



May 28, 2024

**RE: Comments related to CAA's proposed program plan for implementation of the Oregon Recycling Modernization Act**

On behalf of the American Forest & Paper Association (AF&PA), thank you for the opportunity to provide comments on CAA's proposed program plan for implementation of the Oregon Recycling Modernization Act. We look forward to continued engagement with CAA as we refine the approach toward improving paper recycling.

AF&PA serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry's sustainability initiative — [Better Practices, Better Planet 2030](#). The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures nearly \$300 billion in products annually and employs approximately 950,000 men and women. The industry meets a payroll of approximately \$55 billion annually and is among the top 10 manufacturing sector employers in 43 states. In California, the industry employs more than 55,000 individuals in nearly 450 facilities.

**Paper Recycling Works**

The paper recycling rate has grown over the decades, and remains consistently high, meeting or exceeding 63 percent since 2009.<sup>1</sup> In 2022, nearly 68 percent of paper consumed nationally was recovered for recycling. Technological innovations in product design and recycling processes are continuously allowing our industry to access and recycle more paper-based products.

Data from the U.S. Environmental Protection Agency (EPA) confirms the excellent record and environmental success story of paper recycling from municipal collection programs.<sup>2</sup> Put another way, more paper by weight is recovered for recycling from municipal solid waste streams than plastic, glass, steel, and aluminum combined.

Robust investment in end market use for recovered paper is an essential pillar of the paper industry's success. Our industry has completed or announced nearly \$7 billion in manufacturing investments through 2025 (2019-2025) that will use more than nine million tons of recovered fiber.

Please find below our feedback on CAA's proposed program plan for implementation of the Oregon Recycling Modernization Act, with comments focused on the areas of greatest impact to the paper and fiber-based packaging industry.

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<sup>1</sup> <https://www.paperrecycles.org/media/news/2020/05/12/u.s.-paper-industry-achieves-consistently-high-recycling-rate>

<sup>2</sup> [Advancing Sustainable Materials Management: 2018 Fact Sheet. EPA. November 2020.](#)

### **Proposal to Trial Commingle Collection of Non-USCL Materials - Polycoated Paper Packaging**

We appreciate CAA's proposed approach to respond to questions by DEQ. We believe that the scope of the proposed trial can be significantly narrowed and still meet the requirements of DEQ. We support reference to existing industry standards for recyclability and repulpability. There is no benefit, and potentially significant additional cost and duplication of effort involved in a developing separate yield standard for Oregon to support utilization of globally traded commodity such as paper bales. AF&PA expects publication of updated voluntary standards for recyclability and repulpability of OCC later this year, with the publication of a Mixed Paper standard soon thereafter. The standards will result in pass/fail outcomes for yield for items proposed to be included in either bale. Acceptance of industry standards would allow the Proposed Trial to focus on generator behavior and performance in sortation infrastructure.

### **Ensuring Responsible End Markets**

We support CAA's anticipation of processing collected material in North America. We are concerned by the specific list of mills identified in the document as processors for OCC and Mixed Paper. Most paper mills in the pacific northwest region consume recycled paper as manufacturing feedstock, yet only one of the region's mills is identified as a potential responsible end market. Our industry has longstanding concerns about the potential negative impacts of Extended Producer Responsibility on competitive markets for recovered materials. The purpose of the RMA is to improve overall recycling, not serve as a conduit for access to raw material for particular manufacturers.

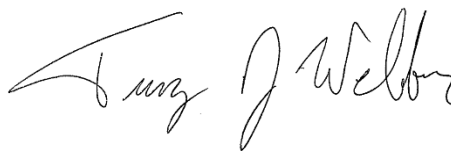
### **Fees**

We note that the program plan's discussion of fees is preliminary and does not offer enough detail to provide meaningful comment. The fee algorithm is said to be confidential, and CAA cautions against using the published fee schedule because it is subject to change. While we appreciate the timing and informational constraints, this is a crucial part of the program plan. Enough time and enough substantial information must be provided to allow meaningful engagement in the conversation about fees. The specific fee algorithm may be confidential, but without enough information about how the stated principles will be applied in real world scenarios, it is impossible for stakeholders to offer meaningful comments. The same will be true for any "ecomodulation" adjustments.

We appreciate CAA's thoughtful discussion on ecomodulation credits. We note this is a particular area of sensitivity given potential competitive consequences of any fee discounts. As an industry, we favor an approach based on recycling rate or overall industry utilization of recycled material.

Thank you for your consideration of our comments. We remain available to discuss the feedback herein in greater detail and look forward to your response.

Sincerely,

A handwritten signature in black ink, reading "Terry J. Webber". The signature is written in a cursive style with a vertical line to its right.

Terry Webber  
Vice President, Industry Affairs  
American Forest & Paper Association

May 31, 2024

Comments submitted via [RethinkRecycling@deq.oregon.gov](mailto:RethinkRecycling@deq.oregon.gov)

Nicole Portley  
PRO Program Plan Lead  
Department of Environmental Quality  
700 NE Multnomah Street, Suite 600  
Portland, OR 97232-4100

*Re: Circular Action Alliance Producer Responsibility Organization Program Plan Application 2025-2027 Program Plan Period*

Dear Nicole Portley:

The Association of Home Appliance Manufacturers (AHAM) appreciates the opportunity to comment on Circular Action Alliance's Producer Responsibility Organization Program Plan Application for the 2025-2027 Program Plan Period.

**Plan Application Provides Few Examples of Cost Containment**

Circular Action Alliance's Producer Responsibility Organization Program Plan Application provides producers and interested parties with certain information on how their plan would operate. In many areas, CAA's plan provides detailed descriptions of how, as Oregon's PRO, they would implement the Recycling Modernization Act (RMA). AHAM appreciates the Application's attempts to harmonize Oregon's plan with other packaging EPR programs. However, AHAM is concerned with areas of the proposal that are less detailed. The opaque "Financing Strategy" does not provide producers with transparent information as to how CAA is determining material fees. As the RMA's Rulemaking is finalized, Oregon must recognize its leadership role as one of the first packaging EPR states in the nation.

**Program Fees Determined by CAA Proprietary Algorithm**

Under *CAA Fee-Setting Guiding Principles*, "Fee-setting will account for measurable environmental objectives and state-mandated ecomodulation policies using CAA's ecomodulation principles (which are under development)." The ecomodulation impact on material fees appears to be a factor in the "development of the Base Fee Algorithm." AHAM understands this to mean that the proprietary fee algorithm, which all members of the PRO will pay as the "base fee", includes fees for the environmental impact of the packaging material (ecomodulation).

The proprietary fee algorithm, which is incorporated into the *Detailed Fee-Setting Methodology* (Appendix G), is listed as "confidential". While the methodology to create the algorithm is listed as "shared with DEQ", it should also be shared with members of the PRO. Producers who pay to participate in the program should have a detailed understanding that, material fees and overall fees, are what CAA claims them to be. As the Application notes, "a portion of total gross costs of managing covered

products in Oregon would be allocated to individual materials according to their relative recycling rate, such that the materials with higher recycling rates would be assigned a smaller portion of the cost and vice versa.” DEQ should establish regulations that prevent CAA and its algorithm from mitigating the impact of fees by minimalizing ecomodulation or overstating “recycling rate”. Recycling or recovery of a material does not mitigate the environmental impact of the material.

Additionally, according to the Application, in the fall of 2023, CAA began discussions with its “Founding Members to develop a national fee-setting methodology to be deployed to all EPR enacted states.” CAA’s seven founding members are identified in the “Articles of Incorporation” (Appendix H) and are all producers of high-volume fast-moving consumable consumer goods. Producers who do not produce similar consumable goods should not be kept in the dark as to why they are paying fees determined by these seven producers.

Producers that join CAA’s Oregon PRO, will likely be mandated to join CAA’s PRO in other states. As the Application notes, with respect to fee setting, “we also considered its potential for “nestability” with other EPR programs, such as California, to enable producer reporting synergies between Oregon and other state programs. This calls for unique levels of transparency in Oregon’s program, as it will be likely replicated in nearly every state in the Union. Providing producers with generalizations and self-determined “guiding principles” does not provide producers with the cost detail necessary to determine which packaging materials to use based on an established fee structure.

### **Reliance on Secret Algorithm May Explain Fee Variations**

The potential overreliance on an algorithm that is immune from scrutiny may explain the wide range of “Preliminary Base Fees” (Table 16), which provides eight material categories that include 62 different packaging materials. While the Application notes that the “list was developed based on our understanding of the RMA requirements, our experience with EPR programs in other jurisdictions, and the [uniform statewide collection list] and PRO accepted material lists developed by DEQ as a part of rulemaking.” Within the eight categories, a fee structure is not provided for the 62 different packaging materials identified. It is difficult to draw conclusions or understand the basis for the range of fees listed for the eight categories without a fee structure for specific materials, which is provided by programs in Canada and Europe. While AHAM appreciates attempts at harmonization among states with packaging EPR programs, Oregon must recognize its leadership role as it establishes one of the first packaging EPR programs in the nation.

Furthermore, the Application does not provide details or information on how CAA would contain, limit or refund fees. CAA developed a range of fees and cost estimates for the first year of the Program and under the “base case scenario, CAA expects to generate \$226 million in producer fees to cover estimated program costs of \$219 million” and “under the high case scenario, CAA expects to generate \$292 million in producer fees to cover estimated program costs of \$287 million.” These projections would generate multimillion dollar surplus in the first year of the program alone. A detailed, publicly available accounting of how these dollars are spent is vital to the success of the RMA.



### Guardrails in the RMA Limit Scope of Covered Materials and Must be Safeguarded

AHAM continues to appreciate that the RMA limits the inclusion of certain packaging generated outside of the scope of Oregon's packaging EPR laws. This provision of the law remains one of the few, if only, examples of cost containment for producers of non-consumable goods or durable goods. Additionally, AHAM appreciates DEQ's inclusion of EPS and clear polyethylene (PE) film in the Oregon Adopted Recycling Acceptance Lists and in the Uniform Statewide Collection List.

Worker safety in warehouses, distribution centers or during transportation/delivery must be considered, especially when dealing with large appliances such as refrigerators, freezers, dishwashers, cooking ranges, clothes washers and dryers. Once assembled, major appliances are often packaged, stored and moved in very large warehouses or distribution centers. These facilities often have limited climate control and can experience extreme temperature and humidity changes. Low temperatures can cause packaging materials to become brittle while humidity and heat can affect the packaging's structural integrity and limit the effectiveness of adhesives or the strength of packaging products made from fiber.



For safety purposes, it is vital to maintain the structural strength of packaging materials, particularly with respect to major appliances that are regularly stacked vertically with multiple units above ground. Furthermore, these appliances are often moved around by clamp truck and the packaging must withstand the force of the clamps to be moved efficiently. Other paper alternatives such as cardboard, molded pulp or honeycomb can only handle a limited number of impacts and are more apt to lose structural integrity in hot and humid environments.



A fiber-based alternative to EPS would be bulkier and heavier. Consequently, this increased unit size leads to more truck loads need to transport the

same number of units, more fuel to move them, and more warehouse space required to store them. It is estimated that there would be an increase in size of 5-10% in all directions for the equivalently designed protective packaging, which equates to an increase of about 20-30% more trucks needed to deliver large appliances.

Additionally, thin plastic film (PE) is used to protect the finish of appliances as well as the display screen. Fiber alternatives,



such as paper, are like sandpaper and would scratch the product and would lead to consumers either accepting a damaged product or refusing delivery and the distributor returning the product to the warehouse. There is no alternative to the use of plastic film to protect the finish of appliances or the display screen.

Appliance packaging is used to protect the appliance and factory personnel during storage, transport and delivery. The safest and most effective materials for this use are lightweight, can withstand multiple impacts, and maintain their integrity in humid conditions. Unlike smaller, fast-moving consumer goods, packaging for heavy durable goods have different requirements and must be able to ensure the protection of workers during transportation and at distribution centers. Large appliances such as refrigerators, freezers, dishwashers, cooking ranges, washers and dryers are stacked as high as 30 feet and packaging cannot fail while products are warehoused, regardless of environmental or climate conditions.

### **Conclusion**

AHAM appreciates the opportunity to provide comments on the Circular Action Alliance Producer Responsibility Organization Program Plan Application. Manufacturers of consumer products need flexibility in choosing appropriate materials for packaging their products to avoid situations that cause product breakage and damage during transport (which ultimately increases the lifecycle impact of the product) as well as to deter theft of smaller, high value electronics from retail establishments.

Respectfully submitted,



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### **About AHAM**

AHAM represents more than 160 member companies that manufacture 90% of the major, portable and floor care appliances shipped for sale in the U.S. Home appliances are the heart of the home, and AHAM members provide safe, innovative, sustainable and efficient products that enhance consumers' lives. The home appliance industry is a significant segment of the economy, measured by the contributions of home appliance manufacturers, wholesalers, and retailers to the U.S. economy. In all, the industry drives nearly \$200 billion in economic output throughout the U.S. and manufactures products with a factory shipment value of more than \$50 billion.

In Oregon, the home appliance industry is a significant and critical segment of the economy. The total economic impact of the home appliance industry to Oregon is \$1.5 billion, nearly 10,000 direct and indirect jobs, \$160.4 million in state tax revenue and more than \$514.0 million in wages. The home

appliance industry, through its products and innovation, is essential to consumer lifestyle, health, safety and convenience. Home appliances also are a success story in terms of energy efficiency and environmental protection.

May 30, 2024

Oregon Department of Environmental Quality  
700 NE Multnomah Street, Suite 600,  
Portland, OR 97232

**RE: Comments to the Proposed Oregon EPR Program Plan**

Thank you for the opportunity to comment on the proposed Oregon Program Plan submitted by the Circular Action Alliance (CAA) as required by the Plastic Pollution and Recycling Modernization Act.

As leading manufacturers of polystyrene plastic, we write to you today to lend our expertise and support as you continue your work in implementing the extended producer responsibility (EPR) law enacted by the state of Oregon. We believe that Oregon has the potential to establish the example on how to effectively implement a ground-breaking endeavor in the United States to achieve a circular economy for all materials and material types.

The current recycling rates are insufficient for polystyrene, and we are hopeful that the Program Plan will be a catalyst for improvement through community education and collaborative industry efforts.

We'd like to provide the following comments and feedback on the Program Plan for consideration.

**1. Polystyrene should be an addition to the Uniform Statewide Collections List**

The producer responsibility organization (PRO) makes recommendations for additional materials to be added to the Uniform Statewide Collections List (USCL). We strongly support polystyrene being added to the USCL list.

Polystyrene is often misunderstood when it comes to recyclability. It is inherently recyclable, yet not enough is recycled, primarily due to limited recycling access in many areas. One of the goals of the law is to increase recycling access for more materials and material types.

As an industry, we cannot make the type of progress that is needed if we are excluded from the list of collected materials. We support well-crafted EPR laws because we want a fair opportunity to compete in the new plastics economy. Like many other materials and types of plastics, we require time, collaboration, and guidance to work diligently, accelerate best practices, and achieve new mandates.

In Oregon, progress has been made to ensure polystyrene can be recycled. Regenyx, an Oregon-based company, successfully completed a five-year proof-of-concept program to demonstrate that polystyrene can be recycled and returned to the same quality and durability as virgin polystyrene through pyrolysis-based chemical recycling. There are also end-markets in Oregon that should be fostered and accelerated with the program plan. As noted in the program plan, there are depot districts that collect and recycle block polystyrene today.

We are also doing our part to tackle this challenge. We have begun to mobilize our value chain with the goal of significantly increasing the volume of recyclable polystyrene entering the recycling stream through the formation of the Polystyrene Recycling Alliance (PSRA). This initiative is part of our commitment to enhancing polystyrene recycling through partnerships, focusing on unlocking recycling access and improving recycling participation.

This will be a broad-based coalition of stakeholders that we envision making significant strides in improving polystyrene recycling access using a roadmap approach with specific actions taken to make positive changes. We're eager to partner with you to prove to the public we can recycle polystyrene on a large scale.

Polystyrene's versatility is also evident in its adaptability to multiple recycling technologies. The recycling industry employs or is scaling up several methods for polystyrene capture and repurposing: mechanical recycling, depolymerization, dissolution, pyrolysis, and gasification. Our commitment to improving recycling access and practices is thus not limited to a single technology.

We will adapt and innovate as the industry evolves. Traditional recycling supply chains require proper sorting and collection techniques. Fortunately, polystyrene demonstrates excellent sortability with a 99% purity in sorting processes. It can be readily distinguished from other polymers, even under the demanding conditions of modern recycling facilities, due to its unique infrared signature, light colors, and distinct density range.

In emerging supply chains, polystyrene can remain commingled with polyolefins for chemical recycling, which is a distinct advantage and opens the door for much wider acceptance and recapture. The higher volumes of waste logistics needed for scaled polyolefin flexibles, rigids, and multilayer structure recycling will, therefore, open the bin for widespread polystyrene acceptance as well.

## **2. We support the EPS block collection included in the PRO recycling acceptance list.**

We strongly support the approach outlined in the plan, which maintains established foam densifying operations and creates a recycling market for block white expanded polystyrene (EPS)

foam. The PRO's collaboration with existing depot densifier locations and the establishment of additional mobile densifiers for block white EPS is a positive step.

Our industry is steadily making progress with EPS recycling. As noted by the United Nations Environment Programme (UNEP) in their April 16, 2024 [report on Plastic Pollution Science](#), they acknowledge EPS is recycled at scale in specific countries and regions for transport packaging (page 8, section 43). These actions in Oregon will help accelerate this trend.

### **3. Non-mechanical recycling should be measured appropriately from an LCA perspective.**

Amidst the ongoing debate over advanced or chemical recycling, we embrace a technology-inclusive approach that maximizes the recycling of polystyrene back into new products. Our primary goal is to increase recycling for the products we manufacture, and all technology options should remain on the table to do so.

Traditional mechanical recycling is a reality for us. The market for post-consumer recycled polystyrene exists and is growing, but to meet this demand consistently, we require an increased collection of recyclable materials. This allows us to convert used polystyrene into new products efficiently.

However, we also advocate for room to innovate. Advanced recycling techniques, particularly chemical recycling, are scaling up. As noted above, a five-year proof-of-concept program was completed, and now those insights will be used to further expand the market for chemical recycling. Ultimately, if the goal is to recycle more types and formats of plastic, chemical recycling will need to complement existing mechanical recycling technologies to achieve higher rates of recycling. These methods focus on transforming used plastics back into new plastics rather than fuel, as sometimes misconstrued.

Requiring chemical recycling to be benchmarked against mechanical recycling is an unfair distinction from a life cycle assessment (LCA) perspective because they perform two very different functions. Mechanical recycling essentially shreds and remanufactures used materials by melting them together. In contrast, non-mechanical recycling methods like chemical recycling use a variety of technologies, such as pyrolysis, gasification, and depolymerization that can recycle a mixed waste stream and break it down to the molecular level, creating a liquid feedstock that can be used to make virgin-like plastics.

For instance, an LCA study conducted by [Argonne National Laboratory](#) on pyrolysis-based chemical recycling compares emissions to the manufacturing of virgin plastics from fossil-based resources.

They write in their findings:

“As advanced recycling becomes increasingly efficient, it is poised to play a major role in achieving global sustainability goals by reducing waste and GHG emissions. It can transform hard-to-recycle plastics into a multitude of high-value raw materials, reducing the need for fossil resources and potentially minimizing the environmental impact of waste management.”


Their findings showed that chemical recycling can reduce greenhouse gas emissions by 18%-23% compared to virgin plastic equivalents derived from crude oil. We believe this is the appropriate benchmark.

### **Plastic Pollution and Recycling Modernization Act**

Legislation like Plastic Pollution and Recycling Modernization Act is crucial in supporting these efforts. By enhancing sorting and collection infrastructure, implementation of this legislation can help us realize the full potential of polystyrene recycling, contributing to environmental sustainability and economic efficiency alike.

Thank you for considering our comments and feedback.

Sincerely,

  
Tim Barnette (May 31, 2024, 08:01)

Tim Barnette  
Vice President of Polymers &  
Sustainability  
Americas Styrenics LLC (AmSty)

Ricardo Cuetos  
Ricardo Cuetos (May 31, 2024, 09:01)

Ricardo Cuetos  
Vice President Americas | Polymers Sales  
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May 31, 2024

Oregon Department of Environmental Quality  
Via email to [RethinkRecycling@deq.oregon.gov](mailto:RethinkRecycling@deq.oregon.gov)

RE: Proposed Producer Responsibility Organization Plan

Dear Oregon DEQ staff:

The Association of Plastic Recyclers (APR) is committed to improving plastics recycling in Oregon and supporting the effective implementation of the Plastic Pollution and Recycling Modernization Act (RMA). We appreciate the opportunity to provide written comments on the Proposed Producer Responsibility Organization Plan submitted March 31, 2024.

[The APR is a U.S.-based, international non-profit association](#) and the only North American organization focused exclusively on improving the recycling of plastics. APR members are the entirety of the plastics recycling industry from design to collection to recovery to remanufacturing, including two Oregon-based processors (reclaimers). Plastics recycling is what APR does every day. APR understands the challenges facing the industry and the solutions needed to scale recycling effectively to move toward a more sustainable, circular economy.

APR appreciates the robust work that went into the Program Plan and the historic milestone of creating the first PRO Program Plan in the US. We recognize this is an iterative process and we provide these comments in a collaborative spirit to help modernize Oregon's recycling system. Overall the Plan reflects a tremendous amount of work and a strong work plan for reaching the state's goals. APR would like to provide constructive suggestions on some areas of the Plan related to plastics recycling, and looks forward to continuing discussions with DEQ, CAA, and other stakeholders to find solutions.

**Most critically, APR has strong concerns on the lack of incentives, purchasing agreements, recycled content requirements, and other drivers to ensure recycled plastics are manufactured into new products after processing.** The Program Plan focuses heavily on the collection and processing of plastic packaging until the responsible end market (REM), but does not include sufficient drivers to create more



robust market demand for recycled content. Modernizing Oregon’s recycling system and achieving greater environmental outcomes will require both supply and demand improvements in plastics recycling. Much more work is needed on the demand side. In addition, we have concerns around CAA’s “lowest cost” requirement for market development initiatives. While cost is a critical metric, it must be weighed against the other REM requirements and program goals.

Detailed comments and suggestions are provided below to address these concerns and a few other issues. The APR staff are available at your convenience to provide further information and look forward to continuing to engage in a constructive manner to deliver a top-performing recycling program for Oregon.

## **STRENGTHENING RESPONSIBLE END MARKETS**

### **NEED TO STRENGTHEN EXISTING MARKETS AND DEVELOP NEW MARKETS**

APR is very concerned with the statement: “CAA does not currently anticipate a need for market improvement for commodities that are not specifically listed below.” This statement incorrectly assumes that current markets and conditions are sufficient to scale recycling, and fails to recognize the need for more robust, stable markets and more favorable market conditions, even for those materials with existing REMs. Markets for recycled plastics remain underdeveloped and continue to face numerous challenges. (Please see addendum on economic challenges facing plastics recyclers from excess virgin plastic production, inconsistent buyer commitments, and the use of imported recycled content.)

The Plan should include actions to both develop new markets for new materials and to strengthen existing markets. Stronger, more robust markets drive the entire economics of recycling, and directly correlate to the PRO base fees. The revenue earned by selling recycled content to manufacturers offsets the costs to collect, sort, and process the materials. The higher the market value of the commodity, the lower the commodity fees paid by the PRO members. Aluminum cans are the best case in point: strong demand for recycled aluminum means higher revenue sales for aluminum recyclers, which helps lower the costs of collection and processing, and results in low base fees under the Program Plan. One of the main ways to lower base fees for plastic packaging is to create stronger market demand and commodity prices for PCR.

