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Recycling Equity Study and Multifamily Housing Needs Assessment

As required by the Plastic Pollution and Recycling
Modernization Act (SB 582, 2021)

Submitted to the Oregon Legislature



This document was prepared by
Oregon Department of Environmental Quality
Materials Management
700 NE Multnomah Street, Portland, Oregon, 97232

Contact: Abby Boudouris
Abby.Boudouris@deq.oregon.gov
www.oregon.gov/deq



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800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

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Executive Summary



Oregon’s Plastic Pollution and Recycling Modernization Act (SB 582, 2021) establishes the state as a leader in recycling. The Act will modernize Oregon’s recycling system by reducing negative impacts on system workers, creating more robust recycling markets and improving effects on human health and the environment.

The Act requires DEQ to submit two reports to the Oregon Legislature every four years: the Multifamily Housing Needs Assessment and Equity Study. DEQ chose to submit these reports together, highlighting the connection between equity and challenges facing residents of multifamily housing.

To develop the recommendations in this report, DEQ received input from the Oregon Recycling System Advisory Council, state commissions, and other interested parties. DEQ staff reviewed past research and work on multifamily recycling, hosted a listening session for property managers, and conducted surveys to better understand the challenges facing people living in multifamily housing. DEQ identified challenges related to equity within the recycling system as well as challenges with multifamily collection service levels, collection areas at multifamily properties, and the quality of the recycling education and outreach provided to multifamily residents.

While tenant access to recycling is an important equity concern, this report addresses additional concerns. Although Oregon municipalities and service providers have increased their focus on equity within the recycling system, the system does not fully meet the needs of all people in Oregon. Equity within the system remains insufficient to ensure that everyone has access to recycling, receives education and outreach materials that are responsive to diverse communities, and benefits from systems that support the collection and processing of recyclables, including good-paying jobs, benefits, favorable working conditions and expanded economic opportunities for historically excluded communities. The resulting report provides a foundation for future assessments.

Recommendations

DEQ identified several near-term actions it can take to address the challenges identified in this report. DEQ has existing authority and plans to:

- Advance community engagement and community capacity building.
- Evaluate structural barriers to economic opportunities in the recycling system.
- Set statewide standards for recycling collection and education at multifamily properties and provide local governments with tools to support implementation.
- Establish metrics to track equitable access and economic opportunities in Oregon's recycling system.

The Act requires producers of printed paper, packaging, and food serviceware to join a Producer Responsibility Organization, or PRO, to fulfill obligations. To address the challenges identified in this report, the PRO would need to:

- Implement the 2021 Act as written – Several of the existing obligations of the PRO under the 2021 Act will improve equity and access to recycling collection opportunities, including:
 - Funding the expansion of recycling collection services in communities throughout the state.
 - Developing a statewide network of recycling drop-off points for additional materials.
 - Supporting recycling processing facilities in providing living wages and benefits for workers.
 - Ensuring transparency and verification that collected materials are recycled responsibly.
- Fund improvements to existing multifamily buildings - The PRO would need to provide funding to local governments to assess improvements needed to ensure adequate space for recycling collection in existing buildings and then implement the identified improvements.

Oregon DEQ's website, RecyclingAct.Oregon.gov, has a copy of the full report. Anyone may also request a copy by email at RethinkRecycling@deq.oregon.gov.

