

Photo of St Johns Landfill

Waste Prevention & Environmental Services

Regional Waste Plan Progress Report

January 2022

Public service

We are here to serve the pulic with the highest level of integrity

Excellence

We aspire to achieve exceptional results

Teamwork

We engage others in ways that foster respect and trust

Respect

We encourage and appreciate diversity in people and ideas

Innovation

We take pride in coming up with innovative solutions

Sustainability

We are leaders in demonstrating resource use and protection

Metro's values and purpose

We inspire, engage, teach and invite people to preserve and enhance the quality of life and the environment for current and future generations. If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we've already crossed paths.

So, hello. We're Metro - nice to meet you.

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

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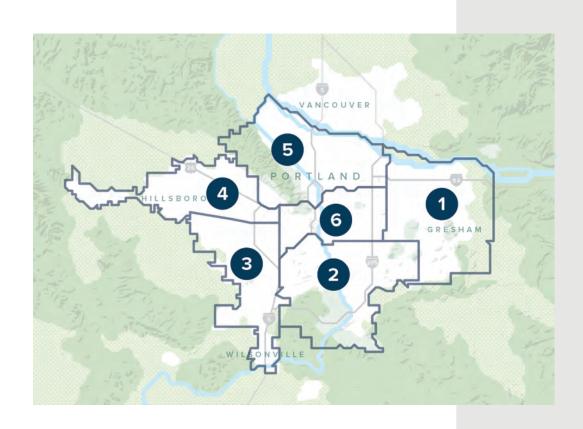


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January 2022

Greetings,

I am pleased to share the first **2030 Regional Waste Plan Progress Report**. This report begins a series of annual progress reports to track performance, mark our successes, observe trends and identify areas needing improvement.

Not surprisingly, COVID-19, local wildfires and significant budget reductions had an impact on the region's ability to implement the Regional Waste Plan. Despite these challenges, steady progress was made by Metro, local governments and community partners to reduce the environmental and human health impacts of the products we use. More importantly, together we made some real and meaningful shifts to a more equitable system that elevates voices and empowers historically marginalized groups and communities of color.

While still have a lot of work ahead of us, I'd like to share a few highlights of what we've accomplished together since embarking on this new vision for our solid waste system. A heartfelt thank you to the many community groups, governments, businesses and individuals who have dedicated their time, creative thinking and hard work to taking this plan from words to action.

Metro's Investment and Innovation Grant program fosters economic opportunities and other benefits for communities of color and other historically marginalized communities. Since the program's inception in 2018 **41** grants totaling \$8.5 million were awarded leveraging \$18.2 million in cash and in-kind support.

Fourteen youth have received paid internships at Metro through the Youth Leadership Program that emphasizes opportunities for youth of color and other historically marginalized communities.

Metro and local governments contributed significant time and effort, most notably **bringing a much-needed equity focus to Oregon's Plastic Pollution and Recycling Modernization Act**. The new act updates Oregon's laws to create an innovative system that works for everyone.

Partnerships with the North by Northeast Community Health Center, Centro Cultural, and Trash for Peace provided paid training and support for residents to become leaders in waste reduction in communities that have been historically marginalized and underserved by governments. **68**Environmental Promoters helped over **18,000 people** learn about reducing food and household waste, reducing toxic chemical use, how to dispose of hazardous waste, and pathways for community advocacy.

Metro educators quickly pivoted from in-person presentations to **online resources for youth and families**, developing 47 pre-recorded educational videos and offering middle and high school students virtual engagements on climate change, waste prevention and the connection between people, consumer products and nature. **5,371 youth participated in live, online presentations during the 2020-21 school year**.

Businesses are doing an excellent job of separating food scraps from their garbage demonstrating the commitment of all involved and helping to ensure that compost products made from the scraps are also top notch. When COVID caused sudden restaurant closures, local government staff were able to quickly help many businesses **move thousands of pounds good food to those in need**.

Long-overdue changes to multifamily garbage and recycling services have begun. The changes are in direct response to the needs and ideas expressed by members of our community living in multifamily homes—people who have not had a strong voice in the development of policies or programs. Relabeling of recycling containers is underway with more improvements rolling out over the next 5 years.

The pandemic greatly impacted **Metro's ability to provide needed community cleanup services** and resources. Metro Council approved two **significant budget expansions totaling \$3.5 million** directed towards providing the staffing, equipment and other resources needed to return to pre-pandemic service levels while also providing additional resources to address acute impacts from graffiti and litter across the region.

The Regional Waste Plan is ambitions, and I am heartened by everything that we have accomplished together despite the monumental challenges over the past years and months. I look forward to continuing our partnerships and making meaningful change to protect our families, communities and the environment.

Sincerely,

Roy W. Brower
Director, Waste Prevention & Environmental Services

Introduction

The 2030 Regional Waste Plan is both a vision for greater Portland's garbage and recycling system and a blueprint for achieving that vision. The plan includes a robust measurement framework to evaluate progress, demonstrate positive impacts and highlight opportunities for improvement. This report is the first in a series of annual progress reports designed to track plan performance, mark successes, observe trends and course-correct as needed.

Information and data used in this report is gathered from a wide range of sources from broad, long-term indicators of progress such as greenhouse gas emissions reduction to on-the-ground Metro and local government programs and services.

Not unexpectedly, the global COVID-19 pandemic had significant impact on the region's ability to implement the Regional Waste Plan. Coupled with wildfires affecting the region, dramatic budget reductions and the redirection of resources, many programs were delayed or significantly amended. Over the past 18 months, the region's highest priority was maintaining basic essential garbage and recycling services. Despite these difficult circumstances, many of the more innovative programs were adapted and adjusted to meet the changed needs of communities throughout the region.

The first report covers the years 2019-2021. Future reports will be updated and published annually.

Regional Waste Plan Overview

We live in a place where people care—about protecting the environment, conserving resources, keeping people healthy and ensuring that everyone has what they need to thrive. There's a strong connection between our ability to achieve these values and our decisions about managing waste, especially when we think beyond garbage trucks and recycling bins. The 2030 Regional Waste Plan seeks to create conditions that will allow everyone to enjoy the benefits of our growing region and have access to the services they need. From the community-driven process that created the plan to the goals and actions in it, the plan is designed to correct inequities in the garbage and recycling system and build a more inclusive future.



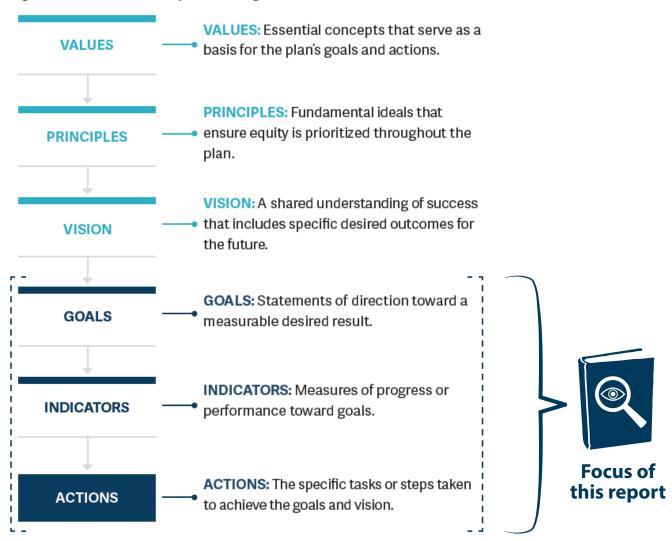
Regional Waste Plan Overview

Metro created the plan in partnership with cities, counties, businesses and community leaders in the greater Portland area to set direction for how we manage and improve the garbage and recycling system over the next decade.

The plan's goals and actions were generated in partnership with people most affected by historic injustices and inequities: people of color, immigrants and refugees, people with low incomes, residents of multifamily housing communities and English language learners. Every action in the plan is grounded in equity, reflecting a paradigm shift from the region's previous 30 years of solid waste system planning. The plan also goes far beyond waste and recycling; challenging the region to reduce the larger climate, environmental and human health impacts of products during all phases—from manufacturing, to use, to disposal.

While Metro, city, county and state governments will use this plan as a blueprint for the path forward, true success relies on partnerships with communities and organizations across the region. Partnerships built on trust and mutual respect.

Figure 1: Overview of Plan Organization



The plan is organized beginning with the broader values, principles and vision which serve as the foundation guiding how Metro and partners manage and improve the garbage and recycling system. Next are specific goals and related actions designed to enable achievement of the plan's vision by 2030. Each action is led or co-led by Metro and/or local cities and counties. Implementation of actions is done in partnership with community, community-based organizations and private sector service providers.

Navigating This Report

The report is organized into the five areas of work shown below. Each area is evaluated beginning with broad key indicators and moving to the program level activities to demonstrate progress towards the plan goals.

Shared Prosperity: This area of work aims to address barriers faced by communities of color and those who have been disproportionately impacted by the garbage and recycling system. Goals and actions are designed to make progress toward a future where all people have equitable access to the benefits of the garbage, recycling, reuse and repair economies. Through the goals and actions in this section, Metro and local governments work to make changes that result in:

- More leadership opportunities and greater representation of youth and adults of color on formal advisory committees.
- Greater diversity in all jobs in the garbage and recycling system workforce.
- All jobs in the garbage and recycling industry pay a living wage, offer good benefits and create opportunities that lead to advancement.
- Companies owned by people of color and other historically marginalized groups receive a larger portion of the almost \$290 million that flows through the garbage and recycling system each year.

Product Design & Manufacturing: Product Design and Manufacturing focuses on reducing the environmental and health impacts of products by influencing how products are designed, manufactured and packaged. Actions also focus on reducing or eliminating potentially dangerous chemicals and highly toxic materials.



Product Consumption & Use: Goals in this area focus on reducing the environmental and health impacts of what we buy. The actions emphasize education and policy efforts to reduce those impacts and support purchasing choices that conserve natural resources and reduce waste. Education prioritizes culturally responsive efforts, with programs and services designed and delivered in partnership with community organizations to reach historically marginalized groups. Policy actions in this area aim to provide safer, lower-risk products and reduce the use of single-use items that harm the environment and create problems for the recycling system.

Product End of Life Management: While the ultimate goal is to prevent waste to begin with, the region still needs a system that safely and conveniently manages products at the end of their useful life. This area of work aims to improve the system that handles the region's recycling and garbage. The actions helps determine which services are available, how we learn about them, where they're located and much more. This area has the largest number of goals and actions in the plan. Through these actions, Metro and local governments aim to make progress toward:

- Transparency and consistency in rates and services.
- More useful and culturally relevant education and information.
- New and improved services that respond to community-identified needs.
- Operations that reduce impacts to human health and the environment.
- · A thriving reuse and repair economy.
- Investment in local communities and innovative approaches to managing waste.

Disaster Resilience: Disaster Resilience helps prepare the garbage and recycling system for a disaster. The actions will help the region plan how to manage both waste created by a disaster and regular garbage, as well as recover from a major incident while minimizing harmful impacts to local communities. Goals in this area are designed to ensure that the region has a plan in place before a disaster happens.

Goals, Indicators, and Actions

Goals of the plan focus on addressing the impacts of materials - from production to disposal - and closing the gap between today's reality and the region's vision for the future. This involves taking action at every stage of the product life cycle and addressing community needs within the garbage and recycling system.

The plan has specific goals identified, with goals in each of the five areas of work identifying what the region would like to achieve by 2030. Subsequent to these goals are action items for Metro and local governments to undertake that help support that vision with concrete steps to implement to help reach the goal.

Action Items were developed by work groups made up of representatives from Metro, local governments, garbage and recycling facility operators, haulers, topical experts, community organizations, equity work group members and other with a particular interest in the system and shaped by community input. There are 108 action items supporting the goals. Actions can either be new or in-progress (existing), and can be directive or non-directive. Directive actions are those that are binding on local governments and are typically set forth by Metro Code.

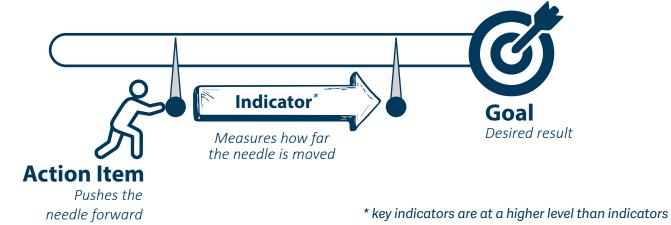
Key indicators communicate the overall trajectory of progress to a broad audience. They draw from the plan's values and demonstrate overall performance. A number of the key indicators are new measures that would require investment to implement. Key indicators include:

- Greenhouse gas emissions associated with the products and services consumed in the Metro region (Environment and Health value)
- Annual tons of waste generated (Resource Conservation value)
- Number, geographic location and demographics of youth reached through education programs (Environmental Literacy value)
- Share of multifamily communities with adequate collection services (Service Excellence and Equity value)
- Recycling contamination by sector (Operational Resilience value)
- Median wage in the waste management industry by race, ethnicity and gender (Economic Well-Being value)
- More leadership opportunities and greater representation of youth and adults of color on formal advisory committees.

Indicators at the goal level are designed to measure the progress of specific programs, policies or investments that are linked to attaining the 2030 Regional Waste Plan's goals. A number of the goal indicators will also inform the key indicators. There are 27 goal indicators—they are listed in the appendix of this report and can also be found on page 104 of the Regional Waste Plan.

The following diagram helps illustrate how Action Items and Indicators work to measure progress towards the Goals in the Regional Waste Plan.

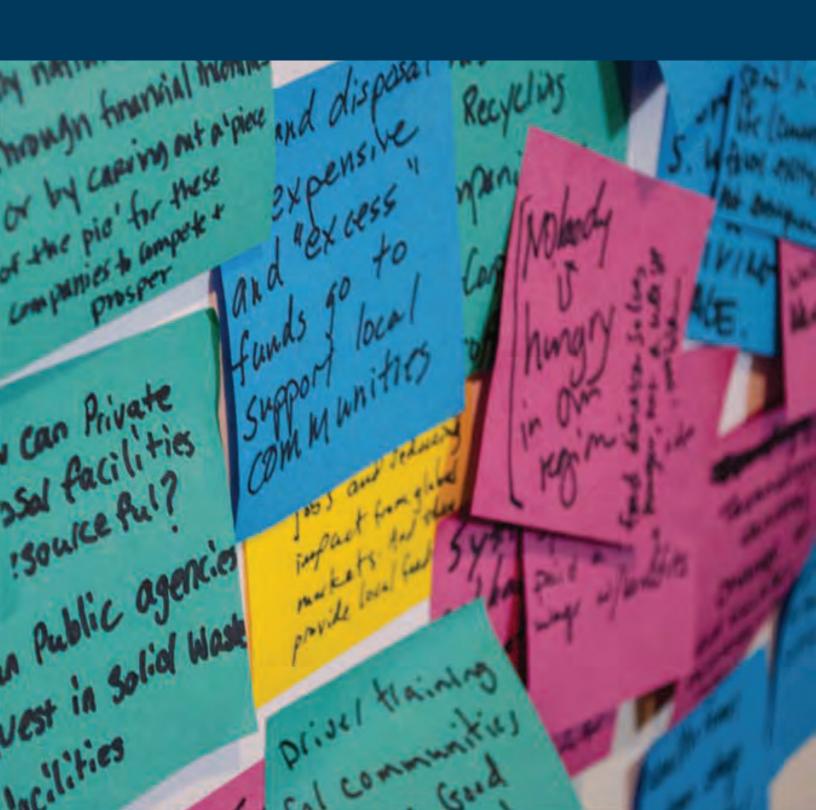
Figure 2: Overview of Regional Waste Plan Goals, Indicators, and Action Items



Baselines

A baseline is a starting point for comparison for analysis in future years. Each key and goal indicator has a baseline established. Baseline years may vary between indicators due to multiple factors including data availaility for the most recent full calendar year, or the potential influence of COVID-19 on the data itself. Each key and goal indicator identifies which baseline year (as well as any other sources) that are being used for the analysis.

Key Indicators



Key Indicators

The 2030 Regional Waste Plan includes a robust measurement framework to evaluate progress toward the plan's vision and goals. The framework allows Metro and local governments to demonstrate the positive impacts the plan's activities are having on the region, highlight opportunities for improvement and evaluate which programs and projects are helping the region achieve its desired outcomes.

The measurement framework consists of 6 key indicators and 27 goal indicators, covering the wide variety of goals addressed by the 2030 Regional Waste Plan. Key indicators are linked to each of the six values in the plan. They also serve to highlight some of the most important work included in the 2030 Regional Waste Plan, from protecting the environment and promoting health to advancing racial equity in the garbage and recycling system and providing excellent and equitable garbage and recycling services.

The measurement framework calls for establishing baselines for each indicator in the plan and setting targets to measure performance as the plan is implemented. This report establishes baselines for all six key indicators. Future work will include setting targets for these indicators and tracking performance over time. Below are the six key indicators and a snapshot of the baseline data associated with each of them.

Snapshot of Key Indicator Baselines

Greenhouse gas emissions



Annual tons of waste generated



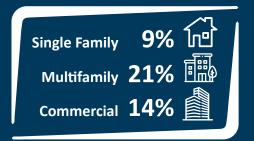
Youth reached through education programs



Multifamily properties with adequate collection



Recycling contamination by sector



Median hourly wage for Metro solid waste workers



Greenhouse Gas Consumption Based Emissions

Regional Waste Plan Value

Protect and restore the environment and promote health for all.

Indicator

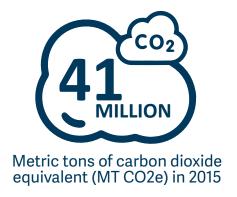
Greenhouse gas emissions associated with the products and services consumed in the Metro region.

Why is this indicator important?

The products and services consumed in the Metro region create environmental and health impacts throughout their life cycle, from design/manufacturing, to consumption/use and then disposal. This indicator tracks the estimated emissions generated locally, nationally and internationally as a result of the goods and services consumed by people in the Metro region.

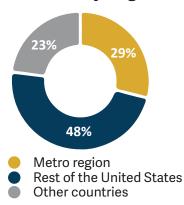
The indicator helps understand how consumption within the region contributes to climate change both locally and abroad. Looking at consumption-based emissions allows us to move beyond recycling and other end-of-life options for reducing climate change impacts, and focus more on upstream actions that address how products are designed, made and consumed.

Baseline Data



Emissions by Origin

2015 Consumption Based Emissions by Origin

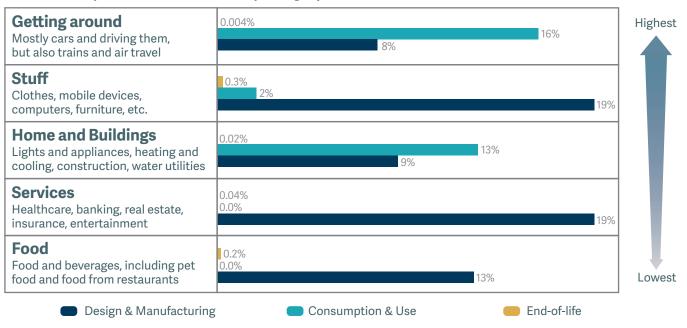




- Most greenhouse gas emissions associated with consumption from the Metro region are not generated in the region.
- An estimated 48% of the emissions are generated in other parts of Oregon and the United States, with 23% generated in other countries.
- Only about a third of the emissions are generated inside the Metro region.

Greenhouse Gas Consumption Based Emissions

2015 Consumption Based Emissions by Category Based on Total Greenhouse Gas Emissions



What do these results mean?

Managing products at the end of their useful lives through landfilling, recycling and composting accounts for a very small fraction (less than 1%) of all emissions associated with consumption. For everyday items or services people consume (stuff, services, and food), the greatest opportunities to reduce consumption based emissions are upstream, at the stage when products are designed and manufactured. For getting around and in homes and buildings, the largest share of emissions is generated when people use products, such as cars and appliances. Use of more energy efficient products and renewable energy sources are some of the ways that can help reduce emissions in these categories.

About the indicator

Data Year: 2015

Source: Consumption-Based Greenhouse Gas Emissions Inventory for the Metro Region.

