

Multifamily Tenant Group Interviews

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



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Executive summary

In response to changes in Oregon’s recycling laws, the opportunity to recycle is being extended to all residential and commercial tenants of multi-tenant properties. The change will require cities and counties to ensure properties with tenants that share garbage collection service also receive recycling collection by July 2022. This requirement is for cities with 4,000 or more residents, cities within the Metro Service District and counties which manage programs within those cities’ urban growth boundaries. In order to support implementation of this statutory change, Oregon Department of Environmental Quality staff arranged to conduct group interview to gain tenant perspectives of the garbage and recycling collection program at their respective properties. Staff of the Housing Authority and Community Services Agency of Lane County led three group interviews of tenants living in multifamily housing in Eugene and Springfield, Oregon. Questions touched on topics including but not limited to the reasons for recycling, training or information received on recycling, barriers to recycling, and bulky waste collection.

When first asked about recycling and garbage, all of responses were negative and included mentions of health and safety concerns of the collection area and negative garbage and recycling behaviors. Tenants were also confused about what to recycle and felt it was inconvenient.

All responding tenants, however did recycle to some extent, but the degree of participation varied. Reasons for recycling included but were not limited to environmental concern and health or safety concerns. Lack of space in the home was one reason why tenants didn’t recycle all the time. Most responding tenants made frequent trips to the collection area to dispose of garbage or recycling — also because there was inadequate space for collection and separation of recyclables at home.

The strongest trend in this study was the interest for receiving recycling education or information. Property-management-provided education was not often mentioned by responding tenants. Recycling education came from family, school or some other type of non-formal education. All of responding tenants requested education or information, with half of these respondents citing interest in improved signage in the collection area, with images.

The responsibility for arranging bulky waste disposal was split between tenants and property managers. Either the tenant took it somewhere for disposal or the property manager did it or went through their garbage collector.

Half of responding tenants mentioned they wanted to see improvements to include improved collection service and a better collection area. These changes included, but were not limited to, increasing the safety and security of collection areas, altering the receptacles, increasing collection frequency and expanding the materials collected.

Due to a sample small size, the results of this study cannot be assumed to represent the experience of all multifamily tenants in Oregon.

1. Introduction

This report is prepared for the benefit of stakeholders in order to determine solutions that could be helpful to cities and counties that need to implement multi-tenant recycling by 2022. Stakeholders could include but not limited to garbage and recycling collection companies and associations, developers and builders, local and regional governments, materials management programs, multi-tenant property owners, property managers, planners, recycling processors, tenant and tenant associations, and others.

The Recycling Opportunity Act was passed in 1983, with the intent that everybody in Oregon should be provided with an opportunity to recycle. In cities of 4,000 or more populations and within the Metro area, that opportunity meant regular on-route collection of recyclable materials from all collection service customers, or an equivalently-effective program. However, as the law was interpreted and implemented, many residential and commercial tenants ended up being denied an opportunity to recycle because it was the landlord, rather than the tenants, who were considered to be the collection service customers. If the landlord decided not to use a recycling service, then the tenant did not have an opportunity to recycle. In 2015, the legislature corrected this with the passage of Senate Bill 265. One provision of this law is that by July 1, 2022, tenants will also be considered to be collection service customers, and so must directly be provided with the opportunity to recycle by their landlords and collection service providers.

By July 1, 2022, local governments will need to ensure that the opportunity to recycle is extended to residential and commercial tenants of multi-tenant properties. Local jurisdictions affected include cities with 4,000 or more residents, cities within the Metro Service District and counties which manage programs within those cities' urban growth boundaries.

In order to help guide implementation of the updated recycling law, the Oregon Department of Environmental Quality worked with the Housing and Community Services Agency of Lane County to conduct group interviews with tenants living in multifamily housing about their experience with garbage and recycling collection systems. Additionally, Metro conducted similar interviews in the Portland area. Wherever possible, the results were combined.

This report offers a snapshot of tenants' experiences with garbage and recycling collection systems, such as reasons for recycling, barriers to recycling and access to recycling education. It is intended to help to gain understanding of current multifamily garbage and recycling collection practices through the perspective of tenants.

Due to small sample sizes and informal nature of discussions and group questions, results are more illustrative and anecdotal of tenants' experiences and perceptions and do not necessarily reflect the perspective of all multifamily tenants.

Findings from this research have been organized into two main sections — recycling behavior and recycling collection systems.

2. Methods

DEQ contracted with Housing and Community Services Agency of Lane County through an intergovernmental agreement to recruit and conduct interviews with tenants of multifamily communities in Lane County — see Appendix A for a full scope of work. HACSA was chosen because of their relationship as both a service provider

for low-income households and a property manager in Springfield and Eugene — two cities chosen as part of multi-tenant research in 2017. It was assumed that HACSA would have access and the ability to communicate with a relatively large audience to be part of this study.

2.1 Sample selection

2.1.1 Location selection

HACSA conducted three group interviews for this study. Two group interviews were conducted in Springfield and one in Eugene. Two interviews were held on HACSA properties. The remaining complex was not a HACSA property but more than half of the resident received Section 8 vouchers from the HACSA rent-assistance program.