This work to strengthen markets should include but not be limited to:

- Strong eco-modulation fees to increase PCR and establishing PCR as the first eco-modulation factor

- Supply guarantee for reclaimers (as listed on p.81)
- Long-term contracts with REMs with floor pricing
- Levers for how PRO members can use PCR commitments for both food packaging as well as secondary and tertiary applications (crates, pallets, etc.) and non-packaging applications (carpet, building materials, etc.)
- Commitments by PRO members to purchase domestically-produced PCR (through long-term contracts)
- Eco-modulation credits for domestically-produced PCR
- Stronger stakeholder engagement with REMs and buyers to identify market challenges
- Partnership with DEQ and local governments to drive stronger PCR demand through procurement

### **PRIORITIZE RECYCLED CONTENT IN ECO-MODULATION FEES**

A 2017 [DEQ review of environmental packaging attributes](#) found recycled content was the only consistent driver of improved environmental outcomes, or more simply put, adding more recycled content was consistently shown to lower the packaging footprint. Based on this, APR recommends prioritizing the implementation of eco-modulation incentives and penalties to increase the use of domestically-produced recycled content (p. 107). This will help strengthen and build end markets, directly translating back to a stronger recycling system. Recycled content should be the first factor developed under eco-modulation and rolled out under the initial voluntary program.

### **REM PRINCIPLES SHOULD NOT FOCUS EXCLUSIVELY ON COSTS**

APR is very concerned that the PRO has prioritized the lowest cost markets in its principles for developing REMs, based on this statement: “The emphasis will be on market development opportunities that support end markets for targeted materials at the lowest overall cost.” (P. 82) The past pursuit of the lowest cost option led to many problems with irresponsible recycling—the lowest cost option is what led some MRFs to produce highly contaminated mixed paper and plastic bales that they could ship to China rather than using domestic markets. The stated priority to focus on lowest cost will also likely create direct opposition to the goals of the RMA to minimize environmental harm and improve the recycling system. While cost is no doubt a key factor, it must be considered alongside environmental outcomes, support for regional and domestic remanufacturing, and other key factors.

### **FUNDING SHOULD BE ALLOCATED FOR REMs FOR SYSTEM IMPROVEMENTS**

The Plan does not address the challenges facing current REMs and how funding for REMs could be used to reduce contamination, reduce environmental impacts, and result

in more valuable recycled content. This funding would help improve the overall economics of plastics recycling, which connects back to the RMA goals to reduce financial impacts on ratepayers. Funding opportunities for REMs include:

Contamination reduction and mitigation: While Oregon has set strong contamination reduction goals for local programs, these goals will take time to meet, and meanwhile REMs must continue to manage contamination from generators. New and updated equipment at REMs to manage contamination will help REMs to produce higher quality PCR, which will attract higher market value and translate into a more economically viable system.

Cleaner processing: Incentives for cleaner processing, such as upgrades to wash lines to reduce water consumption, improved wastewater treatment processes, upgrades to renewable energy, and/or other improvements will reduce the environmental impacts of recycling.

High-grade materials: Investments can be made in additional processing equipment to help REMs produce higher grade materials sold for a premium value, further improving the economics of processing. Examples include further color separation, wash line equipment to remove small metal contaminants, and process improvements that reduce fines from thermoforms.

In addition, APR requests clarification on the budget for supporting responsible end markets, as outlined on p. 81 as 3-5% of expected commodity values. More information is needed on how this amount was determined and if it is sufficient to meet the intended goals, and if this was based on support for only new markets or if there is funding to strengthen existing markets.

### **SUPPORT FOR BUYERS AFTER RECLAIMERS**

DEQ has defined the REM as the plastics reclaimers for non food-grade materials. This is fine from a measurement point to calculate recycling yield, but it must be recognized that the reclaimer is not the final buyer. The processor does not manufacture the final product, and the processor does not control or create additional manufacturer demand for its recycled resin. There is an additional buyer beyond the processor that must use the recycled plastic to make a new product. Only then is the recycling system complete. The PRO and its members must take actions to stimulate the market demand to ensure materials are sold or transferred to a final manufacturing process. Otherwise, there is a risk of funding a system that collects materials that then get landfilled by a reclaimer because there is no viable buyer.

APR strongly supports several of the elements on p.81 to support REM development and encourages these as priority actions:

- A supply guarantee for reclaimers
  - This could be expanded to include incentives for PRO members to establish long-term contracts with REMs
- Assessing leverage to promote recycled content
  - This can be strengthened to identify how PRO members can increase purchasing of non-food-grade packaging that supports PCR goals (crates, pallets, tertiary packaging, etc.)
  - The plan also references compliance with the statute to ensure a minimum of 10% PCR in roll carts, which should also be included in this section.

### **PRIORITIZE REGIONAL AND DOMESTIC PROCESSING IN REM GUIDING PRINCIPLES**

The Plan states that the PRO “anticipates that most covered products...will be processed in North America” and there are a few references in the Program Plan to limiting the use of overseas markets. While these references imply a preference for domestic markets, more clarity is needed on how the PRO will prioritize support for in-state, regional (including Canada), and domestic processing. Specifically, APR recommends adding a new guiding principle on p. 82 to prioritize in-state, regional, and other domestic processing of recycled materials. A robust regional and domestic recycling system will provide the greatest benefits to producers and the environment. Domestic markets provide greater stability and lower long-term risk from foreign politics or other global disruptions, and reduce the costs and carbon footprint from transporting materials. Further, in-state and regional processing bolster local economies.

In addition to clearly stating a prioritization of in-state, regional, and domestic processing in the guiding principles, more details can also be provided on implementation. This can include but is not limited to:

- Preferences for strengthening and/or developing local, regional, or domestic markets for new materials
- Including miles to market as a metric for investing in or expanding REMs
- Commitments to buy recycled content from local and domestic markets
- Additional credits or market development payments for PCR from regional sources (for example, the CA [Recycled Content Trash Bag law](#) awards 1.2 lbs of PCR credit for every 1 lb of PCR from in-state processors)
- Incentives for brokers to use local and/or domestic markets

## **PROPRIETARY INFORMATION PROTECTION FOR REMS**

APR recognizes the need to share data to improve the transparency and accountability of recycling, with the appropriate safeguards on proprietary business information. Many recyclers already provide information to state agencies on end market uses by industry type, such as 100 tons of recycled content sold into construction materials, 100 tons into carpet, 100 tons into food-grade packaging, etc. This provides accountability into where materials are being used while protecting confidential business relationships.

There can be additional risk to the recycler in disclosing information to the PRO rather than the state agency. PRO members may be direct buyers from the REM, or buying from a competitor REM, or even invested in another facility or technology that competes for materials with other REMs. The risk of conflicting business relationships between the PRO members and the REM necessitates clear safeguards on proprietary business information.

More work is needed in this area to facilitate communications and compliance between REMs, CAA, and DEQ. Suggestions include:

- Clear NDA and confidentiality processes that demonstrate how proprietary information is protected within PRO staff and PRO members.
- Limiting disclosures for recycled content based on industry type, not by buyer name.

APR requests a specific discussion with DEQ and CAA on this topic as it is a paramount concern to our members.

## **GREATER COMMUNICATION AND OUTREACH WITH REMs**

Several of the plan elements around communication, dispute resolution, and other elements do not include REMs as a stakeholder group, and there are concerns that REMs have not been included in current conversations about the plan implementation. REMs should be considered a priority stakeholder group on the same level as CRPFs, depots, and local governments. APR recommends REMs are specifically identified in the communication plan (p. 119) and the dispute resolution process (p. 127), as well as all relevant stakeholder sections.

## **OTHER AREAS OF CONCERN AND SUPPORT**

### **SUPPORT ADDITIONAL MATERIALS FOR USCL AND DEPOTS**

The APR supports the Program Plan goals to add more plastic packaging to the USCL and Depot collection lists, including the products listed in the Plan. As identified by the PRO, many of these materials are trending toward recyclability, and the dedicated funding under the RMA can propel these materials into full acceptance. However, this section needs more emphasis on the development and strengthening of end markets for these materials to be remanufactured into new products. There is not enough emphasis on how the PRO can support the purchasing of recycled content made from these products, in particular thermoforms and film and flexible plastics. The additional collection of these materials must be paired with commitments to purchase regional or domestically-produced PCR that directly supports US recycling infrastructure.

### **EXTEND BALE AUDITS TO HAULERS AND CRPFs**

In the random bale auditing section, it is unclear if or how the PRO will audit and track delivery of recycling loads from households to the CRPFs. The lack of traceability at households to know if their materials were delivered to a CRPF is arguably the greatest source of confusion for residents and the biggest source of the myth that recycling doesn't work. Auditing of household recycling routes to CRPFs is a crucial step in providing greater transparency that recycling does work, as well as identifying any problems with collection programs to ensure materials are delivered to CRPFs to the greatest extent possible.

### **PROPOSED REVISIONS FOR CATEGORIES OF PROPOSED FEES, P. 99-100**

APR suggests a few revisions to the sub-categories for rigid and flexible plastics. In general, the granularity of categories under rigid plastics is far greater than other material categories and it is unclear if that is necessary in many instances. On the other end, the film and flexible category is very broad, and splitting this into further subcategories would be beneficial in distinguishing between more readily recyclable mono-layer films and more challenging multilayer flexible packaging. We suggest these revisions and also suggest a further discussion with both DEQ and CAA to align on the best structure for packaging design and manufacturing processes, recycling programs, ease of reporting, and other factors:

Category suggestions:

- Add transparent light blue to clear/natural PET bottles
- Combine PET tubs and PET thermoformed tubs, or combine all PET tubs into PET thermoforms
- Consider simplifying PP categories since formats can often be made via multiple processes, including blown or injection molded and thermoformed. These items are indistinguishable without inspection during sortation or AI. It is unclear why

thermoforms are separated from other production processes. A simplified sub-category structure to encompass all processes could be:

- PP Bottles, Jugs and Jars
- PP Other Containers (cups, plates, trays)
  - PP Lids could be included in Other Containers, but their separate collection via depots may justify a separate category
- PP Nursery pots and trays
- Other Rigid PP items
- Separate HDPE / LDPE Film and HDPE / LDPE Flexible Packaging (non-film) into two separate categories to reflect what is currently recycled.
- Separate PE-only film into a sub-category to align with its status as a depot material.
- Separate PP Film and PP Flexible Items (non-film) as two separate sub-categories
- Separate Mixed Polyolefin Flexibles (non-film) as a separate category

## FURTHER DISCUSSION

This Program Plan represents a milestone in the modernization of recycling and packaging design for not just Oregon but the entire country. APR deeply appreciates the tremendous work of CAA, DEQ, and ORSAC, as well as many others, and welcomes further discussions and iterations of the Plan in the coming months. Our staff and members are available at your convenience to discuss these comments, share further information, and collaboratively craft solutions for the effective implementation of the RMA. Please contact Kate Bailey, Chief Policy Officer, at [katebailey@plasticsrecycling.org](mailto:katebailey@plasticsrecycling.org).

Sincerely,



Kate Bailey, Chief Policy Officer, Association of Plastic Recyclers (APR)



## **ADDENDUM: HOW CURRENT MARKET CONDITIONS ARE THREATENING THE VIABILITY OF PLASTICS RECYCLING**

Plastics recyclers continue to face challenging market conditions that impede their expansion and business growth. Markets are tough for a variety of reasons based on both resin types and formats. While many of these are persistent challenges, the scale, intensity, and combination of factors are posing unprecedented challenges in the US and globally. It is not an overstatement to say lackluster manufacturer demand for domestic PCR, fueled by low-cost virgin resins and imported PCR, are combining to put the entire system at risk. In fact, experts are not mincing words: [a recent story on rPET markets stated](#) "The rPET sector, once the beacon of sustainable development in the plastics industry, is now navigating a perfect storm of adverse conditions that risk capsizing its progress" and the conditions are "eroding recyclers' operational margins to perilous levels."

### Competition from low virgin resin prices and oversupply of virgin plastics

Petrochemical companies are producing virgin plastic at record rates. The continued high production of virgin plastics directly impacts the recycling industry, as the proliferation of new, inexpensive plastics often undermines the market for recycled materials. Off-spec and wide-spec resin, byproducts of massive virgin production, are often sold at below market rates, further amplifying the cost differential with recycled material. Many packaging and product companies, even long time buyers of recycled plastics, have converted back to virgin resins because of the low prices and abundant supply. When brand companies are making packaging decisions exclusively on price, it can be nearly impossible for recycled content to compete. This situation is causing global problems in Europe and Asia as well, and [industry experts are highlighting the need for government support for the recycling industry](#): "we observe similar pressures where the deluge of virgin material availability undermines the economics of recycling, underscoring the need for strategic, government-led interventions."

### Competition from imported recycled content

Imports of recycled PET for water bottles and soda bottles have [increased 33% year-over-year](#), undermining the stability of US recycling markets and impeding efforts to further invest in expanded collection and processing for recycled plastics. Several US recyclers have reported large canceled contracts as packaging companies are choosing lower cost imported recycled plastics, manufactured in geographies with fewer labor and environmental standards. In addition, using imported recycled plastics has a larger environmental footprint: data from Europe shows increased reliance on imported plastics will increase greenhouse gas emissions compared to using domestic sources.



For the RMA to be successful in strengthening REMs, it must be paired with commitments to purchase domestic recycled content.

### Inconsistent and insufficient demand for PCR

While consumer goods companies made bold 2025 goals to use more recycled content, most are falling short of their goals and/or pulling back from these targets. Without this market demand, processors cannot secure the capital to expand recycling operations and the system will struggle to scale up to accommodate the additional volumes collected under EPR programs.

All told, these market challenges extend far beyond the typical market fluctuations experienced by recyclers and are creating dire conditions for even established processors around the U.S. The RMA investments in collection and sorting will be fruitless without parallel support for stronger domestic processing and robust market demand for recycled plastics across a wide range of applications.

### *Note on market price as reported in recycling trade media*

*News sources that report on recycling markets and price trends overwhelmingly refer to the bale prices paid to the MRFs, not to the value of the recycled content at the plastics reclaimer or converter. MRF prices cannot be used as a proxy for the strength of the recycled content market. While plastic commodity pricing provides a sense of the relative market value between traded commodities and reflects domestic demand in general terms, it does not tell the full story. For example, reclaimers buy MRF bales and then invest more to sort, clean and process material while trying to stay competitive with low-cost virgin resin or imported PCR. This will squeeze or even eliminate their margins when the price of virgin is so low. So while increasing commodity prices can be welcome for MRFs and indicate market movement, the dynamic for recycled plastic REMs can be more complex.*



*We Feed You*

VIA e-mail: [RethinkRecycling@or.deq.gov](mailto:RethinkRecycling@or.deq.gov)

May 30, 2024

Oregon Department of Environmental Quality  
700 NE Multnomah St, Suite 600  
Portland, OR 97232

RE: Comments in PRO Program Plan provided by Circular Action Alliance March 31, 2024

Dear Sir/Madam:

Food Northwest welcomes the opportunity to provide comments on the Producer Responsibility Organization (PRO) Program Plan submitted to Oregon Department of Environmental Quality by Circular Action Alliance (CAA) on March 31, 2024. Food Northwest represents 350 food and food-related companies across Oregon, Washington, and Idaho. Most, if not all of our food producing member companies, will become obligated producers under this program. Food Northwest does have a number of member companies who are also founding members of CAA. Food Northwest recognizes the novel nature of this plan in Oregon, and in the US, and looks forward to being an active participant in the final rule making process as well as the implementation of the Recycling Modernization Act (RMA) programs providing guidance and support to its member companies.

Our first concern is related to the cost projections within the program. Preliminary Base Fees in Table 16 are provided with Revenue Budget ranging from \$226,000,000 to \$292,000,000, while average Fee rates are listed as 15c/lb. to 26c/lb.; the high Budget is 29% higher than the low Budget, while the high average Fee rate is 73% higher than the average low Fee rate. Additionally, the proposed Fee structure anticipates a program budget that could be as high as \$483,000,000 by 2027. This represents a per capita cost increase of \$115.00/year for each of Oregon's 4.2 million citizens.

The proposed Fee structure anticipates a program budget that increases significantly between 2025 and 2027 yet does not explain why and how program fees revenue would be expected to increase over that timeframe to anticipate additional costs. The High Case budget increase from \$287,000,000 to \$483,000,000 represents a program budget increase of 68%. Yet, materials subject to the program would be expected to remain fairly constant in the first three years, and long term would be expected to decrease as producers continue to innovate to reduce packaging weights and volumes, as well as modulate types of materials to be more recyclable, include more post-consumer recyclable content, and otherwise reduce fee rates and improve environmental outcomes. The plan does not suggest increasing fees per unit of material over the identified timeframe, therefore the overall budget should be flat or decrease over time.

Fee Rate Methodology is not provided in the PRO Plan, rather is identified as a confidential formulation. Recognizing the complexities of setting fees, it is requested that the regulated producer community be given the opportunity to review and provide comments on these proposed fee formula methodologies.

The current budget forecast may have been developed based off the Needs Assessment completed by OR DEQ in 2023, however there is no guiding statute that prioritizes the program budget, and the expectation that all funding needs of the Local Recycling Communities will be met in the first three program years seems overly burdensome on those who will pay into the program. With current cost forecasts in the hundreds of millions of dollars, these costs should be spread out over a much longer time frame, particularly give the program is intended to run into the future without sunset as currently constructed. Even with a much more reasonable cost structure, these costs should not be front-loaded into the first three years of the program.

Secondly, the PRO Plan submitted by CAA addresses several parts of the program implementation from the waste management and recycling perspective. However, given the novel and complex nature of the RMA Producer requirements, it is unfair to expect producers, many of whom are small to mid-size businesses, to fully assess these impacts on their business. We strongly believe additional time is needed to allow CAA to consult with service providers and local governments and provide a more in-depth consultation with a broader range of obligated producers in OR.

The plan as currently outlined does not provide essential plan elements for these obligated producers. The plan does not recognize that producers outside CAA founding members, which are also obligated to pay fees into the program, have a stakeholder role in the program. No producer stakeholder groups nor individual producers beyond CAA's founding members are identified in the Plan or in Appendix D. CAA founding members, by its own estimates represent a small minority, 12-15 %, of obligated producers by weight, under the RMA. Therefore at least 85% of the producer community are not currently represented as stakeholders in the submitted PRO Plan.

In addition to not recognizing the stakeholder role of producers, the PRO Plan does not provide many aspects of a program plan from a producer perspective including registration, identification of applicable material lists, data collection, fee calculation, market share calculations, developing responsible end markets, and opportunities to modify packaging to enhance recyclability and reduce fee impacts via eco-modulation, all elements of the RMA.

Producer registration is required by statute to occur by July 1, 2025, (RMA, Section 60), however CAA does not clearly define the process for an obligated producer to do so, nor does the Plan identify methods of notification CAA and/or OR DEQ will undertake to notify producers of registration and other requirements of the program. Written guidance on data collection to determine rule applicability, identifying packaging materials and service ware types by defined fee categories, determination of estimates of products sold or imported into Oregon when state specific data may not be available, and other program elements are not defined in the submitted PRO Plan, therefore there is not a roadmap to insure consistent, accurate, and complete implementation of producer reporting responsibilities to the PRO.

Finally, the timeline presented by CAA for program funding seems premature. The RMA requires obligated producers selling or importing products into Oregon after July 1, 2025, to register with PRO's (RMA, Section 60). It is not feasible nor a statutory requirement for producers to track and report quantities and types of materials sold or imported into Oregon prior to July 1, 2025. There may be current producers who cease selling into Oregon prior to July 1, 2025; likewise new producers may begin selling into Oregon after July 1, 2025. Sales volumes and types of materials sold cannot be accurately forecasted due to the wide range of market variability. Proposed fees based on 2024 data are not supported by statute. Therefore, a fee structure cannot be implemented prior to some period of time after July 1, 2025, assumed to be a year, to provide accurate and complete information for producer fee assessment.

Given the novel and complex nature of the RMA Producer requirements it would be anticipated that education of the regulated producer community during the first reporting period, July 1, 2025-June 30, 2026, would be essential. Material volumes and types for the initial compliance period and fees could not reasonably be expected to be reported, vetted for accuracy by the PRO and OR DEQ, and invoices distributed prior to the end of calendar year 2026, with fees likely due beginning first quarter of 2027.

Food Northwest again thanks Oregon DEQ, as well as the team with Circular Action Alliance, for their work on this program plan and looks forward to additions, changes, or clarifying language to address our concerns.

Best regards,



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May 31, 2024

Submitted via: [RethinkRecycling@deq.oregon.gov](mailto:RethinkRecycling@deq.oregon.gov)

### **Comments: Proposed Producer Responsibility Organization Plan, Submitted by Circular Action Alliance**

Thank you for the opportunity to provide feedback concerning the Proposed Producer Responsibility Organization Plan as submitted by Circular Action Alliance (CAA).

Founded in 1933, the Foodservice Packaging Institute (FPI) is the leading authority on foodservice packaging in North America. FPI supports the responsible use of all foodservice packaging, while advocating an open and fair marketplace for all materials. Our core members include raw material and machinery suppliers as well as packaging manufacturers, which represent approximately 90 percent of the industry. Additionally, a number of distributors and purchasers of foodservice packaging are part of FPI's affiliate membership.

The foodservice packaging industry is committed to reducing the impact of its products on the environment and is dedicated to increasing their recovery. FPI has several special interest groups that bring together the supply chain to develop and promote economically viable and sustainable recovery solutions for foodservice packaging. These special interest groups include the Paper Recovery Alliance, Plastic Recovery Group, Paper Cup Alliance and Foam Recycling Coalition. More information on these groups and their efforts can be found [here](#).

We understand that several of the elements within the proposed plan are preliminary and we look forward to seeing additional aspects of the plan detailed further in the next submission. Further, we hope that our comments herein support increased diversion opportunities for foodservice packaging, and additional information concerning fee setting.

### **General Comments**

FPI notes that under the “*Description of the Organization*” section, “(t)he CAA National Board of Directors intends to establish a designated governing body known as the Oregon Board, which will have the delegated authority to act on behalf of the National Board of Directors to approve the producer responsibility plan and the budget for implementation of the plan, as well as oversee the implementation of the approved producer responsibility plan under the RMA. The Oregon Board will include Founding Member representatives, other producer representatives, and non-voting members.” It is FPI’s recommendation that the Oregon Board include representation from the foodservice packaging industry and producers of food serviceware as defined by the Recycling Modernization Act (RMA).

Similarly, as CAA prepares for the next submission of the proposed plan, we recommend further stakeholder engagement that includes the manufacturers of foodservice packaging and FPI as the trade association representing these parties as well as a leader on the recovery of foodservice packaging. FPI has



a number of resources that may be valuable to CAA's planning and implementation efforts, including end markets information, resident messaging and education insights, and work regarding food contamination.

Further, we suggest that other covered materials currently collected in Oregon recycling programs be afforded the same opportunity as glass to continue to be collected pending discussions with local governments.

As proposed the plan states: *"Glass bottles and jars are currently collected in some areas of Oregon as a separated curbside stream, and the communication necessary with respect to glass containers will be tailored to the outcome of discussions with local governments on the development of the collection system for PRO Recycling Acceptance List materials. Where local governments choose to discontinue existing on-route collection systems for glass, CAA will tailor communications to orient residents toward glass drop-off and discourage placing glass in the commingled stream."*

It is our perspective that removing material from the collection list is a challenging communications task and may not be worth the effort, particularly if trials are planned to bring items back on to the collection list. Frequently moving materials on and off the list is counter to the consistency and harmonization that are the core principles of the USCL.

## **Materials Strategy**

### **Proposed Additions to the USCL**

#### **PET Thermoforms**

With respect to PET thermoforms, we are encouraged that CAA intends to take steps to support the inclusion of PET thermoforms on the USCL by July 1, 2027.

