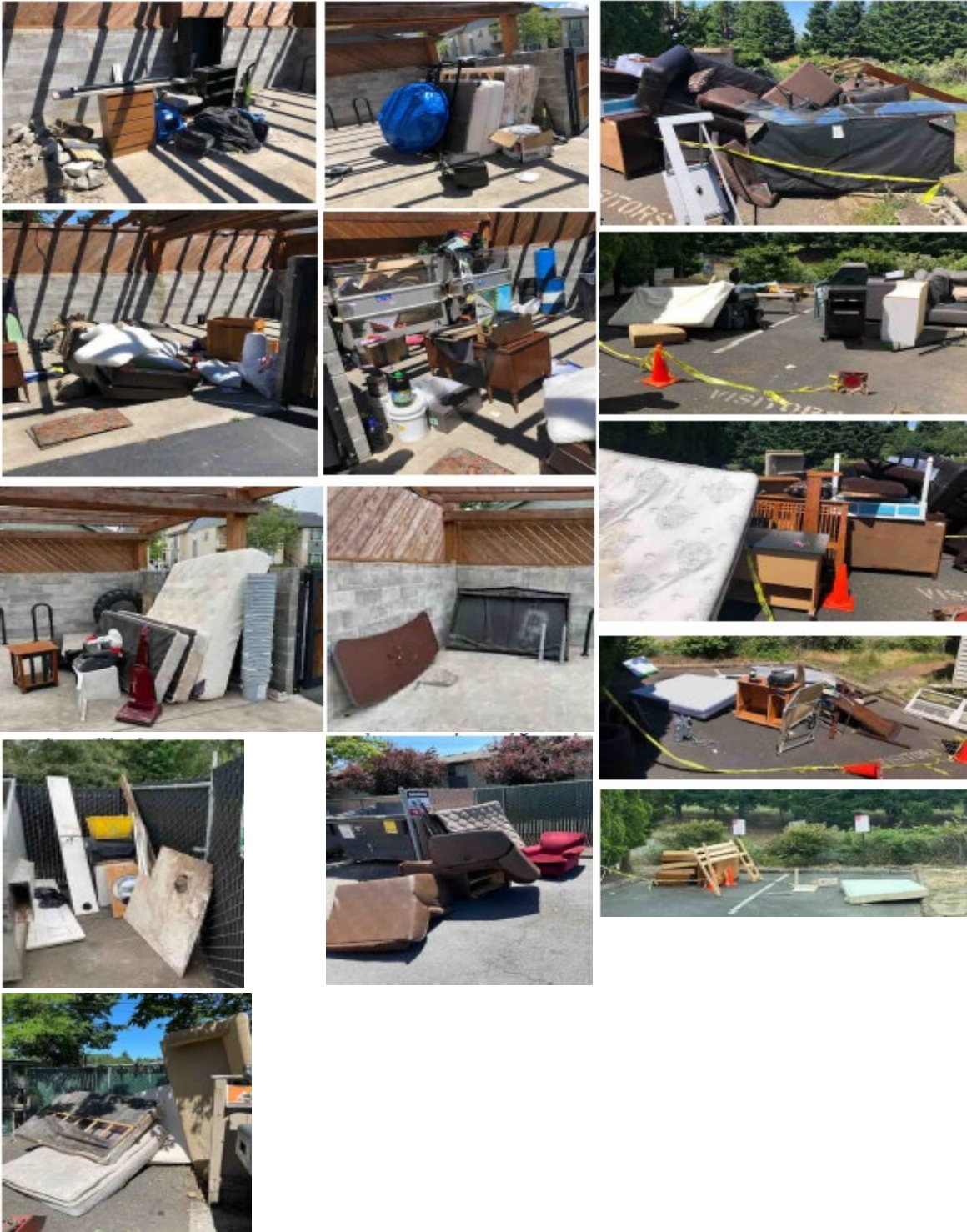
May\* *\*Includes photos from Week 1*





**Multifamily Bulky Waste Pilot 2021**  
May-August

June





# Multifamily Bulky Waste Pilot 2021

May-August

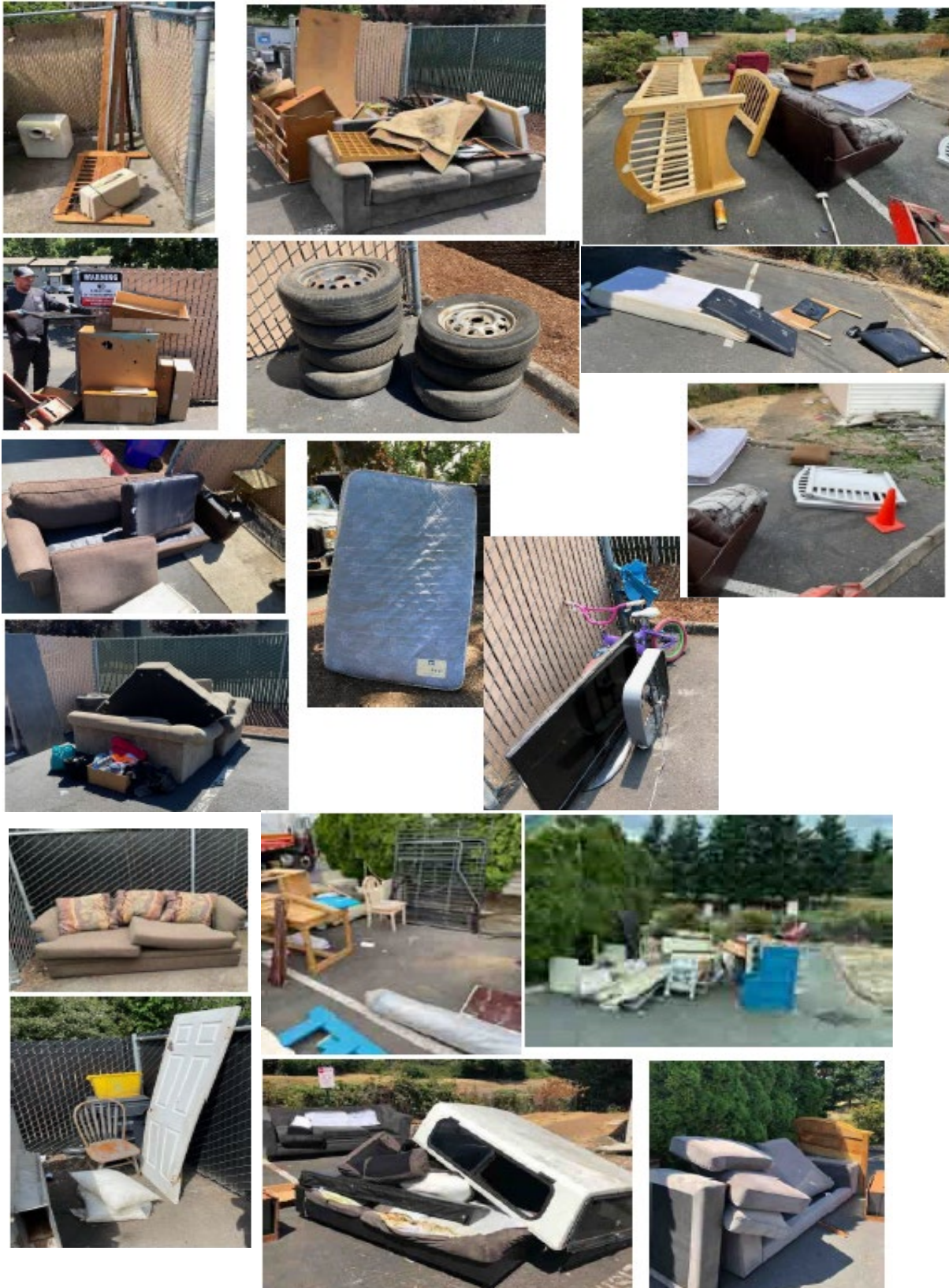
July





**Multifamily Bulky Waste Pilot 2021**  
May-August

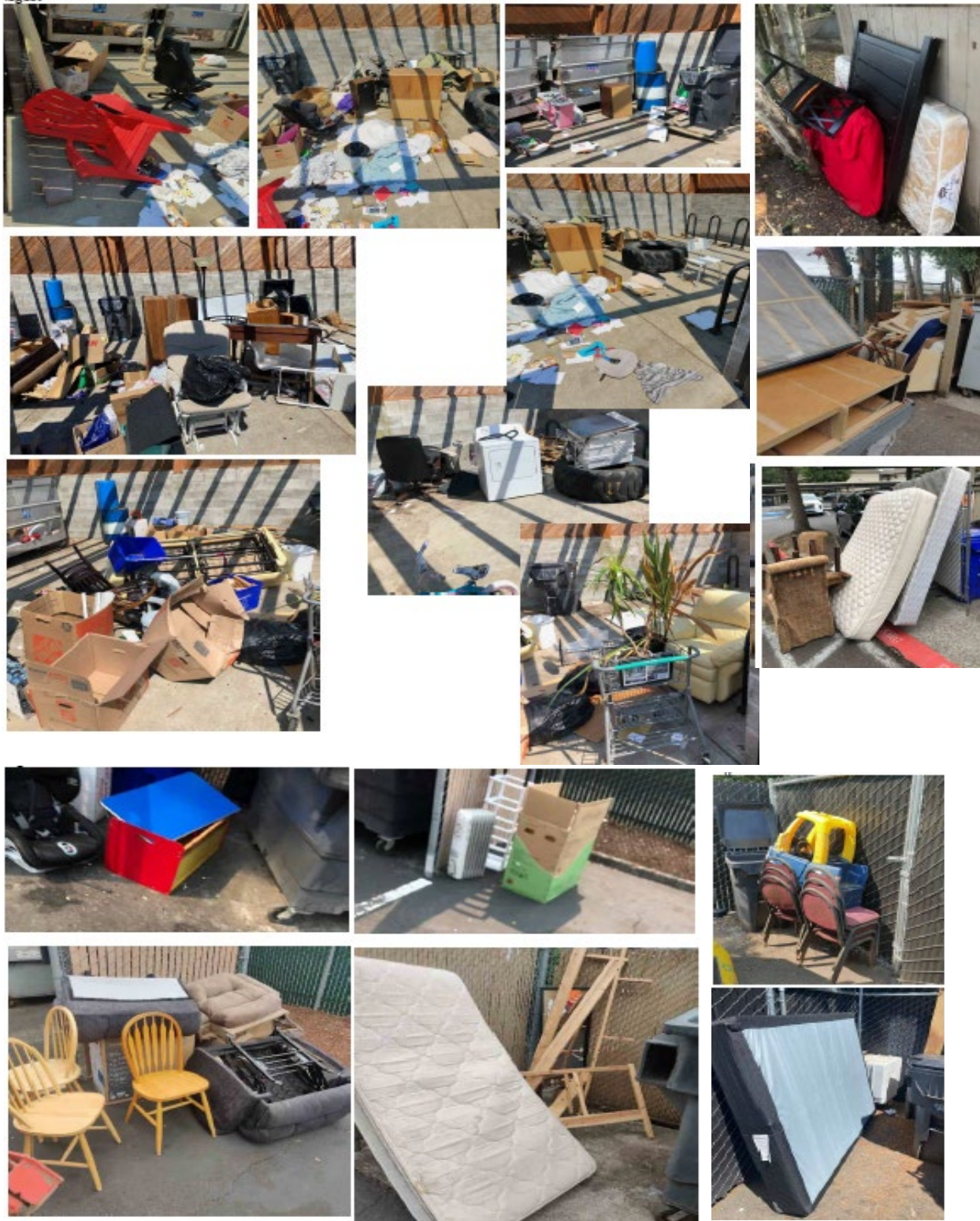
July continued





**Multifamily Bulky Waste Pilot 2021**  
May-August

August





**Multifamily Bulky Waste Pilot 2021**  
 May-August

August continued



## Appendix J – Post-Pilot Survey Emails, Questions, & Results

On September 28<sup>10</sup>, after receiving the final month's data and compiling the results, post-pilot emails were sent to all participating communities (test and control). Emails contained community-specific data as an attached PDF (see [Appendix I](#) for cumulative pilot-wide data) and requested the completion of post-pilot surveys by Monday, Oct. 18. Subsequent reminder emails were sent on October 12 and October 18. Five surveys were submitted by October 19; the final survey was not yet received as of the writing of this report.

Redacted email to test & control communities (included a PDF attachment of their promo flyer):

<PROPERTY MANAGER NAME>,