2.1.2 Interviewee selection

All participants were from low-income multifamily complexes in Eugene or Springfield. To recruit participants, HACSA sent mailers out to residents receiving Section 8 housing. Additionally, notices were posted at low-income complexes. HACSA staff also spoke with on-site property managers to recruit participants. The highest number of participants were drawn from on-site maintenance staff talking to residents about participating in the interview. Ultimately, a total of 21 individuals participated in the group interviews. There were two evening sessions and one midday session. Participants were offered a light meal, a \$5 coffee gift card and were put in a drawing for a \$25 gift card.

2.2 Data collection tools

The interview was structured with a combination of closed and open-ended questions. Questions followed a very similar format to questions asked as part of Metro's 2016 [Multifamily Residents Community Interviews](#). Each participant was permitted to answer the same number of questions per session. Each participant was given three vouchers. Once a question was answered, a card was returned to the facilitator until all three vouchers were exhausted. Vouchers were drawn later for a \$25 gift certificate. When asked questions, each participant spoke one at a time. A Spanish-language translator was present for focus group participants with limited English skills. A stenographer transcribed the dialogue between focus group interviewer and participants.

2.2.1 Group interview questions

The questions asked were about recycling behavior and collection. The full interview guide can be found in Appendix B.

2.2.1.1 Recycling behavior

Questions about recycling behavior including the following topics:

- Reasons for recycling
- Ideas about recycling or garbage at respective property
- Training or information received on how to recycle
- Experiences of taking out garbage and recycling

2.2.1.2 Recycling collection

Recycling collection questions including the following topics:

- Provision of garbage and recycling collection services and materials included
- Safety and ease of use of collection area
- Methods of addressing garbage and recycling service problems
- Bulky waste disposal arrangements
- Ideas of how to improve the garbage or recycling system at respective property
- Design features of ideal garbage and recycling system

2.3 Metro Multifamily Residents Community Interviews

In 2016 and 2017, Metro contracted with community-based organizations to conduct discussion groups and one-on-one interviews with people of color and people who were low-income. Findings from these discussions and

interviews were coded according to themes and listed in the 2016 Multifamily Residents Community Interviews report.

2.4 Analysis methods

The responses recorded on transcripts from each HACSA group interview were coded by the two main themes of recycling behavior and collection. Then these data were further coded into finer detail. When possible, coding followed the themes presented in the Metro community interview report. The coding key can be found in Appendix C.

The data from the Metro community interview report will be compared to the data of this study where possible. The HACSA and Metro interview questions were not completely compatible. Additionally, the responses for some Metro interviews were summarized. Therefore, the data from each study cannot always be confidently compared.

3. Findings

3.1 Recycling behavior

3.1.1 Experiences with garbage or recycling collection systems

3.1.1.1 Thoughts on garbage and recycling

The overall tone of all responses from tenants about recycling or garbage at respective properties was negative. Two of ten tenants had health and safety concerns, two tenants cited improper disposal by other tenants, and two tenants commented on issues with the maintenance and capacity of the collection area — see Appendix D. Other thoughts that came to the mind of tenants about garbage or recycling collection systems were:

- Confusion about what is recyclable
- Contamination
- Concern for the environment
- Inconvenience

“I think there's a great deal of confusion amongst my neighbors, at least, as to what is recyclable and what isn't recyclable.”

3.1.1.2 Recycling practices

Seven tenants said they recycled, at some level. Four of those tenants recycled most or all of the time, whereas three tenants recycled some of the time, as seen in Appendix E, Table 3.

Reasons for recycling or not

Two of seven tenants recycled because of concern for the environment. Two also said they recycled because of health and safety concerns — see Appendix E, Table 4. Other reasons to recycle included:

- Habit
- Save money (through returning bottles and cans with deposits)
- Unspecified reason.

Lack of space or receptacles for in-home collection were reasons which led two tenants to not recycle most or all of the

“I live in a two-bedroom. It's also very small. And it's difficult to recycle because there's nothing to put it in. We put it in the shopping bags, and that's about it. But sometimes, since I don't have something to put it in, I throw it away.”

time. Confusion as to what is recyclable was the reason another tenant said for not consistently recycling, as seen in Appendix E, Table 5.

3.1.1.3 Confidence in ability to recycle

Tenants' confidence in their ability to properly recycle varied. Two tenants felt confident to properly recycle, in comparison to the one tenant who was confused when it came to recycling properly as seen in Appendix F.

3.1.1.4 Garbage and recycling experiences

Frequency of trips to collection area

As seen in Appendix G, Table 7, five of seven tenants made frequent trips to the collection area to dispose of garbage and recycling. Two tenants made infrequent trips to the collection area. Of the five tenants who made frequent trips to the collection area, three tenants said this was because there was inadequate space for garbage and recycling collection and separation in their homes.

These responses are consistent with the responses of the participants in the group interview sessions conducted by Metro. These participants disposed of their garbage and recycling daily, especially if there were children in the home.