FPI notes that in [DEQ's analysis](#) of materials against statutory criteria during the 2023 rulemaking PET thermoforms ranked 3 or higher on all categories, which was sufficient for inclusion on the USCL for other materials.

We welcome opportunities to engage with CAA to implement steps outlined in the plan and to demonstrate the value of including the full range of thermoforms, including single-use cups, on the USCL.

### **Specifically Identified Materials on the PRO Recycling Acceptance List**

#### **Aluminum Foil and Pressed Foil Products**

In line with our general comments, FPI recommends that CAA explore continuing to collect aluminum foil and pressed foil products in the Metro area (and other areas) where it is currently being successfully collected and recycled.

Similar to other material categories, aluminum foil and pressed foil products ranked 3 or higher on all categories except one in [DEQ's analysis](#) of materials against statutory criteria during the 2023 rulemaking. DEQ noted concerns with respect to food contamination as the reason for a SIMs designation for these materials. It may be valuable to review the existing recycling efforts in the Metro area and others in advance of determining next steps.

## Proposal to Trial Commingled Collection of Non-USCL Materials

FPI appreciates that CAA's proposed plan seeks to address DEQ concerns via trials to collect SIMs that are not on the USCL or part of the PRO Depot materials. It is our hope that trials of these materials are undertaken with a view to adding them to the USCL by July 1, 2027 (similar to PET thermoforms).

However, we believe that it is challenging to develop a plan without reviewing studies that have been cited by DEQ as the reason for removing certain items from the USCL and designating them SIMs. Per "Attachment 1: Summary of public comment and DEQ's responses" from the [Rulemaking #1](#), DEQ offered the following reasons for their removal of select items from the USCL.

Category Number: 2g

Rule Topic: Recycling acceptance lists

Description of Comment: Remove paper and plastic cups from the Uniform Statewide Collection List, replace with transitional pilot project

Commenter #: 13

DEQ Response: DEQ revised the draft rules in response to this comment. DEQ understands that the public is capable of identifying paper and clear plastic cups made of PET or PP, that commingled recycling processing facilities are able to sort them, and that there are stable, available markets for the paper cups and clear PP cups. DEQ has outstanding concerns regarding reclamation of cups made of thermoformed PET (see related comment and associated rule change to more clearly limit acceptance of thermoformed PET) and notes that these questions and concerns, have not yet been adequately addressed by producers or other parties.

*There is significant potential for the inclusion of single-use cups to further increase contamination in the commingled stream of materials. The uniform statewide collection list includes materials that may be collected not only from households in Oregon, but also at events and commercial businesses, including food courts and public spaces. Acceptance of one type of food serviceware (cups) and exclusion of others (clamshells, plates, boats, etc.) made of the same material may cause public confusion and result in higher contamination including food serviceware items that could be significantly contaminated with food residue.*

*New evidence from the first several months of an inbound contamination assessment currently underway in Oregon (commissioned by DEQ) is revealing that levels of contamination in set-out recyclables have indeed risen since the previous assessment. This is new information that was not available to DEQ when the inclusion of single-use cups in the uniform statewide collection list was first proposed.*

*PROs may at any time propose to add these (and other) food serviceware items into the uniform statewide collection list via a program plan or plan amendment, as provided for in ORS 459A.914(4)(b).*

To our knowledge, DEQ has not released the full study of the inbound contamination assessment, the details of which would substantiate the concerns as well as provide insight into possible next steps for addressing them in trials.

We are also concerned that some of the proposed tasks may be duplicative of efforts that have already been undertaken and that not all relevant stakeholders have been considered. We offer our additional perspective by material type below.

## Polycoated Paper Packaging

With respect to polycoated paper packaging, we would first like to offer our expertise as it relates to the recovery of polycoated foodservice paper packaging. As CAA is aware, FPI has been undertaking voluntary efforts to increase the recovery of foodservice packaging through recycling and composting. These efforts include a focus on end market development, including those for post-consumer paper cups. More information is available [here](#).

On the proposed effort to undertake an in-depth study of *“CRPFs that sort polycoated cups into mixed paper bales separately from those that sort cups into grade 52 carton bales”*, we note that on p. 62 of the proposed plan it states that *“(i)t is CAA’s understanding that Oregon’s CRPFs currently include cartons in mixed paper bales and do not sort cartons into a separate PSI 52 grade bale. To date, CRPFs have not seen the value in marketing cartons separately from mixed paper.”* Therefore, we are uncertain on the ability to conduct such a study.

Additionally, on the matter of the recommended assessment of “re-pulpability yield of mixed paper trials” we would recommend that CAA work with organizations with expertise in this area and ensure that industry standards are leveraged.

We are also seeking clarification of the following statement to better understand the objective *“(t)he trials would aim to track materials very specifically from route to bale to market and ensure no other material changes to the stream or service changes are happening at the same time.”*

Further, as we have cited in other comments above, it is important to note that in [DEQ’s analysis](#) of materials against statutory criteria during the first rulemaking process, paper cups ranked 3 or higher on all categories except one (when sorted for a mixed paper bale). While DEQ had noted concerns with contamination as a factor in removing these items from the originally proposed USCL, no further information has been released to support this perspective.

It is our recommendation that prior to initiating any trials CAA connect with all relevant stakeholders to review available information. FPI is a key stakeholder in this space, and we remain interested in working with CAA to continue these efforts in Oregon and work to ensure that there is no duplication of efforts.

## Single-Use Cups

As noted above, PET and PP cups were initially included on the USCL based on DEQ’s initial assessment of these materials. FPI is supportive of trials to address the reasons provided by DEQ concerning the removal of these items.

We believe it is important to recognize that thermoformed PET cups use the same materials and manufacturing process and provide the same quality of materials to the same end markets as do other PET thermoforms. Similarly, PP cups use the same material as other PP formats that are also being collected on the USCL.

Further, we suggest a clarification on scope of “single-use cups” as we see that *“polycoated paper cups may fall into both categories”*.

FPI welcomes opportunities to support these trials and share our experiences with respect to the recovery of single-use plastic cups (and all foodservice packaging).



## Ensuring Responsible End Markets (REM)

Overall, we have heard concerns that the verification of recycled materials processed in an REM will create significant administrative burden and cost. It is important for CAA to have a plan to ensure that there is no loss of existing REMs due to the additional effort needed to process recyclables from Oregon.

### Random Bale Audits

We understand the need to undertake random bale audits as a part of robust chain of custody control. FPI also appreciates that CAA is prioritizing those materials that have been identified as those that may have overseas end markets.

We do however note that only the mixed paper and aseptic and gable top cartons have been identified for these audits, and not block white EPS which was also listed as a material with overseas markets. It is our view that all materials where there are overseas markets should be treated equally as it relates to the need for random bale audits.

## Financing

### Membership Fee Structure and Base Fee Rates

#### Product Specification for the Fee Structure

With respect to the categories of materials, we have the following comment:

- Under “Plastic – Rigid”, “thermoformed lids” are categorized separately under PP but as part of a broader category under PET. We suggest consistent classification.

### General Comments Regarding Fee Setting

FPI recognizes the proprietary nature of the fee algorithm but would like to see some further explanation of CAA’s approach.

A comparison of the relative fees of different material types shows that the Oregon fees have rigid plastics at about four times the paper packaging costs, while Canadian rigid plastic fees are about double those of paper packaging. Similarly, film plastic costs are six times that of paper in Oregon, and three times that of paper in Canada.

More information is needed to understand the fee model and whether its cost allocation is fair.

Thank you for your consideration of FPI’s feedback and we look forward to working with CAA and DEQ on improving the recovery of foodservice packaging and the implementation of the RMA.

Sincerely,



Carol Patterson  
Vice President, Government Relations  
[cpatterson@fpi.org](mailto:cpatterson@fpi.org)



**TO: OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**FROM: SCOTT DEFIFE, GLASS PACKAGING INSTITUTE**  
**DATE: MAY 31, 2024**  
**RE: PUBLIC COMMENT ON RMA\_CAA PRO PLAN V1**

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The Glass Packaging Institute appreciates the opportunity to provide comment with respect to the Plastic Pollution and Recycling Modernization Act PRO Plan submitted by Circular Action Alliance (CAA).

GPI is the North American trade association for the glass food and beverage manufacturing companies, glass recycling processors, raw material providers and other supply chain partners within the industry. GPI and its members work closely with local and state governments throughout the country on issues surrounding sustainability, recycling, packaging manufacturing and energy use, and our members have operations in the State of Oregon that would be a part of the service provider and end-markets covered by the plan.

Understanding that this is the first version of a PRO plan, and that adjustments are likely to be made, I would like to make clear that the Glass industry seeks to be a constructive partner to the OR DEQ and the CAA process of developing the most efficient and effective glass recovery program that can be developed under the requirements of the law. While there was no formal engagement with GPI prior to this plan's release other than questions related to the responsible end-markets requirements, we have since been able to provide some information to CAA in order to help the next iteration of the plan as it develops. Our goal is to maximize the sustainable recovery of glass material in Oregon and optimize its highest best use back into the glass manufacturing supply chain.

That said, we have some concerns with the descriptions of the plans for glass in the plan.

- 1) It seems clear that the RMA regulatory process and CAA plan continues to struggle with easily categorizing a treatment plan for glass containers. (Identified as SIMs pp. 64-66) The majority of the glass is already in the state's beverage container bottle deposit return, and wine and liquor bottles could and most likely should be included in that program. There is a remaining percentage of food or personal care product glass that will be covered by the RMA, and therefore, glass gets hybrid treatment as a known, highly recyclable, non-toxic material that is circular to the state of Oregon and Pacific Northwest region – meaning there are production facilities, producers who use glass for their products and glass recycling processing facilities in the state and region that allow for high recycling rates. However, the commingled curbside single-stream collection system was not built to prioritize handling of glass, increases the contamination, lowers the recovery yield and value because it is relegated to the residual stream in most material recovery facilities.
- 2) The plan assumes both a curbside separate stream collection in the Metro area, and a depot drop-off collection model in the rest of the state. Both result in less contaminated stream of glass that should be easily handled by the glass processing facility in Portland which then feeds nearby end markets.

- 3) Glass should not be lumped in with Ceramics, which are a priority contaminant in the glass stream that can cause great damage to glass furnaces if not removed. The consumer container glass recycling system is wholly different than ceramics, and the limited availability of ceramics recycling is much more appropriate for industrial stream than for consideration in the consumer food and beverage glass system. The range of projected fee rates cannot be equated to handling container glass and ceramics.
- 4) We believe the resulting range of glass product fees outlined in this preliminary plan are high, likely due to the mixed plan treatment of glass in the plan, and the fact that glass collection is now split under both the EPR RMA and beverage container deposit (OBRC) program, and a lack of full understanding of how recycled glass moves through the supply chain to end up and various end-markets.
  - In addition, the fees attributed to glass to collect it separately are in fact partially attributed to the fact the single-stream system does not deal with glass well, and while the removal of glass into a separate collected stream is better for the glass commodity, it is ALSO helpful to the other remaining commodities yield and value – but all the costs are being attributed to the glass as if glass is the problem. This is implied on page 54. The benefits to the recovery should be included or costs offset to account for the inherent harm to the glass from the system design.
  - Not enough information is yet known about the depot system, locations and costs. In many areas it is likely that the depots will mirror collection infrastructure of the OBRC and may even be paired.
  - **On page 54** – where the more detailed discussion of glass begins, it seems clear that the CAA plan does not have a high investment or goal for the recovery of glass, with only an additional 3,100 tons added to the existing non-deposit glass stream to the 38,000 tons already in the stream. The plan data actually shows that *the non-deposit glass collection rate ALREADY EXCEEDS the 45% required rate under the program (38k tons/77k tons = 49%)*, why charge all the additional fees to handle all the glass for an incremental 4% if the RMA is supposed to primarily handle the material that not adequately handled by the existing infrastructure of the state system?
- 5) The bias to support commingled single-stream is also evident when the plan turns to the discussion of responsible end-markets on page 82, using the example of “glass producers” needing to fund glass market development activities, when the inability of the single-stream MRF system to properly handle and retain the value of the glass is part of the reason the glass is being singled out. Furthermore, there exist responsible end-markets for glass in the state at present, and if the glass is collected as it is today, in a mix of existing “glass on the side” Metro collection and some number of existing drop-off bunkers, it should be of adequate quality to be processed by the existing facility and does not actually need any new end-market development. Glass is clearly a material for which some infrastructure investment “benefit a range of materials” and therefore the costs should be allocated across a range, rather than just to glass producers.
- 6) We fear that the assumption that new end markets must be developed for glass comes partially from the assumption that there are limitations on the capacity of the accessible beneficiation plants in Oregon or nearby states – *page 83 Strategy for Glass* – and this is where collaboration with the glass recycling and manufacturing industry can best pay off with new, innovative thinking for a plan that deals with glass and not one that treats glass as an more complicated material than something that is baled at a MRF.
  - There are paths for aggregation and storage of glass, using the positive attributes of the material, collected separately, that play to its strengths. The industry can help identify strategic corridors utilizing more of a hub and spoke collection system that can use the existing processing facilities rather than be concerned with developing new markets.

In conclusion – since glass is:

- already a well recovered and recycled material in the existing materials management system in Oregon, despite the material recovery facility bias against glass,
- identified as a SIMs material that requires a specific plan, largely relegated to depot drop off outside the Metro area, with capable responsible processing end markets in the state and region
- has high recyclability and properties that allow it to have longer storage times before needing to be dealt with or processed – meaning it does not have to be immediately moved to distant processing facilities, and
- since glass can play a unique role in the reuse/refill goals of the RMA but was not mentioned in the reuse sections of the plan, and
- since wine and liquor bottles are under consideration for inclusion in the state’s beverage container deposit program

We would ask for a special meeting/set of meetings with CAA to discuss an alternative approach to the treatment of glass under the RMA – collaborating with industry to innovate and minimize costs to glass producers and increase the utilization of glass to the circular economy of Oregon.

Thank you for your consideration.

Sincerely,  
Scott DeFife  
President



600 NE Grand Ave.  
Portland, OR 97232-2736  
oregonmetro.gov

May 31, 2024

Oregon Department of Environmental Quality  
700 NE Multnomah Street, Suite 600  
Portland, Oregon 97232-4100

Re: Proposed program plan - public comment

Dear DEQ team,

Thank you for taking public comment for the proposed Producer Responsibility Organization (PRO) program plan for the Plastic Pollution and Recycling Modernization Act (RMA). We appreciate DEQ staff and Recycling Council members for their tireless work in moving this foundational legislation forward from policy toward implementation.

Our feedback is grounded in Metro's ongoing engagement with our community, local government, and industry partners and recycling behavior research. We want to ensure implementation of the new law aligns with the commitments the Metro region made in the 2030 Regional Waste Plan to modernize our recycling system. It is also critical to our partners and leadership that racial equity is centered in all our work and that programs and services are delivered in a manner that places the least amount of burden on the public.

The Portland metro region accounts for more than 40 percent of the state's population. We are thrilled to see recycling services expand to the rest of the state and we want to do our part to ensure it is convenient and accessible for those who call Oregon home.

### **Building a recycling system for tomorrow**

Our communities need a modern recycling system that provides community members, visitors, and businesses more opportunity to recycle than what is available in our current system, while having trust and confidence that materials are managed responsibly. Information needs to be culturally responsive and relevant, easy to understand, and accessible in multiple formats and languages. The system needs to address barriers such as access to reliable transportation, limited English proficiency, mobility issues, and disabilities to ensure recycling is convenient, accessible, equitable, and efficient. It needs to grow capacity to support and encourage upstream waste prevention efforts such as reuse and repair.

We want to leverage producer support by shifting the burden of fully funding the recycling system away from rate payers. We want to see enhanced, modern services and facilities that are not solely financed by garbage and recycling rates charged to the public. This includes investments to address contamination at material recovery facilities and improve public-facing education. We want a system that is stable and resilient with the least disruptions to operations and produces high-quality materials that meet the specifications of multiple end markets. And ultimately, we want to ensure

items are sent to responsible end markets where people work in safe conditions and are paid wages and benefits that support their families; and where items are recycled with the least amount of social and environmental impacts.

Specific areas we would like to comment on the PRO program plan are included below.

## **Operations Plan**

### **a. Collection and Recycling of USCL Materials**

Modernizing Oregon’s recycling system will take time and resources. We are encouraged by the projected investments CAA intends to make in system expansion. Specific comments on this section of the plan include:

- Administer funding to local governments so that access to it is simple and streamlined. Burdensome reporting requirements, pre-payment terms, and documentation requests may result in local governments with limited resources, and their constituents, being excluded from essential funding opportunities.
- Consider encouraging consistent container colors that align with Metro’s Regional Service Standard and overall industry standards: Mixed recycling = Blue, Glass = orange, Garbage = Gray/black, Compost = Green. Consistent container colors that mirror educational materials will help promote statewide consistency and reduce contamination and confusion.
- Provide more detail on how DEQ’s Opportunity to Recycle (OTR) process will be used to assign funding eligibility. The plan mentions that funding will be available based on the municipal fiscal year (July 1, 2025 to June 30, 2026). However, OTR reporting is completed on a calendar year basis (January 1 through December 31) and we do not understand how this funding opportunity would be connected to the OTR process.
- Clearly define what role the wasteshed representative would play in the assignment of funding or other system coordination.
- Ensure contamination reduction programing that incorporates financial consequences does not disproportionately impact underserved communities that lack equitable access to information and resources. Community members may lack equitable access due to factors for a variety of reasons including income, primary language spoken and ability to directly communicate with service providers.
- Provide more information about how the needs of diverse populations will be considered and incorporated into contamination reduction programming and consequences.
- Limit the use of contamination reduction funding to technology and systems that have the primary purpose of reducing contamination, not other uses – like overcapacity garbage container fees.

**b. The PRO Acceptance List**

We appreciate that CAA is proposing a comprehensive approach to collecting materials on the PRO Recycling Acceptance List for the Metro region including on-route, depot, store drop off and collection events. CAA's producer members have come up with innovative solutions for packaging and delivery of products to consumers, and we want to see this level of modernization in recycling collection. While we understand CAA needs significantly more data to revise the plan, it needs to be centered on the most convenient and least confusing path for community members - short and long term. Specific comments on this section of the plan include:

- Implement any PRO Acceptance List material on-route collection services at no additional cost to community members.
- Provide more information and timelines for on-ramping materials to the USCL. These include plastic lids, plastic six pack holders, paper and plastic cups, and aluminum foil products.
- Provide more details about how community members living in multifamily settings will access and be served by this part of the system.
- Include additional information about how CAA will consider the overhead costs (training requirements, onsite and desk audits, etc...) associated with providing depot or other collection services for host organizations.
- Develop a strategy for how to continue collecting materials that will be removed from the current on-route collection recycling programs in the Metro region (foil, aerosols, shredded paper, etc..) during the transition to a fully developed PRO Depot network.
- Ensure the plan considers non-residential user access to depots or alternatively convenient PRO list materials.
- Update the table on page 46 to clarify what the numbers in Household Hazardous Waste (HHW) table represent and remove Washington County as a HHW site. There is currently no permitted HHW site in that county, and Metro HHW collection events do not reach 1.8M people a year at this time.

**c. Materials Strategy**

Community members living in the Portland metropolitan region are passionate about recycling. Delivering on the RMA's promise of a modern recycling system is of utmost importance to maintain public confidence and trust. We believe a modern recycling system is one that is responsible with the materials it collects and collects more materials than our current system – not less. We are encouraged that this section of the plan indicates CAA shares that vision. Specific comments on this section of the plan include:

- Add more materials to the USCL as soon as it is possible to do so responsibly – single-use plastic and poly-coated cups appear to have adequate recycling markets. Metro local governments are ready to support education programs to mitigate concerns about reuse and contamination associated with adding these materials.

- Ensure use of recovered glass creates the most environmental benefit whenever possible.
- Ensure there is adequate oversight over third party verification bodies. Inspections should include a regular schedule of physically visiting locations that process covered products.
- Provide transparent information regarding end market tracking of materials collected from the curb. Make that information available to local governments and the community.

#### **d. Education and Outreach**

Properly investing in education and outreach will produce better outcomes and a more informed community. We support the proposed education and outreach plan and advocate for it to be fully implemented and funded by CAA. Specific comments on this section of the plan include:

- Ensure best practices for developing education and outreach programming are applied. At a minimum, include:
  - Application of behavioral science research
  - In-depth audience research
  - Rigorous evaluation to test effectiveness
  - Co-creation of messaging with underserved communities
  - Adherence to ADA guidelines for accessible educational materials
- Maintain neutral voice and branding in educational materials and media campaigns. We recommend campaigns and materials be non-branded, follow national color standards and complement existing local materials that follow The Recycling Partnership's methodology and behavior change best practices.
- Join Metro and regional local governments in community engagement efforts and adopt a culturally responsive strategy to ensure materials get to the right communities and photos reflect community (not talent models in staged homes).
- Consider how messages are communicated in different parts of the state (for example initial rollout change is not as significant in greater Portland as it is in Eastern Oregon).
- Make materials simple and easy to understand. Our behavior-change research shows community members spend less than 5 seconds deciding if an item goes in the recycling bin.
- Consider how community members keep up to date with list changes, so it is a positive experience and keeps it simple for the user. Our community members share recycling is confusing, and if the list changes every couple of years, that will add to the confusion.
- Provide clarity on what educational materials The Recycling Partnership is creating and who is paying for printing and distribution of materials.
- Ensure materials align with Opportunity to Recycle requirements for local governments to reduce duplication and community member confusion.



- Provide dedicated staff and tools to help community members navigate where to recycle different materials.
- Provide, or incorporate information into, an easily searchable database of drop-off locations so community members and businesses can quickly find the most convenient locations for them. Ideally, the database would be available in Spanish as well as English, and more languages if possible.

**Equity**

We encourage CAA to develop an equity plan that is measurable and sustaining. Portland metro region local governments have done lots of great work to promote more equitable outcomes of our recycling and solid waste systems. We encourage CAA to partner with local governments, community-based organizations and directly with community to learn more about the unique needs throughout the state. We recommend that CAA works with DEQ to better define how equity can be operationalized in the next plan submittal, what their overall commitment to equity is, and give more consideration to this section of the plan.

Thank you for being leaders in both Oregon and the U.S. to modernize our recycling system through producer responsibility.

Sincerely,  
Warren Johnson  
Policy and Compliance Program Director  
Metro Waste Prevention and Environmental Services



**Center for the Circular Economy**

Closed Loop Partners  
888 7th Ave, New York, NY 10106

May 30, 2024

SB 582 Plastic Pollution and Recycling Modernization Act  
Department of Environmental Quality, State of Oregon

To Whom it May Concern:

## Fiber Cup Recycling in the State of Oregon

### In Response to Circular Action Alliance’s Program Plan for Oregon’s SB-582 Plastic Pollution and Recycling Modernization Act

#### Introduction

This letter regarding fiber cup recycling in Oregon’s EPR Program Plan is a response to the release of [Circular Action Alliance](#) (CAA)'s [program plan proposal](#) (Version 1) for Oregon’s SB-582 [Plastic Pollution and Recycling Modernization Act](#) submitted on March 31, 2024. We believe poly-coated paper cups should be included in the [Universal Statewide Collection Lists](#) (USCL) because of their growing recoverability and recyclability, as well as high rate of fiber capture for use as recycled content pulp. Paper cups are composed of high quality, long and strong fibers that can add value to the recycling system when captured and recovered as they enhance the strength and quality of new products made of recycled paper.

For this reason, we support CAA’s Material Strategy, Section IV. “Proposal to Trial Commingled Collection of Non-USCL Materials” Polycoated Paper Packaging plan (page 66) to test and onboard this packaging type. Below, we provide an outline of our reasons for support, provide data-backed research, and showcase collaboration areas for what we believe will be a solution that provides Oregon residents with greater access to consistent and reliable fiber cup recycling.