Oregon Department of Environmental Quality (2018).

Data Frequency: Every 3 to 5 years

Scope: Clackamas County, Multnomah County and Washington County

Annual Tons of Waste Generated

Regional Waste Plan Value

Conserve natural resources.

Indicator

Annual tons of waste generated.

Why is this indicator important?

The indicator measures the amount of materials and products thrown away by people and businesses each year in all of Clackamas, Multnomah and Washington counties. It includes garbage, as well as materials collected for recycling, composting and energy recovery.

Producing less waste is linked to lower environmental impacts. The 2030 Regional Waste Plan includes many actions to reduce waste generation through food waste prevention programs, support for product reuse and repair, and other initiatives.

Other factors such as population and economic activity also affect the amount of waste thrown away each year. This makes it difficult to know the impact of individual actions on waste generation.

Baseline Data



Annual tons of waste generated in the Metro region in 2019

Waste Disposed

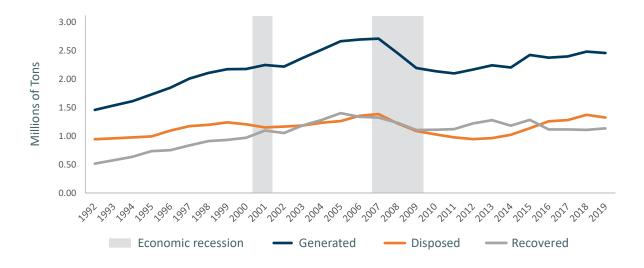
Materials sent mostly to landfills and a small amount burned in incinerators.

Waste Recovered

Materials collected for composting recycling, or burning to produce energy.

Waste generated in the Metro region over time (1992 - 2019)

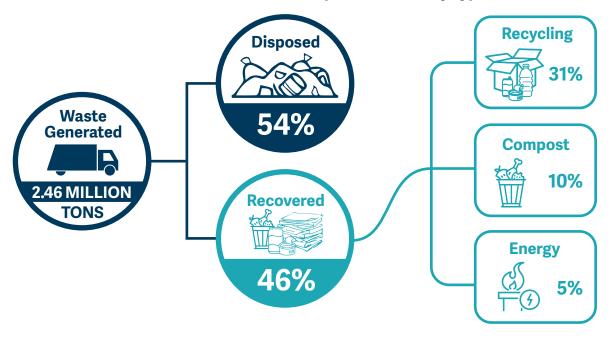
As shown on the graph below, waste generated in the Metro region has increased by an average of 2% each year since 1992. Of that waste, the amount recovered for recycling, composting or producing energy has grown faster (3% per year) compared to the amount landfilled or incinerated (1.3% per year). Almost 25% of the waste generated in the region in 2019 flowed through Metro's two public transfer stations. The rest was handled by private garbage and recycling facilities.



Annual Tons of Waste Generated

The chart below shows the portion of waste generated that ends up in a landfill versus the portion that is recovered. Approximately 46% of the wasted generated in the region is recovered either through recycling, compost, or energy.

Tons of Waste Generated, Recovered and Disposed in 2019 (by Type)



What do these results mean?

Shifting practices to try and decrease waste generated and increase recovery of materials helps decrease the negative impacts of products and materials on climate change and pollution in the region and around the world.

More than half of the waste generated in the region is still disposed, with the large majority destined for a landfill (less than 0.2% went to incinerators in 2019). Waste recovered made up 46% of all waste generated in 2019, with 31% recovered for recycling, 10% for composting, and 5% for energy recovery.

About the indicator

Data Year: 2019

Source: Oregon Department of Environmental Quality

Data Frequency: Every year

Scope: Clackamas County, Multnomah County and Washington County

Youth Reached through Education Programs

Regional Waste Plan Value

Advance environmental literacy.

Indicator

Number, geographic location and demographics of youth reached through education programs.

Why is this indicator important?

The region's youth education programs reach tens of thousands of students every year through schools and on-line. In the programs, youth learn about waste prevention, recycling and composting, natural resources, climate change, and alternatives to toxics.

Through these learning opportunities, youth education programs provide culturally responsive and developmentally appropriate school-based education programs about the connections between consumer products, people and nature.

The indicator measures the number of youth reached through the education programs offered by Clackamas County and Metro. Clackamas County serves all areas of the county, while Metro focuses on areas within the Metro urban growth boundary.

Future reports will incorporate data from on-line efforts and other partners. For example, cities and counties reach youth in schools by providing waste prevention, recycling and composting support. They also reach youth through the Oregon Green Schools program, which helps provide hands-on waste reduction and resource conservation activities that promote leadership development, sustainable behaviors, and environmental literacy.

In 2018-2019, the programs offered by Clackamas County and Metro reached over 12% of youth (37,930 students) ages 5 through 19 living in the areas where the programs operate.

Baseline Data

37,930

Youth reached in 2018 - 2019 school year*

All percentages shown here are relative to the total number of youth reached

By geography

Clackamas County 13,557 (36%)

Multnomah County 12,416 (33%)

Washington County 11,842 (31%)

Unknown** 115 (<0.5%)

By demographics

Students of color (15,143)

Economically disadvantaged (13,415)





- * Data for this baseline was selected for the last full in person school year
- ** Youth reached at regional events)

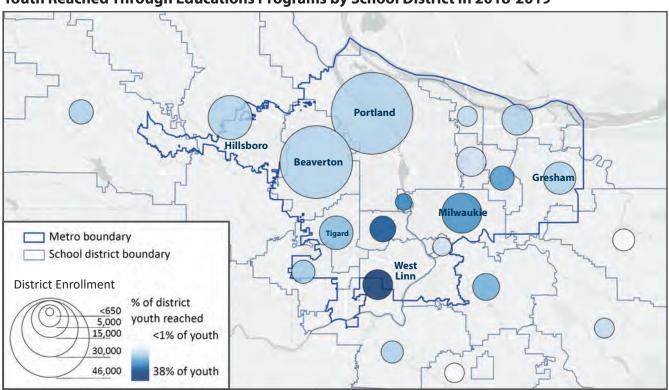


Youth Reached through Education Programs

In 2018-2019, Clackamas County and Metro youth education programs served students at public and private schools, at community events and through outdoor school programs. In schools, Clackamas County and Metro youth educators offered classroom and school assembly presentations for K-12 students. The outdoor school programs supported by Metro offered a multi-day, overnight experience for 5th and 6th grade students.

The map below shows school district enrollment for public schools (circle size) and the share of students who participated in youth education programs offered in those districts (color shading) in 2018-2019. Students in public schools accounted for 96% of all youth who participated in youth education programs. The programs covered a wide area of the region, but participation rates were uneven across school districts. This is partly because participation depends on teachers being aware of the programs and voluntarily booking presentations for their classes. That is why Clackamas County and Metro staff strive to reach out to all teachers, some of whom may otherwise not be aware of programming opportunities and offerings delivered by experienced educators, particularly in schools that have not participated before.

Youth Reached Through Educations Programs by School District in 2018-2019



About the indicator

Data Year: 2018-2019 (school year)
Source: Clackamas County, Metro

Data Frequency: Every year

Scope: Clackamas County, Multnomah County and Washington County

Multifamily Properties with Adequate Collection Services

Regional Waste Plan Value

Provide excellent service and equitable system access.

Indicator

Share of multifamily properties with adequate collection services.

Why is this indicator important?

This indicator tracks the share of apartment and condominium homes in the greater Portland area with adequate garbage and recycling collection services. Adequate service is defined as meeting the Multifamily Regional Service Standard, which was updated in 2020 for the first time since it was established almost 30 years ago. Providing adequate garbage and recycling services at multifamily homes is important because it allows for more equitable access to services for all residents of the region.

The updated service standard established prescriptive language for:

- The amount and frequency of garbage and recycling (effective 2020)
- Signage on bins and in multifamily collection areas (effective 2023)
- Collection of large items (effective 2025), and
- A bin color standard (effective 2028).

This indicator will include and report on the standards as they become effective.

Baseline Data



Properties with adequate services in 2021

Properties with adequate services are those that meet the current Multifamily Regional Service Standard (effective 2020), defined as:

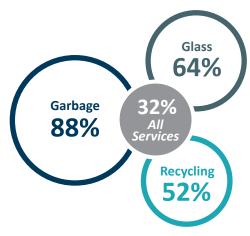
Garbage and **recycling**, at least 20 gallons per apartment unit per week.

Glass, at least 1 gallon per apartment unit per week.

Share of properties that meet the current Multifamily Regional Service Standard

The chart on the right shows the share of properties that met the regional multifamily service standards for garbage, recycling and glass in 2021. This was based on a study of gallons provided per unit per week for all three streams and in the future will include color standards

The values for garbage, recycling and glass are higher than the 32% of properties that met all service standards. This indicates many apartment and condominium homes have one or two services at or above standards, but only 32% meet all three service standards.



Multifamily Properties with Adequate Collection Services

The baseline data for this indicator was collected through a study of multifamily properties. Apart from the baseline data, the study looked at other aspects of multifamily collection services, in particular:

- Whether large items such as sofas and mattresses were found in garbage bins or collection areas.
- What colors are used for garbage and recycling bins at different multifamily properties.

These results will help implement future elements of the Multifamily Regional Service Standard that will require multifamily properties to have regular collection of large items (effective 2025) and follow a bin color standard (effective 2028).



Large garbage items

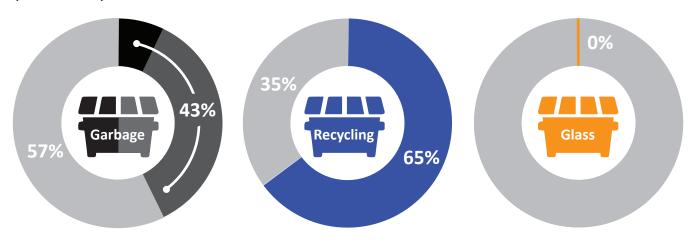
The study results show that large items were found at 25% of all the multifamily properties surveyed.

Bin colors and standards

To meet the bin color standard, garbage bins will have to be gray or black, recycling bins blue, and glass recycling bins orange.

The study results show that currently, an estimated 43% of garbage bins are black or gray and 65% of recycling bins are blue.

The study did not find, and did not expect to find, any orange glass recycling bins at the multifamily properties visited. The most common color for glass recycling bins found was blue (48% of bins).



Note: It is not unlikely that glass bins would be at zero because the standard for orange bins has not yet been established.

Multifamily Properties with Adequate Collection Services

2020-2021 Multifamily Garbage and Recycling Services Study and Standards

The data for this indicator come from a study by Metro with the help of Portland State University and information from cities, counties and collectors. The study surveyed 308 randomly selected multifamily sites across the region between October 2020 and April 2021.

Future studies will continue to evaluate the current Multifamily Regional Service Standard, as well as additional elements of that standard as they become effective.

The Regional Waste Plan prioritizes multifamily garbage and recycling services because people living in apartment and condominium homes often have less space for garbage and recycling than those living in single family homes and bins and collection areas can be confusing to navigate, making proper disposal and good recycling practices more difficult.

The updated standards aim to create an improved and more consistent garbage and recycling collection experience, with consistent bin colors, signage, and instructions from building to building. Consistency between multifamily sites is an important consideration to address recycling contamination, as half of renters move each year.



About the indicator

Data Year: 2021 **Source:** Metro

Data Frequency: Every 2-3 years

Scope: Clackamas County, Multnomah County and Washington County

Recycling Contamination

Regional Waste Plan Value

Ensure operational resilience, adaptability and sustainability.

Indicator

Recycling contamination by sector.

Why is this indicator important?

Items in the recycling materials collected from homes and businesses that are not recyclable are known as "contaminants." Waste characterization studies are tools used to check how much contamination is present in the recycle streams by weighing the contaminants found in recycling bins.

When it comes to recycling contamination, the Regional Waste Plan focuses on recyclables generated by three sectors: single family homes; multifamily apartment and condominium homes; and the commercial sector (which includes businesses and institutions such as hospitals and schools).

In the last six years, Metro has conducted regional waste characterization studies of the Single Family (2015), Multifamily (2017), and Commercial (2019) recycling sectors. Together, the contaminiation rates established through these studies serve as the baseline for this indicator.

Reducing contamination helps improve the quality of the recyclables collected in the Metro region, making them more valuable to companies that use them to make new products. Having stable buyers for those recyclables builds resilience in the recycling system.



Baseline Data

The following shows contamination rate by sector.



Single Family (2015)



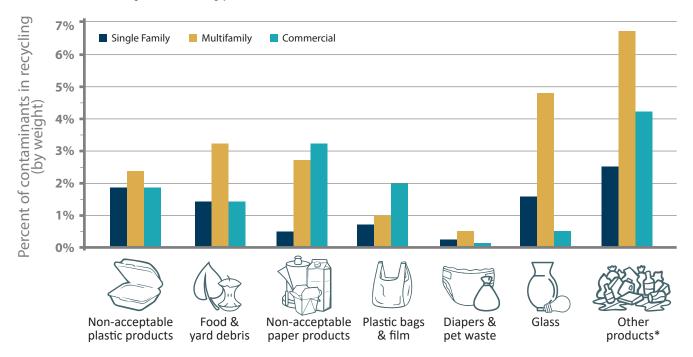
Multifamily (2017)



Commercial (2019)

Recycling Contamination

The following chart shows a more detailed breakdown of the most common types of recycling contamination by material type and sector.



*Note: Materials common in this category include carpet, clothing, wood, furniture pieces and non-recyclable glassware.

What do these results mean?

Plastic bags and film are a small fraction of the recycling contamination, but they can have a larger negative impact than other materials. Plastic bags and film can jam sorting machinery at recycling facilities, thereby increasing the cost of sorting recyclables.

Although glass is collected in separate bins throughout the Metro region, the multifamily sector has a high rate of glass incorrectly placed in mixed recycling bins (4.8%). Glass contamination can cause harm to the staff and machinery at local recycling facilities.

The Regional Waste Plan calls for multiple methods to lower recycling contamination. This includes regionally consistent education materials and giving people feedback when they put contaminants in their recycling bins.

About the indicator

Data Year: Single Family (2015), Multifamily (2017), and Commercial (2019)

Source: Metro

Data Frequency: Every 3 to 5 years

Scope: Cities and unincorporated areas in Clackamas, Multnomah and Washington Counties

within the Metro boundary

Regional Waste Plan Value

Foster economic well-being.

Indicator

Median wage in the waste management industry by race/ethnicity, gender and occupation type.

Why is this indicator important?

The garbage and recycling system generates significant economic benefits for the Metro region, including through jobs. But the benefits of those jobs aren't shared equitably among all workers in the system.

The indicator tracks the median wage of jobs in the waste management industry. It considers wages by occupation type as well as for people of color and women. The Regional Waste Plan focuses on these groups because people of color tend to have the lowest paying garbage and recycling jobs and women are generally underrepresented.

Currently, the baseline data in this report cover only workers employed by Metro or by Metro's transfer station contractor, which represent about 10-20% of the total solid waste workforce in the region. This includes a wide variety of Metro employees including directors, managers, planners, educational staff, administrators, and operational staff. In future years, the indicator will expand to include privately operated solid waste facilities as data become available.

The baseline data are for wages paid between January and March 2020. Since then, wages for Metro employees have risen due to cost of living adjustments and an increase to the minimum wage under the union contract that covers solid waste employees at Metro.

Baseline Data

The following shows the median hourly wage for Metro solid waste employees, or Metro contracted workers, and a breakdown of how that median wage compares based on gender, race/ethnicity, and occupation type.

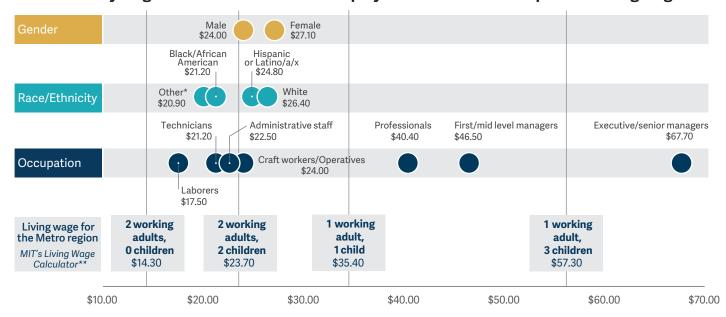




Unpacking Median Wage The median wage for each group is the wage "in the middle." That is,

half of workers in each group earn less than that group's median wage.

Median hourly wages for Metro solid waste employees/contractors compared to living wages



Source: Metro; Glasmeier, Amy, Massachusetts Institute of Technology (2021). Living Wage Calculator, available at livingwage.mit.edu.

In 2020, the median hourly wage for women employed or contracted by Metro (\$27.10) was slightly higher than for men (\$24.00), reflecting a greater concentration of women in manager and professional levels than men.

In contrast, median wages varied considerably by race/ethnicity and occupation type. For employees of color, the median hourly wage ranged from \$20.90 to nearly \$25.00 (compared to over \$26.00 for white workers). An even greater gap existed between workers in managerial or professional levels (\$40.40-\$67.70) compared to other solid waste workers (\$17.50-\$24.00).

Living wage standards for the Metro region

The Regional Waste Plan sets a goal for all jobs in the garbage and recycling industry to pay living wages. One way to define living wages is to look at the wage workers would have to earn to cover basic living expenses, like food, housing, childcare, health insurance, and transportation. Because living expenses are different depending on where people live and the number of adults and children in a household, the living wage can vary. Using cost of living estimates from MIT's Living Wage Calculator tool, living wages in the Metro region in 2020 vary between \$14.30 per hour for a household with two working adults and no children, to \$57.30 per hour for one working adult and three children.

The median wage for workers employed or contracted by Metro (\$24.60 per hour) is slightly above the living wage estimate for a household with two working adults and two children (\$23.70 per hour). This means that almost half of workers employed or contracted by Metro do not earn enough to cover the typical living expenses of that household type.

^{*} Asian or Asian American, Native American, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Two or more races.

^{**} MIT's Living Wage Calculator estimates the wage needed in 2020 by different household types in a given geographic area to cover basic living expenses. The living wages in this chart are combined estimates for Clackamas, Multnomah and Washington counties.

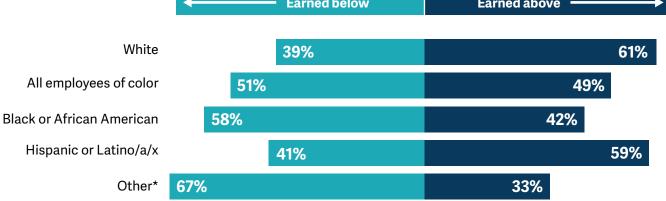
Who in Metro's workforce earns less than a living wage for a two-adult, two-child household?

Compared to the living wage estimate for a household that has two working adults and two children (\$23.70 per hour), the majority of technicians (57%) and administrative support staff (60%), and all laborers and helpers (100%), employed or contracted by Metro were earning less than that standard in 2020.

Metro employees of color are also more likely to earn less than the living wage estimate for two working adults with two children, compared to workers who identify as White alone.

Living wage comparison of Metro solid waste employees and contractors, by race/ethnicity





Source: Metro; Glasmeier, Amy, Massachusetts Institute of Technology (2021). Living Wage Calculator, available at livingwage.mit.edu. * Asian or Asian American, Native American, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Two or more races.

The Regional Waste Plan includes actions aiming to establish living wage standards for the lowest paid positions in the regional solid waste workforce and other measures to ensure that all jobs in the industry in the Metro region pay living wages and good benefits.

About the indicator

Data Year: January 2020 - March 2020

Metro, Recology (contractor operating Metro transfer stations) Source:

Data Frequency: Varies based on availability of data

> Scope: Metro employees and employees of Metro's transfer station contractor. To be expanded

> > to the solid waste workforce in Clackamas, Multnomah and Washington Counties.

Shared Prosperity



Overview of the Goal Area

The garbage and recycling system generates significant economic benefits for the Metro region through jobs, programs and services, materials and construction contracts, spending at local businesses and more. But those benefits aren't shared equitably among all people in the region.