Location of recycling collection and separation

Tenants discussed whether or not there was adequate space in the home for collection and separation of recycling. Four tenants said they had inadequate space to collect and separate garbage and recycling in their homes. One tenant said they had adequate space. One tenant said they had adequate space only some of the time — see Appendix G, Table 8. Three tenants collected and separated their recycling in their home, in comparison to one tenant who separated recycling at the collection area, as seen in Appendix G, Table 9.

3.1.1.5 Garbage and recycling disposal roles in households

Children were named as the individuals who went to the collection area to dispose of garbage and recycling by two tenants. One tenant mentioned an unspecified household member other than children — see Appendix H.

This finding was consistent with the data from the Metro community interviews.

3.1.2 Recycling training and information

3.1.2.1 Source of recycling knowledge

The tenants who recycled received some training on recycling from somewhere other than their property manager — as seen in Appendix I. Three tenants mentioned learning how to recycle from their family. One tenant said they learned in school. One tenant said they learned from some other non-formal education, in this case the Master Gardener program. Two respondents mentioned receiving information from property management, which was in this case hauler-generated print materials.

3.1.2.2 Interest in receiving additional recycling education

Interest in additional training or information about recycling received the greatest number of responses from any question, with twelve tenants responding. Half of the tenants requested improved signage — as seen in Figure 1 and Appendix J, Table 12 — which includes a posted pickup schedule and adding or improving existing collection area signage or decals with pictures and color-coding. Three tenants requested printed materials —

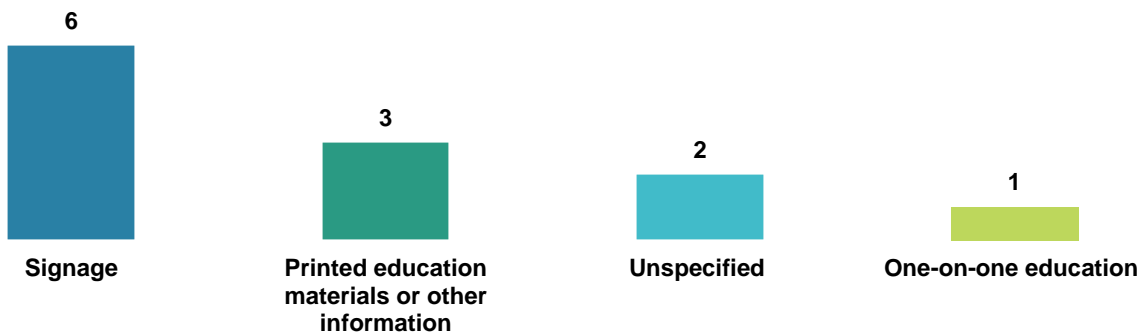
“Maybe make the garbage a little shorter so kids can get the garbage in there, because a lot of people send little ones out there. I don't know if it's possible, a step stool or something. A lot of little kids can barely reach it and it ends up on them.”

which included newsletters, schedules, bulletins and magazines. There was interest in one-on-one education by two tenants. One tenant was not clear what type of education they wanted. One tenant specifically requested that the materials be printed rather than digital because not everyone is “tech savvy.”

Three tenants mentioned the importance of recycling education, two tenants cited environmental benefits and one tenant cited community benefits as seen in Appendix J, Table 13. The interest in receiving additional recycling education was also mentioned throughout the Metro community interviews, with the thought that providing this could improve the garbage and recycling collection.

“...teach the community... dumb it down to kindergarten, pictures and colors. This goes here and that goes there...”

Figure 1: Types of requested recycling education or information



3.2 Collection

3.2.1 Collection service

3.2.1.1 Availability of garbage and recycling collection services

According to four tenants, the opportunity to recycle was available at their respective property, which can be seen in Appendix K, Table 14. One tenant said that recycling service was unavailable at their property. This tenant discussed how they would go across the street to sneak their recycling into the recycling of a neighboring property. Two of the tenants who said recycling was available at their property mentioned dual-stream recycling with glass collected separately. Two tenants who had recycling offered at their property said they were satisfied with the system. Recycling was available at most of the properties of interviewees participating in the Metro community interviews as well.

Five tenants shared additional thoughts on the availability of recycling services. Two expressed concern for the environment. Two sought improvements to the collection area signage such as adding images or including recycling information in a newsletter to help increase recycling and reduce negative tenant behaviors. One tenant thought that recycling could contribute to a cleaner community — see Appendix K, Table 15.

“[My mattress] is hanging out at my place. Can’t take it outside. I’ve asked the manager, but she says no, you can’t... She says, ‘cut it up.’ So I had to cut up a perfectly good mattress... a little piece every day!”

3.2.1.2 Bulky waste

As illustrated by Appendix L, Table 16, bulky waste is expected to be taken care of by tenants according to three of nine tenants. Three tenants said the property manager or collector took care of it. Two tenants do not know how

to dispose of bulky waste. One tenant said a third party for-profit waste management service is used to dispose of bulky waste on their property.

Three tenants discussed their interactions with property management when seeking help for bulky waste as seen in Appendix L, Table 17. One tenant said that their property manager provides a larger container for tenants to dispose of bulky waste once each year. One tenant was unsure as how to get help and said that the property manager was unhelpful. Another tenant did not think of asking the property manager for help when looking to dispose of bulky waste. According to responses captured in the Metro community interviews, bulky waste is also largely the responsibility of the tenant. Many of these respondents expressed that they did not have the means to dispose of these items themselves.