Greetings from ClackCo Sustainability! I hope you are doing well. I apologize for the less-than-ideal timing of this email, but I wanted to get it out as soon as possible. We have received the final month of data from the bulky waste pilot, and I have compiled your community's four-month **pilot data summary** to share with you (see attachment).

Again, I want to thank you for your participation in our multifamily bulky waste pilot. In the attached document, you'll find <COMMUNITY'S NAME>' information including:

- **Cost summary** – individual and total pilot (monthly totals, average monthly totals, and breakdown on a per unit basis)
- **Item breakdown** – individual and total pilot (quantity of items picked up during the pilot)
- **Collection summary** – list of items picked up at each collection/date
- **Pictures** – photos of the items collected (some photos were missed)

As stated previously, there is also a **post-pilot survey** for you to complete. Ideally, I'd like to have surveys **completed by Monday, Oct. 18**. This 15-question survey will reference the attached data summary, so I recommend having that available when you complete the survey.

I want to thank you again for participating in this pilot. If you would like any assistance with bulky waste management or any garbage/recycling issue, please reach out!

Thanks again, and I look forward to seeing the results of the post-pilot survey. I will be sure to share any final report with you.

Thanks Again,

**Tenille Beseda, Sustainability Analyst**

Pronouns: she/her/hers ([Why pronouns matter](#))  
Clackamas County Sustainability & Solid Waste  
150 Beaver Creek Road | Oregon City, OR 97045  
o 503.742.4451 | c 971.804.5462  
[clackamas.us/recycling](http://clackamas.us/recycling)

See subsequent pages for pre-pilot survey questions and results.

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<sup>10</sup> *In an effort to respect property managers during their busiest times of the month (last week and first week of every month), it's best to avoid correspondence during these times.*



# ClackCo Multifamily Bulky Waste Pilot 2021 - POST-Pilot Survey

Questions Responses 5 Settings

## 5 responses



Accepting responses

Summary

Question

Individual

### Bulky Waste

1. What went well with the pilot?

5 responses

It was great to have the removal larger items without the need to contact the sanitation department.

Residents were excited to have a place to dispose of bulky items

A lot of residents used this program and liked it. It worked well with where we put it.

Tenants were able to get rid of large bulky items.

Bulky items removed freeing up the dumpsters.