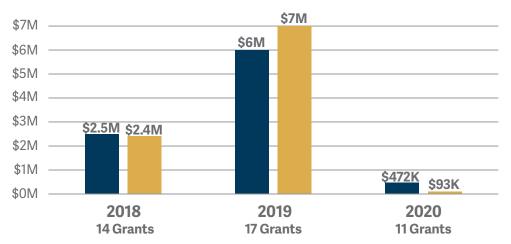
This area of work focuses on addressing barriers faced by communities of color and those who have been disproportionately impacted by the garbage and recycling system. Through the goals and actions in this section, Metro and local governments aim to make progress toward a future where all people have equitable access to the benefits of the garbage, recycling, reuse and repair economies.

Highlights

Investment and Innovation Grant Program

Metro's Investment and Innovation Grant program, launched in 2018, supports private companies and nonprofit organizations in stabilizing and fostering innovation in the regional waste prevention, reuse, recycling and composting system. The program focuses on fostering economic opportunities and other benefits for communities of color and other historically marginalized communities. The following chart highlights investments made through the program over the past three years.

Investment and Innovation Grant Funding Awarded (2018-2020)



The past three years has seen an **overall investment of \$18.5M** with Metro contributing about 49% of that funding.

In 2021, \$2M will be available through the program.

Metro funding

Cash/in kind support

In 2021, Metro evaluated the first three years of the Investment and Innovation program to assess how well the program is meeting its goals of reducing waste and advancing racial equity. The evaluation report summarizes the impacts of grant-funded projects and highlights grants with significant environmental and racial equity outcomes as case studies. The full report is available on Metro's website. The next grant cycle will launch in January 2022 with a call for capital grants up to \$500,000 and program grants up to \$100,000, for a total funding budget of \$2 million. The 2022 cycle will prioritize projects focused on reuse/repair, recycling infrastructure and prevention and rescue of food waste.



Youth Leadership Program Amplifies Voices Metro's garbage and recycling internships engage youth in careers and decision-making, with an emphasis on youth of color and youth from other historically marginalized communities. Launched in 2017, fourteen youth have received internships at Metro through this program to date.

The internships provide young people with a supportive and professional learning community to explore careers in the garbage and recycling industry. Interns develop essential job skills, contribute to the workforce, and discover how their values and experiences connect with the health and vitality of the greater Portland area. They tour Metro and other local facilities, participate in job shadows, network with other Metro interns, work alongside Metro staff at community events, engage in regional decision-making processes and foster meaningful professional relationships with peers and mentors across the agency.

The program uses a three-year cohort model focused on youth development, amplifying youth voices, and supporting youth as bridges between Metro and their communities. This is a paid internship opportunity for youth ages 17-20 that runs three days per week in the summer with the opportunity to continue with reduced hours during the school year.



"This internship helps bridge the gaps between the youth in our community and Metro, while simultaneously allowing us to grow as individuals and together, and helping shape the future of our cities"

- Metro WPES Intern

This has been selected as one of the Goal Indicators to report on for this plan reporting period. This is also one of the Key Indicators selected to report on. Because it is one of the Key indicators a more in depth analysis can be found in the Key Indicators section of this report. What is shown here only a highlight of the baseline data for this Goal Indicator.

Regional Waste Plan Goal 3

Ensure that all jobs in the garbage and recycling industry pay living wages and include good benefits.

Indicator

Median wage in the waste management industry by race/ethnicity, gender and occupation type.

Why is this indicator important?

The garbage and recycling system generates significant economic benefits for the Metro region, including through jobs. But the benefits of those jobs aren't shared equitably among all workers in the system.

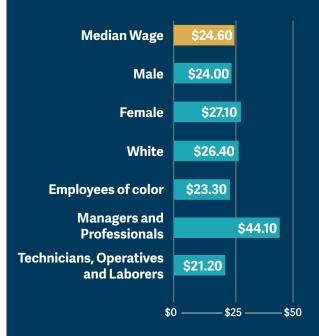
The indicator tracks the median wage of jobs in the waste management industry. It considers wages by occupation type as well as for people of color and women. The Regional Waste Plan focuses on these groups because people of color tend to have the lowest paying garbage and recycling jobs and women are generally underrepresented.

Currently, the baseline data in this report covers only workers employed by Metro or by Metro's transfer station contractor, which represent about 10-20% of the total solid waste workforce in the region. This includes a wide variety of Metro employees including directors, managers, planners, educational staff, administrators, and operational staff. In future years, the indicator will expand to include privately operated solid waste facilities as data become available.

The baseline data are for wages paid between January and March 2020. Since then, wages for Metro employees have risen due to cost of living adjustments and an increase to the minimum wage under the union contract that covers solid waste employees at Metro.

Baseline Data

The following shows the median wage for Metro solid waste employees, or Metro contracted workers, and a breakdown of how that median wage compares based on gender, race/ethnicity, and occupation type.





The median wage for each group is the wage "in the middle." That is, half of workers in each group earn less than that group's

Diversity in Workforce

This has been selected as one of the Goal Indicators to report on for this plan reporting period. This includes establishing a baseline for this goal. This baseline allows for subsequent years to be compared to measure progress.

Regional Waste Plan Goal 4

Increase the diversity of the workforce in all occupations where people of color, women and other historically marginalized communities are underrepresented.

Indicator

Share of solid waste workforce that is people of color and women

Why is this indicator important?

The garbage and recycling system creates jobs, supports families, spurs economic activity and strengthens industries. The waste management industry tends to lack diversity in the workforce—except in the job categories that pay the lowest wages. For higher paying job categories, like managers and roles requiring professional degrees, marginalized communities, including people of color and women, are often underrepresented.

This indicator tracks the share of people of color and women working in the Metro region's solid waste system. It measures diversity in the solid waste system overall and by job category. Ensuring diversity in all levels of the solid waste workforce is important because it means that the economic benefits of the regional garbage and recycling system are accessible to all workers across the Metro region.

The goal for this indicator is to capture workforce diversity across all sectors of the regional solid waste system, including private companies and public agencies. Currently, the baseline data in this report covers only workers employed by Metro or by Metro's transfer station contractor, which represent about 10-20% of the total solid waste workforce in the region. In future years, the indicator will expand to include additional sectors as data become available.

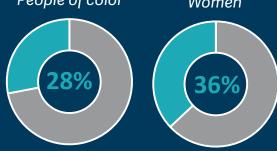
Baseline Data

Data in 2020 from January to March showed that 28% of the solid waste workforce employed or contracted by Metro are people of color and 36% are women.

Diversity in Metro's Workforce

People of color

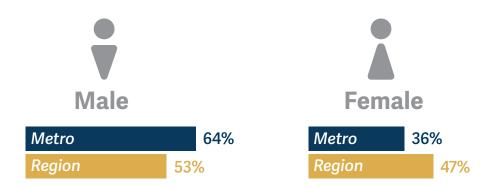
Women



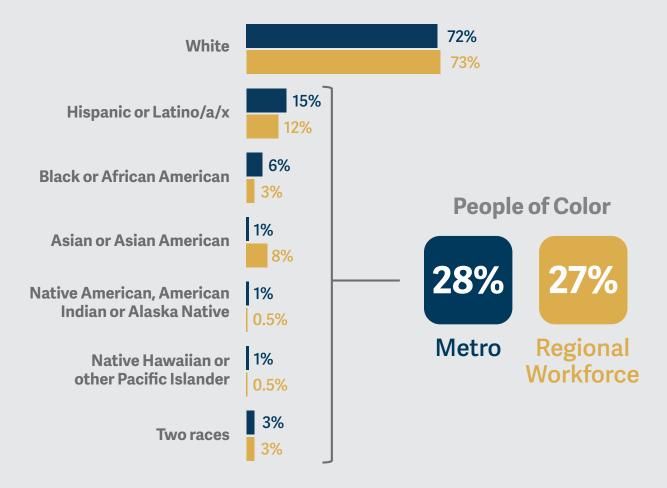


Diversity in Workforce

The following shows the diversity of the solid waste workforce employed or contracted by Metro compared to the regional workforce as a whole. Women are underrepresented in Metro's solid waste workforce compared to the whole workforce in the Metro region.



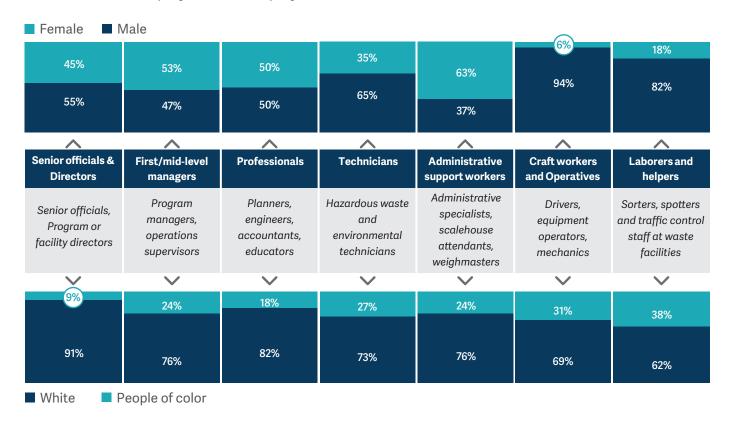
Compared to the regional workforce as a whole, the share of people of color among those employed or contracted by Metro is about the same. When looking at the solid waste workforce by job category, however, a different picture emerges.



Source: Metro, American Community Survey (2019); does not sum to 100% due to rounding.

Diversity in Workforce

The following shows a more detailed breakdown of the diversity of the solid waste workforce employed or contracted by Metro based on job classification. The top chart shows the split between male and female employees, while the lower chart shows the breakdown between white employees and employees of color.



Source: Metro; categories based on U.S. Equal Opportunity Commission job classification guide

Based on the data above, people of color are underrepresented in certain levels of the solid waste system within Metro. The share of people of color working in manager or professional occupations (19% on average) is lower than in Metro's solid waste workforce overall (28%). People of color are more likely to be represented in technician, operator, and laborer solid waste jobs.

In contrast, women in Metro's solid waste workforce are more likely to have opportunities in the manager, professional, and administrative categories than they are in technician, operator, and laborer roles.

About the indicator

Data Year: January 2020 - March 2020

Source: Metro, Recology (contractor operating Metro transfer stations)

Data Frequency: Varies based on availability of data

Scope: Metro employees and employees of Metro's transfer station contractor. To be expanded

to the solid waste workforce in Clackamas, Multnomah and Washington Counties.

Action Status Summary

The following tables summarize the action items for each goal area along with their status, the lead agency, planned activities, and progress to date. Each table is preceded with the associated Goal as well as any indicator(s) that are linked to the Goal.

Goal 1

Increase engagement of youth and adults historically marginalized from garbage and recycling decision-making by enhancing civic engagement and leadership opportunities.

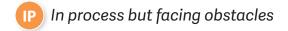
Indicator(s)

- Demographic of committee members serving on Metro and local government solid waste advisory boards.
- Number and demographic of youth and adults participating in solid waste internship and leadership programs.

Table 1 - Goal 1 Action Status

Action		Status	Lead Agency	Planned Activities	Progress to Date
1.1	Increase representation of historically marginalized community members, including youth, on advisory committees, such as Metro and local government solid waste advisory committees.	ОТ	Metro Cities & Counties	Convene new composition of the Regional Waste Advisory Committee.	 Metro convened a new Regional Waste Advisory Committee in 2019 with new composition including three individuals representing the interests of communities of color and other historically marginalized groups. Washington County updated SWAC, now GRAC (Garbage and Recycling Advisory Committee) to increase representation of historically marginalized community members and has successfully recruited three new public members. Washington County supported community members participating in advisory committees such as Westside Transfer Station. City of Portland has been convening a Waste Equity Advisory Group to provide oversight and accountability through the implementation of Portland's Waste Equity Workplan. Hillsboro Environmental Stewardship Committee and 2035 Community Plan Oversight Committee include a Youth Advisory Council representative.





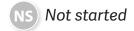
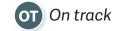
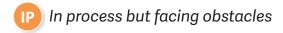


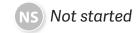
Table 1 - Goal 1 Action Status (continued)

Acti	Action		Lead Agency	Planned Activities	Progress to Date
1.2	Evaluate and refine a public sector paid internship program to increase engagement of youth and adults in garbage and recycling careers and decision-making, with an emphasis on communities of color and other marginalized communities.	o	Metro Cities & Counties	Evaluate and identify refinements of youth leadership programs.	 WPES Youth Internship Program continues with 11 interns, 10 of which are youth of color. All interns are serving on one or more Metro committees. Washington County piloted an approach to paid internships in FY 2020-21 and now has a model to offer paid internship opportunities to youth and adults, with an emphasis on communities of color and other marginalized communities.
1.3	Partner with organizations to engage youth in leadership opportunities for social, economic and environmental issues related to garbage and recycling.	OT	Metro Cities & Counties	Continue partnership with Elevate Oregon to lead the City of Roses Community Enhancement Grant committee. Complete initial expansion and refinement of Environmental Promoters program.	 Metro's partnership with Elevate Oregon adjusted to reflect new timeline after COVID-19 pause. Continuing programming with Centro Cultural, North by Northeast Community Health Clinic, and Trash for Peace, which includes opportunities for past promoters to gain even more experience as leaders and mentors by being able to train a new group of promoters. Exploring a pilot with Clackamas County and Oregon Green Schools for a high school-aged Youth Environmental Promoters program. Clackamas County recruited 24 youth to the Youth Advisory Task Force on Climate Change. Clackamas County provided education to youth by partnering with community organizations. Portland partnered and provided grant funds to three community partners (ROSE CDC, Unite Oregon and Trash for Peace with Guerreras Latinas) to design and implement recycling and waste prevention outreach in East Portland. In total, partners reached nearly 7,800 community members. Washington County Cooperative partnered with Harkins House, a juvenile justice shelter on Earth Day programming. 13 youth achieved a one-hour CTE credit from the partner Hillsboro School District. Washington County began discussions with Adelante Mujeres on a potential youth cohort for Promotores Ambientales through their Chicas program. Staff also delivered an Earth Day recycling presentation with a social justice lens that merged inequities that led to the assassination of Dr. Martin Luther King, Jr. and how it ties to the current waste management system.









Increase the percentage of garbage and recycling system revenue that benefits local communities and companies owned by people of color and other historically marginalized groups.

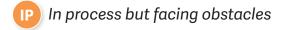
Indicator

• Share of solid waste spending that goes to locally owned, minority-owned and woman-owned businesses and to community organizations.

Table 2 - Goal 2 Action Status

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
2.1	Develop Metro and local government procurement policies to increase the amount of spending on solid waste-related services that goes to locally owned companies, with an emphasis on minority-owned and woman-owned businesses.	IP	Metro Cities & Counties	Implement Metro's Equity in Procurement Policy.	 Ongoing implementation of Metro's Equity in Procurement Policy is slowed due to layoffs in the Metro Procurement Equity Program. In 2018 the Portland City Council authorized a Class Special Procurement that allows the City to focus bidding on COBID-certified vendors for contracts to collect garbage and recycling from City offices, facilities and public rights-of-way. Two new hauling contracts valued at roughly \$3.3 million were awarded to a BIPOC company (COR Disposal) to service public trash cans In East and Southeast Portland. The City extended the contract term to five years to help companies get the necessary financing to purchase the required compacting garbage trucks.
2.2	Implement strategies in consultation with community organizations that can be adopted by local governments to ensure greater racial equity in the ownership and management of collection service providers.	OT	Cities & Counties	No planned activities	In collaboration with community organizations, the City of Portland developed a Waste Equity Workplan that identifies actions to reduce barriers to economic opportunities for BIPOC- and woman-owned companies in the waste collection industry. Portland started by focusing the City's own waste collection contracts and public trash service.





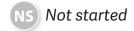
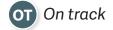


Table 2 - Goal 2 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
2.3	Utilize grant programs to invest in businesses and non-profit organizations to strengthen regional efforts around reducing waste, making better use of the waste that is produced and helping foster economic opportunities for communities of color and others who have historically been left out of the garbage and recycling system.	o	Metro	Delivery and refinement of Metro Investment and Innovation Grants. Delivery and refinement of Community Enhancement Grants (CEG) program.	 Scope of Investment and Innovation FY21-22 grant solicitation under development, including implementing recommendations developed through evaluation of program pilot. Investment and Investment pilot program evaluation report available at: https://www.oregonmetro.gov/tools-partners/grants-and-resources/investment-and-innovation-grants Updated contract agreements with local jurisdictions. Began internal planning for implementation of CEG programs in jurisdictions that did not renew agreements with Metro. Program information available at: https://www.oregonmetro.gov/tools-partners/grants-and-resources/community-enhancement-grants



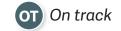
Ensure that all jobs in the garbage and recycling industry pay living wages and include good benefits.

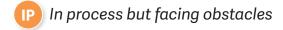
Indicator

• Median wage in the waste management industry by race, ethnicity and gender. Share of solid waste workforce that is temporary workers. This is one of the indicators that has been selected to report on for this report. The baseline data and detailed analysis can be found at the beginning of this section.

Table 3 - Goal 3 Action Status

Action		Status	Lead Agency	Planned Activities	Progress to Date	
3.1	Establish a living wage and benefits standard for the lowest-paid positions in the solid waste industry and update the standard on a regular basis.	NS	Metro Cities & Counties	Complete baseline data collection on workforce indicator that includes collecting wage, employment status, demographic and other information about workers in the regional garbage and recycling system. Evaluate base living wage and benefits standard for Metro workers, focused on frontline and lowest-paid positions, including contracted workers.	In the Spring of 2021, the City of Portland conducted a workforce demographic survey of all 26 permitted haulers to establish baseline demographic and wage information about all workers that contribute to Portland waste collection and live in the four-county Portland metro region. That information can inform future policies around pay and equity.	
3.2	Incorporate "good jobs" provisions regarding wages, benefits, workforce diversity and career pathways into public sector solid waste	IP	Metro Cities & Counties	Incorporate wage standards and other good jobs provisions into regional policies and state legislative concepts related to producer responsibility and material recovery facility standards and other materials management issues.	 Supported passage of Oregon's Recycling Modernization Act with several "good" jobs provisions, including for local material recovery facility workers. The City of Portland updated its residential franchise agreement in 2019. The new franchise agreement requires large franchisees to develop and submit an annual plan identifying steps the company is taking to advance diversity, equity, and inclusion in their company. 	





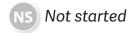
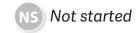


Table 3 - Goal 3 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
3.3	Conduct baseline and regular follow-up studies of wages and benefits in the greater Portland area's solid waste sector to inform "good jobs" provisions.	ОТ	Metro	Conduct baseline	Baseline was completed for median wages and demographics of the solid waste workforce (included in this report). The data source was information about Metro's employees and contracted labor but will be expanded in the future to include the workforce employed by privately operated solid waste facilities. Through projects like Tonnage Allocation and MRF Standards, Metro is exploring strategies for how to collect this information from facilities that are privately owned.
3.4	Reduce the use of temporary and contract workers in the region's solid waste industry	NS	Metro	Develop MetroPaint vision and strategic plan to align with Regional Waste Plan guidance Assess and implement MetroPaint staffing improvements.	 MetroPaint strategic plan is complete and Metro is developing implementation strategy and timeline. MetroPaint received approval from Metro Council to transition from contracted staffing and will be shifting 12 positions from contract to regular status. In addition, several changes are being made to support workforce equity including improved professional development opportunities, new scheduling procedures reducing physical impacts from processing, and updating classifications to create job pathways.
3.5	Evaluate the use of Metro employees to fully operate Metro-owned transfer stations	OT	Metro	Complete revised operating model and new operator selection for Metro Central.	Operating contract with Recology for Metro Central Station has been extended through 2023 to allow Metro time to research and plan for operating the facility with Metro employees.





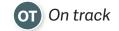
Increase the diversity of the workforce in all occupations where people of color, women and other historically marginalized communities are underrepresented.

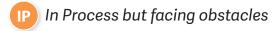
Indicator(s)

- Share of solid waste work force that is people of color and women.
- Number and demographic of youth and adults participating in solid waste internship and leadership programs.