Two of the tenants who made arrangements for bulky waste disposal said they took bulky waste to a disposal facility themselves. One tenant mentioned making arrangements with a handyman not associated with their property to dispose of bulky waste — see Appendix L, Table 18.

3.2.1.3 Resolving problems with collection service

When problems with garbage and recycling service arose, three of five tenants reached out to the collection service provider directly first, as seen in Appendix M, Table 19. Within those responses, one tenant lacked confidence to talk to the property manager and another tenant felt they had no control over garbage or recycling service problems. One tenant reached out to their property manager after trying to reach the collector. Two tenants reached out to their property manager first if they had a problem with their garbage or recycling service as seen in Appendix M, Table 20.

This finding was only partially consistent with Metro community interviews. The responses of only one out of three of the interviews listed mostly negative responses of seeking help from property management. Another interview had a minority of negative responses, and most interviewees felt comfortable communicating with property management when seeking help with garbage and recycling service problems.

3.2.2 Collection area

3.2.2.1 Collection area experiences

Although collection areas were mentioned to be convenient by four tenants, there was discussion among interviewees about collection area concerns. As illustrated by Appendix N, Table 21. Three of six tenants mentioned they had health and safety concerns about the collection area. One tenant thought there was inadequate capacity and maintenance of the collection area. Additionally, one tenant said there were accessibility issues with the collection area. Lastly, one tenant had concerns about the collection area because of negative tenant garbage and recycling behavior.

Safety and ease of use of collection area

Five of seven tenants felt unable to easily and safely use garbage and recycling services at their respective property, as seen in Appendix N, Table 22. In contrast, only one tenant felt able to safely and easily use the garbage and recycling services. One tenant felt they could safely and easily use the garbage and recycling services only sometimes.

These findings are consistent with the data collected in the Metro community surveys, where a key theme was the collection area being unsafe and difficult to use.

Collection area health and safety concerns

Four tenants felt that their collection area had issues due to inadequate capacity or collection frequency, as shown in Appendix N, Table 23. Following this, three tenants specifically mentioned the inadequate maintenance and unsanitary conditions of their collection area were an issue. Insufficient lighting was cited to be a problem by two

“...it's black as pitch out there. There's no light whatsoever and the trees block what streetlights we have. So I'm literally feeling along with my foot.”

tenants. Another two tenants felt that their collection area was unsafe or difficult to use because of non-tenant use. One tenant suggested wearing gloves was necessary when using the collection area. Another two tenants were concerned that children played in the collection area as seen in Appendix N, Table 24.

This data was consistent with the themes in the Metro interviews. Participants in the Metro study perceived enclosures as unsafe, that non-tenant use was an issue, that there were capacity issues of receptacles and other similar issues.

Garbage and recycling system improvements

Tenants discussed ideal improvements to their garbage and recycling, including the ideal design features for their system, and continued to discuss this later in the interview. To improve garbage or recycling collection, 17 of 27 tenants discussed elements of their collection service or collection area, as seen in Appendix N, Table 25. Ten tenants sought change in tenant recycling or garbage disposal behavior.

Changes to collection

Of the 17 tenants who discussed changing their garbage or recycling collection system, nine tenants sought to make changes to their collection area and eight tenants mentioned changes to their collection service — see Appendix N, Table 26.

Of tenants who suggested improvements for their collection areas, four tenants cited changes to safety and security measures, as seen in Appendix N, Table 27. Three tenants wished to make a change to the receptacles. Of the remaining responses, one tenant sought a change of the enclosure (larger doors), one tenant was concerned about the location being too near to the playground and tenant wanted to increase the number of collection areas.

Of the responding tenants who mentioned safety and security elements, two tenants suggested locking the collection areas — as seen in Appendix N, Table 28. Of the remaining responses, one tenant mentioned adding lighting, one tenant requested a camera and one tenant mentioned some other anti-dumping measures were needed.

Of the eight tenants who mentioned changing the collection service, five tenants looked to increase the frequency of service at respective properties as shown in Appendix N, Table 29. Three tenants mentioned expanding the materials collected by their service provider to include compost — mentioned by two tenants who cited expansion of collected materials — and bulky waste service — by one tenant. One tenant said they were satisfied with their garbage and recycling collection service.

Changes in behavior

Changes in behavior were mentioned by 10 tenants as a measure that would improve their garbage or recycling system as shown in Appendix N, Table 30. Four tenants mentioned education as a way to improve the garbage and recycling system, which was consistent with themes generated by the Metro community interviews. Three tenants called for reduced consumption. Although not necessarily specific to improvements to the collection area, the remaining responses were as follows:

- One tenant discussed property manager barriers.
- One tenant discussed the difficulties fines pose for tenants.
- One tenant discussed their enjoyment of recycling.

“It would be helpful if... most of us go by a picture rather than letters, and I've noticed, when we go out to the fair or the mall they have those large containers and it has a picture for the glass, a picture for the plastic bottle. I think it would be easier for us that live in an apartment to be able to recycle more rather than just dumping everything in the same garbage bag.”