## 2. What challenges, if any, did you encounter during the pilot?

5 responses

I feel like there was a disconnect between all the services and how the program worked. We the apartment communities were communicated to well by the person who was in charge of that. I think issues where on the other end for those who were to do the pick ups.

it is hard to monitor any illegal dumping. It is always hard to do this but with more items than normal in this area it appears to be an invitation to any unknowing person to dump

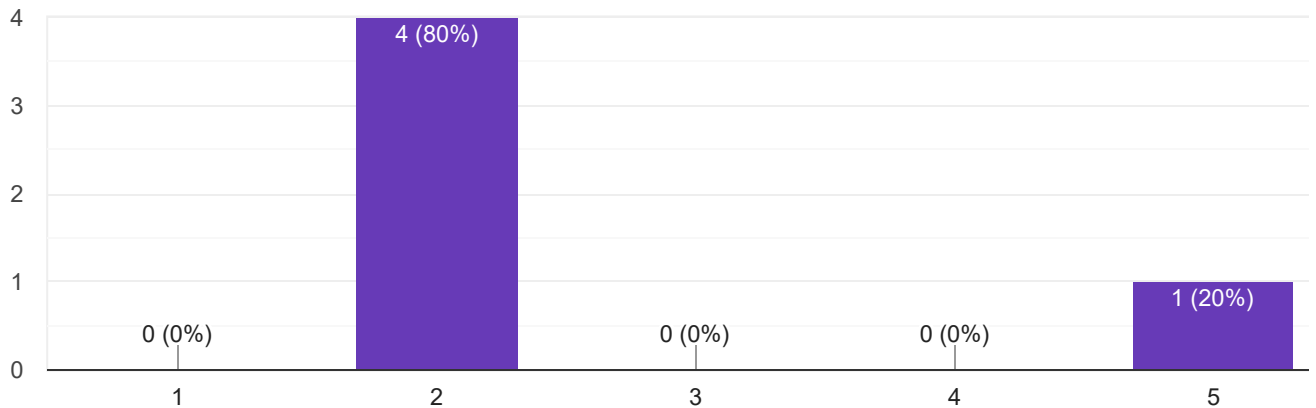
None

Tenants would place items on the wrong day.

Nothing really

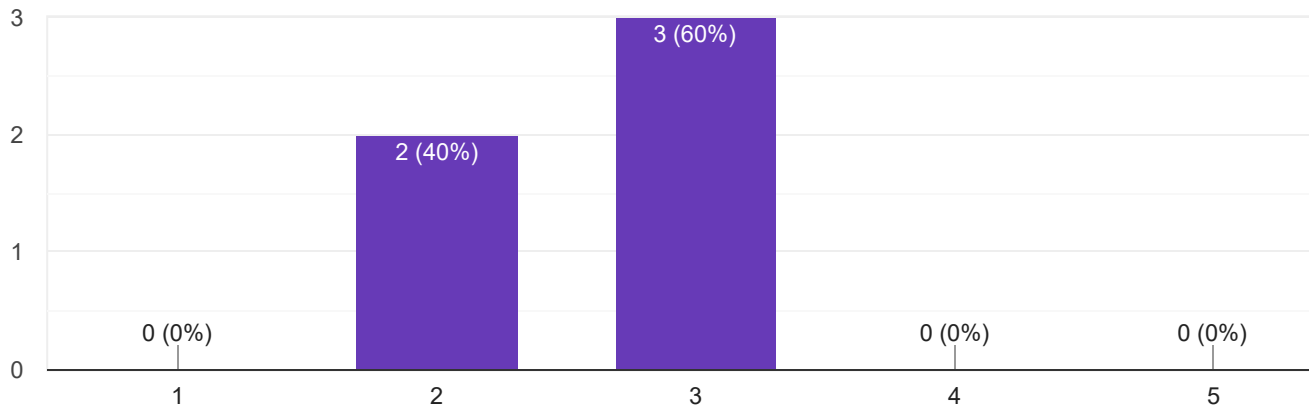
## 3. Based on your observation, how much of the bulky waste set out during the pilot (May-August) was resident-generated vs business-generated (appliances, carpet, items left in units after move-outs, etc.)?

5 responses



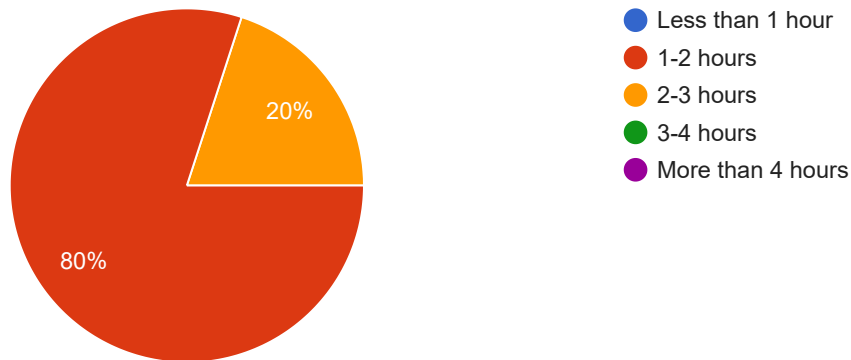
4. Based on your observation, what percentage of items left out during the pilot (May-August) were good condition and could have been used by someone?