Table 4 - Goal 4 Action Status

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
4.1	Implement a workforce development and readiness program for garbage and recycling industry jobs.	IP	Metro	Expand community clean-up and RID Patrol workforce transition program. Create a wraparound support program focused on frontline workers.	 RID Patrol transition program continues to take actions to grow staffing and wrap-around support partnerships; hired 4 RID Patrol crew leads; ordered 4 trucks. Some Metro programs, including MetroPaint and RID Patrol, have identified needs for frontline workers regarding wages, career pathways and professional development. Implementation is challenged by a lack of staff capacity to design and implement training and development. A proposal is under development to create a position for training and development, focused on racial equity literacy for department staff as well as professional development for frontline workers.
4.2	Develop a career pathways strategy that aims to increase the diversity of workers in all solid waste occupations.	NS	Metro Cities & Counties	No planned activity	No progress to date





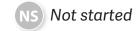
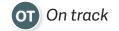


Table 4 - Goal 4 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
4.3	Conduct baseline and regular follow-up studies of workforce diversity in the regional garbage and recycling industry, including an assessment of barriers to hiring and retaining people of color, women and other historically marginalized groups.	O	Metro	Conduct baseline	Baseline was completed for diversity and demographics of the solid waste workforce (included in this report). The data source was information about Metro's employees and contracted labor but will be expanded in the future to include the workforce employed by privately operated solid waste facilities. Through projects like Tonnage Allocation and MRF Standards, Metro is exploring strategies for how to collect this information from facilities that are privately owned.
4.4	Work with private garbage and recycling service providers and community-based organizations to design and implement programs that address safety, bullying and harassment in the workplace throughout the solid waste industry.	NS	Metro	No planned activity	No progress to date
4.5	In partnership with community-based organizations, create workforce development programs within the reuse sector that focus on people with barriers to employment.	OT	Metro Cities & Counties	Work with community organizations in the development of the RID Patrol workforce transition, MetroPaint, Metro Traffic Control programs.	RID Patrol program continues to work with community-based organizations and other partners to provide transitional job opportunities with RID and seek partnerships for employment opportunities outside of RID Patrol/Metro.





Product Design and Manufacturing



Overview of the Goal Area

Today, the design and manufacturing of products and materials is driven primarily by market forces, resulting in processes and products that can harm the environment or impact human health. This goal area focuses on influencing the design and manufacturing of products and packaging by advocating for changes in public policy that serve all, especially historically marginalized communities, including communities of color.

The goal of the highly collaborative actions in this new area is for manufacturers to become more responsible for the impacts of their products. There's potential to create healthier products every step of the way, from natural resource extraction to manufacturing processes to decisions about materials and packaging. The actions focus not only on reducing the amount of waste, but also working to reduce or eliminate toxic materials.

Many public and private organizations are known for leadership in this area. With the Bottle Bill, Oregon E-Waste, PaintCare and Oregon's Toxic-Free Kids Act, city, county, Metro and state governments, together with public interest organizations, collaborated to push forward policy changes to address producer responsibility and make products safer for people and the environment.

Work Area Highlights

The Plastic Pollution and Recycling Modernization Act

This state legislation updates Oregon's recycling system by building on local community programs and leveraging the resources of producers to create an innovative system that works for everyone. Metro and local government partners were heavily involved in the crafting of the legislation over a period of two years—contributing significantly to improving the bill and bringing a much-needed equity focus to the resulting law.

The Act is designed to ensure that all parties involved share responsibility across the recycling system. The law requires producers of packaging, paper products and food service ware to contribute to the management of their products after use. These producers will finance improvements to the recycling system and perform specific functions to make Oregon's recycling programs convenient, accessible and responsible. Local governments will maintain their role overseeing collection and education in their communities.



Key benefits of this new system include:

- Shared responsibility and accountability Producers will
 fund improvements and expand recycling services. The
 costs to producers will be based on what materials they
 use and how much they sell into Oregon.
- Increased access to recycling The law will provide recycling services to people who didn't previously have it.
- Prevents pollution Ensures collected materials are recycled responsibly and keeps plastic and other trash out of waterways and communities.
- One statewide recycling list The uniform collection list will provide clarity to households and businesses about what can be recycled, and create efficiencies in recycling operations across the state.
- Sustainability is emphasized Producer fees will be higher for non-recyclable products and those creating more environmental pollution.

A nonprofit Producer Responsibility Organization (PRO) will fund recycling system improvements paid for by producers and ensure that collected recyclables go to responsible end markets. PROs will collect producer membership fees and use them to ensure improved and expanded recycling services, fund waste prevention grants, studies to improve multifamily recycling conditions, equity in the recycling system and litter and marine debris prevention. In addition, processing of recyclables will be done in facilities that meet new performance standards, including for material quality, reporting and paying living wages to workers. End markets for recyclables will be required to handle the material appropriately — without creating plastic pollution or other harms. Producers and processors must make sure materials collected in Oregon reach responsible end markets.

The new law goes into effect January 1, 2022 and program changes will start in July 2025. Between now and 2025, the state and partners will embark on a comprehensive stakeholder engagement, project planning and research phase to put together the details needed for effective implementation of Oregon's new and innovative recycling and pollution prevention act.

Action Status Summary

The following tables summarize the action items for each goal area along with their status, the lead agency, planned activities, and progress to date. Each table is preceded with the associated Goal as well as any indicator(s) that are linked to the Goal.

Goal 5

Reduce the environmental and human health impacts of products and packaging that are made, sold, used or disposed in Oregon.

Indicator

Share of priority products covered in Oregon by a product stewardship framework.

Table 5 - Goal 5 Action Status

Acti	Action		Status Lead Planned Activities		Progress to Date
5.1	Advocate for legislation that minimizes chemicals of concern in products and packaging and requires the disclosure of product chemical data to consumers	OT	Metro Cities & Counties	Advocate for the inclusion of eco-modulated fees in extended producer responsibility legislation for packaging and other products that provide incentives for producers to minimize chemicals of concern.	All jurisdictions in the region actively participated in or supported successful passage of Oregon SB 582 (Plastics Pollution and Recycling Modernization Act) that includes eco-modulated fee requirements on packaging and paper product producers.
5.2	Assist the Oregon Health Authority in implementing the 2015 Oregon Toxic-Free Kids Act, which requires manufacturers of children's products sold in Oregon to report products containing high-priority chemicals of concern.	ОТ	Metro	 Participate in three-year state rule making process Regular check-ins with Oregon Health Authority staff to identify any implementation issues or support needs. 	Participated in Phase 3 of the state rule making process for the 2015 Toxic-Free Kids Act.
5.3	Partner with the State of Oregon to provide incentives to manufacturers for developing sustainable manufacturing techniques, including green chemistry, for products and packaging sold in Oregon.	NS	Metro	No planned activity	No progress to date





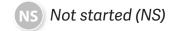


Table 5 - Goal 5 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
5.4	Advocate for product stewardship legislation and other policy approaches that can achieve the greatest reduction in environmental and human health impacts from products and packaging made, used or disposed in the region.	OT	Metro Cities & Counties	Advance Metro Council recycling system improvement and waste reduction policy priorities. Develop state legislative priorities for Metro Council consideration including: extended producer responsibility legislation for mattress recycling, packaging, household hazardous waste (HHW), and sharps waste (e.g. hypodermic needles); state recycling modernization; single-use plastics reduction, and right to repair.	 All jurisdictions in the region actively participated in or supported successful passage of Oregon SB 582 (Plastics Pollution and Recycling Modernization Act) that advances producer responsibility for food service ware, paper and packaging. Jurisdictions contributed to improving the bill and bringing it more in line with the region's equity goals. Portland and Beaverton staff had significant roles on the steering committee. Supported Metro Council legislative priority decisions on Extended Producer Responsibility (EPR) for packaging, mattresses, HHW and medical sharps. Supported advancement of Metro Council legislative priorities in the 2019, 2020, 2021 Oregon State Legislative sessions. Metro Council adopted legislative principle on Equity in the solid waste system.
5.5	Advocate for legislation that would require building products sold and used in Oregon to be free of highly toxic materials.	NS	Metro Cities and Counties	No planned activity	No progress to date
5.6	Advocate for standards for high-impact products, including phase-outs or bans.	OT	Metro Cities & Counties	Develop state legislative priorities for Metro Council consideration related to single-use plastics.	 All jurisdictions in the region actively participated in or supported successful passage of Oregon SB 582 (Plastics Pollution and Recycling Modernization Act) that advances producer responsibility for single-use plastics, including food service ware and packaging. The bill will result in standards for sorting and recycling plastics and requires producers to ensure responsible end markets for materials that are recycled. Through its Low Carbon Concrete Initiative, the City of Portland is piloting different concrete mixes and applications and intends to publish maximum global-warming potential thresholds for concrete on City construction projects.



Product Consumption and Use



Overview of the Goal Area

The decisions we make about what to buy and how to use the things we purchase affect our health and the environment. Everyone should have access to information they need to make purchasing decisions that will protect their health and the environment. Products sold in Oregon are made around the globe making it challenging to access and understand information about a product's environmental and health impacts. In addition, the prices of products do not reflect the environmental impacts of making them and sustainable products are not always affordable or equitably available.

Goals in this area focus on reducing the environmental and health impacts of what we buy. The actions emphasize education and policy efforts to reduce those impacts and support better purchasing choices. Education will prioritize culturally responsive efforts, with programs and services designed and delivered in partnership with community organizations to reach historically marginalized groups. Policy actions in this area aim to provide safer, lower-risk products and reduce the use of single-use items that harm the environment and create problems for the recycling system.

Work Area Highlights

Environmental Promoters Reach a Diverse Community

The Environmental Promoters program offers training and support for residents to become leaders in waste reduction in their own communities. Promoters are change agents and educators in the communities in which they live and work. These communities have generally been historically marginalized and under-served by governments. Promoters are paid to do outreach, as their lived experiences inform best practices within their own communities.

During the 2020-21 fiscal year, Metro supported three ongoing Environmental Promoter programs in partnership with the North by Northeast Community Health Center (NxNE), Centro Cultural and Trash for Peace. Community partner organizations, with support from the City of Portland's Master Recycler program and Metro staff, offer training sessions for Promoters. Training topics in the Promoters program typically include: understanding our environmental footprint, how the recycling system works, what can be recycled, reducing food/household waste, how to reduce toxic chemical usage in the home, how to dispose of hazardous waste, and pathways for community advocacy. Promoters then lead or support projects in their community that promote resource sustainability or waste reduction in their communities.

As consumers, the decisions we make about what to buy and how to use the things we purchase affect our health and the environment.



Some Promoters provide outreach at in-person events such as at the "Safe Homes! Healthy Homes!" series held at the NxNE Community Health Center, or at the Cornelius Farmer's Market. Other Promoters offer virtual sessions or on-line videos for community members on topics such as making your own non-toxic cleaners, and how to make a garden planter with re-used materials. In the 2021-2022 fiscal year, 68 Environmental Promoters reached over 18,000 people in their communities.

School Education Resources and Distance Learning In Metro's education programs, youth and adults learn about recycling and composting, natural resources, climate change and alternatives to toxics. Programs include classroom presentations, community events and workshops and learning gardens available free of charge to schools and groups located in Clackamas, Multnomah and Washington Counties. As COVID-19 health and safety restrictions limited in-person educational programming, Metro educators developed a wealth of on-line resources for youth and families interested in learning about reducing their waste, responding to climate change and protecting natural resources. Education staff developed 47 pre-recorded educational videos and supporting materials for K-12 youth and their families.

Online presentations for kindergarten through fifth grade students include activities and discussions that encourage critical thinking about how choices impact our lives, resources and the future. Distance learning video series topics include composting with worms, reducing waste at home and school, conserving natural resources and the history and science of landfills. Middle and high school students were offered a series of live interactive virtual engagements on the topics of climate change, waste prevention and the connection between people, consumer products and nature. Concepts are introduced first through short videos and then reinforced through live on-line sessions with a Metro educator. 5,371 youth engaged in live, on-line waste prevention presentations during the 2020-21 school year.









Metro does a number of outreach efforts to engage youth and adults. These range from in class presentation, to field trip education, and on-line educational resources.

Youth Reached through Education Programs

Youth reached through education programs is prioritized as an indicator for reporting to help inform progress the plan's product end-of-life management goals. This measure is also serves as a key indicator for the plan and an in-depth analysis can be found in the Key Indicators section of this report. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 6

Reduce product environmental impacts and waste through educational and behavioral practices related to prevention and better purchasing choices.

Indicator

Number, geographic location and demographics of youth reached through education programs.

Why is this indicator important?

The region's youth education programs reach tens of thousands of students every year through schools and on-line. In the programs, youth learn about waste prevention, recycling and composting, natural resources, climate change and alternatives to toxics.

Through these learning opportunities, youth education programs provide culturally responsive and developmentally appropriate school-based education programs about the connections between consumer products, people and nature.

The indicator measures the number of youth reached through the education programs offered by Clackamas County and Metro. Clackamas County serves all areas of the county, while Metro focuses on areas within the Metro urban growth boundary.

Future reports will incorporate data from on-line efforts and other partners. For example, cities and counties also reach youth in schools by providing technical waste prevention, recycling and composting support. They also reach youth through the Oregon Green Schools program, which helps provide hands-on waste reduction and resource conservation activities that promote leadership development, sustainable behaviors and environmental literacy.

Baseline Data

37,930

Youth reached in 2018 - 2019 school year*

All percentages shown here are relative to the total number of youth reached

By geography

Clackamas County 13,557 (36%)

Multnomah County 12,416 (33%)

Washington County 11,842 (31%)

Unknown** 115 (<0.5%)

By demographics

Students of color (15,143) Economically disadvantaged (13,415)





- * Data for this baseline was selected for the last full in person school year
- ** Youth reached at regional events



Action Status Summary

The following tables summarize the action items for each goal area along with their status, the lead agency, planned activities, and progress to date. Each table is preceded with the associated Goal as well as any indicator(s) that are linked to the Goal.

Goal 6

Reduce product environmental impacts and waste through educational and behavioral practices related to prevention and better purchasing choices.

Indicator

Number, geographic location and demographics of youth reached through education programs. Annual tons of waste generated.

Table 6 - Goal 6 Action Status

Acti	Action		Lead Agency	Planned Activities	Progress to Date
6.1	Provide culturally responsive and developmentally appropriate school-based education programs about the connections between consumer products, people and nature.	6	Metro	Continue progress on roll-out of priority school and venue-based education programs and support services.	Due to the COVID-19 pandemic, the elementary and secondary school program teams pivoted heavily to reach priority audiences via pre-recorded lessons, activity guides, live virtual lessons, live virtual field trips to Metro Central, virtual planning sessions for Outdoor School programming and through take-home educational kits at in-person tabling events.





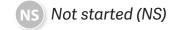


Table 6 - Goal 6 Action Status (continued)

Acti	ion	Status	Lead Agency	Planned Activities	Progress to Date
6.2	Provide culturally responsive community education and assistance about the connections between consumer products, people and nature.	OT	Metro Cities and Counties	Complete initial expansion and refinement of Environmental Promoters program. Conduct educational outreach through social media, education campaigns and publications, community-based events, Metro's Recycling Information website. Highlight culturally specific businesses when sharing examples of business waste prevention.	 Programs continued with Centro Cultural (Washington Co), North by Northeast Community Health Clinic (Multnomah Co), and Trash for Peace (Multnomah Co), which include opportunities for past promoters to gain even more experience as leaders and mentors by being able to train a new group of promoters. Exploration of a pilot between Metro, Clackamas County and Oregon Green Schools for a high school-aged Youth Environmental Promoters program is underway. Recycle or Not and Reciclar o No (RoN) Instagram accounts have reached over 7,000 followers combined. Engaged with Metro youth interns to help create relevant RoN content. Provided RoN brochures for summer lunch program, community clean up events and Trash for Peace Environmental Promoters. Metro partnered with Reynolds School District to provide 460 free lunches and Natural Gardening Education kits to families. Local government outreach (web and mailed) emphasizes recycling how-to and why, resources for waste prevention, natural gardening, food waste prevention (Eat Smart Waste Less), reuse and repair. Most local jurisdictions provide publications and web postings in multiple languages—primarily Spanish, Russian, Vietnamese (exceptions are Fairview, Troutdale and Multnomah County – who use only Recycle or Not and other Metro-created campaigns available in English and Spanish).



Table 6 - Goal 6 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
6.3	Provide and increase accessibility to education and tools to help residents and businesses reduce their use of the single- use products with the greatest negative environmental impacts.	OT	Metro Cities and Counties	 Incorporate information and tools into the Environmental Promoters program. Conduct educational outreach through social media, education campaigns and publications, community-based events, Metro's Recycling Information website. 	 Healthy home and natural gardening supplies, training and education materials for Environmental Promoters were provided for distribution and use at multiple community events. All local governments utilized Recycle or Not as a platform to elevate the top single-use products that also contaminate the recycling system such as plastic-padded envelopes and plastic takeout containers. Recycle or Not and Reciclar o No (RoN) Instagram accounts reached over 7,000 followers combined. Oregon's single-use bag law passed in 2019 (HB 2509). All local jurisdictions must now comply with the state requirementslocal provisions in force prior to the state law were generally overridden, but local jurisdictions can still impose higher fees or penalties. In 2019, the State of Oregon passed Senate Bill 90 which restricts straws to "by request" only. In addition, businesses within Portland's city limits must comply with Portland's policy, which covers not only straws, but also stirrers, utensils and individually packaged condiments under the city's single-use plastics reduction policy. Due to COVID-19, the Governor encouraged local governments to consider temporary suspensions of enforcement of the ban.
6.4	Partner with communities of color and others to increase awareness about high-risk chemical products, reduce their use and decrease people's exposure to them.	C	Metro	Complete initial expansion and refinement of Environmental Promoters.	 Natural Gardening Education was added to the Environmental Promoter training portfolio through a new contract with Growing Gardens. Healthy home and natural gardening supplies, training and education materials for Environmental Promoters were provided for distribution and use at multiple community events.



Table 6 - Goal 6 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
6.5	Assist households and businesses in the adoption of practices that prevent the wasting of food and other high-impact materials.	o	Metro Cities and Counties	Coordinate Food Waste Stops with Me (FWSWM) campaign and partnerships with industry groups, including ORLA. Conduct educational outreach through social media, education campaigns and publications, community-based events, Metro's RIC website.	 Waste prevention is a key element of outreach to food businesses. The majority of local governments support and participate in the Food Waste Stops with Me (FWSWM) campaign in partnership with Metro and the Oregon Restaurant and Lodging Association. Exceptions include Troutdale, Fairview and Multnomah County. FWSWM collateral was regularly updated and a business plan for the development of educational videos was created. In addition, Metro and local governments continued ongoing industry partnerships including coordination with Oregon Hospitality Foundation. Metro and local governments continued preparations for implementation of the regional Business Food Waste Requirement policy that was delayed twice due to the impacts of COVID-19. Commercial food waste prevention assistance is required in the policy. The Eat Smart Waste Less program helps households shop, prepare and store food in a way that helps reduce food waste. The program provides a wide range of tips and resources in both English and Spanish and is provided in the region by a team of local governments (Beaverton, Clackamas County, Gresham, Portland and the Washington County Cooperative Recycling Program).
6.6	Support implementation of Oregon State University's (OSU) SolvePestProblems.org as a primary tool for education and resources on integrated pest	OT	Metro	Provide website as tool in education programming.	 OSU completed extensive community feedback and user testing to improve tools and education. Metro collaborated with OSU to provide Metro's Recycling Information Center with updated and accurate contact information for the region's residents and businesses.
6.7	Implement recognition programs for business efforts to prevent waste and minimize the environmental impacts of the products they purchase.	OT	Cities and Counties	No planned activities	Most local governments in the region have had recognition programs in place for many years. Programs have shifted from a recycling focus to one of greater sustainability—in some cases incorporating issues such as water, energy and greenhouse gas reduction. Programs include Clackamas County's Leaders in Sustainability, Gresham's Green Businesses and the Washington County Cooperative Recycling Program's Green Business Leaders.



Reduce product environmental impacts and waste through policies that support prevention practices and better purchasing choices.