## Who We Are

[The Center for the Circular Economy](#) ('the Center') is the innovation and research arm of [Closed Loop Partners](#), a leading circular economy-focused investment firm in the U.S. Closed Loop Partners has been operating for the past 10 years providing financing to build and scale circular systems for materials management across the United States. The Center executes research and analytics, unites business, academics, and non-profit organizations to tackle complex material challenges and implement systemic change that advances the circular economy. The Center's expertise spans across the full lifecycle of materials, connecting upstream innovation to downstream recovery infrastructure and end markets. The Center also manages three collaborations, including the [NextGen Consortium](#), the [Consortium to Reinvent the Retail Bag](#), and the [Composting Consortium](#).

The NextGen Consortium is a multi-year consortium that addresses single-use foodservice packaging waste nationally by advancing the design, commercialization and recovery of food service packaging alternatives. [Starbucks](#) and [McDonald's](#) are the founding partners of the Consortium, with [The Coca-Cola Company](#) and [PepsiCo](#) as sector lead partners. [JDE Peet's](#), [The Wendy's Company](#) and [Yum! Brands](#) are supporting partners. Learn more at [NextGenConsortium.com](#). A key factor for this collaboration is the pre-competitive approach that is meant to work to find successful solutions across brands.

The NextGen Consortium takes a multi-pronged approach to addressing single-use foodservice packaging waste (including fiber and polypropylene cups) holistically:

1. Strengthening materials recovery and recycling infrastructure to recapture and recycle more cups after use;
2. Exploring material science innovations that enhance the recyclability, recoverability and/or compostability of paper cup materials and;
3. Advancing reusable packaging systems that keep durable cups in service for multiple uses.

The comments below outline the NextGen Consortium's strategy to advance fiber cup recycling and recovery in Oregon.

## About Paper Cups

The typical paper beverage cup (i.e., to go coffee cup or soda cup/beverage vessel) is roughly composed of 95 percent paper while the remainder of the cup is made up of a thin conventional plastic coating<sup>i</sup>. The paper in most cups is made from long-strand, cellulose fibers that are valuable in the recycling system as they enhance the strength and quality of new products made of recycled paper<sup>ii</sup>. The plastic liner coating is typically a thin polyethylene barrier – on the inside for hot cups and on both sides for cold cups. While the PE-liner has historically been cited as an impediment to widespread recyclability, it is increasingly not a challenge in recycling paper cups to recover their high-quality fiber since it can be quickly separated from the fiber's strands by paper mills in their pulping process, as illustrated below. Currently, more than 40 mills in the United States accept and process fiber cups when sorted into Residential Mixed Paper (RMP) or Cartons bales at the MRF (Materials Recovery Facility)<sup>iii</sup>.

To learn more about paper cups and the value they can add to the recycling system when captured, please review NextGen's latest report on paper cup recycling: [Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the U.S.](#) This report demonstrates how the recovery of paper cups increases when each stakeholder in the value chain plays a role, including:

- **Mills** to conduct recycling tests on paper cups to determine how much of the fiber can be captured
- **MRFs** to conduct material flow studies to determine where best to site interventions (equipment) for cup sortation
- **Communities** to engage with MRFs and mills to evaluate feasibility of adding cups to accepted recyclables lists
- **Consumers** to bring their own reusable cups when they can and to check local recyclability options and guidance when using paper cups
- **Brands** to source recycled paper content when procuring their cups and other packaging, among other activities<sup>iv</sup>.

### Paper Cup Recycling Progress to Date

Since NextGen's inception in 2018, we have been working to increase the number of cities, material recovery facilities (MRFs), and paper mills that accept, sort and process paper cups into specific paper grade bales. Through these efforts, we have actively engaged with dozens of subject matter experts and stakeholders across the recycling value chain (MRFs, mills, recycling labs, consumers, communities, etc.) and can offer the following perspectives on cup recycling efforts and opportunities:

- **The paper in fiber cups is high quality, strong and desirable.** From our work with paper mills, and in the paper industry’s public statements, we know that the fiber in cups is high quality and can help offset declining feedstock volumes of other paper types such as newsprint, magazines, high-grade office paper and paper catalogs<sup>v</sup>.
- **A growing number of paper mills can successfully recycle paper cups.** According to the [Foodservice Packaging Institute](#) (FPI), as of March 2024, there are more than 40 mills that accept cups in bales of mixed paper or aseptic and gable top cartons in North America<sup>vi</sup>. The mills that accept cups in mixed paper represent more than 75% of mixed paper demand<sup>vii</sup>. These mills can separate the polyethylene liner in the initial pulping process so that the valuable fiber can be captured at high rates and reprocessed. As of 2024, a large paper mill in the State of Washington now publicly accepts fiber cups with mixed paper grades. This is the first mill to formally accept cups on the West Coast and signals critical growth in the qualified and responsible end markets for cups in North America. Several large mill companies such as [Sonoco](#) and [Georgia Pacific](#) have conducted cup trials in recent years to demonstrate their ability to effectively recycle the cups.
- **Recycled paper cups have a high fiber yield.** NextGen’s own work confirms these findings, supported by results from its test at [Western Michigan University](#)’s paper pilot plant, where a PE-lined paper cup passed the test, demonstrating a fiber yield of 89 percent (well above the 80 percent benchmark needed to pass that portion of the test)<sup>viii</sup>. To see the full report, reference our appendix and page 22 and 23 of the NextGen Report to learn more<sup>ix</sup>.
- **Cups can be effectively sorted by MRFs.** NextGen has partnered with a number of MRFs across the United States to conduct flow studies to better understand how cups flow through a MRF environment. Based on this work, we know that cups can be diverted to mixed paper or polycoated paper bales through technology (e.g. optical sorters, robotic sorters, etc.) or manual sorting efforts. In Dallas, Texas, NextGen, the [Foodservice Packaging Institute](#), and the [Carton Council](#) collaborated on a grant to install robotic equipment at the local MRF ([FCC Environmental Services](#)) to create a cup and carton bale with an end market customer purchasing the bales<sup>x</sup>. As a result, Dallas promotes the recycling of paper cups to its residents.
- **A growing number of US cities and counties are adding cups to their lists of acceptable recycling items.** Several major US cities including Atlanta, Chicago, Detroit, Seattle, San Francisco, Denver, New York, Louisville, and Washington, DC among others, accept cups in their recycling stream<sup>xi</sup>. The list

of cities will continue to grow as they see more and more MRFs and mills accepting, collecting and effectively reprocessing cups. As an example, in February 2022, [Rumpke](#), one of the nation’s largest privately-owned recycling firms announced it would begin accepting fiber cups at its MRFs, as well as in its curbside and drop box programs across Indiana, Kentucky, and Ohio<sup>xii</sup>.

- **Fiber cups are a relatively small percentage of waste and recycling streams in the United States.** In 2022, NextGen supported a Residential Mixed Paper bale composition study, executed by [Resource Recycling Systems](#) (RRS), of three domestic MRFs that process materials from communities that accept paper cups<sup>xiii</sup>. These composition studies found that paper cups represented less than 0.25 percent of the total bale by weight on average<sup>xiv</sup>. According to a 2016-2017 waste characterization study in Oregon, “other polycoated paper”—which includes cups along with other formats, including foodservice packaging and frozen food boxes— represented 1.08% of the total waste stream<sup>xv</sup>.
- **Contamination is generally not an issue.** While some stakeholders have voiced concerns about fiber cups introducing contamination such as liquids and food into MRFs and mills, our discussions and tests with dozens of stakeholders, including domestic MRFs and mills, indicate that contamination is not a significant challenge. Liquids typically drain from cups along the journey from consumer to MRF, and while some consumers might put waste into a cup (e.g. plastic wrappers), this does not cause an issue for reprocessing at the mills. Food and liquid residue contamination was also addressed in a recent report on cup recycling by FPI<sup>xvi</sup>.
- **While we work to include cups in recycling systems across the country, NextGen is also working to identify innovative materials that can improve cup recyclability and compostability.** NextGen continues to source and test alternative cup coatings to the polyethylene (PE) liner to help improve the material recyclability, recoverability, and potential composability of cups. NextGen has tested over 20 emerging technologies and learned that replacing the PE liner requires rigorous testing and must consider commercial scalability while meeting brand performance and FDA (Food and Drug Administration) food contact standards. The benefits of new cup coatings include increased fiber yield, as demonstrated through NextGen-led testing, along with compostability for some coating types. Those innovations are critical as they improve end-of-life opportunities for paper cups based on available regional recycling or composting infrastructure. Many of the new coatings being evaluated are also bio-based (made from renewable materials) which will further help reduce the environmental impact of single use cups.

## NextGen Progress in Testing Reuse Systems

In addition to working on material innovation and infrastructure improvements, NextGen is also testing out the feasibility of reuseable cup systems at scale.

- **Reuse systems require testing for scaled roll out:** NextGen has been experimenting with cup reuse since the NextGen Cup Challenge in 2018<sup>xvii</sup>. In 2020, the Consortium conducted a series of reusable cup trials in California. Findings from those trials informed our report on the state of reusable cup systems, showcasing that there is high consumer interest in reuse solutions that are convenient, accessible, hygienic, and safe<sup>xviii</sup>. While we have seen great progress and innovation since then for reusable cups in closed environments (i.e. stadiums, movie theaters, arenas), much more testing and experimentation will be required to assess the effectiveness and environmental benefit of reuse in open, to-go system environments (i.e., retail coffee shops, restaurants, and coffee on the go). To develop a baseline for open reusable cup systems, NextGen plans in 2024 to test a multi-brand reusable cup program in a mid-sized northern California city, identifying what needs to be true for reuse systems to be optimized for scale, including a customer behavioral shift.

## Current State of Fiber Cup Recycling in Oregon

Oregon's paper cup recycling and access rates are low. We found in our research that the main reason for low rates of paper cup acceptance is that much of the paper collected in the Oregon mixed paper recycling stream is being exported overseas. Mills in those overseas regions have historically not wanted fiber cups in their mixed paper bales. However, national and even more international trends are showing promise for cups, both in mixed paper and other bales such as cartons.

According to FPI, more than 40 mills accept paper cups in mixed paper, representing 75% of North American mixed paper demand. Furthermore, major West Coast cities nearby now accept paper cups, including Seattle<sup>xix</sup>. To increase access to cup recycling in Oregon, the full value chain needs to be connected through extensive coordination, but it is achievable with commitment from key value chain stakeholders, including MRFs, communities and end markets.





In addition to helping to advance paper cup recycling infrastructure, the NextGen Consortium is also working to reduce cup waste through alternative pathways, including innovating new cup liners that improve fiber yield in the recycling process and that are compostable, as well as scaling reusable cup systems. These innovations, however, are still not widely distributed and optimized today because:

### **Optimized Reusable Foodservice Packaging Systems Offer Long-Term**

**Opportunity but Much More Testing Is Needed:** While reusable foodware has the potential to save billions of single-use items from landfill, it introduces tradeoffs that need to be mitigated and further examined. Material selection, washing infrastructure, reverse logistics, and customer behavior all need to be transformed for successful scaling of reuse systems<sup>xx</sup>. The ideal reuse operation for durables would leverage shared infrastructure across food service providers for collection, distribution, and cleaning so that efficiency is increased, and economies of scale can reduce system costs. Eventual end-of-life recovery of reusable packaging that is taken out of service due to damage must also be considered, along with standardized definitions and data tracking mechanisms of key metrics like return rates and container reuse cycles<sup>xxi</sup>. NextGen's 2024 multi-brand reusable cup project in a mid-sized northern California city will provide in-market data to substantiate material, washing, and customer learnings that will help to accelerate future scaled reuse developments.

## **Recommendations**

The NextGen Consortium is working across multiple channels to divert cups from landfill and keep them in circulation through well-informed policy. The current Oregon USCL list draft currently excludes poly-coated fiber cups that may encourage a shift towards reusable cup systems or single-use compostable cups as alternatives. Our extensive research shows that there is no current silver bullet solution to fully addressing cup waste challenges, especially as alternatives (i.e., new coatings and reusable cup systems) require additional testing and scaling to ensure packaging is properly recovered and does not end up in a landfill. That is why we think it is imperative that fiber cups stay in the collection system as new viable solutions develop in parallel. We believe that fiber cup recycling will complement those avenues as the alternative models mature, maximizing waste reduction.

**To onramp fiber cups onto the USCL list, we want to expedite, supplement or partner with CAA (Circular Action Alliance) to research the effects of adding**



**fiber cups to the local recycling value chain.** CAA (Circular Action Alliance) outlined three ways to understand the landscape of fiber cups in the state including:

- A limited period trial in a specific region for fiber cup collection
- A study to explore the proportion of polycoated paperboard currently in mixed paper bales and study the implications of an increase as well in Grade 52 carton bales.
- A study to assess the re-pulpability yield of mixed paper trials<sup>xxii</sup>

Since the beginning of the NextGen Consortium, we have been working with experts to test and scale similar trials including paper yield studies and mixed paper bale characterization studies. We welcome future collaboration and sharing of our learnings captured to date.

## Envisioning a Path Forward for Fiber Cups

The Center for the Circular Economy recommends the inclusion of polycoated fiber cups on the state's USCL. We would be happy to speak with OR DEQ (Department of Environmental Quality) or CAA to answer any questions you might have about our work advancing the circularity of this widespread packaging category.

Sincerely,

Kate Daly  
Managing Director  
The Center for the Circular Economy at Closed Loop Partners  
Email: [kate@closedlooppartners.com](mailto:kate@closedlooppartners.com)

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<sup>i</sup>Closed Loop Partners, [Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the US](#) (2023)

<sup>ii</sup>Moore & Associates and FPI, [White Paper: The State of Paper Cup Recycling](#) (2022)

<sup>iii</sup> Foodservice Packaging Institute, [End Markets for Paper Cups](#) (2024)

<sup>iv</sup> Closed Loop Partners, [Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the US](#) (2023)

<sup>v</sup> Resource Recycling, [Mills Re-commit to Buying Recycled Paper Cups](#) (2021)

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- <sup>vi</sup> Foodservice Packaging Institute, [End Markets for Post-Consumer Paper Cups](#) (2024)
- <sup>vii</sup> Waste Today, [Paper mills commit to increase recycling of paper cups](#) (2021)
- <sup>viii</sup> Western Michigan University [Pilot Paper Pilot](#) (2024)
- <sup>ix</sup> Closed Loop Partners, [Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the US](#) (2023)
- <sup>x</sup> Waste 360, [New Technology Enables Paper Cup Recycling and Improves Food and Beverage Carton Recycling in Dallas](#) (2023)
- <sup>xi</sup> City of Atlanta, Georgia, [Atlanta Expands Recycling Program to Include Paper Cups with New Partnership Ten municipalities, including 350,000 area residents, can now recycle paper cups through community curbside recycling program](#) (2021)
- Resource Recycling, [Chicago begins curbside collection of paper cups](#) (2023)
- Recycling Today, [Detroit residents can recycle paper cups, food and beverage containers](#) (2021)
- Foodservice Packaging Institute, [Paper Cups Can Be Recycled](#) (2024)
- <sup>xii</sup> Rumpke, [Rumpke Expands Acceptable Recycling Items List](#) (2022)
- <sup>xiii</sup> Closed Loop Partners, [Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the U.S.](#) (2023)
- <sup>xiv</sup> Closed Loop Partners, [Closing the Loop on Cups: Collective Action to Advance the Recovery of Paper Cups in the U.S.](#) (2023)
- <sup>xv</sup> Oregon Department of Environmental Quality, [Oregon Solid Waste Characterization and Composition Study](#) (2023)
- <sup>xvi</sup> Foodservice Packaging Institute, [Food Residue Study 2022](#) (2022)
- <sup>xvii</sup> Bloomberg, [Don't Toss That Cup: McDonald's and Starbucks Are Developing Reusables](#) (2020)
- <sup>xviii</sup> Closed Loop Partners, [Bringing Reusable Packaging Systems to Life: Lessons Learned from Scaling Reusable Cups](#) (2024)
- <sup>xix</sup> Paper Age, [New White Paper Examines the State of Paper Cup Recycling](#) (2022)
- <sup>xx</sup> Closed Loop Partners, [Unpacking Customer Perspectives on Reusable Packaging](#) (2024)
- <sup>xxi</sup> Closed Loop Partners, [When Reusable Cups Reach End-of-life: 5 Tips To Ensure They Don't Go To Waste](#) (2023)
- <sup>xxii</sup> Circular Action Alliance, [Oregon Program Plan](#) (2024)



**SBS-E CERTIFICATION**  
**PERFORMED AT WESTERN MICHIGAN UNIVERSITY**

Repulpability & Recyclability

Repulping and Recycling Treated SBS Fiberboard  
With Fiber Based Packaging

Submitting Company: Closed Loop Partners

Test Sample Name: Standard PE Cups

Control Sample Name: WMU SBS Control

Test Dates: 1/23/2020

Date Report Completed: 1/30/2020

# WESTERN MICHIGAN UNIVERSITY



## REPORT RESULTS: REPULPABILITY PROCESS (PART 1)

Trial: Closed Loop Partners

Date Run: 1/23/2020

Sample: Standard PE Cups

	Set #1:	Set #2:	Set #3: (if required)
Is sample representative of the material as a whole? (Y/N)	<u>Y</u>	<u>Y</u>	<u>    </u>
<b>STARTING SAMPLE</b>			
Moisture Content	<u>5.2</u> %	<u>5.2</u> %	<u>    </u> %
Temperature Range	<u>130</u> °F	<u>130</u> °F	<u>    </u> °F
Amount of Fiber in Charge	<u>25.11</u> g	<u>25.31</u> g	<u>    </u> g
Temp & pH Maintained? (Y/N)	<u>Y</u>	<u>Y</u>	<u>    </u>
Hot Slurry Charged to Flat Screen, as Instructed? (Y/N)	<u>Y</u>	<u>Y</u>	<u>    </u>
<b>FINISHED SAMPLE: Oven dry mass</b>			
Amount of Fiber Rejects	<u>2.444</u> g	<u>2.228</u> g	<u>    </u> g
Amount of Fiber Accepts	<u>18.76</u> g	<u>19.08</u> g	<u>    </u> g
Yield of Sample (% Accepts)	<u>88.5</u> %	<u>89.5</u> %	<u>    </u> %
Observe and note deposition on vessel walls, screens, moving parts, etc.			
Deposition Observed? (Y/N) <span style="float: right;">If yes, detail below.</span>	<u>N</u>	<u>N</u>	<u>    </u>

SUMMARY	Operational Impact: (Pass/Fail)	<u>Pass</u>	<u>Pass</u>	<u>    </u>
	Yield: (Pass/Fail)	<u>Pass</u>	<u>Pass</u>	<u>    </u>
	To pass % accepts must be no less than 80%			

Note, details:

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# WESTERN MICHIGAN UNIVERSITY



## REPORT RESULTS: RECYCLABILITY PROCESS (PART 2)

Trial: Standard PE Cups

Date Run: 1/23/2020

Sample: C-1 T-3

	Untreated Control	Recyclability Test Sample
Is sample representative of the lot as a whole? (Y/N)	<u>Y</u>	<u>Y</u>
Moisture Content	<u>9.4</u> %	<u>8.77</u> %
Pulping		
At 6% Consistency? (Y/N)	<u>Y</u>	<u>Y</u>
15/85% Charged by weight? (Y/N)		<u>Y</u>
If greater than 15/85%, specify ratio here:		_____ %
Temp & pH maintained, per App. B, #3? (Y/N)	<u>Y</u>	<u>Y</u>
Number of batches required?	<u>1</u>	<u>1</u>
0.0625 Screens		
2% (note if different) Consistency, Temp & pH, per App.B, #5? (Y/N)	<u>Y</u>	<u>Y</u>
10% Volumetric Reject Rate? (Y/N)	<u>Y</u>	<u>Y</u>
0.010 Basket:		
Temp, pH, & Reject Rate, per App B, #6? (Y/N)	<u>Y</u>	<u>Y</u>
Reverse Cleaners:		
Temp & Pressure Differential, per App B, #7? (Y/N)	<u>Y</u>	<u>Y</u>
Determine Volumetric Reject Rate	<u>12.6</u> gpm	<u>11.4</u> gpm
Was it necessary to stop the test to clean any apparatus at any time during this procedure? (Y/N)	<u>N</u>	<u>N</u>
Deposition observed? (Y/N)                      If yes, detail below.	<u>N</u>	<u>N</u>
Were the required Temp & pH maintained throughout the entire protocol? (Y/N)	<u>Y</u>	<u>Y</u>

Note, details:

C-1 100% WMU supplied SBS control. T-3 85% control 15% test sample.