5 responses



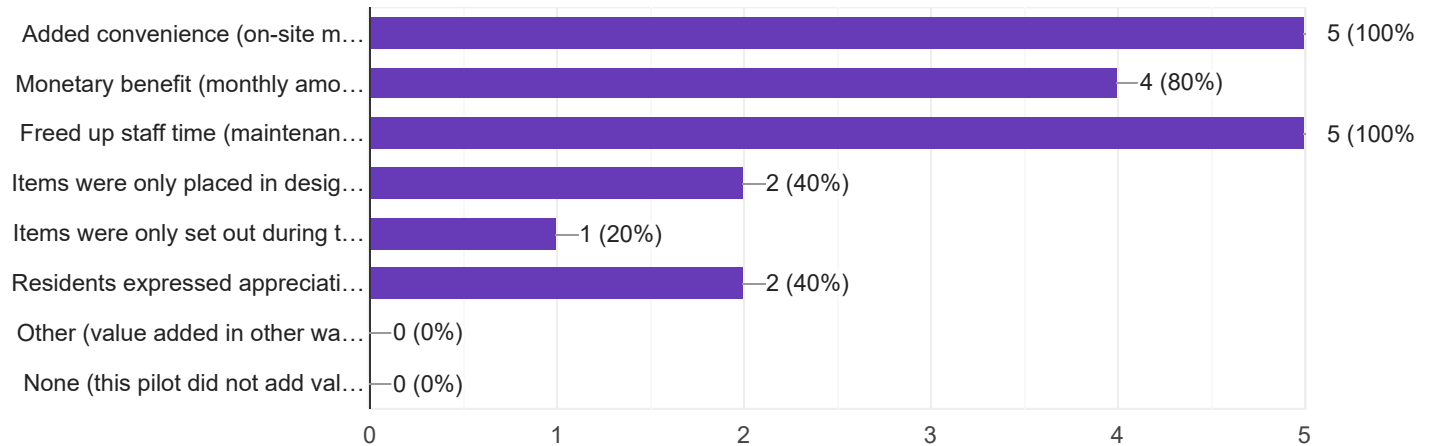
5. During the pilot (May-August), approximately how much staff time was spent on bulky waste WEEKLY (e.g. ensuring garbage/recycling bins are accessible, coordinating pick-up, removing bulky waste, etc.)?

5 responses



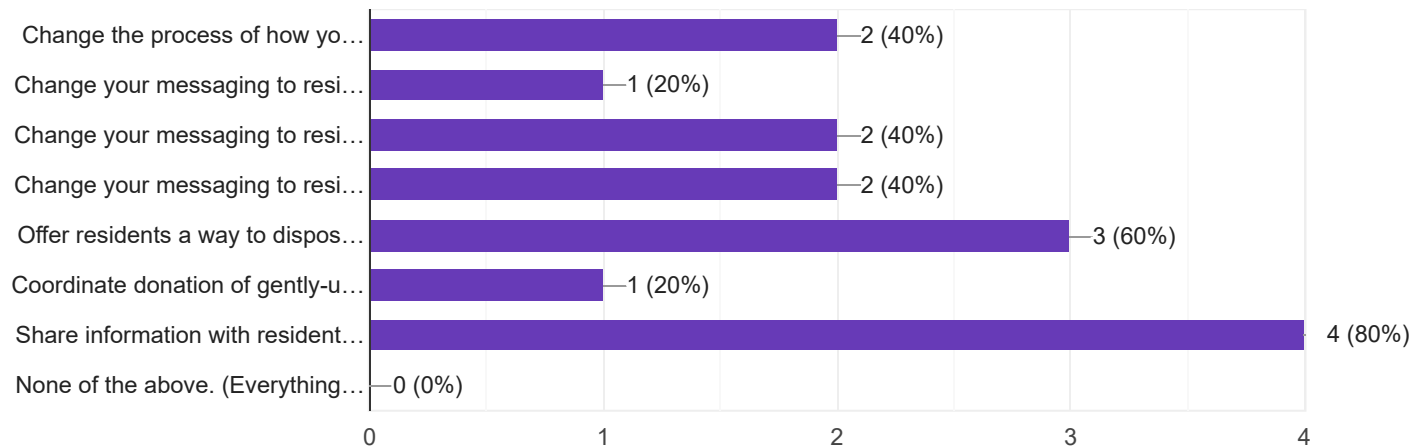
6. In what ways, if any, did the pilot add value to your community? (Check all that apply.)