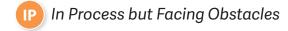
Indicator

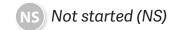
Environmental impacts associated with high-impact products and product categories purchased by Metro and local governments.

Table 7 - Goal 7 Action Status

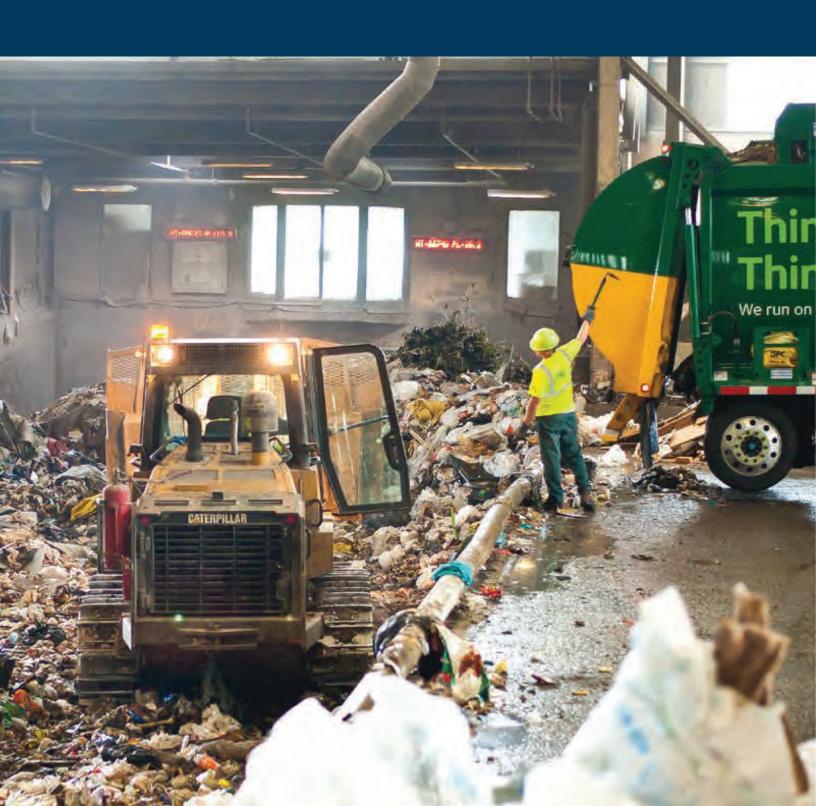
Action		Status	Status Lead Planned Activities		Progress to Date		
7.1	Implement procurement policies for Metro and local governments that prioritize the purchase of products and services with low environmental and human health impacts.	IP	Metro Cities and Counties	Update Metro's sustainable procurement policy to reflect current best practices and address high impact purchasing categories and key agency priorities, including climate, waste and toxics.	 Metro completed some internal options for policy updates, however policy updates have been paused due to staff reductions affecting the procurement team. A project to restrict the purchasing of toxic chemicals is in the scoping phase. 		
7.2	Implement policies that will reduce the use of single-use products such as single-use plastic bags.	6	Metro Cities and Counties	 Advance Metro Council recycling system improvement and waste reduction policy priorities related to single-use plastics. Develop state legislative priorities for Metro Council consideration. 	Oregon's single-use bag law passed in 2019 and all local jurisdictions must now comply with the state requirements. Local provisions in force prior to the state law were generally overridden, but local jurisdictions can still impose higher fees or penalties.		







Product End-of-Life Management



Overview of the Goal Area

The system that handles our garbage and recycling and transports them to their final destinations is vast and complex, encompassing services from garbage trucks to food banks to recycling facilities and landfills, involving governments, private businesses and not-for-profit organizations. The region has developed a highly effective recovery and disposal system over the last 30 years. But with a growing population, changes in how and what we consume, historical and current impacts of the system on neighborhoods and the dynamic nature of global markets for recyclables, it's time for new thinking and new work.

While the ultimate goal is to prevent waste to begin with, the Portland region still needs a system that safely and conveniently manages products at the end of their useful life. The goal is to ensure that the programs and services not only protect human health and the environment, but that they do so in a way that meets the needs of all residents and all communities today and into the future.

Work Area Highlights

Businesses Separating Food Scraps from Garbage In November 2019, Metro completed a commercial food scraps composition study to evaluate the food scraps collected from area businesses. The study showed that participating businesses are doing an excellent job of separating food scraps for collection – only 3% (by weight) and 6% (by volume) was contamination—in other words, items such as plastic that are not acceptable in the program. In comparison, business' mixed recycling bins contained a much higher rate of contamination – 14% (by weight).

The transition to a "food only" standard in 2015 helped increase the quality of materials collected and made it easier for businesses to know what goes in the bin. Local government technical assistance staff played an integral role in helping businesses understand the program and participate to the fullest. The very high quality of the food scraps collected in the region not only demonstrates the commitment of all involved, but also helps ensure that products such as compost made from them are also top notch.



New Service Standards for People Living in Multifamily Homes

Twenty-five percent of people in the Portland metropolitan area live in apartments and condominiums. Garbage and recycling services for these multifamily homes have not met the needs of its residents for many years, and are not nearly as good as services provided to people living in single-family homes. The garbage and recycling bins are inconsistent and confusing in color and location, and often there are not enough of them. Bins have layers of old instructional decals—or none at all--making good recycling practices difficult. This results in loose garbage in and around garbage and recycling areas, which creates safety issues for both residents and collection companies.

In 2017, Metro completed a first-of-its-kind assessment of multifamily garbage and recycling service volumes at over 70 percent of multifamily properties in the region and spoke with people living in multifamily homes to get their input on improvements that would help them better navigate their garbage and recycling system. The result of this work is a set of long-overdue changes adopted by the Metro Council in 2020 to the code that sets the standard for all recycling collection programs in the region. These changes are in direct response to the needs and ideas expressed by members of our community living in multifamily homes—people who have not had a strong voice in the development of policies or programs before. These changes include:

- All garbage and recycling bins will have new signs, stickers and standard colors for garbage, recycling or glass--the same across the region. Signs now include English, Spanish, Vietnamese and Chinese languages.
- Garbage and recycling bins will also be color-coded--garbage will be gray or black, recycling
 will be blue, and glass will be orange. The bins will be the same colors throughout the region,
 so people who move a lot will see the same system from place to place.
- Minimum collection volume and frequency standards have been established. This means
 that recycling will be collected more often and bins will not be overloaded. This will help to
 make garbage and recycling areas cleaner and safer for residents.
- In the future, better service for bulky items like furniture and mattresses will be provided.
 Bulky items regularly collect at multifamily homes due to the monthly move in, move out
 cycle. People living in multifamily homes currently have no disposal options through their
 franchised or licensed hauler, and these items can be dangerous when they accumulate.



New service standards for multifamily garbage, recycling and glass is aimed at providing better volume and frequency collection as well as more consistency across the region for language on signs and colors for type of collection. The image to the left provides an example of why these service standards are needed.

Increased Resources for Community Cleanup Initiatives

Trash, old appliances, torn mattresses, used tires, broken furniture, oil, antifreeze and pesticides are a few of the things dumped on public lands, sidewalks, alleyways and waterways, putting human health and wildlife at risk. Metro's Regional Illegal Dumping (RID) Patrol cleans up dumped or abandoned garbage sites. It also investigates evidence found in dumped garbage and eye-witness accounts of dumping incidents on either public or private property.

The emergence of the pandemic in 2020 and increasing COVID-19 safety and health restrictions greatly impacted Metro's ability to provide community cleanup services and resources. RID Patrol saw a significant increase in response times to clean up illegal dumps across the region, as well as the program's capacity to support the houseless community and local jurisdictions in addressing impacts from people living in public spaces. Services such as community household hazardous waste collection were also paused due to COVID restrictions. Additionally, impacts due to graffiti and litter increased across the region during this time.

In spring of 2021, Metro Council approved two significant budget expansions totaling \$3.5 million focused on providing the staffing, equipment and other resources needed to return RID Patrol to pre-pandemic service levels while also providing additional resources to address acute impacts from graffiti and litter across the region. The budget expansion allowed the program to increase from two to six Metro crews, add four additional program staff to support planning and logistics and lease a deployment center as well as purchase critical supplies and equipment including trucks and trailers. Despite impacts to staff capacity during December due to COVID, inclement weather, RID Patrol was able to reduce the amount of pending cleanup sites to an average of 60 with an average response time of 5 days from a high of 61 days during April 2021 with more than 700 pending cleanup sites. In addition, Metro established the Regional Refresh Fund to provide financial support for nonprofit organizations, local governments and business district associations to defray local cleanup and disposal costs. This accessible, low barrier sponsorship focuses on projects within Equity Focus Areas and environmentally sensitive areas across the region. Launched in summer 2021, the program has awarded \$88,000 to date.



Multifamily Properties with Adequate Collection Services

Multifamily properties with adequate service is prioritized as an indicator for reporting to help inform progress the plan's product end-of-life management goals. This measure is also serves as a key indicator for the plan and an in-depth analysis can be found in the Key Indicators section of this report. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 10

Provide regionally consistent services for garbage, recyclables and other priority materials that meet the needs of all users.

Indicator

Share of multifamily properties with adequate collection services.

Why is this indicator important?

This indicator tracks the share of apartment and condominium homes in the greater Portland area with adequate garbage and recycling collection services. Adequate service is defined as meeting the Multifamily Regional Service Standard, which was updated in 2020 for the first time since it was established almost 30 years ago. Providing adequate garbage and recycling services at multifamily homes is important because it allows for more equitable access to services for all residents of the region.

The updated service standard established prescriptive language for:

- The amount and frequency of garbage and recycling (effective 2020),
- Signage on bins and in multifamily collection areas (effective 2023),
- · Collection of large items (effective 2025), and
- A bin color standard (effective 2028).

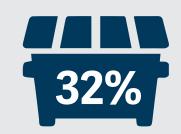
This indicator will include and report on the standards as they become effective.

Share of properties that meet the current Multifamily Regional Service Standard

The chart on the right shows the share of properties that met the regional multifamily service standards for garbage, recycling and glass in 2021. This was based on a study of gallons provided per unit per week for all three streams and in the future will include color standards.

The values for garbage (88%), recycling (52%) and glass (64%) are all individually higher than the 32% of properties that met all service standards. This indicates many apartment and condominium homes have one or two services at or above standards, but only 32% meet all three service standards.

Baseline Data



Properties with adequate services in 2021

Properties with adequate services are those that meet the current Multifamily Regional Service Standard (effective 2020), defined as:

Garbage and **recycling**, at least 20 gallons per apartment unit per week.

Glass, at least 1 gallon per apartment unit per week.

Recycling Contamination

Recycling contamination is prioritized as an indicator for reporting to help inform progress the plan's product end-of-life management goals. This measure is also serves as a key indicator for the plan and an in-depth analysis can be found in the Key Indicators section of this report. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 15

Improve the systems for recovering recyclables, food scraps and yard debris to make them resilient to changing markets and evolving community needs.

Indicator

Recycling contamination by sector.

Why is this indicator important?

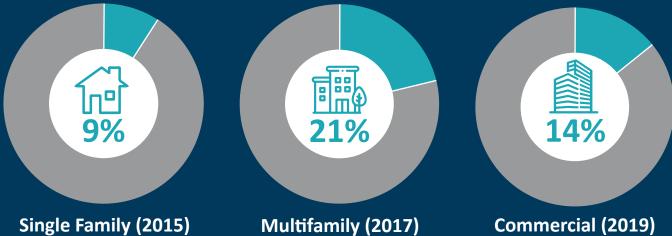
Items in the recycling materials collected from homes and businesses that are not recyclable are known as "contaminants." Waste characterization studies are tools used to check how much contamination is present in the recycle streams by weighing the contaminants found in recycling bins.

When it comes to recycling contamination, the Regional Waste Plan focuses on recyclables generated by three sectors: single family homes; multifamily apartment and condominium homes; and the commercial sector (which includes businesses and institutions such as hospitals and schools).

In the last six years, Metro has conducted regional waste characterization studies of the Single Family (2015), Multifamily (2017), and Commercial (2019) recycling sectors. Together, the contamination rates established through these studies serve as the baseline for this indicator.

Reducing contamination helps improve the quality of the recyclables collected in the Portland region, making them more valuable to companies that use them to make new products. Having stable buyers for those recyclables builds resilience in the recycling system.

Baseline Data The following shows contamination rate by sector.



Recycling materials sent to Oregon and other domestic markets

The share of the region's recycling materials sent to markets is prioritized as an indicator for reporting to help inform progress the plan's product end-of-life management goals. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 15

Improve the systems for recovering recyclables, food scraps and yard debris to make them resilient to changing and evolving community needs.

Goal Indicator

Share of region's recoverable materials, by material type, that is sent to markets in Oregon and the U.S.

Baseline Data

Share of main recyclables material	ls
sent to markets in Oregon and other U.S. markets in 2019	68%
Oregon	32%
Other West Coast Locations	32%
Other U.S. Locations	4%

Why is this indicator important?

A key goal of the 2030 Regional Waste Plan is to build resilience in the recycling system by improving the region's ability to adapt to fluctuations in recycling markets. Another key goal is to manage recycling more responsibly, in order to minimize the environmental impact to people and the planet, both in greater Portland and around the world.

In recent years, recycling markets have experienced disruptions due to policies aimed at restricting the flow of bad quality materials to many countries, particularly in Asia.

One way to make the recycling system more resilient and manage recycling more responsibly is to rely on recycling facilities in Oregon and other parts of the United States. This helps build recycling capacity closer to home and avoids sending materials to facilities abroad that are not able to manage them well, which can lead to pollution in communities and waterways across the planet.

This indicator focuses on the recycling materials that are most commonly collected from homes and businesses through city and county programs. This includes cardboard, paper, plastic, metal and glass. The indicator measures the percentage of those materials that are sent to recycling markets in Oregon and other U.S. locations.



Breakdown of material type by destination

Destination	Cardboard	Paper	Plastic	Metal	Glass
All international exports	18%	58%	59%	4%	3%
All U.S. markets	82%	42%	41%	96%	97%
Oregon Other West Coast markets Other U.S. markets	30% 44% 7%	9% 32% 1%	4% 13% 25%	91% 4% 1%	76% 21% 0%
Tons collected	161,920	138,060	13,600	47,300	19,880

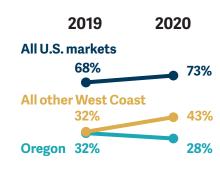
In 2019, an estimated 68% of the region's recycling materials was sent to domestic markets, with 32% sent to companies in Oregon, another 32% to other West Coast markets mainly in Washington and 4% to other U.S. locations. The remaining 32% of materials was sent to other countries, although the true percentage could he higher due to limitations in the data Metro collects. Once materials are exported, it is difficult to know what happens to them, especially if they are bought and sold multiple times before they are used to make new products.

Recycling materials in 2019 and 2020, by destination and material type

Recycling facilities report recycling destination data to Metro on a regular basis. For this reason, we can look at the results for 2020 and compare them to the 2019 baseline data on the previous page.

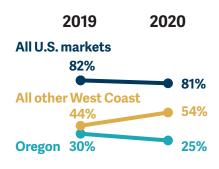
All materials

Overall, the share of recycling materials received by facilities in the region and sent to domestic markets increased from 68% in 2019 to 73% in 2020. This increase was led by a higher share of materials going to West Coast markets. At the same time, the percentage of recycling materials going to companies in Oregon decreased from 32% to 28%. In 2020, the share of materials sent to export markets was 27%, with 20% going to countries in Asia.



Cardboard

Most of the cardboard collected from homes and businesses is sent to markets in Oregon and other West Coast locations, mainly Washington. While the total share of cardboard sent to all U.S. markets decreased in 2020, the amount going to other West Coast markets increased significantly. In terms of exports, most of the cardboard sent abroad goes to Asia and other countries outside North America, and these exports increased somewhat in 2020.



Plastic

Plastic is a lightweight material and, by weight, makes up 4% of the recycling materials collected from homes and businesses in the region. The share of plastic materials sent to U.S. markets dropped from 41% in 2019 to 37% in 2020, accompanied by an increase in exports from 59% to 63% led by a doubling of exports to Canada (from 14% in 2019 to 26% in 2020). Plastic exports to China and other Asian countries have dropped in recent years because of policies aimed at ending the shipment of bad quality materials. In 2020, the share of plastic exports to Asian countries decreased to 32%, compared to 39% in 2019.



Metal

Metal accounts for 12% of the materials collected from homes and businesses in the region. Metal is also a material that is sent almost entirely to markets in the U.S. (98% in 2020). Between 2019 and 2020, the share of metals delivered by recycling facilities to companies in Oregon decreased from 91% to 87%, while the share sent to companies in other West Coast locations increased from 4% to 11%.



Glass

Glass accounts for a small proportion (5%) of the materials collected from homes and businesses in the region. Similar to metal, almost all of the glass collected (99.7% in 2020) is delivered to companies in the United States, with 72% to Oregon companies in 2020 and 28% to other West Coast locations (28%). In large part, these outcomes are driven by the presence of a large glass sorting and bottle factory in Portland.



About the indicator

Data Year: 2019-2020
Source: Metro

Data Frequency: Every year

Scope: Clackamas County, Multnomah County, and Washington County

Garbage, Recycling and Reuse Education

Metro and local government calls, web hits and community responses is prioritized as an indicator for reporting to help inform progress the plan's product end-of-life management goals. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 9

Increase knowledge among community members about garbage, recycling and reuse services.

Indicator

Metro and local government calls, web hits, and community survey responses.

Why is this indicator important?

Cities, counties and Metro share information and education with people and businesses about the garbage, recycling and reuse services available throughout the region. The education is provided in a variety of ways, including websites and via phone or email by the Metro Recycling Information Center.

Yet, past feedback indicates many communities of color and people whose primary language is not English are not receiving enough information about these services. In line with the Regional Waste Plan, Metro's Recycling Information Center (RIC) is working to provide culturally responsive education and assistance. This includes having Spanish speaking RIC agents and options in the automated phone system for Spanish speakers. The RIC also uses a translation service for other languages.

Insights from tracking the type and number of calls, emails and web hits received from the public, can help government staff understand what people have questions about, what type of waste they are trying to throw away, and which communities in the region are not being reached.

This report presents partial baseline data because it is based only on Metro programs. In future years, the indicator will incorporate information from cities and counties.



Baseline Data



<u>98,308</u>

Calls and emails received by the Metro Recycling Information Center hotline in 2020



870,304

Unique page views to Metro's garbage, recycling and reuse information webpages in 2020

Note: Baseline data shown is for Metro only. Local government data will be incorporated in later reports.

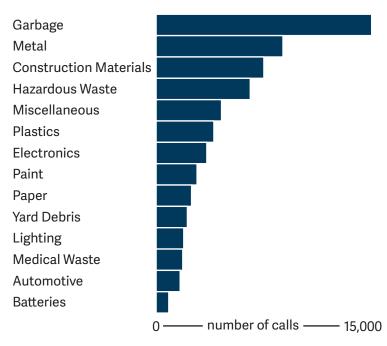
Calls and Emails

- 91,904 total English and Spanish calls, and 6,404 emails
- 50,331 calls went to RIC agents (about 55%) while the rest were handled through an automated menu
- Average call time with agent lasted approximately 2min 11secs
- 95% of calls to agent came from residential sector
- 5% of the calls to agents came from the commercial, non-profit, or government sector

Web Hits

- 870,304 unique pageviews of Metro garbage and recycling web pages
- 352,866 unique pageviews to Find-A-Recycler tool webpages
- Average time users stayed on a garbage or recycling related webpage lasted approximately 1min 25secs
- Webpages catered towards residential users (Tools for Living) accounted for 40% of all Metro website traffic
- Webpages catered towards commercial users (Tools for Working) accounted for 1.1% of all Metro website traffic

Materials the RIC got the most calls about in 2020



Examples

Anything non-recyclable
Scrap metal, refrigerators, appliances
Asbestos, concrete, drywall
Household cleaners, pesticides, heating oil
Mattresses, furniture, food
Styrofoam, plastic film, plastic clamshells
Televisions, computers
Latex and oil based paints
Cardboard, books
Yard trimmings, Christmas trees, stumps
Fluorescent tubes, CFLs
Sharps (needles), pharmaceuticals
Tires, motor oil
Alkaline, rechargeable, lead-acid batteries

About the indicator

Data Year: 2020
Source: Metro

Data Frequency: Every year

Scope: Clackamas County, Multnomah County, and Washington County

Illegally Dumped Tons and Sites

Tons of dumped waste in most impacted communities is prioritized as an indicator for reporting to help inform progress the plan's product end-of-life management goals. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 10

Provide regionally consistent services for garbage, recyclables, and other priority materials that meet the needs of all users.