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# WESTERN MICHIGAN UNIVERSITY



## TEST REPORT: HANDSHEET FORMATION AND PRODUCT PERFORMANCE

Trial: Standard PE Cups Date Run: 1/23/2020  
 Sample: C-1 T-3

### Product Performance

#### 1. Brightness T-452

Control Handsheet #	Test Data (%)
C-1-9	75.28
C-1-10	75.97
C-1-19	74.67
C-1-20	74.3
C-1-26	75.61

Recyclability Test Sample Handsheet #	Test Data (%)
T-3-1	75.52
T-3-5	74.92
T-3-9	75.56
T-3-10	75.71
T-3-15	75.7

$$\text{Average}_C = \underline{75.166} \%$$

$$\text{Average}_C - 2.0 = \underline{73.166} \%$$

$$\text{Average}_R = \underline{75.482} \%$$

Is  $\text{Average}_R \geq \text{Average}_C - 2.0$ ? (Y/N) Y Initials: CW

#### 2. Color (L\*, a\*, b\*) T-527

Control Handsheet #	Test Data (value)		
	L*	a*	b*
C-1-9	93.09	0.06	6.57
C-1-10	93.52	-0.4	7.34
C-1-19	93.18	0.83	5.32
C-1-20	92.95	0.1	7.21
C-1-26	93.32	0.77	5.32

Recyclability Test Sample Handsheet #	Test Data (value)		
	L*	a*	b*
T-3-1	93.38	0.79	5.37
T-3-5	93.35	0.48	6.16
T-3-9	93.56	0.26	6.59
T-3-10	93.6	0.64	5.79
T-3-15	93.52	0.95	5.36

$$\text{Average}_C \text{ of } L^* = \underline{93.212}$$

$$\text{Average}_C \text{ of } a^* = \underline{0.272}$$

$$\text{Average}_C \text{ of } b^* = \underline{6.352}$$

$$\text{Average}_R \text{ of } L^* = \underline{93.482}$$

$$\text{Average}_R \text{ of } a^* = \underline{0.624}$$

$$\text{Average}_R \text{ of } b^* = \underline{5.854}$$

Is  $\text{Average}_R$  of  $L^*$  within  $\text{Average}_C$  of  $L^* \pm 2.0$  (Y/N) Y  
 Is  $\text{Average}_R$  of  $a^*$  within  $\text{Average}_C$  of  $a^* \pm 0.5$  (Y/N) Y  
 Is  $\text{Average}_R$  of  $b^* \leq \text{Average}_C$  of  $b^*$  (Y/N) Y Initials: CW



# WESTERN MICHIGAN UNIVERSITY



## TEST REPORT: PRODUCT PERFORMANCE (CONTINUED)

Trial: Standard PE Cups

Date Run: 1/23/2020

Sample: C-1 T-3

### 3. Tensile Strength T-494

Control					Recyclability Test Sample				
Handsheet #	Handsheet Weight (g)	Basis Wt. (g/meter <sup>2</sup> )	Tensile (kN/m)	Indexed Value	Handsheet #	Handsheet Weight (g)	Basis Wt. (g/meter <sup>2</sup> )	Tensile (kN/m)	Indexed Value
C-1-3	3.02	152.48	4.033	26.45	T-3-3	3.06	154.5	3.887	25.16
C-1-8	2.89	145.92	4.526	31.02	T-3-8	3.06	154.5	4.322	27.97
C-1-13	2.93	147.94	4.265	28.83	T-3-13	3.02	152.48	4.221	27.68
C-1-18	3.05	153.99	4.184	27.17	T-3-18	3	151.47	4.371	28.86
C-1-23	2.77	139.86	3.936	28.14	T-3-23	2.98	150.46	4.302	28.59

Average<sub>C</sub> = 148.04      4.189      28.32  
 Indexed Average<sub>C</sub> - 10% = 25.49

Average<sub>R</sub> = 152.68      4.221      27.65

Is Indexed Average<sub>R</sub> ≥ Indexed Average<sub>C</sub> - 10%? (Y/N)

Y

Initials: CW

Notes: \_\_\_\_\_

### 4. Burst Strength T-403

Control					Recyclability Test Sample				
Handsheet #	Handsheet Weight (g)	Basis Wt. (lbs/1000ft <sup>2</sup> )	Burst Value (psi)	Indexed Value	Handsheet #	Handsheet Weight (g)	Basis Wt. (lbs/1000ft <sup>2</sup> )	Burst Value (psi)	Indexed Value
C-1-2	2.88	29.756	59	1.983	T-3-2	3.02	31.203	59.5	1.907
C-1-7	2.9	29.963	62.5	2.086	T-3-7	3.03	31.306	58.75	1.877
C-1-12	2.96	30.583	64.5	2.109	T-3-12	2.99	30.893	59.5	1.926
C-1-17	2.99	30.893	61.75	1.999	T-3-17	2.98	30.789	57.75	1.876
C-1-22	2.93	30.273	61	2.015	T-3-22	3.01	31.099	57.25	1.841

Average<sub>C</sub> = 30.293      61.75      2.038  
 Indexed Average<sub>C</sub> - 10% = 1.834

Average<sub>R</sub> = 31.058      58.55      1.885

Is Indexed Average<sub>R</sub> ≥ Indexed Average<sub>C</sub> - 10%? (Y/N)

Y

Initials: CW

Notes: \_\_\_\_\_

# WESTERN MICHIGAN UNIVERSITY



## TEST REPORT: PRODUCT PERFORMANCE (CONTINUED)

Trial: Standard PE Cups

Date Run: 1/23/2020

Sample: C-1 T-3

Product Appearance

### STICKIES/SPOT COUNT TEST VALUES AVERAGE COUNT FOR THREE SHEETS

Material	Trial #1	Trial #2	Trial #3	Average
Control	0	0	0	0.0
Test Sample	0	0	0	0.0

Is the spot count  $\leq 15$ , or, no more than 30% greater than the control? (Y/N)

Y  
Initials: CW

# WESTERN MICHIGAN UNIVERSITY



## REPORT RESULTS: RECYCLABILITY PROCESS (PART 2)

Trial: Standard PE Cups

Date Run: 1/23/2020

Sample: C-2 T-4

	Untreated Control	Recyclability Test Sample
Is sample representative of the lot as a whole? (Y/N)	<u>Y</u>	<u>Y</u>
Moisture Content	<u>9.4</u> %	<u>8.77</u> %
Pulping		
At 6% Consistency? (Y/N)	<u>Y</u>	<u>Y</u>
15/85% Charged by weight? (Y/N)		<u>Y</u>
If greater than 15/85%, specify ratio here:		_____ %
Temp & pH maintained, per App. B, #3? (Y/N)	<u>Y</u>	<u>Y</u>
Number of batches required?	<u>1</u>	<u>1</u>
0.0625 Screens		
2% (note if different) Consistency, Temp & pH, per App.B, #5? (Y/N)	<u>Y</u>	<u>Y</u>
10% Volumetric Reject Rate? (Y/N)	<u>Y</u>	<u>Y</u>
0.010 Basket:		
Temp, pH, & Reject Rate, per App B, #6? (Y/N)	<u>Y</u>	<u>Y</u>
Reverse Cleaners:		
Temp & Pressure Differential, per App B, #7? (Y/N)	<u>Y</u>	<u>Y</u>
Determine Volumetric Reject Rate	<u>11.7</u> gpm	<u>11.7</u> gpm
Was it necessary to stop the test to clean any apparatus at any time during this procedure? (Y/N)	<u>N</u>	<u>N</u>
Deposition observed? (Y/N)                      If yes, detail below.	<u>N</u>	<u>N</u>
Were the required Temp & pH maintained throughout the entire protocol? (Y/N)	<u>Y</u>	<u>Y</u>

Note, details:

C-2 100% WMU supplied SBS control. T-4 85% control 15% test sample.

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# WESTERN MICHIGAN UNIVERSITY



## TEST REPORT: HANDSHEET FORMATION AND PRODUCT PERFORMANCE

Trial: Standard PE Cups Date Run: 1/23/2020  
 Sample: C-2 T-4

### Product Performance

#### 1. Brightness T-452

Control Handsheet #	Test Data (%)
C-2-1	64.89
C-2-3	70.97
C-2-8	72.56
C-2-10	64.8
C-2-11	70.6

Recyclability Test Sample Handsheet #	Test Data (%)
T-4-11	70.52
T-4-13	70.87
T-4-15	70.33
T-4-18	69.34
T-4-23	69.93

Average<sub>C</sub> = 68.764 %  
 Average<sub>C</sub> - 2.0 = 66.764 %

Average<sub>R</sub> = 70.198 %

Is Average<sub>R</sub> ≥ Average<sub>C</sub> - 2.0? (Y/N) Y Initials: CW

#### 2. Color (L\*, a\*, b\*) T-527

Control Handsheet #	Test Data (value)		
	L*	a*	b*
C-2-1	91.25	0.02	12.1
C-2-3	92.31	0.27	8.06
C-2-8	92.6	0.88	6.05
C-2-10	91.09	0.65	10.93
C-2-11	92.19	0.27	8.28

Recyclability Test Sample Handsheet #	Test Data (value)		
	L*	a*	b*
T-4-11	92.59	0.74	8.4
T-4-13	92.6	0.31	9.03
T-4-15	92.37	0.31	9.15
T-4-18	92.31	0.62	9.12
T-4-23	92.31	0.53	8.94

Average<sub>C</sub> of L\* = 91.888  
 Average<sub>C</sub> of a\* = 0.418  
 Average<sub>C</sub> of b\* = 9.084

Average<sub>R</sub> of L\* = 92.436  
 Average<sub>R</sub> of a\* = 0.502  
 Average<sub>R</sub> of b\* = 8.928

Is Average<sub>R</sub> of L\* within Average<sub>C</sub> of L\* +/- 2.0 (Y/N) Y  
 Is Average<sub>R</sub> of a\* within Average<sub>C</sub> of a\* +/- 0.5 (Y/N) Y  
 Is Average<sub>R</sub> of b\* ≤ Average<sub>C</sub> of b\* (Y/N) Y Initials: CW

# WESTERN MICHIGAN UNIVERSITY



## TEST REPORT: PRODUCT PERFORMANCE (CONTINUED)

Trial: Standard PE Cups

Date Run: 1/23/2020

Sample: C-2 T-4

### 3. Tensile Strength T-494

Control					Recyclability Test Sample				
Handsheet #	Handsheet Weight (g)	Basis Wt. (g/meter <sup>2</sup> )	Tensile (kN/m)	Indexed Value	Handsheet #	Handsheet Weight (g)	Basis Wt. (g/meter <sup>2</sup> )	Tensile (kN/m)	Indexed Value
C-2-4	3.17	160.05	4.017	25.1	T-4-5	3.08	155.51	4.518	29.05
C-2-9	3.21	162.07	4.624	28.53	T-4-10	3.05	153.99	4.436	28.81
C-2-14	3.19	161.06	4.404	27.34	T-4-15	2.97	149.96	4.204	28.04
C-2-19	3.05	153.99	4.208	27.33	T-4-20	3	151.47	4.074	26.9
C-2-24	3.11	157.02	4.379	27.89	T-4-25	2.95	148.95	3.867	25.96

Average<sub>C</sub> = 158.84      4.326      27.24

Average<sub>R</sub> = 151.97      4.22      27.75

Indexed Average<sub>C</sub> - 10% = 24.51

Is Indexed Average<sub>R</sub> ≥ Indexed Average<sub>C</sub> - 10%? (Y/N)

Y

Initials: CW

Notes: \_\_\_\_\_

### 4. Burst Strength T-403

Control					Recyclability Test Sample				
Handsheet #	Handsheet Weight (g)	Basis Wt. (lbs/1000ft <sup>2</sup> )	Burst Value (psi)	Indexed Value	Handsheet #	Handsheet Weight (g)	Basis Wt. (lbs/1000ft <sup>2</sup> )	Burst Value (psi)	Indexed Value
C-2-2	3.27	33.786	65.25	1.931	T-4-2	3.02	31.203	59.75	1.915
C-2-7	3.1	32.029	64.75	2.022	T-4-7	2.99	30.893	59.5	1.926
C-2-12	3.27	33.786	70	2.072	T-4-12	3	30.996	61.25	1.976
C-2-17	3.23	33.372	68	2.038	T-4-17	2.88	29.756	60.25	2.025
C-2-22	3.29	33.992	74.5	2.192	T-4-22	2.89	29.859	64.75	2.168

Average<sub>C</sub> = 33.393      68.5      2.051

Average<sub>R</sub> = 30.541      61.1      2.002

Indexed Average<sub>C</sub> - 10% = 1.846

Is Indexed Average<sub>R</sub> ≥ Indexed Average<sub>C</sub> - 10%? (Y/N)

Y

Initials: CW

Notes: \_\_\_\_\_

# WESTERN MICHIGAN UNIVERSITY



## TEST REPORT: PRODUCT PERFORMANCE (CONTINUED)

Trial: Standard PE Cups

Date Run: 1/23/2020

Sample: C-2 T-4

Product Appearance

### STICKIES/SPOT COUNT TEST VALUES AVERAGE COUNT FOR THREE SHEETS

Material	Trial #1	Trial #2	Trial #3	Average
Control	0	0	0	0.0
Test Sample	0	3	0	1.0

Is the spot count  $\leq 15$ , or, no more than 30% greater than the control? (Y/N)

Y  
Initials: CW

# WESTERN MICHIGAN UNIVERSITY



## PASS/FAIL SUMMARY

	Trial #1	Trial #2	Trial #3
1. For both treated and untreated were the substrate, samples, specimens appropriate? (Y/N)	<u>Y</u>	<u>Y</u>	<u>        </u>
2. Fibre Yield $\geq$ 80%? (Y/N)	<u>Y</u>	<u>Y</u>	<u>        </u>
3. Operational impact acceptable? (Y/N)	<u>Y</u>	<u>Y</u>	<u>        </u>
4. Product performance acceptable? (Y/N)	<u>Y</u>	<u>Y</u>	<u>        </u>
5. Product appearance/spot count acceptable? (Y/N)	<u>Y</u>	<u>Y</u>	<u>        </u>
Overall Pass / Fail - by trial: (Pass/Fail)	<u>Pass</u>	<u>Pass</u>	<u>        </u>

MATERIAL AS SUBMITTED "PASSES" VOLUNTARY STANDARD.

Pass or Fail: Pass

Signed: \_\_\_\_\_



Print name: Shawn Mortimore



# WESTERN MICHIGAN UNIVERSITY




TEST REPORT (CONTINUED)

**Affirmation:**

**The facilities and equipment in this lab are suitable for testing the tendered product within the instructions and tolerances of the current voluntary standard.**

Personnel running and reporting these tests are competent and trained to accurately do so. They have followed the letter and spirit of the subject voluntary standard.

Objective and subjective information, as contained herein, is accurate.

Signed:  Lab Manager  
Shawn Mortimore Print Name  
Director Pilot Plants Title  
269-276-3532 Phone  
1/30/2020 Date

WMU Pilot Plants  
4651 Campus Dr.  
Kalamazoo, MI 49008



## **Center for the Circular Economy**

Closed Loop Partners  
888 7th Ave, New York, NY 10106

May 30, 2024

SB 582 Plastic Pollution and Recycling Modernization Act  
Department of Environmental Quality

To: Whom it May Concern

## **Polypropylene Cup Recycling in the State of Oregon**

### **In Response to Circular Action Alliance's Program Plan for Oregon's SB-582 Plastic Pollution and Recycling Modernization Act**

#### **Introduction**

This letter is a response to the release of Circular Action Alliance (CAA)'s program plan proposal (Version 1) for Oregon's SB-582 (Plastic Pollution and Recycling Modernization Act) submitted on March 31, 2024. We believe single-use polypropylene (PP) cups should be included in the Universal Statewide Collection Lists (USCL) because of their growing recoverability, recyclability and market demand. For this reason, we support CAA's Material Strategy, Section IV. "Proposal to Trial Commingled Collection of Non-USCL Materials" Single-Use Cups plan (page 68) to test and onboard this packaging type to the USCL. Below, we outline the reasons for why we support the inclusion of PP cups on the USCL by providing data-backed research and showcasing areas for collaboration.

#### **Who We Are**

[The Center for the Circular Economy](#) ('the Center') is the innovation arm of [Closed Loop Partners](#), a leading circular economy-focused investment firm in the U.S. The Center executes research and analytics, unites organizations to tackle complex material challenges and implements systemic change that advances the circular economy. The Center's expertise spans circularity across the full lifecycle of materials, connecting upstream innovation to downstream recovery infrastructure and end markets.



The [NextGen Consortium](#) is a multi-year consortium that addresses single-use foodservice packaging waste by advancing the design, commercialization and recovery of food service packaging alternatives. [Starbucks](#) and [McDonald's](#) are the founding partners of the Consortium, with [The Coca-Cola Company](#) and [PepsiCo](#) as sector lead partners. [JDE Peet's](#), [The Wendy's Company](#) and [Yum! Brands](#) are supporting partners.

The NextGen Consortium takes a multi-pronged approach to addressing single-use foodservice packaging waste (including fiber and polypropylene cups) holistically:

1. Strengthening materials recovery and recycling infrastructure to recapture and recycle more cups after use;
2. Exploring material science innovations that enhance the recyclability, recoverability and/or compostability of paper cup materials and;
3. Advancing reusable packaging systems that keep cups in service for multiple uses.

Polypropylene (PP), also referred to as #5 plastic, is a commonly used plastic in packaging, including beverage and yogurt cups. As outlined below, there has been a lot of activity in the last several years to increase recycling of and improve outcomes for polypropylene packaging, including cups.

## State of PP Cup Recycling

Over the last several years, the NextGen Consortium has been working to improve recycling opportunities for PP packaging, including cups. In addition to our Steering-level membership in The Recycling Partnerships' [Polypropylene Recycling Coalition](#), we have engaged several subject matter experts across the recycling value chain and can offer the following perspectives:

- **A growing number of US cities and counties are adding PP packaging, including PP cups, to their lists of acceptable recycling items.** According to [The Recycling Partnership](#) (TRP), as of 2024, 63 percent of the US population has recycling access for PP tubs and other containers<sup>i</sup>. As of June 2023, TRP's [Polypropylene Recycling Coalition](#) improved PP recycling for nearly 11% of U.S. households equaling to 34.2 million people resulting in an estimated 42 million new pounds of valuable PP recovered annually<sup>ii</sup>. In addition, the NextGen Consortium has been engaging with various communities to add PP cups to their guidance, adding nearly 3% recycling access gains through this engagement.

- **Clear cups and food grade content represent a significant portion of the PP bale in markets where these items are accepted.** To mechanically recycle a PP cup into another PP cup, the recovered PP needs to be of food grade quality. Most recovered PP today, however, goes into non-food grade applications in the recycling process. In the Fall of 2022, NextGen commissioned consulting firm RRS to do a bale characterization study to understand the volume of food grade and clear food grade content in PP bales, including cups. The study found on average that nearly half of the recovered PP in the bales (48%) were presumed food-grade, and more than a quarter of the bales were clear food grade PP (26%). Clear PP beverage cups represented 14% of the total bale on average. The high percentage of food-grade PP suggested there is untapped value in the PP stream. To expand on these learnings, NextGen launched a more elaborate study, in collaboration with four MRFs and [Greyparrot AI](#) systems to deeply characterize the PP stream in MRFs and gain important details on the quality and composition of PP in the U.S. **More detailed results from these studies are available upon request**<sup>iii</sup>.
- **Reclaimers that purchase PP and mixed plastic bales accept the PP cup.** According to a recent study from [RRS](#), as part of the [2020-21 Centralized Study of Availability of Recycling](#), reclaimers that represent 90 percent of known PP reclamation capacity, “recover and process all tubs, lids, cups and thermoforms of the same resin type together” and “did not report any formats as “prohibitive” in their systems when recovering PP”<sup>iv</sup>.
- **MRFs can effectively sort PP cups with other PP packaging:** In 2024, NextGen and the Foodservice Packaging Institute (FPI) commissioned a MRF flow study conducted by RRS that showed that PP cups typically sorted effectively, and often better than other commonly accepted PP container formats<sup>v</sup>.
- **There is growing demand for recycled PP and material recycling facilities (MRFs) are investing in the necessary infrastructure to help meet demand.** There has been broad interest from domestic MRFs to improve and increase capacity to collect and sort polypropylene. As of April 2024, the Polypropylene Recycling Coalition has awarded more than \$13 million in grants to 51 recycling facilities to increase capture of polypropylene packaging<sup>vi</sup>.
- **Demand for recycled plastics far outweighs supply.** According to a [report](#) from [Closed Loop Partners](#), “Demand for plastics is strong and growing, yet the supply of recycled plastics available to meet demand is stuck at 6%”<sup>vii</sup>. Initiatives, like the ones described above, are helping to address this gap.

- **Contamination has proven not to be an issue:** According to a food contamination study conducted by [Food Packaging Institute](#) (FPI) at several MRFs, packaging including PP cups had a low food contamination rate of 13%<sup>viii</sup>, a percentage lower than other formats. In conversations with several MRFs in 2024, contamination from PP cups was not cited as a concern when asked, especially compared with other commonly accepted items. With concerns about contamination around Styrofoam, Oregon passed SB543 which will ban the use of Styrofoam by 2025 which we believe will reduce the concerns around look-alikes and contaminants.

## Current State of Polypropylene Cup Recycling in Oregon

Oregon's polypropylene cup recycling access rates are low as most communities prohibit PP cups in their recycling guidance. However, polypropylene container recycling access rates are above the “widely recyclable” Federal Trade Commission (FTC) guidelines for on-label standards. Many MRFs in Oregon have the necessary equipment to sort polypropylene packaging, including containers, tubs and cups. Nearby end markets that accept polypropylene or #3-7 bales, including EFS, Merlin, and Denton plastics<sup>ix</sup>.

In Oregon, community guidance should reflect that plastic reclaimers accept PP cups and that MRFs can properly sort them. Brands are working to incorporate more recycled content into their packaging. To do this, it will be essential to increase the capture rates of PP while research is done on innovations to keep food grade packaging in the system.

## Understanding Reuseable Cup Alternatives

In addition to working on recycling access and infrastructure improvements, NextGen is also testing out the feasibility of reuseable cup systems at scale. Without recyclable cups on the USCL, reuse will play a large role in the operations of to-go restaurants, however the logistics are still being tested.

**Cup reuse systems require testing for scaled roll out:** NextGen has been experimenting with cup reuse since the NextGen Cup Challenge in 2018<sup>x</sup>. In 2020, the Consortium conducted a series of reusable cup trials in California. Findings from those trials informed our report on the state of reusable cup systems, showcasing that there is high consumer interest in reuse solutions that are convenient, accessible, hygienic and safe<sup>xi</sup>. While we have seen great progress and innovation

since then for reusable cups in closed environments (i.e. stadiums, movie theaters, arenas), there is much more testing and experimentation that will be required to assess the effectiveness and environmental benefit of reuse in open, to-go system environments (i.e., retail coffee shops, restaurants and coffee on the go). To develop a baseline for such open reusable cup systems, NextGen plans in 2024 to test a multi-brand reusable cup program on the West Coast, identifying what needs to be true for reuse systems to be optimized for scale, including a customer behavioral shift.

- **Reusable cups also need to be recyclable:** For both BYO (bring your own) and returnable packaging models for reuse, cups have limited circulation and will eventually need to be disposed of. Various stakeholders are working on making a cultural shift to BYO, however adoption rates are still too low at 1-5% in larger chains, and 5-10% in highly adapted environments – optimistically. To supplement this work, we are focusing on understanding scalable returnable systems and which materials will meet brand operational and logistical needs including being lightweight, durable, and cost-effective. Polypropylene stands out as an ideal material type for this work in contrast to alternatives -- glass, metal and other plastic types as it is lightweight, washable and durable. The ability to effectively capture and recycle more durable PP reusable cups will be essential to optimizing the lifecycle impact of the package, and a critical reason for why wide acceptance of PP cups in the state could benefit both recycling and reuse outcomes.

## Recommendations on PRO Program Plan Timeline

The NextGen Consortium is working across multiple channels to divert PP cups from landfills and keep them in circulation. **We support the program's plan to add PP cups to the USCL and we hope to expedite or supplement the testing required to do this.**

The NextGen Consortium, and our stakeholders, are actively evaluating and testing reusable and compostable alternatives. At this stage, however, neither alternative is commercially scaled. Meanwhile, there are growing markets for PP cups and those should be more actively considered in Oregon to help divert waste from landfill and strengthen recycling markets. This is why we think it's imperative that polypropylene cups are included in the collection system while alternatives, such as reusable cup systems, are evaluated.

**The NextGen Consortium wants to be a part of the solution.** To onramp PP cups onto the USCL list, we would like to support the expedition of the PRO's program



plan timeline by supplementing or partnering to research the effects of the inclusion of PP cups on the local recycling value chain. Since the beginning of the NextGen Consortium, we have been working with experts to test and scale similar trials and would welcome future collaboration and sharing of learnings.

## Envisioning a Path Forward for Polypropylene Cups

The Center for the Circular Economy recommends the inclusion of polypropylene cups on Oregon's USCL. We would be happy to speak with OR DEQ or CAA to answer any questions you might have about our work advancing the circularity of this widespread packaging category.

Sincerely,

Kate Daly  
Managing Director  
The Center for the Circular Economy at Closed Loop Partners  
Email: [Kate@closedlooppartners.com](mailto:Kate@closedlooppartners.com)

---

<sup>i</sup> The Recycling Partnership, Polypropylene [Recycling Coalition](#) (2024)

<sup>ii</sup> PP Coalition, [Polypropylene Recycling Coalition](#) (2024)

<sup>iii</sup> Closed Loop Partners, [How AI Could Change the Way We Think About Recycling](#) (2024)

<sup>iv</sup> RRS, [Reclamation of PP Cups and other PP Packaging Items](#) (2021)

<sup>v</sup> RRS, [PP MRF Flow Study Results](#) (2024)

<sup>vi</sup> Polypropylene Coalition, [Website](#) (2024)

<sup>vii</sup> Closed Loop Partners, [A Landscape Mapping of the Molecular Plastics Recycling Market](#)

<sup>viii</sup> Food Packaging Institute, [Food Residue Study](#) (2022)

<sup>ix</sup> Foodservice Packaging Institute, [End Markets Map](#) (2024)

<sup>x</sup> Bloomberg, [Don't Toss That Cup: McDonald's and Starbucks Are Developing Reusables](#) (2020)

<sup>xi</sup> Closed Loop Partners, [Bringing Reusable Packaging Systems to Life: Lessons Learned from Scaling Reusable Cups](#) (2024)



May 31, 2024

**TO:** Nicole Portley, Program Plan Lead  
Oregon Department of Environmental Quality

**FR:** Derek Sangston, Oregon Business & Industry

**RE:** Comments on Circular Action Alliance Program Plan

---

Thank you for the opportunity to comment on the Producer Responsibility Organization (PRO) program plan submitted by Circular Action Alliance (CAA). These comments are jointly submitted by Oregon Business & Industry, the Northwest Grocery Retail Association, the Manufacturing Council of Oregon, and the Oregon Retail Council.