5 responses



7. Since the pilot concluded, did you (or do you intend to) do any of the following? (Check all that apply.)

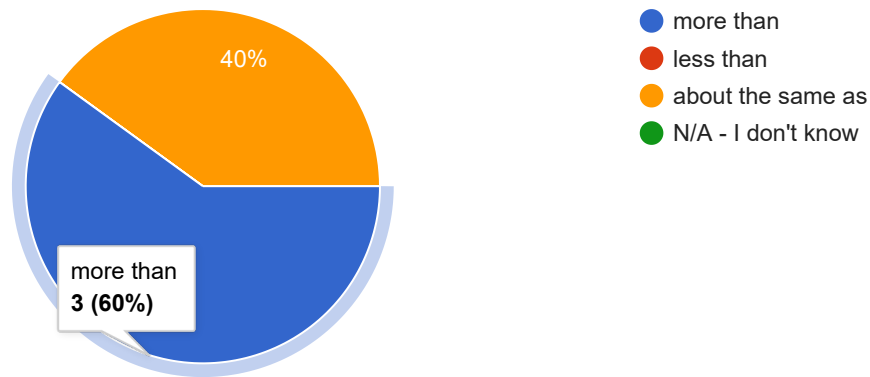
5 responses



Bulky Waste Pilot Data

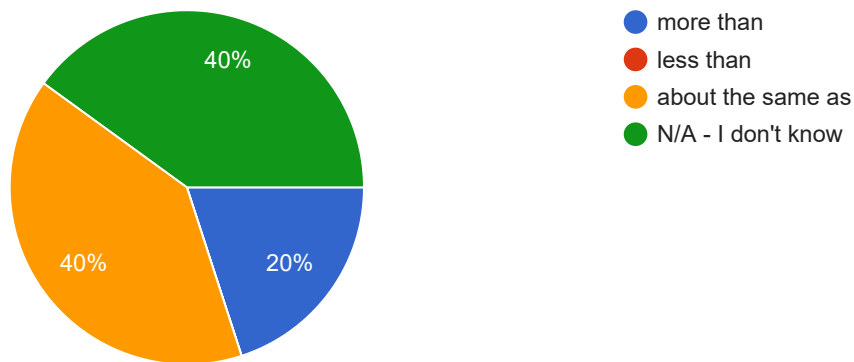
8. The amount of stuff picked up during the bulky waste pilot was \_\_\_\_\_ usual.

5 responses



9. The average cost per month for bulky waste removal during the pilot months was \_\_\_\_\_ usual.

5 responses



### 10. Please provide any requests, comments or questions you have about the Bulky Waste Pilot Data provided for your community.

5 responses

I think the program had merit and should be kept with better guidelines communicated more clearly with the disposal companies.

i would like to see a continuing program of this nature

I wish we could've continued this program. I was very happy with it.

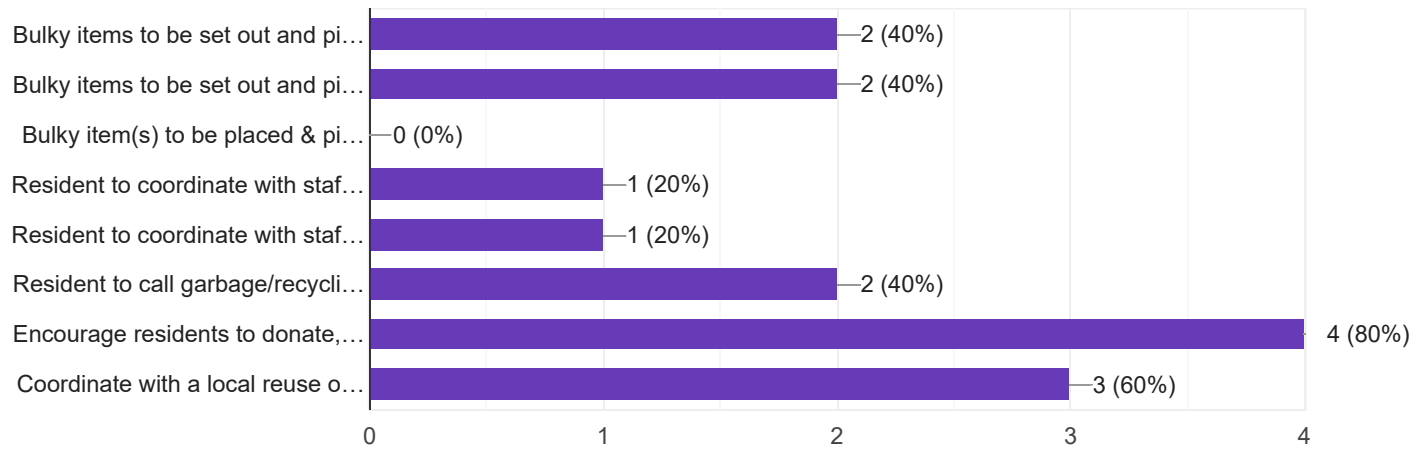
This was a great program for affordable housing and worked great!

no questions

### Looking to the future

### 11. In the future, how might you prefer to implement/provide regularly-occurring bulky waste service at your community? (Check all that apply.)