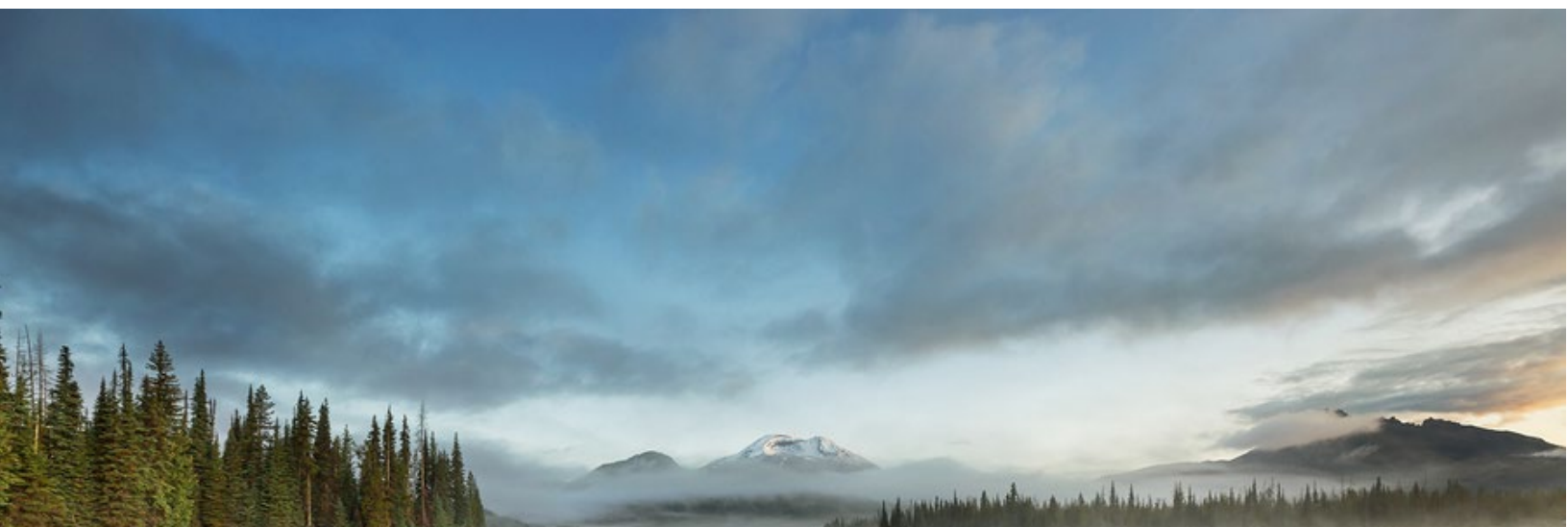


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1. Introduction

About this report

In 2021, the Oregon Legislature passed the Plastic Pollution and Recycling Modernization Act (SB582, 2021), which directs the Oregon Department of Environmental Quality to conduct two periodic studies. The first study presents recommendations on equity considerations within Oregon's recycling system. The second study and recommendations are related to the Multifamily Housing Needs Assessment, which examines the challenges facing multifamily residents, evaluates collection spaces and recommends possible improvements. The law requires DEQ to complete the Multifamily Housing Needs Assessment (ORS 495A.935) and the Equity Study (ORS 459A.932) in consultation with local governments and the Oregon Recycling System Advisory Council. DEQ will conduct these studies and submit reports to the Oregon Legislature at least once every four years.

DEQ combined the 2024 Equity Study and Multifamily Need Assessment this year due to the direct connection between the challenges residents of multifamily housing face and concerns addressed in the equity study. Because changes to the recycling system won't begin until July 2025, this initial combined report is a baseline for measuring progress in the coming years.

Definitions

DEQ used the following definitions to ensure clarity in this report.

Equity - This definition is adopted from the [2021 State of Oregon Diversity, Equity and Inclusion Plan](#). Equity acknowledges that not all people or all communities start from the same place due to historical and current systems of oppression. Equity is the effort to provide different levels of support based on an individual's or group's needs to achieve fairness in outcomes. Equity actionably empowers communities most impacted by systemic oppression and requires redistributing resources, power, and opportunity to those communities.

Multifamily – The definition of multifamily is adopted from OAR 340-090-0010(27); "Multifamily" means dwellings of five or more units. The project team also referenced ORS 456.515(8)(a) to determine which types of properties to exclude. This exclusion list includes nursing homes, hospitals, places primarily engaged in recreational activities and single-family,

detached dwellings, except manufactured dwellings in a mobile home and manufactured dwelling park.