Education was cited by four tenants who sought behavioral changes to improve the garbage and recycling collection service at their respective properties. Of these responses, as illustrated in Appendix N, Table 31, three tenants mentioned printed educational materials. Two tenants requested signage with images to help tenants recycle properly. One tenant mentioned learning tenant rights in response to property management barriers some tenants face. One tenant mentioned the need for education but didn't elaborate what that was.

4. Discussion

4.1 Conclusion

The purpose of this study was to gain a more detailed understanding of garbage and recycling collection practices at multifamily properties from the tenants' point of view. Tenants offered a range of opinions during interviews with some emerging trends among these opinions. Though the sample size of this study is small and results cannot be assumed to represent the broader picture of multifamily garbage and recycling across Oregon, this study does provide meaningful insight. The opinions and lived experiences of tenants interviewed in this study are important. The main points from the study were:

- Tenant experiences with garbage and recycling collection systems were overall negative.
- Property management-provided education on garbage and recycling was not commonplace — knowledge on recycling originated from family, school or some other non-formal education.
- Additional recycling education and information was requested by all responding tenants.
- Tenants make frequent trips to collection area to dispose of garbage and recycling, with many citing inadequate in-home space for collection and separation.
- Tenants seek improvements for the garbage and collection system that involved the collection service and the collection area.

4.2 Limitations

4.2.1 Sample size

The sample size of this study was small with only 21 participants. Additionally, not all participants were given the opportunity to answer each question or share support or dissent for responses.

The sample was only drawn from two cities in Oregon, not from multiple cities across the state. Because of these factors, conclusions cannot be drawn across the broader population.

4.2.2 Interview protocol design

The wording of some questions used in the interview protocol were problematic. There were some leading (assumptive), double-barreled and loaded questions. An example of a double-barreled (touches upon more than one subject, but only allows for one answer) and leading question is as follows: Are you able to easily and safely use the garbage and recycling services where you live?

This question should have asked on the topic of ease of use and safety of the garbage and recycling services in two separate questions. Adding words, "easily" and "safely", although getting to targeted information, also could draw biased answers from interviewees, as these are non-neutral descriptors. Instead, the interviewer could have asked the interviewee to describe the collection area and use probing techniques to draw this targeted information from interviewees.

Other questions that were leading was as follows: How confident are you about what you can and cannot recycle?

The word "confident" is a non-neutral descriptor, and could have been worded, "Do you know what can and cannot be recycled?" The format of these questions may have skewed resulting data.

4.2.3 Group interview issues

4.2.3.1 Interview format

When participants joined the group interview, they were each given the same number of vouchers. Each time a participant would answer a question, they would return one of the vouchers to the facilitator. Each participant was able to answer questions until they returned each of their vouchers. This format was helpful as it allowed all participants to answer an equal number of questions including less vocal participants, It also encouraged participants to talk one at a time — allowing their statements to be clearly captured by the stenographer. Conversely, this format was not ideal as it limited the maximum number of responses to each question. This may have skewed results because, for example, if a participant agreed with a topic at hand and was out of vouchers to answer in agreement.

4.2.3.2 Interviewing techniques

The interviewer used leading probes throughout the interview such as in the following examples:

- Tenant: No. I don't — able or easily and safely use the garbage.
- Interviewer: You're not able to easily and safely use...
- Tenant: Not for me.
- Interviewer: And why is that, because it's too dirty or...
- Interviewer: All right — what do you do if you have a problem?
- Tenant: If I have a problem with the garbage, I have to wait until the company comes to solve the problem.
- Interviewer: You can't talk to the property manager?

This type of probing may have led interviewees to respond in a different way than they intended to, especially when considering the power dynamics between interviewer and interviewees, discussed in Section 4.1.2.3.

4.2.3.3 Relationship between interviewer and interviewees

The interviews were conducted by HACSA staff. A property manager was present for one of the group interviews. This may have led focus group participants to withhold some information. This was especially evident when one tenant told the property manager present during the focus group to close her eyes or ears when the tenants were expressing negative thoughts about the recycling and garbage collection at the property.

5. Evaluation

The findings of this study are a snapshot of what could be a broader understanding of multifamily tenant perspectives on recycling and garbage collection in Oregon. If this research was to be replicated, it is suggested that steps were taken to ensure more quality data. These factors include, using a revised interview guide and interview style that uses non-leading probing techniques. Further research with a larger sample size is needed to more deeply understand tenant experiences of current Oregon multifamily recycling programs and to inform future programs based on this information.

Appendix A

EXHIBIT A

INTERGOVERNMENTAL AGREEMENT

Multi-Tenant Recycling Community Outreach

STATEMENT OF WORK

DEQ shall work closely with HACSA to accomplish the following:

- A. Provide HCSA draft stakeholder questions for review within one business day of a fully signed contract
- B. Provide HCSA feedback on meeting format within three business days of receiving suggested meeting format from HACSA.
- C. Provide a 15-minute summary presentation of multifamily recycling research at each meeting.
- D. Answer any questions as necessary.