Goal Indicator

Tons of illegally dumped waste overall and in the most impacted communities.

Why is this indicator important?

This indicator tracks the total tons of illegally dumped waste and number of illegal dump sites cleaned up in the region.

Chemicals and non-biodegradable materials in waste can harm the physical environment and waterways by contaminating soil and water. Additionally, dumped waste can also attract rodents and other pests.

Domesticated animals and wildlife can become seriously ill, or even die, after consuming poisonous materials and other items found in these sites.

Illegal dump sites can become fire hazards, as well as potential risks for accidents.







Baseline Data



Total tonnage disposed of in 2019

4,381

Total sites cleaned up in 2019



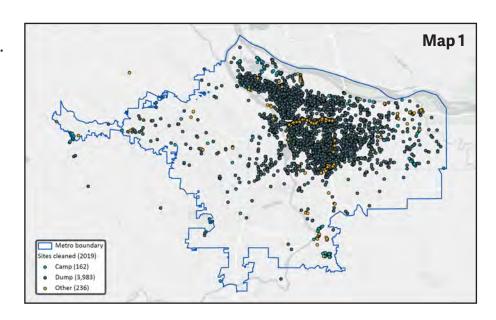
Sites in Equity Focus Areas in 2019

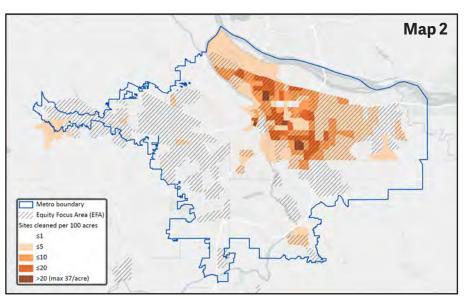
The following maps show the location of all the sites cleaned up by Metro's Regional Illegal Dumping (RID) Patrol program in 2019, as well as site density per 100 acres. Looking at how many illegal dumping sites are in a specific area helps to identify areas with a higher frequency of cleaned sites.

Map 1 (to the right) plots all the sites cleaned up in 2019. The map shows that the majority of these sites were within the City of Portland.

Map 2 (to the right) shows Equity Focus Areas (EFAs) with the cleanup data from Map 1 normalized to sites per 100 acres. EFAs are census tracts where the share of people of color, of people with limited English proficiency, or with low incomes is greater than the regional average, where low income is defined as equal to or less than 200% of the Federal Poverty Level.

Because census tracts differ in size, normalizing the data helps to show which census tracts had the highest number of illegally dumped sites regardless of how large each census tract is. As Map 2 shows, the majority (70%) of illegal dumping sites cleaned up in 2019 occured in the City of Portland.





About the indicator

Data Year: 2019

Source: Metro

Data Frequency: Every year

Scope: Metro Region

Action Status Summary

The following tables summarize the action items for each goal area along with their status, the lead agency, planned activities and progress to date. Each table is preceded with the associated Goal as well as any indicator(s) that are linked to the Goal.

Goal 8

Increase the reuse, repair and donation of materials and consumer products.

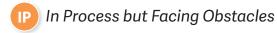
Indicator

• Growth in sales and/or employment in the reuse sector.

Table 8 - Goal 8 Action Status

Action		Status	Lead Agency	Planned Activities	Progress to Date
8.1	Support efforts to ensure that surplus edible food desired by agencies serving communities experiencing hunger in the region is made available to them.	6	Metro Cities and Counties	Coordinate Food Waste Stops With Me campaign and coordinate among jurisdictional partners, Oregon Food Bank and other regional donation partners.	The COVID-19 pandemic increased the needs of both businesses and hunger relief agencies for food rescue assistance. Local government staff responded quickly and redoubled their efforts to get surplus food from restaurants that shut down suddenly to agencies that could safely store and distribute food. Work included: Local food assistance needs assessments. Resources to food businesses on how to donate food. New resource guide for business to donate food. Technical assistance to donation agencies on food storage, bulk purchasing, centralized distribution models, etc. Work with culturally-specific food markets. Assisting with emergency food assistance efforts during pandemic. Participating in local food system collaborative groups. Hosting networking opportunities for local food assistance sites and public service partners. Pairing retailers with food to donate with local agencies who pick up and distribute the food. Utilizing Metro-developed Food Donation Mapping Tool to increase efficiency.





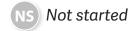
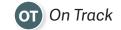


Table 8 - Goal 8 Action Status (continued)

Acti	Action		Lead Agency	Planned Activities	Progress to Date
8.2	Implement strategies to increase the salvage of building materials for reuse, without increasing exposure to toxics.	OT	Metro	Maintain partnership with Earth Advantage sustainable building site certification program.	 Metro's funding support for Earth Advantage ends June 2022. Funded 12 Investment and Innovation grants focused on increasing the capacity of deconstruction contractors, specifically targeting minority-owned/employed firms.
8.3	Advocate for research-informed changes to building codes and other regulations to increase use of reused and deconstructed materials.	NS	Metro Cities and Counties	No planned activity.	No progress to date.
8.4	Expand the collection of reusable items at public and private transfer stations, in partnership with reuse and repair organizations.	ОТ	Metro Cities and Counties	No planned activity.	A partnership opportunity that could result in diverting building materials from the waste stream for reuse at Metro Central is currently being explored.
8.5	Invest in neighborhood-scale reuse and repair services and infrastructure.	OJ	Metro Cities and Counties	Administer eight Investment and Innovation (I&I) grants awarded to nonprofits and private businesses focused on reuse and/or repair through 2022.	 Twenty Metro I&I grants related to reuse and repair services and infrastructure awarded. Local governments continued to host multiple neighborhood Repair Fairs, Fix It Fairs, Repair Cafes and other community-based repair and reuse services. Local governments regularly provide resources including posting current lists of repair shops and supporting Libraries of Things where available (tool libraries, kitchen libraries, etc.). Washington County Cooperative Recycling Program and Portland are very active in this work. Portland conducted a Reuse, Repair, Share Needs Assessment, interviewing over 20 nonprofit organizations and other stakeholders, activating a monthly reuse gathering with some organizations.
8.6	Support implementation of Oregon DEQ's Reuse, Repair and Extended Product Lifespan Strategic Plan.	OT	Metro Cities and Counties	Incorporate elements of Oregon Department of Environmental Quality plan in the 2020 Innovation and Investment grant program solicitation.	Incorporated elements of Oregon DEQ's plan into Metro's I&I 2020 grant solicitation, resulting in eight new reuse/repair grants focusing on high environmental value materials.







Increase knowledge among community members about garbage, recycling and reuse services.

Indicator

• Metro and local government calls, web hits and community survey responses.

Table 9 - Goal 9 Action Status

Action		Status	Lead Agency	Planned Activities	Progress to Date
9.1	Provide culturally responsive education and assistance for garbage, recycling and reuse services to residents and businesses.	6	Metro Cities and Counties	 Complete initial expansion and refinement of Environmental Promoters program. Conduct educational outreach through social media, education campaigns and publications, community-based events, Metro's Recycling Information website. Develop and provide guidance to local governments and haulers on culturally responsive education as it relates to annual education notifications and other education referenced under Opportunity to Recycle/state statute. 	 Metro continues programming with Centro Cultural (Washington County), North by Northeast Community Health Clinic (Multnomah County) and Trash for Peace (Multnomah County), which includes opportunities for past Environmental Promoters (EPs) to gain experience as leaders and mentors through training new EPs. Pilot being explored with Clackamas County and Oregon Green Schools for a high school-aged Youth Environmental Promoters program. Recycle or Not (RoN) and Reciclar o No Instagram accounts reached over 7,000 followers combined. Engaged with youth interns on creating relevant RoN content. Provided RoN brochures for summer lunch program, community clean up events and Trash for Peace Environmental Promoters. All jurisdictions utilized the RoN tools and resources which are available in English and Spanish and feature culturally-specific common household items. New community-informed multifamily decals helped local governments create accompanying outreach and educational materials. Planning underway with local government partners to develop culturally responsive education. Local governments in the region continue to improve education and assistance offerings to ensure that information is culturally responsive and meets the needs of the public. Most jurisdictions offer program materials for waste prevention and recycling and have web-pages in Spanish and some offer materials in multiple languages. Beaverton collaborated with internal departments to engage with underrepresented and under-served populations for the Allen Blvd District Plan and worked with community development groups to plan recycling and waste enclosures. Portland developed a Waste Equity Work Plan.

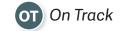


Table 9 - Goal 9 Action Status (continuted)

Action	Status	Lead Agency	Planned Activities	Progress to Date
9.1 - continued				 Washington County convened an internal equity workgroup; revised administrative rules to address culturally-responsive waste services and the Recycling Cooperative funded small waste prevention projects in partnership with Adelante Mujeres. Several local governments collaborated with culturally-specific business chambers of commerce and networks, small business development groups. Built "languages spoken" into local databases to assist in provision of outreach including having a translator to assist in outreach. Local government and Metro outreach staff started a Language Bank to share common garbage and recycling messaging in several languages. Local governments including Gresham, Portland and the Washington County Cooperative Recycling Program have partnered with culturally specific CBO's and programs including Environmental Promoters to deliver culturally responsive outreach to community, including people living in multifamily homes.
9.2 Utilize Metro's Recycling Information Center to serve all residents and businesses in the region as a clearinghouse for prevention, reuse, recycling and disposal information.	C	Metro	 Administer and operate Recycling Information call center (RIC). Maintain a database of accurate, timely, reliable data for recycling specialists and online Find a Recycler tool. Function as information service center for Metro solid waste facilities and Metro Paint. 	 The RIC was fully operational 6 days a week but transitioned to a fully-remote 5 day schedule due to COVID-19. The team provided 285,582 person-to-person educational touch points and referral services within the Portland Metro region and beyond. The team maintained data so that 315,037 users could find recycling, reuse and proper disposal options via the on-line Find-a-Recycler tool. Recycle or Not (RoN) Instagram has nearly 7,000 users since July 2019 launch. The proprietary Recycling Information Center (RIC) database is maintained with up-to-date regional recycling and reuse business data; Metro's solid waste facility procedures and policies; as well as a broad range of material type data. The RIC is the public/main customer service line for Metro solid waste facilities, providing support and information such as fees, detailed acceptance policies and operational procedures, emergency closures, customer relations support and customer referrals.







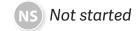
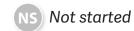


Table 9 - Goal 9 Action Status (continued)

Act	ion	Status	Lead Agency	Planned Activities	Progress to Date
9.3	Ensure that community education and volunteer development courses, such as Master Recycler, are relevant, accessible and culturally responsive to all communities.	OT	Metro Cities and Counties	 Continue operations of programming in Washington and Multnomah Counties. Assess transition of Master Recycling program to Metro. Update Master Gardener contract further centering racial equity goals. Complete initial assessment of equity outcomes of Environmental Promoter and Master Gardener programs. 	 Metro continues programming with Centro Cultural (Washington County), North by Northeast Community Health Clinic (Multnomah County) and Trash for Peace (Multnomah County), which includes opportunities for past Environmental Promoters (EPs) to gain experience as leaders and mentors through training new EPs. Pilot being explored with Clackamas County and Oregon Green Schools for a high school-aged Youth Environmental Promoters program. Metro added Natural Gardening education to the EP program via a contract with Growing Gardens. Updated Master Gardener contract to include racial equity training for volunteers. Developed pesticide reduction and safety education programming centering farmworkers and those working in lawn care and similar sectors. Master Recycler transition assessment is in progress. The Washington County Cooperative Recycling Program has continued Master Recycler programs and Promotores Ambientales. Master Recycler Community Design program partnered with Metro and community-led organizations to provide resources, new relationships, training, workforce, and project development for community-driven initiatives. The program has partnered with Trash for Peace, Centro Cultural and Washington County, North by Northeast Community Health Center, and Coffee Creek Correctional facility. Master Recycler program working to address institutional, technical and social barriers that keep low-income and communities of color from participating in sustainability efforts. 24 languages are spoken in the homes of Master Recyclers, 42% of respondents stated that their household income is less than \$25,000, 57% of respondents are renters, 37% live in a multifamily community, 54% identify as people of color.







Provide regionally consistent services for garbage, recyclables and other priority materials that meet the needs of all users.

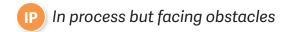
Indicator(s)

- Tons of illegally dumped waste overall and in the most impacted communities.
- The environmental impacts associated with the recovery rate for the Metro wasteshed.

Table 10 - Goal 10 Action Status

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
10.1	Provide comprehensive collection services and supporting education and assistance for source-separated recyclables, source-separated food scraps and garbage, in compliance with state, regional and local requirements, including the Regional Service Standard, Business Recycling Requirement and Business Food Waste Requirement in Metro Code.	OT	Cities and Counties	Evaluate and align associated Metro-local government funding, program implementation and reporting agreements with Regional Waste Plan guidance. Implement Business Food Waste Requirement Complete Regional Service Standard improvement code and administrative rule changes.	 Metro conducted an independent funding evaluation. Changes to the overall Annual Waste Reduction Program are underway with FY21-22 serving as a "bridge year" to transition away from the old plan and align with the RWP. A 3-Year Work Plan was collaboratively developed with local governments. Due to COVID-19 impacts, Metro delayed implementation of the Business Food Waste Requirement from March 2020 to March 2022. Metro Code Chapters 5.10 and 5.15 and revisions to the associated Administrative Rules were adopted in late 2020 and became effective in the spring of 2021. All local governments in the region currently provide collection services. All jurisdictions in the region will need to update local codes to reflect changes to the Regional Service Standards. Washington County and the cities of Hillsboro, Portland and Beaverton have either already adopted or are in the process of adopting code updates. Jurisdictions also provide a wide variety of education and assistance including: on- and off-site technical assistance, new customer packets, composting and donation information in English and Spanish, Postcards, social media, e-newsletters, bill inserts, paid media, video library resources, collection containers, decals and instructional signage for recycling and composting. Business certification programs, workplace trainings and presentations and open houses, coffee hours, in-person and virtual visits, collaboration with business chambers and networks for outreach and highlight business-to-business best practices, recycling, composting, and waste reduction information to schools, and support of Oregon Green Schools program. All jurisdictions meet or exceed multifamily requirements for materials collected, outreach and education provided.





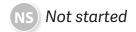


Table 10 - Goal 10 Action Status (continued)

Acti	Action		Lead Agency	Planned Activities	Progress to Date
10.2	Implement minimum service levels or performance standards for all collected materials for multifamily and commercial tenants.	OT	Metro Cities and Counties	Complete Regional Service Standard (RSS) improvement code and administrative rule changes.	 Metro Code Chapters 5.10 and 5.15 and revisions to the associated Administrative Rules were adopted in late 2020 and became effective in the spring of 2021. Next step is local adoption of new standards. Local governments are beginning to adopt and implement the updated regional service standards requiring minimum service levels at multifamily properties. Portland implementation of RSS policy is in process and estimated to be completed January 1, 2022. Timeline for service volume and labeling is 2023 and container color is 2028. Washington County and Hillsboro have updated local codes.
10.3	Implement regional standards for collection container colors, signage and other related informational materials for single-family, multifamily and commercial services.	ОТ	Metro Cities and Counties	Complete Regional Service Standard (RSS) improvement code and administrative rule changes. Complete multifamily decal implementation project. Develop guidance document for regionally approved cart and container colors, including potential cooperative purchasing agreement for orange glass bins.	 Created new community-informed multifamily decals that can be used for single family and commercial as well. Initial/pilot decal implementation is in progress, full implementation is on track to take place in FY 21-22. Local governments are working with Metro to facilitate decal and sign replacement. Local jurisdictions are utilizing new designs to create standard informational materials such as brochure, recycling bag, newsletter guide, one-page flyer, etc. to reduce redundancy. In consultation with the region's local governments and private collectors, a guidance document is in progress. Procurement for cooperative purchasing for glass collection containers was discussed but not pursued.
10.4	Provide convenient, accessible and equitable collection of hazardous waste from households and Conditionally Exempt Generators, prioritizing communities with greatest need.	OT	Metro	Provide household hazardous waste collection services at Metro Transfer Stations. Provide community collection events with focus on under-served communities.	 Metro South and Central transfer stations have permanent collection facilities and services. Household hazardous waste collection services provided at small scale community-based events March-September 2021 (17 events held). Large scale collection postponed until spring 2022. Partnered on a drop box and multiple outdoor community events with NxNE Community Health Clinic.







Table 10 - Goal 10 Action Status (continued)

Actio	Action		Lead Agency	Planned Activities	Progress to Date
10.5	Provide regularly occurring bulky waste collection service, with particular emphasis on multifamily communities and lower-income households.	OT	Cities and Counties	Convene with local government to determine next steps to provide regularly occurring bulky waste collection service to multifamily sites ahead of the 2025 deadline in proposed AR 5.15-2040 (4).	 This action has been prioritized by local governments and Metro in the 3-Year Work Plan with initial work to start in FY 21-22. Clackamas County is piloting bulky waste pickup and multifamily sites. The Washington County Cooperative Recycling Program has partnered with Community Warehouse to pilot collection of reusable bulky waste items from multifamily sites. Gresham has partnered with Trash for Peace for bulky waste events and some multifamily properties. Local government are currently participating in a regional workgroup the is in the process of developing a work plan for establishing regularly occurring multifamily bulky waste collection service
10.6	Establish standards for collection areas for existing and newly constructed multifamily properties to ensure residents have adequate access to garbage, recyclables and food scraps collection containers.	NS	Cities and Counties	 Convene with local governments to determine next steps to establish multifamily collection area standards. Collect information on total count of enclosures and enclosure accessibility as part of the decal implementation work. 	No progress to date.
10.7	Partner with community health organizations to expand options for collection of hypodermic needles and other types of medical waste, prioritizing individuals with the greatest barriers to service.	OT	Metro	Refine and expand access to sharps collection and other medical wastes through partnerships development and capacity building within local communities.	 Partnered on a drop box and multiple outdoor community events with NxNE Community Health Clinic. Metro household hazardous waste staff present at multiple outdoor events in equity focus areas to collect sharps and medicines.





Address and resolve community concerns and service issues.

Indicator

• Share of Metro, local government and solid waste service providers that have gone through culturally competency training.

Table 11 - Goal 11 Action Status

Acti	Action		Lead Agency	Planned Activities	Progress to Date
11.1	Provide cultural competence training to customer service representatives at Metro, local governments and collection service providers.	NS	Metro Cities and Counties	Identify and administer a continuous education series focused on diversity, equity and inclusion training.	Washington County and Hillsboro have adopted Administrative Rules requiring collection service providers to annually provide their employees with training on implicit bias. Service providers must also provide translation services and ensure customers have language services available to them at no cost.
11.2	Improve feedback loops between haulers, local governments and Metro to address collection service issues for households and businesses.	NS	Cities and Counties	Identify and execute policy implementation strategies and actions to support jurisdictional and community partners.	No progress to date.
11.3	Provide inclement weather notifications to customers in multiple languages and through a variety of media.	NS	Metro Cities and Counties	No planned activity.	 All jurisdictions provide basic inclement weather notifications. Improvement needed with regard to multiple languages in some areas of the region. Washington County updated its administrative rules to be inclusive of natural disasters and other hazardous conditions that disrupt service. The County provides notifications to customers in English and Spanish on the County website, and through the Garbage and Recycling Day App.