Previous reports

DEQ and Metro extensively studied recycling at multifamily properties from 2016 to 2018. DEQ used the findings to identify challenges and potential solutions, which are included in this report. In May 2018, DEQ formed the Recycling Steering Committee with partner representatives and launched a planning process to modernize Oregon’s recycling systems to be stronger and more resilient to market changes.

In 2020, DEQ surveyed and interviewed recycling system workers and Recycling Steering Committee members. The findings from those engagements aligned with those of a 2018 study by Metro on recycling system workers. While the recommendations from that report are specific to Metro's Transfer Stations, concerns about low wages, worker safety, and opportunities for career development and advancement remain consistent across the recycling system in 2024. To develop this report, DEQ also consulted with other parties who conducted previous reports and sought feedback directly from multifamily tenants, property managers and workers in the recycling system. Through these discussions, DEQ confirmed that the status of equity and multifamily access within Oregon’s recycling system has not significantly changed since 2018.

Note that some problems and solutions span multiple dimensions and are not easily categorized. For example, a multifamily tenant user experience issue may also be an equity issue or a service and collection area issue. The challenges with multifamily recycling systems impact people differently depending on their roles within the system, their access to services and the system’s ability to meet their needs

2. Equity in the Recycling System

Background

The Recycling Modernization Act advances the values and goals of Oregon’s [2050 Vision and Framework for Action](#), approved by the Oregon Environmental Quality Commission in 2012. The 2050 Vision is the foundation for DEQ’s Materials Management: Oregonians in 2050 produce and use materials responsibly, conserve resources, protect the environment and live well. The Recycling Modernization Act integrates those values into a comprehensive modernization of

Oregon's recycling system, aiming to address existing inequities and create a more effective and inclusive system for people who recycle in Oregon and the places that process our recycling abroad.

This recurring Equity Study will allow DEQ to evaluate progress toward those goals over time:

- Well-being for workers - The Recycling Modernization Act incorporates equity considerations for recycling industry workers, including requirements for a living wage and supportive benefits for some recycling system workers starting Jan. 1, 2027. Additionally, the law requires the companies that sort recycling, also called commingled recycling processing facilities, to ensure workers' health, safety and wellness. Those conditions will be included in DEQ permits. Facilities in other states operating under a certification would be subject to their state and local regulations.
- Responsible end markets - The Act requires that materials recycled from Oregon go to responsible end markets. The facilities that transform our recycling into the building blocks for new products will need to comply with all local, state and regional laws, operate in an environmentally sound manner, produce adequate yields and be audited. This aspect of modernization responds to the environmental and human health harms to lower-income countries and communities of color domestically and globally from improperly managed recycling.
- Economic opportunity - The City of Portland's [2018 Franchise Review Equity Options Report](#) indicated that the structure of Oregon's waste collection system, including [historical discrimination](#), industry consolidation, vertical integration and public-private partnerships, has resulted in limited economic opportunities for historically underserved communities and minority- and woman-owned companies. According to the [Recycling Partnership's 2020 State of Curbside Recycling report](#), if all commodities that could feed into a circular economy were accurately captured, it could create 370,000 full-time jobs, which could be economic opportunities for Oregon women-owned and minority-owned businesses. DEQ recognizes economic opportunity as an important topic for future study.

This 2024 Equity Study and report will serve as the initial baseline for future studies and reports, repeated at least once every four years. It is DEQ's intent to ensure that the items listed above, and the approach to equity within a modernized recycling system, are also considered in the broader scope of the agency's environmental justice work to address disproportionate environmental pollution and human health concerns. The intent of capturing baseline information will help DEQ assess and document the current state of the recycling system and known inequities.