HACSA shall work closely with DEQ to accomplish the following:

- A. Provide feedback to DEQ on draft stakeholder questions within two business days of receiving questions from DEQ.
- B. Provide DEQ with a suggested format and length of the meetings within five business days of a fully signed contract.
- C. Incorporate feedback from DEQ for the meeting format.
- D. Identify and recruit adults living in HACSA-provided multifamily housing (share community garbage and recycling collection with others living in the same complex) from Lane County to attend and participate in one of two meetings.
- E. Ensure 12 to 15 participants — from different households — attend each meeting.
- F. Provide refreshments or meals at the meetings as necessary following HACSA guidelines/restrictions for providing food and not to exceed \$26 per person.
- G. Provide child care by a licensed child care provider at the meetings as necessary.
- H. Provide Spanish translation services at one meeting as necessary.
- I. Arrange and provide a venue for two meetings.
- J. Facilitate two meetings with DEQ provided stakeholder questions within 15 business days of a fully signed contract.
- K. Report individually transcribed participant responses to stakeholder questions in an editable electronic format to DEQ staff no later than five business days after conducting the last meeting.

Appendix B

Multifamily Tenant Group Interview Guide

Preface the discussion by letting participants know there are no right-or-wrong answers. We are genuinely interested in their experience and perception of their garbage and recycling system.

Presentation by DEQ staff on why this project is important: 5-10 min

1. Have you ever been asked by a government agency to help solve a problem affecting your community?
2. By a show of hands, how many of you have heard of the Oregon Department of Environmental Quality?
Can anyone name something DEQ is responsible for?

Other questions:

3. What are the reasons why you recycle or don't recycle?
4. What words or ideas come to mind when you think about recycling or garbage where you live today?
5. Do you have garbage and recycling collection services provided where you live? Which of these materials does it include? (show pictures of mixed recycling and pictures of glass recycling)
 - a. What do you think or feel about having recycling collection service where you live?
 - b. If it doesn't currently include mixed recycling and glass, did you have access to these services in the past in this same home?
 - c. Any ideas about why these services are no longer available where you live?
 - d. What do you think about not having recycling services available?
6. Have you ever received training or information on how to recycle at your home or your community room? What information or training would you like to receive?
7. Can you describe your experience of taking out your garbage and recycling?
 - a. How do you separate and collect recycling in your home?
 - b. Is there adequate space for separating materials in your home?

- c. Who is most likely to take out your garbage and recycling?
- d. How often do you take out the garbage and recycling?
- e. How confident are you about what you can and cannot recycle?
- f. Where are the garbage and recycling collection areas located in relation to your home?
- g. How convenient it is to take out mixed recycling, glass recycling and garbage?
- 8. Are you able to easily and safely use the garbage and recycling services where you live?
 - a. If you have any safety or health concerns about your garbage or recycling collection areas, what are they?
- 9. What do you do if you have a problem with your garbage and recycling service?
 - a. Who (or how) would you feel most comfortable reaching out to for help resolving the problem?
- 10. What do you do with stuff that doesn't fit inside the garbage bin?
 - a. What do you do with big, bulky waste items like sofas, chairs, mattresses and other items that don't fit into the bins?
 - b. What does your apartment manager suggest you do?
- 11. What words or ideas come to mind to improve the garbage or recycling system where you live?
- 12. If you could help design a garbage and recycling system, what would be the most important features?
- 13. Is there anything else you'd like to tell us about your garbage and recycling service?

Appendix C

Table 1: Thematic coding key

Code	Explanation	Definition
\$AVE	Save money	Tenants recycle to redeem deposits on bottles and cans.
3PTY	Third party	An organization or individual, other than property management or regular hauler, that arranges bulky waste disposal
ACC	Accessibility	Use of collection area is unblocked and within reach of tenant
ADSPACE	Adequate space	Tenant has area in home to collect and separate recyclable materials.
BEHAV	Behavior	Recycling and garbage disposal practices or perspectives and factors that influence practices and perspectives, such as participation in recycling, contamination of recycling, education, and other similar factors
BWPM	Property management	Bulky waste (couches, mattresses, large pieces of furniture and other items) is arranged by property management
BWTEN	Tenant	Bulky waste (couches, mattresses, large pieces of furniture and other items) is arranged by tenant
CA	Collection area	The location where garbage and recycling is taken to be disposed of by tenants and picked up by haulers
CACH	Collection area change	Alteration of collection area
CACON	Collection area concern	Collection area has health or safety issues, inaccessibility, or other issues