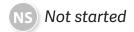
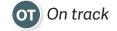


Table 11 - Goal 11 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
11.4	Provide services to clean up illegal dumps on public property, prioritizing communities with greatest need.	OT	Metro Cities and Counties	 Provide regional cleanup and services to the public through RID (Regional Illegal Dumping) program. Explore private sector partnerships by including small businesses into cleanup network. Develop sponsorship and partnership programs to increase financial support for community disposal. Develop program level indicators to measure progress toward service equity outcomes. 	 RID continues to provide cleanup services of dumped and abandoned garbage on public lands. Portland is coordinating multiple efforts on this front, including work by its Homelessness and Urban Camping Impact Reduction Program, Portland Parks, and a partnership with SOLVE. Metro developed sponsorships program using recommendations from the service equity audit, including criteria for serving communities facing particular barriers to garbage and recycling services. RID is working to identify service equity indicators to measure service provision.
11.5	Research the root causes that contribute to illegal dumping and how they can be addressed.	NS	Metro	 Conduct research on root causes of illegal dumping to inform programs and delivery of services. Center environmental justice theory and practice to research. 	Root causes are investigated when the program has sufficient evidence collected or reported for an incident; additional research will be initiated when new staff are brought on.
11.6	Implement garbage and recycling collection services for people experiencing homelessness.	(P)	Metro Cities and Counties	 Refine and expand access to Metro bag program through partnerships development and the expansion of the camp steward model identified during the pilot year. Expand partnership with alternative workforce program (Ground Score.) 	 Continue to provide services at slightly above pilot year levels; additional services limited due to crew/staff capacity. Working with Ground Score to develop and implement the camp steward model and work plan in FY22 and FY23. Portland's Homelessness and Urban Camping Impact Reduction Program and the City-funded cleanup work conducted by Ground Score's GLITTER program is providing services for people experiencing homelessness.
11.7	Evaluate the need to expand and improve access to public collection containers to reduce litter and illegal dumping.	NS	Metro Cities and Counties	No planned activity.	No progress to date.







Manage all garbage and recycling operations to reduce their nuisance, safety and environmental impacts on workers and the public.

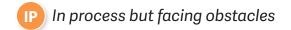
Indicator(s)

- Tons of key pollutants, including particulates and CO2 emissions, from on-road and off-road solid waste fleet vehicles.
- Number of worker injuries that occur at solid waste facilities.

Table 12 - Goal 12 Action Status

Acti	Action		Lead Agency	Planned Activities	Progress to Date
12.1	Minimize the health and safety impacts of solid waste operations on employees, customers and neighboring communities, with particular focus on low-income communities and communities of color, and identify methods for repairing past harm.	ОТ	Metro Cities and Counties	 Complete assessment and initial improvements to staff and customer experience at public facilities through process and technology improvements. Improve systems and procedures for environmental compliance and asset management at public facilities. Manage St. John's landfill monitoring, compliance and reporting. 	 Household Hazardous Waste staff completed process improvement training. Completed an environmental compliance assessment assembled all WPES permits including required activities and reporting schedule into one master document. Additional improvements outside Household Hazardous Waste facility anticipated; not yet started. Performing an air emissions inventory for both Metro transfer station sites.
12.2	Implement consistent and enforceable nuisance and safety standards for all solid waste facilities within the system.	C	Metro	Ensure compliance with Metro's requirements and conduct solid waste enforcement actions.	 509 solid waste facility inspections conducted between January 2019 and June 2021 to ensure compliance with authorization requirements and Metro Code. Due to COVID-19 safety protocols, 267 inspections were open view between March 2020 and 2021 complimented by email and telephone follow-up with operators. Metro issued 26 enforcement actions between January 2019 and June 2021 not including technical assistance or other regulatory guidance. Established an internal Compliance Advisory Team to help identify equity considerations and inform compliance strategies and enforcement recommendations.





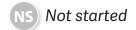


Table 12 - Goal 12 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
12.3	Implement environmental and safety standards for all on-road and off-road solid waste fleet vehicles.	NS	Metro Cities and Counties	No planned activity.	No progress to date.
12.4	Implement sustainability practices in the operation of public and private solid waste facilities to reduce energy use, utilize renewable energy, reduce equipment emissions, maximize the use of safe alternatives to toxic materials and achieve other environmental objectives.	6	Metro	 Provide monthly utility reports, analysis and recommendations for reducing energy and water use and costs at Metro facilities. Continue to track pesticide usage utilizing internal Pesticide Application Record dashboard and seek opportunities to improve dashboard. Create and implement sustainable fleet & fuels strategy. Advance sustainability through design and construction of Metro facility projects. Provide technical assistance in monitoring regulatory compliance at landscaping companies and yard debris reload facilities. 	 Provided quarterly reports and met with staff to discuss; monthly reports haven't been feasible due to delays in contractor data entry. Pesticide Application Record (PAR) dashboard update almost complete Continuing to monitor pesticide application and contractor data for adherence to legal and procedural requirements. Sustainable fuel standard adopted. Included clean diesel and low GHG fuels in wet waste tonnage allocation criteria. Convened technical work group and racial equity team to inform updated green building policy. Facilities Acquisition team is tracking sustainable design options/examples and documenting all findings for future design phase.
12.5	Regulate collection of solid waste materials by collectors not otherwise regulated by local governments and illegal dumping.	NS	Metro Cities and Counties	No planned activity.	Local governments in the region regulate non-franchised waste collectors via local code and rule. In 2020-21 Ridwell (a fee for service, valet waste collection service) entered the local area. Cities and counties are in the process of reviewing Ridwell's services and deciding if they are in violation of local code. So far, Portland has allowed operation while Washington County has denied operating authorizations.







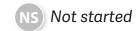


Table 12 - Goal 12 Action Status (continued)

Actio	Action		Lead Agency	Planned Activities	Progress to Date
12.6	Regulate facilities accepting garbage, recycling, food scraps, yard debris and other solid waste generated from the region to advance progress toward achieving this plan's goals.	OT	Metro	Perform ongoing regulation and management of system with Metro Code Title V updates. Implement process improvements to internal procedures and authorizations to ensure all fees and taxes are remitted to Metro as required. Implement changes to Chapter 5.02 to extend due date for fee and tax payments. Complete facility authorizations and agreements.	Metro Code Title V update and engagement plan is under development. 124 Authorizations were issued between January 2019 and June 2021. This includes new, renewed and amended authorizations but does not include termination of inactive authorizations.
12.7	Require post-collection material recovery for marketable materials that will advance progress toward achieving this plan's goals and targets.	ОТ	Metro Cities and Counties	Develop recommendations and proposed sorting and/or end market performance standards for material recovery facilities.	 The Material Recovery Facility Standards Policy Development (MRF Project) has convened a team in collaboration with Oregon DEQ to produce options for improving system performance, including the quality and reporting requirements for post-collection material recovery. An independent consultant has completed initial research, including stakeholder interviews, and generated a set of options. Feedback from external stakeholders on proposed options is underway.





Invest in communities that receive garbage and recyclables from Metro region so that those communities regard solid waste facilities as an asset.

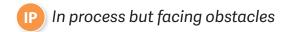
Indicator

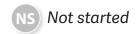
• Share of community enhancement grant dollars awarded to projects that benefit marginalized communities.

Table 13 - Goal 13 Action Status

Acti	Action		Lead Agency	Planned Activities	Progress to Date	
13.1	Expand the host community enhancement program to: • include all solid-waste-handling facilities that impact neighboring communities; • increase funding; • prioritize diversity, equity and inclusion elements in grant funding criteria.	ОТ	Metro	Bi-annually convene cities and counties to support regional competence on implementing equitable outcomes in grant making. Coordinate and refine grant program including, development of program level indicators, equity rubric for grant applicants and new tools for considering most vulnerable communities within enhancement boundaries.	 Staff convened grant administrators in 2020 with plans to continue. Renewed Intergovernmental Agreements to increase community member participation in grant decisions, committee and other tools. Hired a full-time Program Manager and additional capacity for grants program development underway. Updated Intergovernmental Agreements with local jurisdictions. Internal planning for implementation in jurisdictions that did not renew Agreements underway. 	
13.2	Implement annual volunteer projects and collection/recycling events in neighborhoods affected by solid waste facilities.	ОТ	Metro	Support volunteer cleanup efforts within Equity Focus through Community Cleanup Sponsorship and through contracts with organizations such as SOLVE.	 Launched cleanup sponsorship program in July 2021 which provides accessible funding to cleanup events or related efforts including volunteer activities. Increased SOLVE contract to support ongoing disposal needs. Hired limited duration Program Coordinator. 	
13.3	Require each solid waste facility to work toward a good neighbor agreement with its host community.	IP	Metro Cities and Counties	Incorporate good neighbor agreements into the design and build of new transfer stations.	Engaged Future West and Future South Community Advisory Groups in discussion about good neighbor agreements, and plan to advance these if/when Metro enters design and build phases of future transfer stations.	
13.4	Evaluate Community Benefit Agreements as a potential tool for garbage and recycling facilities to invest in host communities.	IP	Metro Cities and Counties	Incorporate good neighbor agreements into the design and build of new transfer stations.	Engaged Future West and Future South Community Advisory Groups in discussion about good neighbor agreements, and plan to advance these if/when Metro enters design and build phases of future transfer stations.	







Adopt fees for all services that are reasonable, responsive to user economic needs, regionally consistent and well understood.

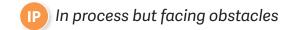
Indicator(s)

- Share of solid waste facilities with fees that fall within 5% of the tip fee charged at publicly owned facilities for each material type.
- Share of jurisdictions that offer a low-income rate assistance program for residential collection services

Table 14 - Goal 14 Action Status

Acti	Action		Lead Agency	Planned Activities	Progress to Date
14.1	Implement transparent and consistent annual rate-setting processes for all collection service providers.	NS	Cities and Counties	No planned activity.	No progress to date.
14.2	Implement transparent and consistent annual rate-setting processes for all facilities.	6	Metro	Complete annual solid waste forecast. Assess approach to rate-setting process to determine best practice methodology.	 Staff now publish a quarterly solid waste forecast and have completed quarterly forecasts since April 2020. The fall quarter forecast informs fees and tonnage allocations. Finance staff documented the current model used for setting Metro fees and fees. A scope of work for local government and stakeholder engagement in the development of the budget and an expert review of Metro's fee and rate-setting process was completed. A series of engagement forums will be held in late 2021 and early 2022. Metro's Chief Operating Officer provided updates to regional city and county administrators about the budget and Metro fee and rate-setting process.
14.3	Establish fees across the region that are consistent for like services.	NS	Metro Cities and Counties	No planned activity.	No progress to date.
14.4	Implement a low-income rate assistance program for residential collection services.	OT	Metro Cities and Counties	Conduct preliminary assessment of low-income rate assistance program.	Washington County and Portland are leading this effort. Portland is currently collaborating with other jurisdictions to explore a longer term approach and convened local governments in mid-2021. The group included representatives from Beaverton, Clackamas County, Forest Grove, Gresham, Hillsboro and Washington County. The group will convene again in fall 2021 and will be hosted by Washington County.





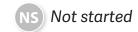


Table 14 - Goal 14 Action Status (continued)

Actio	Action		Lead Agency	Planned Activities	Progress to Date
14.5	Evaluate alternative models for collection, processing and transfer services to identify which would deliver the best environmental, financial, efficiency and equity outcomes.	IP	Metro	Complete procurement and site preparation for commercial food processing infrastructure at Metro Central.	 Both Design and Contract Management/General Contractor have been hired for the Metro Central food processing infrastructure. 30% design reached and procurement of food processing equipment scheduled for early 2022. Construction estimated to begin April 2022 with expected completion at the end of 2022.
14.6	Implement strong financial performance reporting standards to provide greater certainty on the financial viability of facilities serving the Metro region.	NS	Metro	No planned activity.	No progress to date.
14.7	Require that local governments annually provide information to residents about the components of their garbage and recycling collection rate.	NS	Metro	No planned activity.	No progress to date.





Improve the systems for recovering recyclables, food scraps and yard debris to make them resilient to changing markets and evolving community needs.

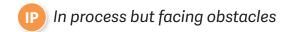
Indicator(s)

- Share of solid waste facilities with rates that fall within 5% of the tip fee charged at publicly owned facilities for each material type.
- Share of jurisdictions that offer a low-income rate assistance program for residential collection services.

Table 15 - Goal 15 Action Status

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
15.1	Implement regionally consistent contamination reduction efforts to improve material quality, including education, sorting instructions, collection equipment changes, and customer feedback methods.	6	Metro Cities and Counties	Implement the region's Contamination Reduction Education Plan (CREP) in partnership with local governments and consistent with state requirements through the regional Recycle or Not education initiative. Coordinate with local governments around implementation of the contamination reduction provisions of the statewide recycling modernization bill if the legislation is adopted in the 2021 Oregon Legislative session.	 All jurisdictions in the region are implementing the Recycle or Not (RoN) campaign which helps residents determine which items are recyclable locally. In addition, RoN focuses on and features items ("star trash") that are particularly problematic contaminants in the recycling stream. Launched 3 top featured contaminants (star trash): plastic bags and plastic wrap (2019), plastic takeout containers (2020) and plastic-padded envelopes (2021). Local governments highlighted star trash in various communication channels including print and on-line newsletters, social media, websites and bill inserts. Created and managed a Library of Resources, an on-line resource to foster regional and cross-sector resource sharing. Local governments share virtual events, campaign and collateral files, images/text for social media, accounts to follow, resources on specific topics, etc. Recycle or Not and Reciclar o No Instagram accounts have reached over 7,000 followers combined. Engaged with youth interns on creating relevant RoN content, provided RoN brochures for summer lunch program, community clean up events and Trash for Peace EPs.





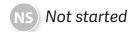
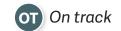


Table 15 - Goal 15 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
15.2	Regularly assess the list of recyclable materials collected in the residential and business programs in the region relative to end-markets, life cycle environmental benefits, community needs and forecasting of future materials in the waste stream.	IP	Metro Cities and Counties	Advance outcomes of statewide Recycling Steering Committee (RSC) process related to development of a standardized statewide list of recyclable materials that is assessed regularly and that takes into account end-markets, life cycle environmental benefits, community needs and forecasting of future materials in the waste stream in statewide Recycling Modernization bill and related rule-making processes.	All jurisdictions supported successful passage of Oregon SB 582 (Plastics Pollution and Recycling Modernization Act) which requires development of statewide list of recyclable materials in a manner that is aligned with RSC consensus.
15.3	Develop public-private partnerships to expand local markets for priority recyclable materials, with an emphasis on minority-owned and other business owners from historically marginalized groups.	NS	Metro	Establish new depot based collection system for Styrofoam and certain other non-curbside plastics.	Work to develop public-private partnerships was delayed due to COVID-19. The Plastics Pollution and Modernization Act (SB 582) adopted by the 2021 Oregon Legislature will address collection of plastics packaging and establish collection options for materials on the statewide recycling list. This will include consideration of curbside, depot and return to retail collection options. Metro will evaluate the need for additional public-private partnerships based on the new state structure
15.4	Fund investments to improve the performance of material recovery facilities through collection fees and/or other mechanisms.	o	Metro Cities and Counties	Administer Metro investment in private waste prevention, reuse, recycling, composting and energy recovery infrastructure and operational improvements through implementation and monitoring of 2018 and 2019 Innovation and Investment grants to two material recovery facilities.	 Implementing and monitoring Innovation and Investment grants awarded to two material recovery facilities to improve performance. Awarded three capital grants to two material recovery facilities to support improvements designed to increase recovery of materials and make them more marketable to a wider range of end markets. Awarded four capital grants to four compost facilities to increase material recovery and reduce nuisance impacts on neighboring communities.







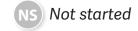


Table 15 - Goal 15 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
15.5	Facilitate the permitting of composting facilities to process mixed residential yard debris and food scraps, while ensuring minimal impacts on neighboring communities.	ОТ	Metro	Develop recommendations and proposed Chapter 5.05 changes for Council consideration to establish designated facility requirements for putrescible waste and commercial food waste.	 Metro Code Chapter 5.05 updates on hold pending COO direction. In April 2021, Council added six facilities to Metro's designated facilities list. Four of those newly added facilities will be authorized to accept Metro area food waste for processing and composting (i.e., Dirt Hugger, Divert Albany Processing Facility, Recology Organics – Aumsville, and Recology Organics – North Plains). Designated Facility Agreements are pending. Effective September 1, 2021, Metro executed a designated facility agreement with Divert to establish conditions for accepting and processing
15.6	Implement stronger linkages between recycling collection programs and material recovery facilities through processing performance standards, supply agreements, regulatory oversight or other means.	ОТ	Metro Cities and Counties	Develop recommendations and proposed sorting and/or end market performance standards for Council consideration. Advance outcomes of statewide Recycling Steering Committee process related to collecting clean materials, certification of materials recovery facilities and end market, and producer responsibility obligations related to ensuring responsible end markets in statewide Recycling Modernization bill and related rule-making processes.	The Material Recovery Facility Standards Policy Development (MRF Project) has convened a team in collaboration with Oregon DEQ to produce options for improving system performance, including the quality and reporting requirements for post-collection material recovery. An independent consultant has completed initial research, including stakeholder interviews, and generated a set of options. Feedback from external stakeholders on proposed options is underway.
15.7	Identify and implement changes to recycling collection programs and material recovery facility operations to meet the specifications of a broad range of markets.	ОТ	Metro Cities and Counties	 Develop recommendations and proposed sorting and/or end market performance standards for Council consideration. Advance outcomes of statewide Recycling Steering Committee process related to collecting clean materials and ensuring responsible in statewide Recycling Modernization bill and related rule-making processes. 	See progress to date for 15.6



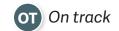


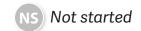


Table 15 - Goal 15 Action Status (continued)

Acti	Action		Lead Agency	Planned Activities	Progress to Date
15.8	Advocate for statewide policies or implement regional policies that create a preference, incentive or requirement for use of recycling end-markets in Oregon and the Northwest.	ОТ	Metro Cities and Counties	Advance outcomes of statewide Recycling Steering Committee process related to economic opportunities for local, Oregon and Northwest businesses, and businesses owned by women and people of color in statewide Recycling Modernization bill and related rule-making processes.	Supported successful passage of Oregon SB 582 (Plastics Pollution and Recycling Modernization Act) which includes a study and development of recommendations to address equity related to opportunities for local, Oregon and Northwest businesses, and businesses owned by women and people of color
15.9	Advocate to expand the statewide bottle bill program to include additional containers.	ОТ	Metro Cities and Counties	Advance outcomes of statewide Recycling Steering Committee process related to expanding the bottle bill program to include wine	A legislative proposal to form a state task force to consider expansion of the bottle bill to include wine and spirits was introduced in the 2021 Oregon Legislative session but did not advance out of the Ways and Means committee. This will include consideration of curbside, depot and return to retail collection options. Metro will evaluate the need for additional public-private partnerships based on the new state structure for the provision of recycling services.
15.10	Evaluate whether a policy to increase garbage tip fees would further incentivize waste prevention and recovery without harming ratepayers or providing revenue windfalls to transfer station operators.	NS	Metro	No planned activity.	No progress to date.







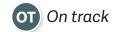
Maintain a system of facilities, from smaller recycling drop-off depots to larger full-service stations, to ensure equitable distribution of and access to services.

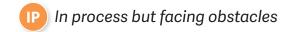
Indicator

 Geographic proximity: Of cities/county urbanized areas to facilities that accept garbage, recyclables, food scraps and other curbside materials; Of the population, by geographic area, to services for household hazardous waste and other prioritized, non-curbside materials

Table 16 - Goal 16 Action Status

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
16.1	Locate garbage transfer stations and allocate material tonnage to them in a way that benefits the public, emphasizing geographic equity, access to service and a reduction in environmental and human health impacts.	IP	Metro	Complete tonnage allocation methodology to support development of the allocation policy Consider public benefits and impacts in the evaluation of new property acquisition for transfer stations. Develop comprehensive regional facilities plan to inform decision-making on investments in new public facilities and regulation of existing and potential future private facilities.	 Implemented mid-year goals-based tonnage allocations for 2021. Held public comment period for 2022 administrative rules, presented to RWAC and Council. Revised proposal awaiting Council evaluation and response. Community Advisory Groups (CAG) were formed for West and South property acquisition projects; West CAG publicly supported site acquisition; South CAG created "Community Criteria" to guide staff decision making in assessing future sites. Facilities Plan Project Concept developed and project management plan completed. Staff resources assigned to project team.
16.2	Locate recycling and food scraps transfer and recovery facilities to best benefit the public relative to geographic equity and access to service, and to reduce environmental and human health impacts.	IP	Metro	 Complete procurement and site preparation for commercial food processing infrastructure at Metro Central. Develop a comprehensive regional facilities plan to inform decision-making on investments in new public facilities and regulation of existing and potential future private facilities. 	 Both Design and Contract Management/General Contractor have been hired for the Metro Central food processing infrastructure. 30% design reached, procurement of food processing equipment anticipated for early 2022. Construction estimated to begin April 2022 with expected completion at the end of 2022. Facilities Plan Project Concept developed and project management plan completed. Staff resources assigned to project team.