Challenges Related to Equity in the Recycling System

During the development of the Recycling Modernization Act, DEQ and project partners identified key challenges related to equity in the current recycling system in Oregon: inequitable provision of recycling services, often based on housing type or community size, disparity of economic opportunities for the businesses engaged in the recycling system and an incomplete understanding of Oregon's recycling system as a comprehensive and statewide program. These challenges, coupled with varying levels of knowledge and engagement with the recycling system by people across Oregon, offer the State of Oregon an opportunity to modernize its recycling system and center equity-based approaches in implementation.

No established set of measures or metrics exists for tracking equity-related advancements within Oregon's recycling system, including those specific to educational campaigns and programming.

Data and information related to multifamily recycling services are lacking or difficult to access. Service providers, property owners, managers, and others working in the sector voluntarily share some information, but comprehensive data is not available.

Several barriers disproportionately exclude women and minorities from economic opportunities associated with Oregon's modernized recycling system. State of Oregon contracting requirements, including standardized insurance/liability requirements and certification processes, can be barriers to entry for new and emerging small businesses. Another obstacle includes access to capital for large equipment and capital investments. In addition, these state and local requirements may disadvantage local and Pacific Northwest-based businesses attempting to compete against national and multi-national corporations interested in Oregon's modernized recycling system.

3. Recycling at Multifamily Housing

Background

The most recent American Community Survey data shows that there are over 450,000 multifamily housing units in Oregon. In 1983, the Opportunity to Recycle Act was built on the premise that everyone in Oregon should have the opportunity to recycle, and many cities around the state have adopted programs to provide recycling for people living in multifamily dwellings.

Oregon's Opportunity to Recycle rules related to multifamily programs require that:

- Recycling be offered to multifamily properties.
- Steps are taken to ensure landlords and tenants are informed of the opportunity to recycle.
- All new and existing tenants are provided education and promotional information about recycling, such as what is recyclable and how to prepare it properly.

Jurisdictions across the state have adopted a variety of enforceable means to require landlords to provide recycling at multifamily properties. For example:

- The City of Klamath Falls adopted ordinances for multifamily recycling.
- The City of Scappoose requires multifamily recycling through franchise agreements.
- Metro Regional Government uses a regional service standard.

In recent years, some local governments and service providers have made significant efforts to enhance recycling services for multifamily communities. Despite these efforts, people living in multifamily housing in Oregon still do not have equal access to recycling services. As of 2024, 38 local governments across Oregon have adopted the Opportunity to Recycle rules for multifamily dwellings, which represents about 30 percent of the total (127) local governments that were eligible, but not required, to adopt these rules. Multifamily residents encounter barriers to recycling, including but not limited to space constraints, distance to containers, inconsistent education and lack of direct communication with service providers.

Oregon law will require cities and counties to ensure all multifamily residents and business users of garbage service receive recycling collection beginning July 1, 2026. This requirement applies to cities with a population of 4,000 or more, cities within the Metro Service District and counties that manage programs within those cities' urban growth boundaries.

These same local governments are also required to ensure adequate space for collection and adequate levels of collection service at multifamily properties. However, no funding has been identified to support the implementation of this requirement at existing multifamily properties. Making Oregon's recycling system more equitable and accessible specifically for multifamily communities will help boost recycling rates. A 2016 [Resource Recycling article](#) states, "Ensuring that apartment dwellers have access to the basic recycling infrastructure essential for successful participation is a necessary first step in improving multifamily recycling rates."

Challenges for Multifamily Recycling

Multifamily recycling is a complex system with great variability in building type, waste collection systems, management styles (on-site versus off-site), geography, and more. Challenges are heightened by a lack of ownership of shared spaces, high turnover in management and tenants, and users' disconnect from service provider feedback. Below are three central challenges that DEQ has identified as solvable.