Oregon Business & Industry (OBI) is a statewide association representing businesses from a wide variety of industries and from each of Oregon's 36 counties. In addition to being the statewide chamber of commerce, OBI is the state affiliate for the National Association of Manufacturers and the National Retail Federation. Our 1,600 member companies, more than 80% of which are small businesses, employ more than 250,000 Oregonians. Oregon's private sector businesses help drive a healthy, prosperous economy for the benefit of everyone.

At a high level, our organizations are collectively concerned that only one PRO has filed a program plan, which serves to eliminate the competitive marketplace that was envisioned by the legislature to most efficiently and effectively manage the EPR program. However, CAA's willingness to share details about its program plan, including initial cost estimates for glass, cardboard and other packaging utilized by industry is greatly appreciated.

Together we recognize the novel nature of this plan in Oregon, and will continue to be active participants in the final rulemaking process and the ultimate implementation of the Recycling Modernization Act (RMA). Below we write to raise several concerns and areas where additional clarity is needed as CAA and the Department of Environmental Quality (DEQ) work together to revise the Program Plan.

First, our organizations are concerned about the cost projections of the program. Preliminary base fees in table 16 are based on a budget ranging from \$226,000,000 to \$292,000,000, while average fee rates are listed as 15 cents/lb. to 26 cents/lb. The high budget is 29% higher than the low budget, while the high average fee rate is 73% higher than the average low fee rate. Additionally, the proposed fee structure anticipates a program budget that could be as high as \$483,000,000 by 2027. This represents a per capita cost increase of \$115.00/year for each of Oregon's 4.2 million citizens.

The proposed fee structure anticipates a program budget that increases significantly between 2025 and 2027. No explanation has been provided for how and why program fees revenue would be expected to increase over that timeframe to anticipate additional costs. The high budget increase from \$287,000,000 to \$483,000,000 represents a program budget increase of 68%. Yet, materials subject to the program would be expected to remain fairly constant in the first three years, and long term would be expected to decrease as producers continue to innovate to reduce packaging weights and volumes, as well as modulate types of materials to be more recyclable, include more post-consumer recyclable content, and

otherwise reduce fee rates and improve environmental outcomes. The plan does not suggest increasing fees per unit of material over the identified timeframe, therefore the overall budget should be flat or decrease over time.

Fee rate methodology is not provided in the PRO Plan, rather the methodology is identified as a confidential formulation. Recognizing the complexities of setting fees, we request that the regulated producer community be given the opportunity to review and provide comments on these proposed fee formula methodologies.

The current budget forecast may have been developed based off the needs assessment completed by DEQ in 2023, however there is no guiding statute that prioritizes the program budget, and the expectation that all funding needs of the local recycling communities will be met in the first three program years seems overly burdensome on those who will pay into the program. With current cost forecasts in the hundreds of millions of dollars, these costs should be spread out over a much longer time frame, particularly given the program is intended to run into the future without sunset as currently constructed. Even with a much more reasonable cost structure, these costs should not be front-loaded into the first three years of the program.

Secondly, the PRO Plan submitted by CAA addresses several parts of the program implementation from the waste management and recycling perspective. However, given the novel and complex nature of the RMA Producer requirements, it is unfair to expect producers, many of whom are small to mid-size businesses, to fully assess these impacts on their business. We strongly believe additional time is needed to allow CAA to consult with service providers, local governments, producers not represented by the PRO to provide a more in-depth consultation with a more comprehensive range of obligated producers in the RMA.

The plan as currently outlined does not provide essential plan elements for these obligated producers. The plan does not recognize that producers outside CAA founding members, which are also obligated to pay fees into the program, have a stakeholder role in the program. No producer stakeholder groups nor individual producers beyond CAA's founding members are identified in the plan or in appendix D. CAA founding members, by its own estimates represent a small minority, just 12-15 %, of obligated producers by weight, under the RMA. Therefore at least 85% of the producer community are not currently represented as stakeholders in the submitted PRO Plan.

In addition to not recognizing the stakeholder role of producers, the PRO Plan does not provide many aspects of a program plan from a producer perspective including registration, identification of applicable material lists, data collection, market share calculations, developing responsible end markets, and opportunities to modify packaging to enhance recyclability and reduce fee impacts via eco-modulation. All of which are elements of the RMA.

Producer registration is required by statute to occur by July 1, 2025, (RMA, section 60), however CAA does not clearly define the process for an obligated producer to do so, nor does the plan identify methods of notification CAA and/or DEQ will undertake to notify producers of registration and other requirements of the program. Written guidance on data collection to determine rule applicability, identifying packaging materials and service ware types by defined fee categories, determination of estimates of products sold or imported into Oregon when state specific data may not be available, and other program elements are not defined in the submitted PRO Plan, therefore there is not a roadmap to insure consistent, accurate, and complete implementation of producer reporting responsibilities to the PRO.

Finally, the timeline presented by CAA for program funding seems premature. The RMA requires obligated producers selling or importing products into Oregon after July 1, 2025, to register with PRO's (RMA, section 60). It is not feasible nor a statutory requirement for producers to track and report quantities and types of materials sold or imported into Oregon prior to July 1, 2025. There may be current producers who cease selling into Oregon prior to July 1, 2025. Likewise, new producers may begin selling into Oregon after July 1, 2025. Sales volumes and types of materials sold cannot be accurately forecasted due to the wide range of market variability. Proposed *fees* based on 2024 data are not supported by statute. Therefore, a fee structure cannot be implemented prior to having sufficient data to provide accurate and complete information for producer fee assessment.

Given the novel and complex nature of the RMA Producer requirements, we expect that education of the regulated producer community during the first reporting period, July 1, 2025-June 30, 2026, would be essential. Material volumes and types for the initial compliance period and fees could not reasonably be expected to be reported, vetted for accuracy by the PRO and OR DEQ, and invoices distributed prior to the end of calendar year 2026, with fees likely due beginning first quarter of 2027.

Respectfully,

Derek Sangston  
Policy Director and Counsel  
Oregon Business & Industry



## OREGON REFUSE & RECYCLING ASSOCIATION

May 31, 2024

Ms. Nicole Portley, Oregon DEQ  
700 NE Multnomah ST #600  
Portland, OR 97232

Via email only: [RethinkRecycling@deq.oregon.gov](mailto:RethinkRecycling@deq.oregon.gov)

RE: Comments on CAA Proposed Producer Responsibility Organization Plan

Dear Ms. Portley:

Thank you for the opportunity to offer comments on Circular Action Alliance's proposed Producer Responsibility Organization Plan.

Oregon Refuse and Recycling Association (ORRA) is the statewide trade association representing solid waste management companies in Oregon. ORRA members collect and process most of Oregon's residential and commercial refuse and recyclables, as well as operate material recovery facilities, compost facilities, and many of Oregon's municipal solid waste transfer stations and landfills.

ORRA sincerely appreciates the work that Circular Action Alliance (CAA) submitted within the proposed Producer Responsibility Organization Plan on March 31, 2024. The plan encompasses a high-level overview of how CAA would carry out their obligations as a Producer Responsibility Organization (PRO) to implement Oregon's Recycling Modernization Act (RMA).

Because Oregon initially envisioned multiple prospective PROs, CAA is now tasked with completing all of the required elements in the plan, rather than a subset that would have been divided amongst prospective PROs. This means that CAA is taking on a considerable amount of work within a condensed timeline and the plan does not have a level of detail yet that is needed to fully understand how all of the elements will come together to implement the RMA.

ORRA's comments are largely focused on identifying areas within the plan where additional clarification is needed in the next iteration of CAA's PRO Plan, and providing the perspective of solid waste industry experts who have been an integral part of designing, and now implementing the RMA.

Overall, the plan is thorough in its consideration of what it will take to meet convenience and performance standards and collection targets. In particular, ORRA appreciates CAA's descriptions of outreach to solid waste service providers to better understand existing infrastructure, and willingness to explore alternatives to filling the potential gaps; possible curbside pickup of some PRO materials, hosting events, and possible construction of new facilities where no others exist in a community.

ORRA also appreciates the plan's approach to how to collect some of the trickier PRO materials that are not easy, or a good idea, to collect at standard depots – film plastics, block white expanded polystyrene (EPS) and aerosol/pressurized containers. One significant hurdle to overcome is the challenge presented by aerosols/pressurized cannisters – while DEQ points out that there is no requirement to collect aerosols through Household Hazardous Waste (HHW) programs, ORRA has

heard a lot of trepidation from haulers and transfer station/depot operators about the safe management of those materials via on-route or unmanned depots – these materials should be managed as HHW.

CAA's attempts to address some of the as yet unknowable gaps in the system will be better identified once the Oregon Recycling System Optimization Project (ORSOP), or Phase II of the Local Government Needs Assessment (April 2023), is completed. Many of the essential details lacking in the plan rely on data yet to be gathered and evaluated through the ORSOP.

A continuing challenge that we collectively face is serious timing concerns with the speed of the process driven by the RMA's statutory deadlines. ORRA remains concerned that if unchecked, process and timing concerns will jeopardize the successful implementation of the RMA.

A critical example of this is the ORSOP. The outcome of the ORSOP is a foundational element of the RMA and will drive the costs and investments CAA makes in the second iteration of their Plan. Extremely tight timelines for completing the ORSOP, combined with simultaneous RMA deliverables such as the Oregon Recycling System Advisory Committee review of this program plan, and comment period on the second set of rules overlaying the same time frame, risk successful implementation of the RMA.

ORRA members remain committed to supporting our local government partners to complete the ORSOP accurately and as expeditiously as possible, and have offered technical assistance and knowledge of Oregon's solid waste system to CAA and their contractor RRS, to help them provide the tools necessary to gather this critical data.

ORRA offers these comments in the spirit of the shared goal to implement a complex law designed with shared responsibility at the forefront, to improve the sustainability and resiliency of Oregon's recycling system. We look forward to continuing as a partner in this effort.

Please note that ORRA's comments are embedded in the document in green text beginning on page 5.

Sincerely,



Andrea J. Fogue  
Governmental Affairs Director

c: ORRA Steering Committee  
ORRA Board of Directors  
ORRA PRO Plan Workgroup  
Doug Mander, CAA  
Kim Holmes, CAA  
Francis Veilleux, CAA



# Oregon Recycling Modernization Act

## Producer Responsibility Organization Program

### Plan Application Form

#### 2025-2027 Program Plan Period

### Prospective PRO contact information

Name of organization: Circular Action Alliance	
Address: 20 F Street NW, Suite 700 Washington, D.C. 20001	Phone: (336) 840-9860
	Website: www.circularaction.org
Authorized representative: Charles Schwarze	Title: Chair
Address of authorized representative (if different from above): n/a	
Email of authorized representative: info@circularaction.org	

### Prospective PRO qualifications

<p>Is the organization a 501(c)3 nonprofit legally operating in Oregon?</p> <p><input checked="" type="checkbox"/> Yes      <input type="checkbox"/> No</p> <p>Corroborating documents appended (check all that have been provided):</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> The organization's articles of incorporation</li> <li><input checked="" type="checkbox"/> 501(c)3 letter of determination</li> <li><input checked="" type="checkbox"/> Proof of registration with the Oregon Department of Justice as a charitable organization</li> <li><input checked="" type="checkbox"/> Proof of registration with the Oregon Secretary of State as a foreign corporation operating in Oregon (if applicable)</li> </ul>
<p>Are the organization's producer members likely to comprise at least 10% of Oregon's market share? <input checked="" type="checkbox"/></p> <p>Yes      <input type="checkbox"/> No</p> <p>Indicate corroborating information provided:</p>
<p>Has the payment of the program plan review fee been remitted to the department?</p> <p><input checked="" type="checkbox"/> Yes      <input type="checkbox"/> No</p>

### Program information

Program name: Oregon Program Plan	Date of submission: March 31, 2024
<p>Executive Summary: The attached Circular Action Alliance (CAA) Oregon Program Plan 2025 – 2027 is submitted in accordance the requirements for producer responsibility organizations under ORS 459A.875. The plan describes how CAA will fulfill the obligations of a producer responsibility organizations under Oregon's Recycling Modernization Act (RMA) for the period from July 1, 2025 to December 31, 2027 if the submitted plan is approved by the Department of Environmental Quality. The plan describes CAA's approach to implementing RMA requirements including: the provision of funding support for both local governments and recycling participants for recycling activities and system improvements; the creation of a network for the collection of PRO acceptance list materials; ensuring collected materials are recycled responsibly and education and outreach activities to communicate recycling changes and opportunities to Oregonians.</p>	

**Certification and Attestation**

I/we hereby declare under penalty of false swearing (Oregon Revised Statute 162.075 and ORS 162.085) that the above information and all the statements, documents and attachments submitted with this plan are true and correct.



Signed:

Printed name: Charles Schwarze

Date: March 31, 2024

# Oregon Program Plan

(2025 – 2027)



Circular  
Action  
Alliance™





# Oregon Program Plan

## (2025 – 2027)

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ORRA requests that for the next iteration of the plan, upon request, CAA please provide the document in Word format.

## Executive Summary

Oregon's Plastic Pollution and Recycling Modernization Act (RMA) creates important changes in how materials management is undertaken and funded within the state. The legislation strives to improve the overall effectiveness of Oregon's recycling collection and processing ecosystem through a shared responsibility model.

A key element of this new framework is the concept of a producer responsibility organization (PRO), the entity through which producers of covered materials will fund recycling services, support innovation and manage collection of certain materials through a depot system.

To achieve the objectives of the RMA, Circular Action Alliance (CAA) submits this draft program plan to the Oregon Department of Environmental Quality (DEQ) for consideration.

As a prospective PRO, CAA has developed a detailed approach to managing and administering an extended producer responsibility (EPR) program to fulfill key obligations pursuant to the RMA. The team behind this program plan includes a wide range of recycling industry and policy experts with extensive knowledge in program plan development, implementation, operations, education and outreach, and local government structure. The CAA team has spent a great deal of time engaging with stakeholders in Oregon and referencing a wide range of applicable studies to formulate strategies and cost estimates tailored to Oregon's unique and dynamic materials recovery landscape.

CAA has taken DEQ's Internal Management Directive (IMD) on the RMA PRO Program Plans as a basis for the structure of this submission. Some adaptations have been made to the proposed IMD outline to improve narrative flow.

The table of contents, charts, and subheadings in the document will help readers effectively navigate all the plan's content, and brief overviews of core sections are provided below.

### Goals of the Program

CAA's overarching objective is to support the successful implementation of the RMA in collaboration with DEQ and all other key stakeholders. It is the view of CAA that this program plan will result in successful implementation to achieve four highlevel goals:

1. Reduce the negative environmental, social, and health impacts from the end-of-life management of products and packaging
2. Increase the diversion of recyclable materials from disposal.
3. Improve public participation, understanding and equity in the state's recycling system.
4. Create a system that fulfills the needs and regulatory requirements of the PRO, its members, and all other relevant stakeholders.

These top-line objectives are defined in further detail in the Goals of the Program section, along with key metrics and measures to help chart progress and determine success.



## Operations Plan

The operations plan segment delves into the specific steps and strategies that CAA will employ to meet RMA requirements and help catalyze a range of recycling system expansions and improvements that can lead to a stronger, more efficient framework of materials management. This includes detailed plans and recommendations for:

- *Collection and Recycling of USCL Materials* – A plan for the collection, transport, and recycling of all covered materials on the RMA’s Uniform Statewide Collection List (USCL) and a framework for deploying funding to support these activities. Highlights include:
  - The Oregon Recycling System Optimization Project (ORSOP), a critical project that will offer a more complete picture of system gaps, opportunities for efficiency, and more. This initiative will provide additional data and details required to more precisely estimate and schedule the distribution of funding for system improvements;

Many of the essential details lacking in the plan rely on data yet to be gathered and evaluated through the ORSOP. A continuing challenge that we collectively face is serious timing concerns with the speed of the process driven by the RMA’s statutory deadlines. ORRA remains concerned that if unchecked, process and timing concerns will jeopardize the successful implementation of the RMA.

A critical example of this is the ORSOP. The outcome of the ORSOP is a foundational element of the RMA and will drive the costs and investments CAA makes in the second iteration of their Plan. Extremely tight timelines for completing the ORSOP, combined with simultaneous RMA deliverables such as the Oregon Recycling System Advisory Committee review of this program plan, and comment period on the second set of rules overlaying the same time frame, risk successful implementation of the RMA. ORRA members remain committed to supporting our local government partners to complete the ORSOP accurately and as expeditiously as possible, and have offered technical assistance and knowledge of Oregon’s solid waste system to CAA and their contractor RRS, to help them provide the tools necessary to gather this critical data.

- Key tasks to support the distribution of funding and reimbursements to eligible parties that must be completed in advance of the July 1, 2025 (the RMA implementation date), in addition to the ORSOP:
  - Negotiating with and then providing associated compensation (with a single accounting point-of-contact system) to local governments for service expansion;
  - Setting up a single accounting point-of-contact system for compensation of local governments for expenses besides service expansion;
  - Setting up a single accounting point-of-contact system for payment of contamination management fees and processor commodity risk fees to commingled recycling processing facilities.
- *The PRO Recycling Acceptance List* – This section outlines activities, timelines, and recommendations for increasing diversion of materials named on the PRO Recycling Acceptance List, including proposed approaches to meeting service convenience and performance standards and proposed collection targets for each material category. Highlights include:
  - Identification of 173 existing permitted depot sites that meet the state convenience standard, and another 285 to serve as substitutes if any existing facilities choose to not participate as a PRO collection point; ○ Key activities to ensure timely provision of depot services that must be completed in advance of the July 1, 2025, RMA implementation date:
    - Perform additional analysis of needs and further design of PRO depot system in consultation with DEQ, potential partner depots, local governments, and service providers;
    - Finalize contracts with local governments, service providers, and end markets and launch reporting and accounting systems while onboarding key stakeholders;
    - Open the first phase of PRO acceptance list collection points.
- *Materials Management* – Key materials management considerations including strategies for Specifically Identified Materials (SIMs) and engagement with and verification of responsible end markets (REMs). Highlights include:
  - Proposals to expand the USCL to include PET thermoforms, transparent blue and green PET bottles, and spiral wound containers;



- A proposal to explore commingled, trial collection of polycoated paper packaging and single-use cups with the intent to better understand generator behaviors and other system barriers to the inclusion of these materials on the USCL;
- Insight into the program plan's anticipated impact on plastic recycling and an estimate of Oregon's current plastic recycling rate;
- A strategy to create a materials tracking system that supports REM verification for all system participants and proposed approach to supporting REM development.
- Key activities to support effective materials management and REMs that must be completed in advance of the July 1, 2025, RMA implementation date.

→ *Education and Outreach* – A vision for delivering effective and harmonized education in a manner that incorporates feedback from, and supports, local government outreach and is responsive to diverse audiences across this state. Highlights include:

- Goals to ensure widespread recycling awareness through culturally responsive support and messaging that has been proven to effectively drive increased participation and capture of recyclables, deployed in a manner complementary to programmatic efforts to reduce contamination;
- Key activities to support the education and outreach plan that must be completed in advance of the July 1, 2025, RMA implementation date.

## Financing Strategy

An essential role of the PRO is developing a comprehensive methodology for determining how much funding obligated producers of covered materials are required to contribute to the statewide system. Factors such as material type, volume of product sold into state, environmental impact of materials and commodity revenues must be properly accounted for when designing and implementing a fair & effective program fee.

The financing section of the program plan lays out the guiding principles CAA has developed and used as the basis of an interim base fee methodology to set preliminary base fees. This section also describes how the fee outcomes from using this fee algorithm satisfy the RMA statutory requirements and fulfill the adequacy of financing requirement.

CAA will introduce a graduated fee algorithm to provide producers with practical and measurable criteria upon which to qualify for fee incentives and disincentives in future program plan amendments.

In advance of the Oregon System Optimization Project being completed, a preliminary estimate of the Year 1 program budget range is provided in Appendix E. This sum, to be covered by producer fees, accounts for management costs of materials, service expansion costs, PRO depot system development, as well as costs to develop and sustain viable responsible end markets and other contributions to advance program improvement initiatives.

CAA expects the program costs to be refined for future Program Plan amendments.



## Equity

There is no one-size-fits-all solution to recycling because motivators and barriers vary across age, region, race, ethnicity, and other factors. For this reason, CAA has embedded principles of equity into the program plan in a manner that upholds and reinforces the goals set out in the RMA. These principles are integrated into each key component of PRO administration and program implementation.

This proposal describes how CAA has built equity into the proposed approaches for key activities, including:

- The establishment of a PRO depot network
- The development of responsible end markets
- Development and deployment of recycling education and outreach efforts
- PRO administration

CAA consulted with Oregon community-based organizations (CBOs) to develop the equity components of this plan. It recognizes the importance of fostering relationships with Oregon CBOs to effectively address program equity issues.

In short, the program plan outlines strategies to use this transformational moment in Oregon's materials management as a springboard to greater equity in various areas.

## Management and Compliance

As an organization helping to introduce a new approach to recycling funding and management in the U.S., CAA recognizes the critical importance of stakeholder communication as the RMA moves toward implementation.

As such, this program plan offers a detailed explanation on CAA's structure of day-to-day management, as well as a communications strategy for maintaining strong connections with government entities and other stakeholders.

Furthermore, CAA has outlined data collection steps and metrics considerations to effectively track program successes and areas in need of improvement. The elements of an optimized annual report are also explained.

Finally, this section of the plan lays out an in-depth process for tracking and maintaining producer compliance, setting clear standards and expectations on rules, audits, and action to take place when companies are found to be in noncompliance. This information is supplemented by important details on contract management, recordkeeping and other best practices around organizational and program governance.

It is through these clear processes that CAA has confidence in its ability to meet the expectations of regulators, drive overall program efficiency, and maintain strong coordination both internally as an organization and externally with partners across the public and private sectors.

## At the Center of the Transformation

The ultimate goal of RMA implementation is a transformed system of materials usage and recovery that will be responsive to the needs of all stakeholders and that will lead to significant environmental and social benefits for Oregonians.



CAA has invested significant resources in developing this program plan and is committed to working with recycling stakeholders to deliver on the RMA objectives. There is no doubt that effectively and efficiently transitioning to a shared responsibility model of materials management and delivering on other RMA priorities will be a complicated and challenging effort and one in which producers and other stakeholders will learn much along the way.

But CAA is confident the transition can and will happen successfully.

Data-driven decision-making, combined with a spirit of collaboration and communication, will be critical in the quest to see the RMA realize its full potential. CAA has embedded those core principles in all segments of this plan. The group is excited at the prospect of helping Oregon usher in system shifts that help reduce costs, drive more material into an expanded recycling marketplace, and open the door to a better materials management future.





# Goals of the Program

The overarching goal of Circular Action Alliance (CAA) for this initial program plan period is to support the successful implementation of the Recycling Modernization Act (RMA) in collaboration with the Oregon Department of Environmental Quality (DEQ) and all key stakeholders, including local governments, commingled recycling processing facilities (CRPFs), haulers, and Oregon waste generators. Success will center on four critical high-level objectives:

## Objective 1: Reduce the negative environmental, social, and health impacts from the end-of-life management of products and packaging.