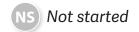
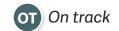


Table 16 - Goal 16 Action Status (continued)

Acti	on	Status	Lead Agency	Planned Activities	Progress to Date
16.3	Improve interagency and community collaboration on siting and authorizing proposed solid waste facilities to reduce potential impacts on neighboring communities.	ОТ	Metro	Engage with communities, cities and counties in consideration of new property acquisitions for Metro South and West.	Working closely and building relationships with Clackamas County, Oregon City, Water Environment Services staff on South project understanding and siting considerations. Established and growing strong relationship with Unite Oregon to help with community engagement that highlights equity and inclusion.
16.4	Maintain public ownership of facilities to ensure that a range of services are accessible to residents at equitable and affordable fees.	C OT	Metro Cities and Counties	 Complete transition to new operating configuration at Metro South Station. Complete operating model and selection of new operator for Metro Central Station. 	 Recology was selected and began as the new Metro South transfer station operator 2020 through 2024. Metro employees now operate load inspection and on-site traffic control. The Recology contract at Metro Central has been extended through 2023, to allow Metro time to research and plan for operating with Metro employees.
16.5	Evaluate the feasibility of establishing a publicly owned facility in Washington County to accept and transfer garbage, recycling, food scraps, household hazardous waste and other materials.	C	Metro Cities and Counties	Identify a property for Metro to purchase, negotiate agreement and present to Metro Council for decision. If purchase completed, implement facility and services design process.	A 12.6 acre industrial site in the City of Cornelius was purchased. Plans to develop the site are in a holding pattern pending the Systems Facilities Plan.
16.6	Expand and improve access to services provided at Metro South Transfer Station.	C IP	Metro Cities and Counties	Identify a property for Metro to purchase, negotiate agreement and present to Metro Council for decision. If purchase completed, implement facility and services design process. Increase recovery from mixed waste at Metro South, and expanded material drop-off options at public transfer stations.	 Metro entered into a purchase and sale agreement to explore a 26 acre site to build a new facility in Clackamas County. Staff managed a wide range of site investigations and community engagement from November 2020 to August 2021. Metro determined that the site was too risky and expensive, and terminated the agreement with the seller. Metro Council will provide direction on overall facilities system plan, priorities and parameters for continuing the site search, interim site improvements, and policies to mitigate current conditions at Metro South Transfer Station. Incorporated performance incentives into new Metro South operations contract. Started collection and densification of polystyrene at Metro South. Material drop-off options at Metro Central are unchanged.





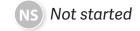
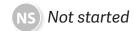


Table 16 - Goal 16 Action Status (continued)

Acti	ion	Status	Lead Agency	Planned Activities	Progress to Date
16.7	Implement the Metro Transfer System Configuration policy.	OT	Metro	Implement wet waste tonnage allocation policy.	 Metro implemented an initial goal-based tonnage allocation methodology in calendar year 2020 including criteria centered on wages, diversity, environmental impacts, community investment, and facility fees. The six privately owned transfer stations within the region applied for goal based tonnage and all met the criteria to receive full allocations in 2020. Metro adopted new administrative rules for the goal-based allocation methodology that will take effect in 2021.







Disaster Resilience



Overview of the Goal Area

From earthquakes to landslides to fires, the Metro region is vulnerable to disasters, both natural and human-caused. Disasters threaten people's safety, and they also have the potential to generate large amounts of debris: building debris, trees and plants, hazardous waste and other matter.

The region's garbage and recycling system must be resilient and prepared to recover quickly after a disaster, and the recovery process should minimize harmful impacts to local communities. By planning how to manage both disaster debris and regular garbage and recyclables in a manner that protects public health and safety and safeguards the environment, the region will be better prepared to respond to and recover from a major incident.

The actions in this area focus on coordinating effectively with partners, preparing to restore routine garbage and recycling services, planning to removal of debris in a way that makes the best use of local services and maximizes recovery.

Highlights

A New Region

The region experienced three significant disasters in a very short period of time—the COVID-19 pandemic, severe wildfires and an ice storm--all of which affected the garbage and recycling system. Historically, local governments have individually managed disasters response and there has not been a coordinated region-wide team focused on addressing the issues of disaster preparedness and the impacts to the garbage and recycling system. The recent events highlighted the direction in the Regional Waste Plan that called for regional coordination.

In August 2021, a work group was formed to effectively coordinate public and private partners in planning for and addressing the impacts of disasters on the solid waste system. The group includes representatives from cities, counties, regional, and state agencies. Both emergency management and solid waste staff are included in the group which is co-led by Metro and the Regional Disaster Preparedness Organization (RDPO). This group will work collaboratively to plan for the specific effects disasters have on the solid waste system from ensuring minimal interruptions to garbage and recycling collection to managing the removal of debris. This group is essential for achieving the region's disaster preparedness goals—beginning with clearly defining disaster debris roles and responsibilities for each government.



Disaster Resilience Planning

Disaster resilience planning is prioritized as an indicator for reporting to help inform progress the plan's disaster resilience goals. The information below highlights the baseline data for this indicator that will used to measure progress against subsequent years.

Regional Waste Plan Goal 17

Effectively coordinate public and private partners in planning for the impact of disasters on the solid waste system.

Goal Indicator

Establishment of Metro, County and City plans that delineate jurisdictional roles in managing disaster debris.

Why is this indicator important?

This indicator counts the local governments in Clackamas, Multnomah and Washington counties – including cities, counties and Metro – that have adopted or updated a disaster debris management plan.

While Goal 17 of the Regional Waste Plan looks at all aspects of planning for the impact of disasters, the indicator for this goal is focused more narrowly on disaster debris management. This is because debris management is the most important role for the solid waste system after an emergency, is foundational for recovery efforts, and requires regional coordination.

Disaster debris management plans help clarify roles and procedures for estimation, clearance, removal, reuse, recycling and disposal of debris following a disaster.

Baseline Data

15 complete plans out of 36



In 2021, the 15 cities and counties that have disaster debris management plans accounted for 73% of the population in Clackamas, Multnomah and Washington counties.

The current plans were adopted between 2012 and 2018, with the majority adopted in 2016 (11 plans).

About the indicator

Data Year: 2021

Source: Metro

Data Frequency: Every year

Scope: Metro region

Action Status Summary

The following tables summarize the action items for each goal area along with their status, the lead agency, planned activities, and progress to date. Each table is preceded with the associated Goal as well as any indicator(s) that are linked to the Goal.

Goal 17

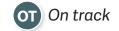
Effectively coordinate public and private partners in planning for the impact of disasters on the solid waste system.

Indicator(s)

• Establishment of Metro, County and City plans that delineate jurisdictional roles in managing disaster debris.

Table 17 - Goal 17 Action Status

Acti	Action		Lead Agency	Planned Activities	Progress to Date
17.1	Develop a regional solid waste emergency management response and recovery framework in partnership with local governments and community organizations that prioritizes those most vulnerable in a disaster.	OT	Metro Cities & Counties	 Convene with local governments to form a regional work group of the Regional Disaster Preparedness Organization (RDPO) tasked with advancing priority actions to accomplish goals 17, 18 and 19. Evaluate establishing a resilience fund. Establish Intergovernmental Agreements with local governments that clarify roles and responsibilities. 	A Solid Waste Disaster Preparedness Workgroup has been formed, first meeting occurred in August 2021. Intergovernmental agreements and debris cleanup funds will be included among topics for workgroup to address.
17.2	Conduct periodic exercises to test and practice the implementation of disaster debris plans.	o	Metro Cities & Counties	Participate in the federal exercise Cascadia Rising in June 2022 with a tabletop exercise focused on Metro's debris management roles.	 An internal Metro emergency planning workgroup has been formed. FEMA canceled the Cascadia Rising exercise because of COVID-19 and emergency response workload. Metro will convene with regional emergency management partners and internally to determine if an alternate exercise will occur or be planned for a later date. Emergency Management Senior Planner was hired in August 2021, will have a lead role in exercise planning moving forward.
17.3	Develop a coordinated preparedness and response messaging program that is accessible and culturally responsive.	OT	Metro Cities & Counties	Develop and implement crisis communications recommendations.	 WPES-specific crisis communications plans are in progress. Draft plans developed and in process of approval. Templates in development and messaging language bank with Spanish translations created. Recommendations to be presented FY 20-21.





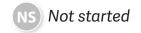
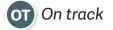


Table 17 - Goal 17 Action Status (continued)

Act	ion	Status	Lead Agency	Planned Activities	Progress to Date
17.4	Develop a database of existing public and private solid waste infrastructure capabilities that can be integrated with other public databases.	NS	Metro	No planned activity.	No progress to date



Ensure routine garbage and recycling collection, processing, transport and disposal operations can be restored quickly following a system disruption.

Indicator

• Share of solid waste spending that goes to locally owned, minority-owned and woman-owned businesses and to community organizations.

Table 18 - Goal 18 Action Status

Action		Status	Lead Agency	Planned Activities	Progress to Date
18.1	Implement strategies to maximize access to critical solid waste infrastructure during disruptions.	NS	Metro Cities & Counties	No planned activity.	No progress to date.
18.2	Implement requirements for solid waste system service providers to prepare and maintain emergency operations and continuity of operations plans.	IP	Metro Cities and Counties	 Explore incentive options for authorized facilities to develop emergency response and continuity of operations plans. Initiate solid waste system resilience planning with authorized facilities. Convene with local governments to form a regional work group of the Regional Disaster Preparedness Organization (RDPO) tasked with advancing priority actions to accomplish goals 17, 18 and 19. 	 A resilience element was not included in the most recent round of requirements for private facility tonnage allocations. This will be revisited next time the facility tonnage allocations are updated. Solid Waste Disaster Preparedness Workgroup has been formed with participants from cities, counties, and regional organizations. Both emergency management and solid waste disciplines are represented.

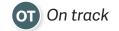
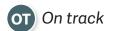


Table 18 - Goal 18 Action Status (continued)

Actio	Action		Lead Agency		Progress to Date
18.3	Prioritize the use of the current solid waste infrastructure for the processing of normal garbage and recycling, rather than for disaster debris, following a debris-generating incident.	NS	Metro Cities and Counties	No planned activity.	No progress to date.
18.4	Develop disaster resiliency standards for the design and construction of new facilities or when existing facilities are renovated.	NS	Metro	No planned activity.	No progress to date.
18.5	Develop engineering and financing strategies to facilitate the seismic retrofit of existing public and private solid waste infrastructure.	NS	Metro	No planned activity.	No progress to date.
18.6	Conduct periodic assessments of solid waste system facilities for vulnerabilities to different hazards.	NS	Metro	No planned activity.	No progress to date.





Plan disaster debris response operations to expedite the clearance and removal of debris, making the best use of locally-based services and materials and maximizing recovery.

Indicator

• Capacity and geographic distribution of pre-authorized debris management sites.

Table 19 - Goal 19 Action Status

Action		Status	Lead Agency	Planned Activities	Progress to Date
19.1	Identify and pre-authorize debris management sites throughout the region.	NS	Metro Cities & Counties	No planned activity.	No progress to date.
19.2	Develop incentives for debris management contractors to prioritize purchasing services and materials from locally owned companies, with an emphasis on minority-owned and woman-owned businesses.	NS	Metro	No planned activity.	No progress to date.
19.3	Develop agreements and contracts with service providers and partner jurisdictions to ensure rapid mobilization of regional and out-of-region resources during emergency response operations.	ОТ	Metro Cities and Counties	Solidify State, Metro, and local government's roles in debris management. Solicit contracts with third parties that can be activated after an emergency Convene with local governments to form a regional work group of the Regional Disaster Preparedness Organization (RDPO) tasked with advancing priority actions to accomplish goals 17, 18 and 19.	 Emergency Management Senior Planner hired in August 2021, will have a lead role in implementing Regional Disaster Debris Management Program. Much of the work in this area is to be determined collaboratively by a regional work group formed in August 2021. Local governments, Metro and DEQ responded collaboratively to multiple disasters since 2019, most notably the COVID-19 pandemic and wildfires that severely affected air quality and destroyed property in 2020. In February 2021 the worst winter storm in 40 years hit the Metro region, leaving over a foot of snow on the ground followed by several inches of ice. Power was cut for thousands, travel was nearly impossible and tree limbs blocked roads and damaged property. In October 2021, Metro in partnership with local governments began work to solidify and document roles and responsibilities through intergovernmental agreements.

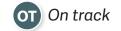
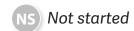


Table 19 - Goal 19 Action Status (continued)

Action		Status	Lead Agency	Planned Activities	Progress to Date
19.4	Develop strategies for the safe reuse, recycling and disposal of materials following a debris-generating incident.	NS	Metro	No planned activity.	No progress to date.
19.5	Create incentives or requirements for debris management contractors to collect and separate debris materials for reuse and recycling.	NS	Metro Cities and Counties	No planned activity.	No progress to date.







Plan indicators

The plan includes a robust measurement framework to evaluate progress toward its vision and goals. This will allow Metro and local governments to demonstrate the positive impacts the plan's activities are having on the region, highlight opportunities for improvement and evaluate which programs and projects are helping the region achieve its desired outcomes.

Key indicators

Key indicators communicate the overall trajectory of progress to a broad audience. They draw from the plan's values and demonstrate overall performance. A number of the key indicators are new measures that would require investment to implement.

VALUE	KEYINDICATOR	LEAD AGENCY	STATUS
	Greenhouse gas emissions associated with the products and services consumed in the Metro region (Environment and Health value)	Metro	In progress
	Annual tons of waste generated (Resource Conservation value)	Metro	In progress
	Number, geographic location and demographics of youth reached through education programs (Environmental Literacy value)	Metro	In progress
	Share of multifamily communities with adequate collection services (Service Excellence and Equity value)	Metro Cities Counties	Investment needed
	Recycling contamination by sector (Operational Resilience value)	Metro	Investment needed
	Median wage in the waste management industry by race, ethnicity and gender (Economic Well-Being value)	Metro Cities Counties	Investment needed

Goal indicators

Indicators at the goal level are designed to measure the progress of specific programs, policies or investments that are linked to attaining the 2030 Regional Waste Plan's goals. A number of the goal indicators will also inform the key indicators.

GOAL	INDICATOR	LEAD AGENCY	STATUS
Goal 1: Increase engagement of youth and adults historically marginalized from garbage and	Number and demographics of youth and adults participating in solid waste internship or leadership programs	Metro	Investment needed
recycling decision-making by enhancing civic engagement and leadership opportunities.	Demographics of committee members serving on Metro and local government solid waste advisory boards	Metro Cities Counties	Investment needed
Goal 2: Increase the percentage of garbage and recycling system revenue that benefits local communities and companies owned by people of color and other historically marginalized groups.	Share of solid waste spending that goes to locally owned, minority-owned and woman-owned businesses and to community organizations.	Metro Cities Counties	Investment needed
Goal 3: Ensure that all jobs in the garbage and recycling industry pay living wages and include	Median wage in waste management industry by race/ethnicity, gender and occupation type	Metro Cities Counties	Investment needed
good benefits.	Share of solid waste workforce that is temporary workers	Metro Cities Counties	Investment needed
Goal 4: Increase the diversity of the workforce in all occupations where people of color, women and other historically marginalized communities are underrepresented.	Share of solid waste work force that is people of color and women	Metro	Investment needed
Goal 5: Reduce the environmental and human health impacts of products and packaging that are made, sold,	The number of children's products with chemicals of concern that are sold in the region	Oregon Heath Authority	Investment needed
used or disposed in Oregon.	Share of priority products covered in Oregon by a product stewardship framework	Metro	Investment needed

GOAL	INDICATOR	LEAD AGENCY	STATUS
Goal 6: Reduce product environmental impacts and waste through educational and behavioral practices related to	Number, geographic location and demographics of youth reached through school-based education programs (Key Indicator 3)	Metro	In progress
prevention and better purchasing choices.	Annual tons of waste generated (Key Indicator 2)	Metro Oregon DEQ	In progress
Goal 7: Reduce product environmental impacts and waste through policies that support prevention practices and better purchasing choices.	Environmental impacts associated with high-impact products and product categories purchased by Metro and local governments	Metro Cities Counties	Investment needed
Goal 8: Increase the reuse, repair and donation of materials and consumer products.	Growth in sales and/or employment in the reuse sector	Metro	Investment needed
Goal 9: Increase knowledge among community members about garbage, recycling and reuse services.	Metro and local government calls, web hits and community survey responses	Metro Cities Counties	Investment needed
Goal 10: Provide regionally consistent services for garbage, recyclables and other priority	Tons of illegally dumped waste overall and in the most impacted communities	Metro Cities Counties	In progress
materials that meet the needs of all users.	The environmental impacts associated with the recovery rate for the Metro wasteshed	Metro Oregon DEQ	Investment needed
Goal 11: Address and resolve community concerns and service issues.	Share of Metro, local government and solid waste service providers that have gone through cultural competency training	Metro Cities Counties	Investment needed
Goal 12: Manage all garbage and recycling operations to reduce their nuisance, safety and environmental impacts on	Tons of key pollutants, including particulates and CO2 emissions, from on-road and off-road solid waste fleet vehicles	Metro Cities Counties	In progress
workers and the public.	Number of worker injuries that occur at solid waste facilities	Metro	In progress
Goal 13: Invest in communities that receive garbage and recyclables from the Metro region so that those communities regard solid waste facilities as assets.	Share of community enhancement grant dollars awarded to projects that benefit marginalized communities	Metro	Investment needed

GOAL	INDICATOR	LEAD AGENCY	STATUS
Goal 14: Adopt rates for all services that are reasonable, responsive to user economic needs, regionally consistent and well understood.	Share of solid waste facilities with rates that fall within 5% of the tip fee charged at publicly owned facilities for each material type (garbage, mixed dry waste, etc.)	Metro	In progress
	Share of jurisdictions that offer a low- income rate assistance program for residential collection services	Metro Cities Counties	In progress
Goal 15: Improve the systems for recovering recyclables, food scraps and yard debris to make	Share of the region's recoverable materials, by material type, that is sent to markets in Oregon and the U.S.	Metro	Investment needed
them resilient to changing markets and evolving community needs.	Contamination rates for in-bound and out-bound recyclables at source- separated Material Recovery Facilities located in the region	Metro	Investment needed
Goal 16: Maintain a system of facilities, from smaller recycling drop-off depots to larger full-service stations, to ensure equitable distribution of, and access to, services.	Geographic proximity: Of cities/ county urbanized areas to facilities that accept garbage, recyclables, food scraps and other curbside materials; Of the population, by geographic area, to services for household hazardous waste and other prioritized, non- curbside materials	Metro Cities Counties	In progress
Goal 17: Effectively coordinate public and private partners in planning for the impact of disasters on the solid waste system.	Establishment of Metro, County and City plans that delineate jurisdictional roles in managing disaster debris	Metro	Investment needed
Goal 18: Ensure routine garbage and recycling collection, processing, transport and disposal operations can be restored quickly following a system disruption.	Capacity and geographic distribution of solid waste facilities that meet seismic standards	Metro	Investment needed
Goal 19: Plan disaster debris response operations to expedite the clearance and removal of debris, making the best use of locally-based services and materials and maximizing recovery.	Capacity and geographic distribution of pre-authorized debris management sites	Metro	Investment needed