Code	Explanation	Definition
CAM	Camera	Security camera is used for surveillance in and around collection area, to deter non-tenant use and illegal dumping, and for tenant safety.
CAP	Capacity issues	Collection area is full or inaccessible because of inadequate receptacle volume and/or frequency of collection service
CLEAN	Clean environment	Area is sanitary and organized
COL	Collection	Recycling and garbage collection service, collection areas and receptacles
COLMAT	Collection materials	Materials included in respective recycling program
COLO	Color coding	Use of colors to differentiate between recycling or garbage receptacles
COMP	Compost	Food waste and/or yard debris accepted for recovery
CONFI	Confidence	Tenant knows how to recycle properly
CONFU	Confusion	Tenant is unsure about which materials are recyclable
CONV	Convenience	Collection area is easy to use, well-distributed, and nearby to where tenants live
DARK	Darkness	Lighting in and around collection area is insufficient
DEC	Decal	Sticker or label used to designate receptacles
DONTKNOW	Do not know	Respondent is unsure as how to respond to a question
EDUMAT	Educational materials	Paper-based information on how to use the garbage and recycling provided to tenants by property management, including letters, signage, resident handbooks, and other similar materials
ENC	Enclosure	Physical structure of collection area
ENVIRO	Environment	Environmental concern including pollution and conservation
FAM	Family	Tenant learned how to recycle from a family member
FINE	Fines for improper garbage/recycling disposal	Monetary negative consequences for disposal of garbage and recycling
FREQ	Frequency	The schedule of garbage or recycling collection service
GOODSERV	Good service	Collection service is adequate
HABIT	Habit	Tenant recycles as a habit
HAULR	Hauler	Provider of garbage and recycling collection service
HEALTH	Health and safety concern	Concerns including the level of sanitation or hazards in area
INADCAP	Inadequate capacity	Collection area or receptacles are full or inaccessible because of inadequate volume of receptacle

Code	Explanation	Definition
INCONV	Inconvenient	The collection area is not easy to use, well-distributed, or near to where tenants live
INFREQ	Infrequency	Tenants do not take trips to the collection area to dispose of garbage or recycling often
KIDS	Kids	Children go to collection area to dispose of garbage or recycling, or play in or near collection area
LESSCONS	Less consumption	Consuming fewer resources and producing less waste
LIT	Light	Adding or increasing the lighting in or around the collection area for safety and security
LOCK	Lock	Adding or reinforcing a locking mechanism to restrict access to non-tenants.
MAINT	Maintenance	Cleaning or repairs of collection area
MATCH	Change in materials collected	Expanding or reducing types of recyclable materials collected
MORED	More education requested	Increasing availability of recycling training or information
MOREFREQ	More frequency of collection	Increasing how often the garbage or recycling pickup service is provided
MORESAFE	More safety and security measures	Adding or reinforcing locks, lighting, or other measure for safety or security
NONT	Non-tenant use	Individuals who do not live at a respective property
NORECYC	No recycling	Recycling is unavailable
NOSEPAR	No separation	Separation of garbage or recycling is not performed in tenant's home
NOSPACE	No space	No area for collection or separation of garbage or recyclable materials in tenant's home
OED	Other type of formal education	Formal education other than school, in this study, Master Gardener program
PICS	Pictures	Visual cues other than words are used to identify proper receptacles for garbage and recycling in and on collection area
PMBAR	Property management barriers	Tenants face obstacles from property management in recycling and garbage disposal practices or access to recycling services
PRINT	Printed materials	Paper-based information on how to use the garbage and recycling including newsletters, signage, bulletins, magazines, and other similar materials
RECYC	Recycles	Tenant participates in recycling
RECYCA	Recycling available	Recycling is available at respective property
RECYCED	Recycling education source	The origin of a tenant's source of recycling knowledge

Code	Explanation	Definition
RECYCST	Recycles sometimes	Tenant recycles some of the time, but not always
SAFE	Safe	Tenant is feel unafraid to use collection area. Collection area is well-lit, secure, organized, and sanitary.
SCHEDE	Schedule	Regular time of garbage or recycling service pickup at a property
SELF	Self-haul	Removal of bulky waste by an individual
SEPAR	Separation	Tenant divides recyclables in home by material type for later disposal at collection area
SERV	Service	The pickup of garbage and recycling by a designated hauler
SERVCH	Collection service change	Alteration in frequency, volume, service provider, and other factors
SIGN	Signage	Security camera is used for surveillance in and around collection area, to deter non-tenant use and illegal dumping, and for tenant safety.
SKL	School	Tenant learned how to recycle from school
SSAFE	Sometimes safe	Tenant thinks that collection area is somewhat well-lit, secure, clean, sanitary, and is sometimes unafraid to use it
SSPACE	Some space	Tenant has some area in home to collect and separate garbage or recyclable materials in home
TPART	Negative recycling/garbage disposal behavior	Tenants do not recycle or engage in other negative behavior
UNSAFE	Unsafe	Hazardous, insecure, or inducing fear
UNSAN	Unsanitary	Unclean or hazardous to health or safety
UNSPEC	Unspecified	Response is unclear

Appendix D

Table 2: Tenant thoughts on recycling and garbage

	Percent	Number
Health and safety concerns	20%	2
Improper disposal behaviors	20%	2
Poor maintenance and incapacity of collection area	20%	2
Contamination	10%	1
Environmental concern	10%	1
Inconvenience	10%	1
Confusion	10%	1
Total	100%	10

Appendix E

Table 3: Tenant recycling practices

	Percent	Number
Recycles most or all of the time	57%	4
Recycles some of the time	43%	3
Total	100%	7

Table 4: Reasons for recycling

	Percent	Number
Environmental concern	29%	2
Health and safety concern	29%	2
Habit	14%	1
Save money	14%	1
Unspecified reason	14%	1
Total	100%	7