Program Goal	Outcomes/Indications of Success	Key Metrics
<p><b>Ensure that materials collected and processed for recycling in Oregon are consistently delivered to responsible end markets.</b></p>	<ul style="list-style-type: none"> <li>☐ System of identifying responsible end markets (REMs) and tracking material flows established with full cooperation from comingled recycling processing facility (CRPFs) and other key stakeholders.</li> <li>☐ CRPF and depot material streams directed to REMs.</li> <li>☐ System established to address and correct issues that arise regarding REMs.</li> <li>☐ Specifically identified materials (SIMs) directed to REMs, where practicable.</li> </ul> <p><b>Why this caveat with “where practicable”? Does CAA anticipate a low percentage of SIMs will go to REMs?</b></p>	<ul style="list-style-type: none"> <li>☐ Percentage of recycled material going to REMs, including SIMs.</li> <li>☐ Number, kind, and specific REMs used by CRPFs and CAA for depot material.</li> <li>☐ Number of instances in which REM material routing has needed correction and the results of correction.</li> <li>☐ Summary of REM verification undertaken</li> <li>☐ Percentage of chain of custody anomalies detected during quarterly reporting review process.</li> </ul>
<p><b>Design and implement producer fee structures that provide adequate financing for RMA obligations and incentivize producers to improve environmental outcomes associated with the production and recycling of printed paper and packaging supplied to the Oregon market.</b></p>	<ul style="list-style-type: none"> <li>☐ Initial base fee schedule adequately supports RMA verification of REM requirements and other system improvements.</li> <li>☐ Eco-modulation factors integrated into producer fee following development of datasets and feedback mechanisms required to adjust fees for greater impact reduction.</li> </ul>	<ul style="list-style-type: none"> <li>☐ Comparative base fees for covered products reflecting their individual features as directed by the RMA.</li> <li>☐ Data on producer changes to packaging materials and formats that reflect effects of base fees (and at a later date, as applicable, graduated fees).</li> </ul>



**Objective 2: Increase the diversion of recyclable materials from disposal.**

Program Goal	Outcomes/Indications of Success	Key Metrics
<p><b>Create new and expanded opportunities for more Oregon residents (waste generators) to recycle a wider array of generated materials, including supporting enhancement of local collection services and establishing convenient depots for additional material collection.</b></p>	<ul style="list-style-type: none"> <li>☐ PRO-assigned depot system established, meeting convenience standards and providing recycling opportunities for materials assigned for depot collection and impact on material recycling rates.</li> <li>☐ Local government service expansion requests evaluated and funded according to prioritization guidelines resulting in new collection opportunities created for waste generators.</li> <li>☐ Uniform Statewide Collection List (USCL) applied across the state to expand what is collected in commingled recycling, and steps taken by CAA to successfully add materials to the USCL.</li> </ul> <p style="color: green;"><b>That depends on the current program, for many customers the list will shrink. Our goal is to improve consistency and quality, not to expand the list until it can be proven that materials are ready, through processing improvements, and responsible end markets to be added to the USCL.</b></p> <ul style="list-style-type: none"> <li>☐ SIMs collection issues successfully addressed.</li> <li>☐ Progress toward 2028 plastic recycling goals at the end of each program year.</li> </ul>	<ul style="list-style-type: none"> <li>☐ PRO material collection and recycling rates in relation to plan targets.</li> <li>☐ Consumer awareness and use of PRO material depots.</li> <li>☐ Diversion rates associated with USCL materials.</li> <li>☐ Extent of new SIMs collection efforts established.</li> <li>☐ Tons of plastic materials sent to responsible end markets divided into tons of covered plastic products generated.</li> </ul>
<p><b>Facilitate the modernization of Oregon’s commingled material processing infrastructure, driving more efficient capture and delivery of high-quality materials to end markets while reducing loss of materials to residue.</b></p>	<ul style="list-style-type: none"> <li>☐ Processor commodity risk fee (PCRF) and contamination management fee (CMF) payment system established to provide necessary funding to CRPFs.</li> <li>☐ CRPFs meeting DEQ’s performance standards regarding capture rates and bale quality.</li> <li>☐ Investments made in new equipment and sorting processes to accommodate the USCL and additions to the USCL.</li> </ul>	<ul style="list-style-type: none"> <li>☐ Funding provided to CRPFs through the PCRF and CMF, with associated tonnage and funding amounts.</li> <li>☐ Capture rate and bale quality data from DEQ and from CAA.</li> <li>☐ Individual CRPF capacity to accept and effectively sort USCL materials.</li> </ul>



**Objective 3: Improve public participation, understanding and equity in the state’s recycling system.**

Program Goal	Outcomes/Indications of Success	Key Metrics
<p><b>Ensure Oregon residents (waste generators), reflecting the states’ many diverse communities, are fully informed about their recycling opportunities and how to use those opportunities optimally, confidently, and correctly.</b></p>	<ul style="list-style-type: none"> <li>☐ Increase amount of USCL and depot materials collected, indexed against population and generation.</li> <li>☐ Reduction in the amount of contaminant materials entering the recycling collection stream in commingled recycling and at depots.</li> <li>☐ Increase in waste generator understanding and confidence in the recycling system across all populations.</li> </ul>	<ul style="list-style-type: none"> <li>☐ Tons of material collected through commingled, depot, and other applicable programs, indexed against population and generation metrics.</li> <li>☐ Amount and percentage of contaminants in collected streams and in streams entering CRPFs.</li> <li>☐ Measures of waste generator awareness, knowledge, and confidence in recycling (for example, participation rates) through surveys or other data collection.</li> </ul>
<p><b>Incorporate principles of equity into the deployment of recycling opportunities, education, and other elements of the recycling system.</b></p>	<ul style="list-style-type: none"> <li>☐ Provision of equitable recycling opportunities for populations that may find it difficult to access service at collection points.</li> <li>☐ Work with local governments, <i>service providers</i>, and community groups to ensure any proposals for the alternate delivery of recycling convenience standards address equitable access for communities and diverse populations.</li> <li>☐ Educational materials that are clear and demonstrably understandable are universally distributed or made available.</li> <li>☐ Explore and pursue opportunities with Certification Office for Business Inclusion and Diversity (COBID) businesses and depot collection partners representing diverse communities.</li> </ul> <p><i>What if existing infrastructure exists, but those entities are not COBID certified? Does this statement suggest that a new, COBID certified entity could gain entry to and preferential status for an area where pre-existing infrastructure already exists? Please clarify the intent of this bullet.</i></p>	<ul style="list-style-type: none"> <li>☐ Roll out of recycling services for populations with access or mobility issues.</li> <li>☐ Additional recycling opportunities addressing gaps identified by local governments and community groups.</li> <li>☐ Numbers and kinds of new educational materials created and distributed, and audiences reached.</li> <li>☐ Amount of new and effective system engagement by groups previously underserved or unaddressed.</li> </ul>



**Objective 4: Create a system that fulfills the needs and regulatory requirements of the PRO, its members, and all other relevant stakeholders.**

Program Goal	Outcomes/Indications of Success	Key Metrics
<p><b>Manage organizational operations to ensure compliance with all statutory requirements.</b></p>	<ul style="list-style-type: none"> <li>☐ Systems and mechanisms in place to fulfill CAA PRO obligations under the RMA regarding day-to-day management, policies and procedures, communication, membership, timelines, and budgets.</li> <li>☐ Mechanisms in place to address gaps, shortfalls, or other issues regarding CAA's PRO obligations.</li> </ul>	<ul style="list-style-type: none"> <li>☐ Number, kind, and operational status of systems and mechanisms for CAA management obligations.</li> <li>☐ Number and nature of gaps or issues that needed to be addressed and resolution status of those gaps/issues.</li> <li>☐ Producer compliance activity reports.</li> </ul>
<p><b>Provide an effective platform of support and interaction with local governments, commingled recycling processing facilities, and haulers that allow them to steadily improve their programs and facilities to meet regulatory targets and the goals of the RMA.</b></p>	<ul style="list-style-type: none"> <li>☐ Application, reporting, invoicing, and informational platforms established that are clear, effective, and efficient for stakeholders to use.</li> <li>☐ Mechanisms in place to use stakeholder feedback for improving platforms.</li> </ul>	<ul style="list-style-type: none"> <li>☐ Number and kind of platforms in place for stakeholder interaction.</li> <li>☐ Extent of platform use (number of users, etc.).</li> <li>☐ Number and kind of issues with platforms expressed through stakeholder feedback and any related adjustments made to platforms.</li> </ul>

The following program plan details the integrated steps CAA will take to produce results that meet the objectives outlined above. In putting this plan into action, CAA will prioritize clear and consistent engagement with all stakeholders and will adopt an approach of continual improvement, recognizing the dynamic and complex nature of the Oregon materials management system.



## About Circular Action Alliance

This section of the plan provides summary information about Circular Action Alliance, including details of its structure, governance and members, as well as its qualifications to serve as a PRO in Oregon.

### Description of the Organization

Circular Action Alliance (CAA) is a U.S., nonprofit producer responsibility organization (PRO) established to support the implementation of extended producer responsibility (EPR) laws for paper, packaging, and food service ware. The organization was founded by leading U.S. producers representing retail, food, beverage, and consumer packaged goods manufacturing.

CAA's 20 Founding Members are Amazon; The Clorox Company; The Coca-Cola Company; Colgate-Palmolive; Danone North America; Ferrero US; General Mills; Keurig Dr Pepper; Kraft Heinz; L'Oréal USA; Mars Incorporated; Mondelez International; Nestlé USA; Niagara Bottling, LLC; PepsiCo, Inc.; Procter & Gamble; SC Johnson; Target; Unilever United States; and Walmart.

Together, CAA's membership represents more than 900 brands sold in the U.S., representing a wide variety of covered product material types.

CAA was incorporated as a nonprofit corporation on December 21, 2022, and is recognized by the Internal Revenue Service as exempt from taxation under Section 501(c)(3) of the Internal Revenue Code.

The organization's mission is to provide producers with consistent EPR services across multiple states while developing and implementing EPR programs that:

- Meet state-specific regulatory requirements
- Leverage existing recycling systems and infrastructure
- Advance the circularity of covered materials on a national scale through collaboration with local governments, service providers, and recycling system stakeholders

CAA's National Board of Directors is made up of 20 voting representatives of Founding Member companies, which represent a diversity of covered material supplied to the Oregon market. Each Founding Member has the right to appoint one representative to serve as a Director on CAA's National Board of Directors.

The CAA National Board of Directors has established the following committees and has the ability to create additional committees or dissolve committees in the future:

- **Governance Committee** – consisting of at least three members appointed by the Board of Directors who have relevant experience and expertise in governance, membership development, and compliance.
- **Finance, Audit and Investment Committee** – consisting of at least three members appointed by the Board of Directors who have relevant experience, expertise, and knowledge in accounting, auditing, investments, budgeting, cash flow management, reserve management, and financial risk management.



- **Human Resources Committee** – consisting of at least three members, appointed by the Board of Directors, who have relevant experience, expertise, and knowledge in human resources, employment law, organizational development, and/or diversity, equity, and inclusion.

The CAA National Board of Directors intends to establish a designated governing body known as the Oregon Board, which will have the delegated authority to act on behalf of the National Board of Directors to approve the producer responsibility plan and the budget for implementation of the plan, as well as oversee the implementation of the approved producer responsibility plan under the RMA. The Oregon Board will include Founding Member representatives, other producer representatives, and non-voting members.

Additionally, CAA has engaged a third-party organization to provide support in the development of the Oregon governance model. This organization is conducting a comprehensive review of CAA's governance.

## CAA's Qualifications to Serve as a PRO in Oregon

CAA was established to support the implementation of EPR laws for paper, packaging, and food service ware and is fully capable of meeting the PRO statutory requirements under the RMA. The organization has the expertise and vision to collaboratively build a producer responsibility plan that will achieve the objectives of the RMA.

CAA's progress to date includes the following:

- On May 1, 2023, CAA became the first PRO approved to administer an EPR program for paper, packaging and food service ware in the U.S., being appointed by the Colorado Department of Public Health and Environment (CDPHE) as the single PRO responsible for implementing Colorado's Producer Responsibility Program for Statewide Recycling Act.
- On October 18, 2023, CAA was approved as the single PRO to represent the interests of producers in Maryland. As the Maryland PRO, CAA will have a seat on the Producer Responsibility Advisory Council, which will make recommendations to the Maryland governor on how to effectively establish and implement a producer responsibility program for packaging materials.
- On January 5, 2024, CAA was approved as the single PRO to deliver the objectives of the California Plastic Pollution Prevention and Packaging Producer Responsibility Act (California Public Resources Code Sections 42040 to 42084).

As they have in these other EPR states, CAA members have invested time and resources to ensure the organization can fulfill the specific PRO obligations in relation to the RMA in Oregon.

## Understanding of Oregon's Recycling Modernization Act

CAA has a strong and detailed understanding of the RMA. Following its incorporation, CAA was engaged in the Phase I rulemaking process (and subsequently the Rulemaking Advisory Committee), which included the submission of comments in July 2023.

CAA has also participated in DEQ Technical Working Groups and has pursued independent and extensive engagement with Oregon DEQ and other Oregon stakeholders and groups, including: Oregon Refuse & Recycling Association (ORRA), local governments and service providers, and the Association of Oregon Recyclers (AOR). Full details on CAA's stakeholder engagement during the development of this program plan can be found in Appendix D.



As a result of this engagement, CAA understands not only the requirements of the statute and rules, but also the priorities of key stakeholder groups that are essential to the success of the RMA.

## Team Expertise and Capabilities

CAA Founding Members are united in their vision to create a circular economy for paper, packaging, and food service ware in the United States. CAA's Founding Members have experience with the implementation of various EPR programs, and they have assembled a team of independent service providers drawn from across North America with expertise in developing and operating EPR programs to respond to state-specific regulatory requirements and recycling system needs.

CAA team members have participated in EPR implementation and program operation for many years, playing integral roles in the creation, operation, and improvement of PROs. The team has expertise in regulatory compliance, project management, governance, recycling systems and materials management, system improvement, end markets, finance, fee setting, eco-modulation, packaging design, not-for-profit operation, information technology, reporting, consumer education, producer and stakeholder relations, and public affairs.

The CAA team also includes Oregon-specific expertise and has plans in place to hire Oregon staff, capable of supporting implementation. This local team will supplement the organization's central expertise to enable seamless knowledge transfer across jurisdictions and consistent producer services. CAA's organization charts are included in Appendix C.

## Qualifications to Deliver Interim Coordination Tasks

CAA is well-qualified to deliver the start-up tasks (previously referred to as interim coordination tasks) required to launch the program successfully on July 1, 2025, as required by state statute. In particular, the CAA team is preparing to launch the following workstreams:

### **Local Government and Service Provider Engagement (Oregon Recycling System Optimization Project)**

This workstream is planned for April 2024 onward. The goal is to liaise further with local governments and their service providers on expansion needs, to finalize plans for expansions to be funded in the first program plan, and to conduct consultations on other relevant aspects of the plan. CAA has assembled a team of experts to undertake this work, building from the initial discussions with a selection of local governments outlined in Appendix D that have taken place since September 2023. The team has experience relevant to Oregon's regulatory requirements, recycling system design, and Oregon's local government ecosystem. More information on plans for this workstream can be found in the Operations Plan section of this plan, under "Collection and Recycling of USCL Materials."

### **PRO Depot Development (Oregon Recycling System Optimization Project)**

This workstream is planned for April 2024 onward. The goal is to liaise further with existing drop-off facilities and depot locations, as well as new potential partners to finalize a network of PRO depot locations (supplemented by events and other collection services) to meet the necessary collection targets, convenience and performance standards, and Responsible End Market (REM) requirements under the RMA. CAA has assembled a team of experts to undertake this work, building from



the initial discussions with depot organizations outlined in Appendix D. More information on plans for this workstream can be found in the Operations Plan section of this plan, under “The PRO Recycling Acceptance List.”

## **Education and Outreach**

This workstream is planned for April 2024 and onward. The goal is to develop education and outreach collateral and a statewide promotional campaign to communicate the USCL and PRO Recycling Acceptance List to residents and commercial entities in Oregon. The workstream includes consultations with local stakeholders, including but not limited to DEQ, the Oregon Recycling System Advisory Council (ORSAC), Oregon residents (in a range of geographies and housing situations), Oregon businesses, local governments, service providers, and community-based organizations (CBOs). CAA has assembled a team of experts to undertake this work. The team has experience in the Oregon regulatory requirements, waste generator behavior trends, education materials development and delivery, Oregon-focused media executions, and Oregon local government engagement. More information on plans for this workstream can be found in the Operations Plan section of this plan, under “Education and Outreach.”

## **CAA’s Producer Membership**

CAA membership exceeds the 10% market share threshold for covered products in Oregon required for approved PROs. Based on available data, CAA estimates that current membership accounts for a minimum of 12% to 15% of the state’s market share of covered products. (Details of how the market share estimate was calculated can be found in Appendix B.)

CAA is also conducting information sessions with hundreds of non-member producers regarding EPR obligations in Oregon and other states and will expand membership further through 2024 and into 2025, in advance of the program start date.

CAA is resourced to complete all the tasks necessary to start the program, including all of the interim coordination (start up) tasks referenced in the RMA rules. CAA Oregon will be a subsidiary of the national organization that is supported by its founding members. These members have made significant funding commitments to support the CAA program plan development in Oregon and other EPR states.





## Operations Plan

The operations plan section of this program plan describes activities and recommendations for increasing the diversion of recyclable materials from disposal to support progress toward targets outlined in the Recycling Modernization Act (RMA).

Important areas of Producer Responsibility Organization (PRO) involvement around operations include meeting local government needs assessment requests, establishing collection depots, improving materials processing, and conducting robust and consistent education.

### a. Collection and Recycling of USCL Materials

In this subsection, CAA details how it plans to support the collection and recycling of covered products that are included on the Uniform Statewide Collection List (USCL).

Under ORS 459A.890, local governments and their service providers are entitled to be reimbursed or be provided advance funding for, as appropriate, eligible expenses in several RMA program areas, including but not limited to: system expansions and improvements (costs associated with the expansion and provision of recycling collection services); the transportation of covered products over 50 miles; contamination reduction programming and periodic contamination evaluations outside of comingled recycling processing facilities (CRPFs); and ensuring 10% post-consumer content in roll carts.

The collection and recycling section of the program plan addresses each of these areas in turn, and it also discusses CAA's start-up approach to address specific time sensitive tasks (previously interim coordination tasks).

Following the submission of this initial draft of the program plan, CAA will conduct further outreach and consultation with local governments and service providers to:

- Undertake the Oregon Recycling System Optimization Project (more details are provided below)
- Enable the development of more accurate local government funding estimates and prioritization of disbursements which cannot currently be done due to limited available information.
- Develop a schedule for the disbursement of funding for local government service expansion requests as per RMA requirements
- Finalize the details of how various funding programs related to USCL materials will be administered

Administrative design principles have been developed to inform further consultation as detailed below.

#### Administrative Design Principles

- **Streamlined and expeditious processes** for the disbursement of eligible expenses
- **Clear and accessible claims submission** instructions and mechanisms (reliance on online submissions where possible)
- **Transparent information requirements** all parties should utilize understandable similar source data in support of funding requests



- **Standardized review criteria** in support of prioritization and assessment of eligibility of claims (see proposed review criteria below)
- **Coordination of funding program processes** with local government budget cycles wherever possible
- **Streamlined dispute resolution processes**
- **Appropriate accountability mechanisms** to track reimbursements and any advance funding provided

For each compensation program, CAA proposes to post related policy documents, standardized registration forms, claims submissions and other program documents on its stakeholder portal, for ease of access. These programs would also be supported by CAA program staff dedicated to answering questions and guiding stakeholders through program administrative processes.

## i. System Expansions and Improvements

Providing financial and other assistance to local governments that need to expand recycling collection services is a critical step in the implementation of this program plan and the execution of the RMA. The activities outlined below will help meet a range of objectives and goals, including expanding overall opportunities to recycle, and help meet the plastics recycling goal set out in the RMA.

### Proposal for an Oregon Recycling System Optimization Project

#### 2023 Department of Environmental Quality (DEQ) Needs Assessment Findings

Oregon DEQ released its initial RMA Local Government Needs Assessment in May 2023. While completing the needs assessment survey was voluntary for local governments, eligibility for expansion funding from the PRO(s) in the first program plan is contingent on completion of the needs assessment.

Two hundred forty-five local governments responded to the needs assessment survey (200 cities, 36 counties, and nine additional county responses) with 92.2% of respondents indicating an interest in expanding recycling services.

To support program plan development, CAA consulted with a select number of local government representatives (see Appendix D for more details) to gather more information about initial needs assessment requests and develop a better understanding of existing recycling infrastructure in those jurisdictions.

This consultation process highlighted the different watershed infrastructure across the state, including a wide range of different local government and service provider roles and responsibilities and variations in such recycling activities such as contamination reduction activities, material flows, and current education and outreach efforts. This process underscored the need for a second more detailed needs assessment process and continued outreach to local governments to further develop the necessary components for RMA implementation.

The first needs assessment simply identified areas of potential interest in terms of service expansion. Local governments checked general areas of interest to maintain eligibility for funding under the process, which may in some cases have resulted in an inaccurate picture of needs in relation to existing recycling services. Information provided by local



governments was insufficient to prioritize funding requests in relation to RMA rule criteria (which had not been finalized at the time of the needs assessment survey).

As anticipated in DEQ's Internal Management Directive (IMD) related to the program plan submission, CAA is proposing to conduct a follow up on DEQ's 2023 Needs Assessment by conducting an Oregon Recycling System Optimization Project (ORSOP) between April and August 2024 to gather information necessary to further develop its estimates of required local government funding for recycling system expansions and improvements and refine the schedule for processing funding requests in accordance with RMA rule prioritization criteria.

## Proposed Approach

Given the interrelationship between local government needs assessment requests and other areas of the program plan pursuant to the RMA, CAA is proposing an integrated approach to the ORSOP. CAA will coordinate the outreach activities required to develop more accurate estimates of service program expansion requests (ORSOP) with continued program development of other local government compensation funding programs.

CAA proposes the following approach for engaging local governments and their service providers in the ORSOP:

1. Follow up outreach to all 2023 Needs Assessment respondents (details pending)
2. Engagement between CAA and local governments and service providers based on wastesheds (with additional engagement as required for specific geographic areas). Consultation focuses on:
  - a. Understanding the unique conditions that may exist in each jurisdiction (i.e. local government service provider franchise arrangements, nature of existing recycling services provided, etc.)
  - b. Consulting with local governments and service providers on the reimbursement process, review criteria and administrative process that will be established to finalize and rollout service expansion system funding
  - c. Confirm which permitted facilities and existing local government facilities would like to participate in the PRO depot network
  - d. Coordinate needs assessment requests in the context of other local government compensation programs such as transportation reimbursement (see relevant section below).
  - e. Identify primary contacts for each local government and service provider
  - f. Review anticipated processes for disbursement of education and outreach materials and the provision of funding for contamination reduction activities

The ORSOP will enable the development of a schedule, prioritization, and cost estimates of local government service expansion requests, as well as refined estimates of costs associated with reimbursements in other program areas.



## General Process and Timelines for Prioritizing and Processing Service Expansion Requests

### Proposed Timeline

Under the RMA, producers are not obligated to become members of a PRO until the program starts on July 1, 2025. Given the anticipated cost of local government infrastructure service expansions, CAA will not be in a position to fund service expansion requests until it is generating revenue from obligated producers.

Actual local government service expansion disbursements, therefore, are anticipated to begin after the July 1, 2025, program start date, with CAA prioritizing funding requests in accordance with RMA rule priorities. The general steps and timeframe associated with implementation of this service expansion funding program is below. (This timeline can also be reviewed in Appendix M, Preliminary Program Implementation Timeline.)