- 1. Inadequate service levels** - Many residents of multifamily properties in Oregon do not have access to recycling collection at home. According to DEQ’s Multifamily Property Collection Area Survey, 67% of properties offer some recycling collection, while 33% have none. Those with recycling services tend to have less space in their bins than their counterparts living in single-family homes. Studies conducted by DEQ and Metro both found that weekly service levels for mixed recycling and glass recycling at multifamily housing were less than half of what single-family residences receive. Service levels are the number and size of containers and pickup frequency. On average, a multifamily household receives around 16 gallons per week of bin space for commingled recycling, while single-family households receive more than 35-90 gallons per week. A recent study conducted by Metro found that only 32% had Metro’s regional service standards for multifamily properties, which is 20 gallons of garbage, 20 gallons of recycling and 1 gallon of glass collection space available per unit in the property.

Insufficient garbage service levels can also pose a challenge for multifamily recycling programs. If garbage containers are full before collection day or pile up in the enclosure, blocking access to recycling containers can lead to recycling contamination. Many single-family residents in Oregon can increase or decrease their garbage service as they see fit, but most multifamily residents cannot.

While tenants often mention that their property would benefit from more recycling capacity, a DEQ survey found property managers believe their garbage (73%) and recycling (69%) service levels are adequate, highlighting the challenges of ensuring the right level of service at multifamily properties.

Median solid waste service levels for Oregon multifamily communities		
	Multifamily gallons per week	Single-family gallons per week
Garbage	36	17.5-60
Mixed recycling	16	35-90
Glass	3	3.4-14

2. Deficient recycling collection areas - The areas used to collect and store recycling and garbage containers until the service provider can pick them up are known as enclosures. The inadequacy of enclosure spaces cannot be understated; rather, the state of recycling enclosures at multifamily properties is one of the primary factors leading to frustration with multifamily recycling programs.

Tenants, property managers, and service providers all reported that uncontained materials on the ground are their top concern due to the various health and safety concerns they can cause. DEQ found that 60% of properties had improperly contained or placed materials. Uncontained items can block the pathway to the recycling or garbage, leading to access and safety issues for residents and service providers.

Uncontained materials often originate from people who reside elsewhere, and improper disposal by non-tenants causes many challenges. Therefore, the security of enclosure space and containers is another concern frequently voiced by property managers and tenants alike, who commented on the mess that can be made by non-tenant use.

Accessibility is another challenge. Children, older residents, and disabled community members may not be able to use the recycling enclosures and containers for a variety of reasons, including safety, space configuration, or stairs. In a 2024 DEQ tenant survey, over half of the respondents said they have trouble lifting container lids, keeping them open and putting materials inside.

Many residents find recycling enclosures are not conveniently located. DEQ's previous two reports found that the average distance a resident in a multifamily building must walk to access recycling containers is over three times that of a single-family resident. Over 75% of the properties surveyed by DEQ required tenants to use stairs or elevators to access the recycling collection located on another floor within the building.

3. Insufficient education and outreach - Recycling education and outreach can take many forms, including signage, decals and stickers within collection areas, brochures or guides provided at move-in and special tote bags for collecting and transporting materials from individual units to the shared collection area. DEQ and Metro found issues related to language, imagery, inaccurate and inconsistent signage, and confusing containers in multifamily properties. Consistent and culturally responsive education is known to be effective when applied in multifamily communities, as seen in a pilot study done by Cascadia Consulting in various Western Washington counties and at the Kitsap Naval Base.

In addition to the onsite education at multifamily properties, some local governments provide educational support to these communities. However, less than half of local governments have education and outreach standards, and many face staffing issues and lack resources to support education programs adequately. A recent DEQ survey of multifamily tenants showed that printed materials (75%), stickers or decals (58%) on collection receptacles, and signage in enclosures (53%) were the top two preferred ways for tenants to receive recycling education. However, signage is often out of date and does not follow best practices for ease of comprehension. For material collection signage, 78% of the properties DEQ surveyed had education in a single language, 21% had dual languages, less than 1% had education in three languages and only 33% of the signage contained photos of the materials accepted.