Table 5: Reasons for not recycling

	Percent	Number
No space or in-home receptacle for collection	67%	2
Confusion	33%	1
Total	100%	3

Appendix F

Table 6: Confidence in recycling ability

	Percent	Number
Confident	67%	2
Confused	33%	1
Total	100%	3

Appendix G

Table 7: Frequency of tenant trips to collection area

	Percent	Number
Frequent	71%	5
Infrequent	29%	2
Total	100%	7

Table 8: Space for in-home collection and separation

	Percent	Number
Inadequate	67%	4
Adequate	17%	1
Sometimes adequate	17%	1
Total	101%	6

Table 9: Location of recycling collection and separation

	Percent	Number
In home	75%	3
Collection area	25%	1
Total	100%	4

Appendix H

Table 10: Household member most likely to dispose of garbage and recycling

	Percent	Number
Children	67%	2
Unspecified household member, other than child	33%	1
Total	100%	3

Appendix I

Table 11: Source of recycling education

	Percent	Number
Family	60%	3
School	20%	1
Other non-formal education	20%	1
Total	100%	5

Appendix J

Table 12: Types of requested recycling education or information

	Percent	Number
Improved signage	50%	6
Printed materials	25%	3
One-on-one education	17%	2
Unspecified method	8%	1
Total	100%	12

Table 13: Importance of recycling education

	Percent	Number
Environmental benefits	67%	2
Community benefits	33%	1
Total	100%	3

Appendix K

Table 14: Recycling availability

	Percent	Number
Recycling available	80%	4
Recycling unavailable	20%	1
Total	100%	5

Table 15: Thoughts on recycling availability

	Percent	Number
Environmental concern	40%	2
Additional recycling education needed	40%	2
Clean community	20%	1
Total	100%	5

Appendix L

Table 16: Party taking care of bulky waste disposal

	Percent	Number
Tenant	33%	3
Property manager	33%	3
Does not know what to do	29%	2
Third party	11%	1
Total	100%	9

Table 17: Property management-tenant relations when seeking help with bulky waste disposal

	Percent	Number
Tenant does not know how to get help — property manager does not help	33%	1
Tenant never thought to ask property manager for help	33%	1
Property manager rents large container once per year for tenants to use for bulky waste	33%	1
Total	100%	3

Table 18: Bulky waste disposal arrangements by tenant

	Percent	Number
Self-haul	67%	2
Third party (handyman not associated with property)	33%	1
Total	100%	3

Appendix M

Table 19: Resolving problems with garbage and recycling collection

	Percent	Number
Collector	60%	3
Property manager	40%	2
Total	100%	5

Table 20: Issues with seeking help for garbage and recycling service problems

	Percent	Number
Lacks confidence to talk to manager	50%	1
Lacks control over service problems	50%	1
Total	100%	2

Appendix N

Table 21: Collection area concerns

	Percent	Number
Health and safety concerns	50	3
Maintenance and capacity issues	17	1
Accessibility issues	17	1
Tenant improper recycling and/or garbage disposal	17	1
Total	100%	6

Table 22: Collection area safety and ease of use

	Percent	Number
Unsafe or difficult to use	71%	5
Sometimes safe or easy to use	14%	1
Safe and easy to use	14%	1
Total	99%	7

Table 23: Reasons collection area is unsafe or difficult to use

	Percent	Number
Inadequate capacity or pickup Number	36%	4
Inadequately maintained and unsanitary collection area	27%	3

	Percent	Number
Insufficient lighting	18%	2
Non-tenant use	18%	2
Total	100%	11

Table 24: Other concerns about collection area

	Percent	Number
Unsanitary conditions — wearing gloves recommended	33%	1
Children play in the collection area	33%	1
Location — too near a playground	33%	1
Total	100%	3

Table 25: Changes in garbage and recycling system

	Percent	Number
Collection	63%	17
Behavior	37%	10
Total	100%	27

Table 26: Changes in collection

	Percent	Number
Collection area	53%	9
Collection service	47%	8
Total	100%	17

Table 27: Changes in collection area

	Percent	Number
Safety and security measures	40%	4
Receptacle	30%	3
Number	10%	1
Enclosure	10%	1
Location	10%	1
Total	100%	10

Table 28: Change in collection area safety and security measures

	Percent	Number
Locks	40%	2
Lighting	20%	1
Cameras	20%	1
Unspecified anti-dumping measure	20%	1
Total	100%	5

Table 29: Change in collection service

	Percent	Number
Frequency of service	56%	5
Materials collected (including adding compost and bulky waste service)	33%	3
No change	11%	1
Total	100%	9

Table 30: Changes in behavior and behavioral challenges

	Percent	Number
Education	40%	4
Reduce consumption	30%	3
Property manager barriers	10%	1
Fines — difficult on tenants	10%	1
Enjoys recycling	10%	1
Total	100%	10

Table 31: Changing behavior: education — more than one response by some tenants

	Percent	Number
Printed materials (list of recyclable materials, newsletter, card, pamphlet, flyer, manual)	75%	3
Signage with images	50%	2
Learn tenant rights	25%	1
Unspecified	25%	1
Total		4