5 responses



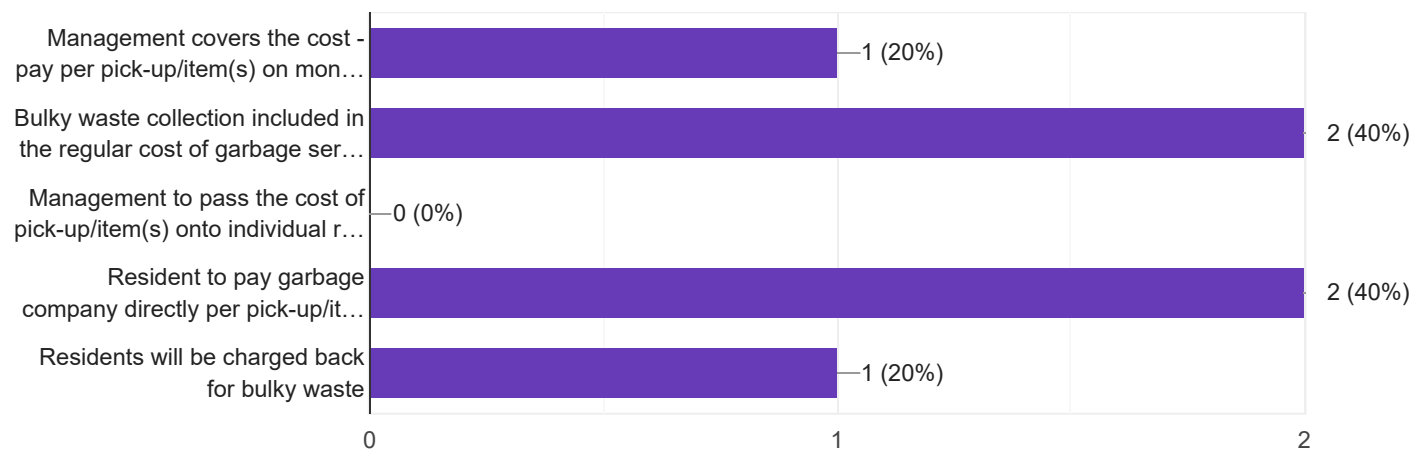
If "Other" noted above (11.), please explain how you'd prefer to implement/provide regularly-occurring bulky waste service in your community.

1 response

To have one spot on each end of the community designed for disposal of donated and disposed of items.

12. In the future, how might you prefer regularly-occurring bulky waste service be paid for at your community? (Check all that apply.)

5 responses



If "Other" noted above (12.), please explain how you'd prefer regularly-occurring bulky waste service be paid for in your community.

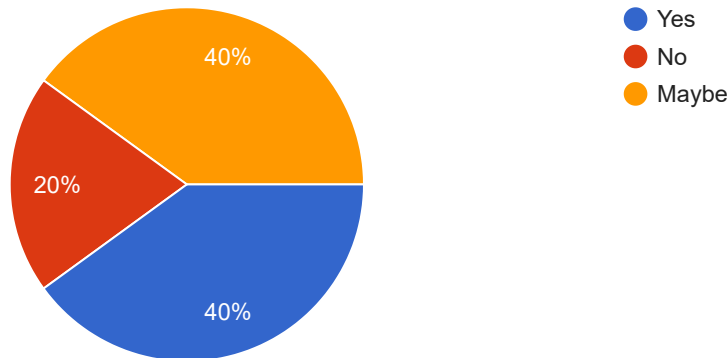
1 response

I think there should be a flat fee to dispose of the times or at the very least the sanitation worker who comes to empty things could notify the office of the need to pick the bulky items rather than leave them and say nothing. If we worked together and just addressed the issue and billed for it. It would make it a cleaner and nicer community as a whole in our city. We all need to take a small step in personal responsibility towards disposal management and not leave it for someone else to deal with. After all we all live in this city.

### Wrap-Up

13. Would you be interested in having ClackCo Sustainability survey residents to see what they thought about the pilot program?

5 responses



14. Please share any additional comments you may have about bulky waste, the pilot, or future bulky waste services in your community.

5 responses

See answer 12

I was happy to participate in the program

none

NA

No questions

15. Please provide the name of your community.

5 responses



## Appendix K – Proposed Post-Pilot Resident Survey

The post-pilot resident survey was drafted for communities wanting SSW to survey their communities about the pilot.

See subsequent pages for the proposed post-pilot resident survey questions.

# ClackCo Bulky Waste Pilot 2021 – Post-Pilot Resident Survey

With support of your property management team, your apartment community participated in a bulky waste pilot coordinated by Clackamas County Sustainability between May 1 - Aug. 31, 2021. The pilot was meant to provide weekly collection of large, unwanted items. Residents were to be informed of the pilot and provided a day/time when items could be placed in designated areas for weekly pickup by the garbage/recycling company. Now that the pilot has ended, residents in your community are receiving this opportunity to provide feedback on the pilot. If you lived at your current community for any length of time between May 1 - Aug. 31, 2021, we invite you to participate in the survey. Individual responses will remain confidential, and only aggregate/group data will be shared as a part of the pilot data/report. We encourage you to provide feedback, but you are under no obligation to do so.

## Bulky Waste

When we use the term "bulky waste," we are referring to the large, bulky items that are left next to the dumpster (or sometimes placed into the dumpster and take up excessive space).

Common bulky waste items at multifamily communities are couches, mattresses, bed frames/headboards, chairs, end tables, etc. These items can block access to the bins, become safety hazards, and are generally unsightly. In addition to large items residents may leave, bulky waste items may also include business-generated waste (i.e. old appliances, left-behind item after a move-out, etc.).

Bulky waste is NOT referring to overflowing garbage bins nor hazardous waste (motor oil, paint, etc.).