4. Recommendations

DEQ identified several near-term actions it can take to address the challenges identified in this report. DEQ has existing authority and plans to:

- Establish metrics to track equitable access and economic opportunities in Oregon’s recycling system. In consultation with the Oregon Recycling System Advisory Council, DEQ will develop metrics to track equity-related elements within Oregon’s recycling system, including those outlined in ORS 459A.932(A-E). DEQ will include draft metrics in a September 2028 report to the Legislature.
- Evaluate structural barriers to economic opportunities—DEQ will work with other state agencies, small business groups and others suggested by the Oregon Recycling System Advisory Council to better understand the current structures at state and local levels that hinder economic development opportunities for women, minority individuals and Pacific Northwest businesses in Oregon’s modernized recycling system. DEQ will begin this work in 2026. The outcomes and findings, including any recommendations for DEQ or PRO action, will be reported to the Oregon Recycling System Advisory Council and integrated into the September 2028, report to the Legislature regarding equity in Oregon’s recycling system.
- Advance community engagement and community capacity building - DEQ will conduct a long-term statewide community engagement process related to the Recycling Modernization Act, centering equity and the voices of communities and populations historically and currently excluded or otherwise underserved by Oregon’s recycling system. DEQ will begin a long-term contract for community engagement and capacity-building activities starting by Jul. 1, 2025.

- Set statewide standards for recycling collection and education at multifamily properties and provide local governments tools to support implementation - DEQ will work with interested parties such as tenants, property managers, local governments, and service providers to strengthen requirements for education and define adequate service levels and enclosure space, including criteria for safety, security, access, accessibility, and convenience for all users of the collection area.

DEQ will begin this work in 2025 to inform local government implementation planning.

Recommendations for Producer Responsibility

Organizations

To address the challenges identified in this report, DEQ recommends that the Producer Responsibility Organization:

- **Implement the 2021 Act as written** – Several of the existing obligations of the PRO under the 2021 Act will improve equity and access to recycling collection opportunities, including:
 - Funding the expansion of recycling collection services in communities throughout the state.
 - Developing a statewide network of recycling drop-off points for additional materials.
 - Supporting recycling processing facilities in providing living wages and benefits for workers.
 - Ensuring transparency and verification that collected materials are recycled responsibly.

Timeline: The PRO is developing a program plan that details how they will meet the obligations under the 2021 Act. Implementation of some elements has already begun in anticipation of the July 1, 2025, program launch.

- **Fund improvements to existing multifamily buildings** – The Legislature could require the PRO to provide funding to local governments to assess improvements needed to ensure adequate space for collection in existing buildings and implement the identified improvements.

Timeline: Funding to local governments should be provided in two phases:

- By Nov. 1, 2027, funding to complete an assessment of improvements needed to ensure adequate space for collection in existing buildings.
- By Jan. 1, 2030, funding for local governments to begin implementing needed improvements.

5. Future Reports

This report is intended to set a baseline for future reports as the implementation of the Recycling Modernization Act progresses.

The statute outlines several required areas this report must address, as shown below. Many of these topics evaluate the future implementation of the Recycling Modernization Act and will be included in subsequent reports:

- A. An evaluation of recycling facility worker conditions, wages and benefits
- B. The availability of opportunities in the recycling system for women and minority individuals
- C. The sufficiency of local government requirements related to multifamily recycling services and their implementation
- D. The sufficiency of recycling education programs relative to desired equity outcomes of SB 582
- E. The availability of opportunities in the recycling system for Oregon and other Pacific Northwest businesses
- F. Recommendations for improving equity and equitable outcomes for underserved populations in Oregon's recycling system, including recommendations for new responsibilities of producer responsibility organizations and funding such responsibilities.

Some Recycling Modernization Act requirements become effective July 1, 2025, while others will phase in over the following 18 months, including the expansion of multifamily recycling services in 2026 and the Jan. 1, 2027, requirement for a living wage and supportive benefits for some recycling system workers. In addition to the recommendations outlined in this report, these statutory actions will help Oregon advance equity within its modernized recycling system and begin building for better health, social equity and environmental outcomes for all people who recycle in Oregon.

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