## Bulky Waste



1. 1. Was your household aware of the pilot that took place May 1-Aug. 31, 2021?

*Mark only one oval.*

Yes

No

I don't know

## 2. 2. When did you learn about the pilot?

*Mark only one oval.*

- Before it started
- After it had started but before it finished
- After it finished
- I never heard about it (Thanks for your time; no need to continue the survey.)

## 3. 3. How did you learn about the pilot? (Check all that apply.)

*Check all that apply.*

- A flyer (paper or electronic)
- My property manager (or other staff)
- My neighbors
- Other
- I never knew about it (Thanks for your time; no need to continue the survey.)

## 4. 4. Before the pilot, how did you dispose of large, unwanted items (e.g. mattress, sofa, TV, etc.)? (Check all that apply. Remember, responses are confidential.)

*Check all that apply.*

- I took large, unwanted items to Goodwill or other donation center.
- I took large, unwanted items to the dump (or recycling drop-off location).
- I gave them to family/friends to use and/or get rid of for me.
- I gave away/sold large, unwanted items online (e.g. Facebook Marketplace/Buy Nothing, Craigslist, etc.)
- I left large, unwanted items at/near the garbage/recycling area at my apartment.
- I dumped large, unwanted items away from my community.
- I contacted the local garbage company or other service to dispose of the item(s).
- I never disposed of large, unwanted items before the pilot.
- Other:  \_\_\_\_\_

5. 5. Did your household dispose of any large, unwanted items onsite during the pilot?

*Mark only one oval.*

Yes

No

6. 6. If you disposed of items during the pilot, please describe the quantity and conditions of the item(s). (Examples: 1 broken couch, 2 bald tires, 1 mattress that is too big for my new apartment)

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7. 7. Whether or not your household participated in the pilot, from your perspective, what worked well during the pilot?

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8. 8. Whether or not your household participated in the pilot, from your perspective, what problems, if any, occurred during the pilot?

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9. 9. In what ways, if any, did the pilot add value to your community? (Check all that apply.)

*Check all that apply.*

- Added convenience (on-site method to dispose of large, unwanted items)
- Monetary benefit (ability to dispose of items for free)
- Freed up staff time (maintenance did not have to manage bulky waste)
- Items were only placed in designated areas instead of blocking bins (or causing other problems).
- Items were only set out during the specified times instead of all days/hours.
- Residents were happy with the service.
- Other (value added in other ways not noted)
- None (this pilot did not add value to my community)

10. 10. Since the pilot ended, have any changes taken place at your community about "bulky waste?" (Check all that apply.)

*Check all that apply.*

- The process of how bulky waste is handled on-site
- Staff's messaging to residents about bulky waste
- Residents now have a way to dispose of bulky waste on-site (e.g. regular pick-up days, coordinate w/resident, etc.)
- Management/staff now help coordinate donation of gently-used items on- and/or off-site.
- Management/staff now share information with residents about how they can properly dispose of bulky waste.
- None of the above (Everything about bulky waste is like it was before the pilot.)
- I don't know
- Other:  \_\_\_\_\_

### Looking to the future

Bulky waste presents an opportunity for improvement at many apartment communities - to the benefit of residents, staff, and garbage/recycling companies. Please answer the following questions about "regularly-occurring bulky waste service."

11. 11. In the future, how might you prefer to see regularly-occurring bulky waste service at your community? (Check all that apply.)

*Check all that apply.*

- Bulky items to be set out and picked up from a designated area(s) WEEKLY.
- Bulky items to be set out and picked up from a designated area(s) MONTHLY.
- Bulky item(s) to be placed & picked up from a resident's parking space/garage.
- Resident to coordinate with staff for bulky waste pick-up, as needed.
- Resident to coordinate with staff for bulky waste pick-up at move-out, if needed.
- Resident to call garbage/recycling company directly to arrange for pickup.
- Staff (or information) to help residents to donate, swap, or sell items to keep them out of the landfill.
- Coordinate with a local reuse organization for monthly collection of good condition items.

Other:  \_\_\_\_\_

12. 12. In the future, how might you prefer regularly-occurring bulky waste service be paid for at your community? (Check all that apply.)

*Check all that apply.*

- Management covers the cost - pay per pick-up/item(s) on monthly garbage statement.
- Bulky waste collection included in the regular cost of garbage service.
- Management to pass the cost of pick-up/item(s) onto individual resident.
- Resident to pay garbage company directly per pick-up/item(s).
- I don't know

Other:  \_\_\_\_\_

13. 15. Please provide the name of your apartment community.

\_\_\_\_\_

### Thank You and Future Engagement Opportunity

Thank you for taking the time to complete this post-pilot resident survey. We value your time and feedback.

Enhancing garbage and recycling conditions at apartment and condo communities is a priority for Clackamas County Sustainability. If you would like to request updated signage and recycling information, if you have questions, or if you would like to participate in future engagement opportunities about bulky waste, please contact Tenille Beseda at [TBeseda@clackamas.us](mailto:TBeseda@clackamas.us) or 503.742.4451.

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