- CAA Conducts ORSOP (*April – August 2024*)
- CAA Program Plan is updated based on the ORSOP (*September 2024*). Updates will include:
  - A more detailed schedule for implementing collection program expansion disbursements
  - Revised estimates of local government expansion disbursements
  - A formalized Administrative Process for Review and Approval of Expansion Disbursements.
  - Prioritization of expansion disbursement requests
  - Development of a 2025-2027 Schedule for Processing Expansion Disbursement requests
- CAA Program Plan Approved (*November/December 2024*)
- CAA-Local government processing of 2025 Expansion Funding Requests (*begins Spring 2025*)
  - Detailed CAA – local government negotiations
  - Identification of individual local government/service provider funding amounts
- Disbursement of 2025 Expansion Funding Requests (*July – December 2025*)
- CAA-Local government processing of 2026 Expansion Funding Requests (*begins Fall 2025*)
  - Detailed CAA – local government negotiations
  - Identification of individual local government/service provider funding amounts
- Disbursement of 2026 Expansion Funding Requests (*January – December 2026*)
- CAA-Local government processing of 2027 Expansion Funding Requests (*begins Fall 2026*)
  - Detailed CAA – local government negotiations
    - Identification of individual local government/service provider funding amounts
- Disbursement of 2027 Expansion Funding Requests (*January – December 2027*)



### Initial Outline for Disbursement of Local Government System Expansions

Preliminary Estimated Funding for Local Government System Expansion	
<b>2025</b>	\$54 Million to \$70 Million
<b>2026</b>	\$143 Million to \$186 Million
<b>2027</b>	\$159 Million to \$207 Million
<b>Total Program Plan Funding</b>	<b>\$356 Million to \$463 Million</b>

Table 1

Actual funding amounts for local government service expansion initiatives will be determined on a case-by-case basis subject to RMA eligibility requirements as per a schedule for disbursements included in future program plan amendments. For more information related to how CAA developed initial estimates see Appendix E.

### Revised Local Government Funding Schedule

Following the ORSOP, CAA’s revised program plan will include a more detailed schedule for processing the disbursement of system expansion funding requests. Where appropriate, CAA will schedule the funding of local government system expansion on a geographic basis so that infrastructure improvements can be coordinated and support broader system efficiencies.

The proposed draft disbursement schedule to be included in the revised program plan could follow a format like the following:

Local Government	Type of Funding Request	Reason for Prioritization	Target Date for Processing System Funding Request	Target Date for Funding Disbursement
LG X	On-route Expansion	Required by OTR	September 2025	December 2025
LG Y	Depot	Population under 4,000	Oct 2025	Jan 2026

Table 2

CAA will consult with local governments to review optimal timing of funding disbursements to align with local government budget policies.

Where prioritized local governments are not ready to process their funding requests in accordance with the proposed Revised Program Plan funding schedule, CAA will work with those local governments to process service expansion requests as soon as that local government is ready to engage in the processing exercise necessary to determine final disbursement amounts.



## Assessing Priority of Funding Requests

All PRO funding for expansions and provision of recycling services from July 2025 through to December 2027 will be prioritized following RMA rule guidelines:

1. Local governments that are not, or will not be, able to provide the opportunity to recycle
2. Existing recycling depots to provide for the collection of any materials that were formerly collected on-route by the local government or a local government's service provider, as needed to ensure continuation of recycling opportunities
3. Existing recycling depots to provide for the collection of any materials that are not currently or were not formerly collected on-route by the local government or local government's service provider
4. Local governments with populations less than 4,000, according to the Portland State University Population Research Center's most recent Population Estimate Report, or such other estimate approved by the Department
5. Local governments of any size that are looking to add new on-route or recycling depot service
6. All other local governments that are looking to expand existing on-route collection, recycling depots or both, in order of ascending population

Where local government requests fall into multiple RMA rule prioritization categories, CAA will attempt to identify and sequence in accordance with the most applicable rule criteria. As noted earlier, CAA will also attempt to assess local government requests on a geographic or watershed basis to improve system efficiencies. Additional criteria that CAA proposes to employ for evaluation are described below.

## Evaluation of Funding Requests

CAA will use a standardized information-gathering mechanism to gather needed specifics for assessing and meeting funding requests and to be able to gauge the requests against these evaluation criteria. This information may include:

1. Name of the project
2. Detailed description of the project
3. Financial request with detailed list of items to be acquired
4. Timeline for the project and funds to be disbursed
5. Who will be overseeing and undertaking the project
6. What is the projected impact on the intent of the RMA
7. Is the project consistent with industry best practices/guidelines
8. Will the project meet the performance standards outlined in RMA rules

## Proposed Review Criteria

While RMA rules provide guidance on how to prioritize local government eligible funding requests, there are several references in the RMA related to potential service expansion requests where further clarifications will be required to determine whether a particular local government service expansion request is eligible for funding under the statute.



For example, service expansion requests related to expanded on-route collection services and the addition of recycling reload facilities indicate that the recycling reload facility is an eligible expense if necessary. RMA rule requirements also indicate that PRO funding for additional recycling depots is in relation to “as needed to provide convenient recycling opportunities.” See OAR 340-090-0800(1)(A)(C). In the absence of additional review criteria, to address how RMA terms such as “if necessary” or “as needed” should be interpreted, CAA is proposing program review criteria to clarify how needs assessment funding requests will be assessed. Such criteria will also support other RMA requirements related to the verification of funding amounts anticipated under the statute.

As part of the ORSOP, CAA will consult with local governments regarding funding eligibility protocols and the proposed needs assessment review criteria outlined below:

## 1. Support for Existing Services and Infrastructure

Local governments and service providers have invested heavily in recycling infrastructure over decades to deliver recycling services in conjunction with the delivery of other solid waste services that form the greater solid waste management system. Where needed, improvements and additions will be considered, but existing infrastructure should remain the foundation for services. Where consistent with other rule and funding assessment criteria, funding requests should support and utilize existing recycling infrastructure.

ORRA supports the intent of the RMA to utilize existing infrastructure to maximize efficiencies in the system.

## 2. Consistent with RMA Objectives

Funding requests must be qualified expenses under the statute, that are consistent with RMA objectives to minimize the environmental impacts of producer packaging. Regarding local government infrastructure, requests should efficiently support improved environmental outcomes related to both local government recycling and statewide packaging objectives.

## 3. Driving Efficiency and Effectiveness

Funding requests should improve current system efficiency and support cost-effective diversion. The funding should be used both to improve the performance of existing recycling programs (e.g., increasing the recovery of materials that are currently recycled) and add new materials in a cost-effective manner. Investments should create new capacity that meets the newly anticipated volumes of recyclables under the RMA. Efficiency measurements (e.g., a “net cost per ton” diverted) may be developed for considering applications for funding. It is recognized that any new tons added into the recycling system will likely increase the total and net system costs.

## 4. Balancing Local Government and Statewide Needs

Local government funding requests should integrate well with statewide infrastructure. A balance is required between funding to support State-wide system benefits and funding for local/regional funding needs and opportunities.

In addition to balancing local government and statewide needs, ORRA supports ensuring a balance between the needs of urban and rural communities across Oregon.

## 5. No Cross Subsidization or Duplication of Funding

There should be no cross subsidization between local government needs assessment funding and non-RMA solid waste program funding. Funding provided by CAA for recycling programs will be dedicated to eligible recycling programs only. Funding requests should also not duplicate funding provided through other RMA programs.

What are some examples of cross-subsidization?



## 6. Accuracy and Transparency

Funding requests must be based on accurate and transparent information. CAA will work in good faith with local governments and their services providers to document required information associated with various types of system expansion service requests. (i.e., required information in relation to a request for expanded on-route collection).

### Dispute Settlement Process relating to Service Expansion Funding Requests

Given the language of the RMA, there may be disagreements between CAA and local governments and their service providers about the eligibility for certain types of funding requests. These disagreements may be more complex than typical contractual disputes (which often involve disputes over the interpretation of contractual clauses) as they will likely involve different legal interpretations of what reimbursement the statute requires and what qualifies as an eligible cost.

CAA proposes to utilize the ORSOP to identify and catalog the types of costs associated with the expansion and provision of recycling collection service for covered products. CAA would propose to convene a working group comprised of representatives from CAA, local government, [service providers](#), and DEQ to attempt to mediate disagreements over service funding requests between the approval of the second program plan and the start of the program plan on July 1, 2025. This process will hopefully minimize potential disagreements between CAA and local governments prior to the processing of individual local government service expansion requests once the program begins on July 1, 2025. In addition to resolving or narrowing potential dispute issues, the working group could also align on the details of the dispute settlement process to be utilized once more detailed CAA local governments negotiations related to service expansion requests are undertaken.

[See insert above to add service providers to working group to mediate potential disagreements over service funding requests, as some of the funding requests will be between service providers and CAA.](#)

### Accountability Mechanisms

Funding provided to local governments [and their local service providers](#) will need to be accompanied by accountability mechanisms to ensure that PRO funding provided to local governments is allocated to its intended RMA purpose. In many cases, this may include advance funding for capital items such as trucks or other capital items. As part of the ORSOP, CAA will consult with local governments [and local service providers](#) regarding the accountability reporting and conditions associated with the provision of funding in relation to service expansion requests and different types of eligible funding categories. The details of proposed accountability processes will be provided in the revised second draft of the program plan, anticipated in September 2024.

[See insert above to add service providers to consultation on accountability mechanisms as funding will be provided to local governments and service providers.](#)

## ii. Transportation Reimbursements

Under the RMA, the PRO is required to fund local government or their service provider costs of transporting covered products from a recycling depot or recycling reload facility to a CRPF, processor, or responsible end market (REM).

DEQ rules establish methods for determining funding and reimbursement amounts which may include payments based on zones. The rules require that:

- Costs must be based on the actual costs of managing and transporting covered products that must be shipped more than 50 miles
- 50-mile distance is the shortest driving distance to:
  - the nearest CRPF with capacity to process the material, if the material is commingled





- the nearest processing or sorting facility that will prepare it for market or REM, if the material is collected separately (e.g., glass) or is not fully commingled

#### What is the distinction between a market and REM?

- the nearest REM if the material is collected separately and in condition to be sent to an REM
- Costs to receive, consolidate, load and transport covered products include but are not limited to purchasing and maintaining equipment, signage (not already covered under RMA provisions), administrative costs including related staffing costs
- Transportation costs of covered products directly from a generator to a CRPF or REM are not eligible
- In 2027, the PRO must also conduct a transportation study
- The PRO program plan must include methods for calculating transportation costs
- Payment methods may include rate schedules or zonal maps with periodic adjustments for fuel prices or other variable factors

#### How frequently will periodic adjustments for fuel prices be made?

- Consultation with local governments and service providers required on payment methods
- Methods must include a voluntary option where PRO and local government/service provider may agree to transfer some or all transportation responsibilities to PRO

### Consultation Process

During the program plan development process, CAA consulted with a select number of local government service providers on the design of the program for administering transportation disbursements under the RMA. These service providers are all likely claimants for transportation reimbursement under the RMA and were selected in consultation with ORRA, which represents haulers and other recycling businesses throughout the state.

The purpose of this pre-program plan consultation was to identify elements that need to be included in this funding program and outline a general approach to administration. As with other RMA funding programs, CAA's intention is to seek feedback from affected parties throughout the state to support development of this RMA compensation program. Given this requires outreach to the same parties involved in the ORSOP, CAA will coordinate consultation related to the development of this funding program in tandem.

The proposed transportation reimbursement model, which CAA will seek feedback on in conjunction with the Oregon Recycling System Optimization Project, is described below. Following further consultation and outreach CAA would finalize transportation reimbursement policies and required forms and documents. These policy documents would be available online, and CAA would propose to conduct webinars and stakeholder outreach prior to program plan implementation to explain the claims submission process before the program start date.

CAA would begin processing claims from eligible funding recipients for any qualifying shipments made after the start of the program on July 1, 2025.



## Proposed Methods for Calculating Transportation Costs

ORRA supports that the proposed methods for calculating transportation costs are sound. See comments below for requested clarifications.

### General Model

CAA will calculate disbursements based on standardized rates per mile from eligible outbound facilities to the nearest CRPF with capacity or end market, with some adjustment for loading and preparation of outbound loads:

- A standardized rate per ton per mile, with different rates for different types of loads, would be utilized to calculate the transportation reimbursement compensation for different facilities
- The standard per mile rate would be used to calculate set transportation reimbursements for each eligible outbound facility based on the application of the standard rate to the distance between eligible facilities and the nearest processing facility or end market
- Reimbursement rates would include a process to address fluctuations in fuel prices

Local governments can assign transportation eligibility funding rights to service providers, and eligible transporters would register with CAA and enter into a transportation claims agreement. Functioning through an online portal, eligible applicants would confirm eligibility for reimbursement for individual shipments with CAA prior to the shipment taking place. CAA would confirm their shipment request and notify the receiving CRPF of the delivery. Once received the CRPF will confirm the load was accepted and input final weights. Once that is complete, reimbursement would be disbursed to the party initiating the shipment request. The program would include a dispute settlement process with specified timelines for contested claims.

More clarity about the envisioned process would be helpful so that local governments and service providers have an understanding of how assignment of eligibility funding rights will be made. Often times local governments do not have a direct relationship with the entity shipping materials. It may be possible to use some type of simple agreement or documented communication from a local government that designates a relationship between their service provider and facility. Also, it would be inefficient to make the assignment per load and it is typical for service providers to get releases in advance.

Although funding requests from service providers for facility upgrades and capital costs associated with preparation of materials (excluding costs covered under expansion of services funding to local governments) may coincide with requests for transportation cost reimbursement, CAA recommends managing funding requests for capital items (e.g. depot signage, compaction equipment, etc.) separately from transportation claims.

This makes sense, but can they occur concurrently? Can an entity request and receive funding separately but at the same time for both transportation claims and capital cost claims? Or must they be done one at a time? Please clarify.

### Registration of Claimants

A process must be established for local governments to identify the recycling depots, recycling facilities and haulers eligible for transportation reimbursements in their jurisdictions. At the time of this submission, DEQ informed CAA that it was consulting with local governments on an authorization or designation process for local governments to utilize with respect to all RMA local government compensation programs.

Eligible recipients of transportation funding, which could include both local governments and service providers, would enter into a transportation claims agreement with CAA prior to receiving transportation reimbursements:

- This agreement would include terms of payments including indemnification clauses that clarify each party's liabilities and obligations with respect to transportation of RMA materials including situations where a funding recipient was utilizing a third party to transport covered products
- CAA intends to consult with service providers and local governments on the content of a draft transportation claims agreement template

CAA will facilitate the registration process and completion of transportation reimbursement claims agreements in time to enable implementation by July 1, 2025.



## Establishing Standard Rates

### What is the methodology for calculating what the standard rate will be?

- CAA will develop a draft recycling depot and recycling reload facility list for review by local governments and service providers
- A facility receiving rate of inbound shipments that need to be scaled, received, consolidated, stored, and reloaded and all the associated administration and reporting would be paid a standard fee per ton managed

### How is it envisioned this process will work?

- A transportation reimbursement rate for outbound shipments from each facility would be calculated based on a standard per mile rate applied to the eligible distance and recorded weight received at the CRPF

### Will there be any consideration for type of fuel used in this reimbursement formula?

- Process for calculation of transportation rates for each facility would be reviewed including:
  - The categories of shipments that would be subject to different standard transportation rates (i.e. material type, destination)
- Calculation of facility rates reflecting the shipping distance from each eligible facility to the nearest processing facility with capacity or nearest end market based on the standard rate per mile
- Proposed rates will be set on a per ton of eligible covered product basis
- Payment process would include determining rates for mixed loads

## Timing of Submissions and Reimbursements

### As proposed, this would be an onerous process on a load by load basis. Is it possible that multiple shipments a day can be an automated process through an online portal?

CAA will develop an online portal to process submissions of claims. Claims processing will reflect the steps outlined below:

1. Eligible recipients would provide CAA notice of shipment through standard form via an online process
2. CAA would pre-approve eligible shipments (within specified time frames)
3. A Bill of Lading (BOL) would be released to relevant parties
4. Final weights of transported materials would be reconciled by CRPFs and other receiving facilities

### How frequently is this information needed from processors?

5. Payment is released

As per RMA rule requirements, CAA would notify local governments of all payments made to authorized service providers under this program.

## Claims Submission Content

During the next phase of consultation, CAA proposes to review a draft claims submission template in consultation with local governments and service providers. Operational information collected via claims submissions could include:

- Confirmation of shipment eligibility (i.e. local government expense for transportation of covered products)
- Location of recycling depot or recycling reload facility (origin)
- Date of load pick up at recycling depot or recycling reload facility
- Location of delivery location: CRPF, processor, or REM (destination)
- Date of delivery to CRPF, processor, or REM
- Confirmation of delivery by authorized CRPF, processor, or REM representative

### What frequency of claims submission is expected from processors?

Identification of covered product load type:



- Comingled material, specific material, if appropriate
- Baled material vs. compaction vs. uncompacted material
- If applicable, percentage of load associated with eligible covered product

Please provide clarification on how the percentage of load is calculated. For example, if an average commingle load is only 90% covered products, are only 90% of the costs paid?

- Outbound, inbound weights - confirmation of outbound and inbound weights from outbound and inbound facilities

### Timing of Payments

CAA proposes that service providers confirm eligibility of shipments and submit claims on a delivery-by-delivery basis. CAA would consult on proposed timelines for payment of claims and the processes for verifying, approving and adjusting claims. CAA would also consult on proposed deadlines for the submission of transportation claims and adjustments to transportation claims.

See previous comments and questions about the timing of payments and how this process is envisioned?

### Dispute Settlement Process

Please provide clarity on how this process is envisioned to work. ORRA does not recall the dispute resolution process being discussed, particularly as it pertains to the example given for inbound contamination requirements. How would the thresholds be established, and how would the service provider know if a load would be rejected until it is delivered? How would a CRPF be capable of auditing and refusing to accept material on a load by load basis? If there is a contamination deduction, would it go against the reimbursement? How does the contamination claim affect transportation claim reimbursement?

Curious why a local government would be involved in a dispute about transportation if the local government does not have a direct contractual relationship between the service provider and the PRO? The local government would not have standing in the contract.

As noted above, CAA is proposing a pre-submission claims review process to minimize disputes about whether a particular claim for funding is eligible. In cases where a submitted transportation claim is not considered eligible by CAA, that transportation request will not be approved, and the BOL generation process will not be initiated. If a load is approved for transportation and is rejected upon receipt at the CRPF due to contamination, the transporter shall incur the cost of the transport, removal, and disposal of the material and that load will not be eligible for transportation reimbursement.

CAA will develop a dispute settlement process for claims where a service provider and CAA disagree on eligibility for a claimed cost or the amount of the transportation cost reimbursement. Details would be included in a Service Provider/CAA transportation agreement, with the potential for arbitration by a third party agreed to by both parties. Affected local governments will be notified when a dispute settlement process has been initiated.

### Percentage of covered product in commingled loads

- Under RMA rules – initially PROs will use data from the 2023 Oregon Solid Waste Characterization and Composition Study to determine the portion of recyclable material that is not covered product in commingled loads
- CAA will propose a standard percentage for use in all rate sheet calculations
- If a local government, service provider, or PRO in a particular county believes that the local commingled stream has a significantly different proportion of covered product (in comparison to the statewide average), it can conduct a study in consultation with the affected parties to determine the proportion of covered product in the local commingled stream
- In 2027 the PRO is obligated to conduct a study to determine the proportion of covered material in commingled loads:
  - CAA will consult with stakeholders on the appropriate methodology associated to be used in this study and the revised program plan will include an outline of the proposed approach and timing of initiative

### Voluntary Transportation Option

As per RMA rules, CAA would develop an option where CAA would assume responsibility for transporting covered product materials from a local government's recycling depot or recycling reload facilities to the nearest facility if the local



government and CAA agree to such an approach. This would be implemented through a CAA/local government agreement which would describe service details. CAA will consult with service providers on the details of the transportation funding program to determine their level of interest in the voluntary interest option.

CAA should work with the entity providing or arranging for the transport of materials regarding responsibility for transporting covered product materials. The agreement to allow CAA to haul material from a depot or recycling facility should be between CAA and the facility operator, which may or may not be a local government.

## Opportunities for Efficiency and Effectiveness

### Wasteshed-Level Management

The management of materials at the wasteshed level offers a number of advantages from an administrative, planning, operational, and financial perspective. It is important to manage all the materials at the wasteshed level. The materials can be planned, administered, received, consolidated, prepared for shipment, and loaded in each wasteshed. In some cases, neighboring wastesheds may find it beneficial to work together to benefit from economies of scale and avoid unnecessary duplication of services. CAA will explore options to coordinate transportation of materials on a wasteshed basis during consultation on the details of the transportation funding program.

### Material Compaction

The movement of materials must be minimized where possible. One of the most effective ways to minimize the movement of materials is by maximizing load capacities thus reducing the overall number of loads needed, however, this must not be done at the risk of compromising the recyclability and recovery of the materials by CRPFs.

While baling is an effective way to maximize capacity, it has negative impacts on the recovery yield of the materials. Shipping loose materials is the least effective way of shipping materials resulting in the most loads to be managed. The most effective way is to compact the material into closed top walking floor trailers, maximizing the volume capacity without affecting the integrity of the material to be sorted. This will lower freight costs and increase recovery at the CRPF while reducing residue rates.

CAA will consult with local governments and their service providers regarding efficient transportation options. The rate sheet will likely, pending the results of consultation, distinguish between different types of loads to encourage transportation efficiencies.

How would this work from a transportation efficiency and environmental impact perspective? Loose, compacted, baled? Does increased effectiveness on sorting and decreasing contamination outweigh transportation costs and environmental impacts?

This approach would require massive reconfiguration of existing reload facilities and transfer stations. Service providers are interested in further discussion on this approach and how costs would be reimbursed.

## iii. Additional Reimbursement and Funding for Local Governments

### Contamination Reduction Programming

Local governments rely on service providers for contamination reduction programming. Service providers should be included throughout this section.

The RMA requires DEQ to establish and maintain list of approved contamination reduction program elements, including:

- Customer-facing materials, methods responsive to diverse populations
- Standards for providing feedback to generators that contribute to contamination
- Standards for service or financial consequences to generators that are repeated sources of contamination



Local governments and service providers must implement programs to reduce contamination that include program elements identified by DEQ, or materials or methods that are as effective, and must include a process to review and revise as local elements once every five years. Local governments are only obligated to participate to the extent program funding is provided by a PRO. PRO contamination reduction funding is capped at \$3 per capita per year.

RMA rules related to contamination reduction funding will be finalized as part of the RMA's Phase II rulemaking process with a review and approval by the Environmental Quality Commission anticipated in November 2024.

CAA has conducted some preliminary outreach with local governments related to this program, but as in other program areas, further consultation is required to develop the details of how this program will be administered.

As with other reimbursement programs, local governments may designate service providers as eligible recipients for program funding. Local governments may also assign other local governments as funding recipients (i.e. a city may choose to designate a county as the funding recipient).

Given that PRO program funding is capped at \$3 per capita, the assignment or designation process related to this program requires local governments to assign or designate portions of funding in situations where it may be assigning funding to multiple service providers. The per capita cap also requires the determination of funding years for which to calculate the cap, and the population period on which the per capita cap was calculated so that in any given funding year, local governments are working from the same population estimates.

CAA proposes the following general approach to disbursing funding for contamination reduction programming:

- The funding year for disbursements would be based on the municipal calendar year (e.g. July 1, 2025 to June 30, 2026)

The funding year disbursement should align with the entity receiving the funding.

- Prior to the start of each funding year CAA would calculate the eligible cap for Oregon local governments for the upcoming year based on the most recent estimate of Oregon population available from the Portland State University Population Research Center as per RMA rules 340-090-0810 (2) (timing to be determined) and provide to local governments and DEQ (potentially post on its website)
- Prior to the start of each funding year, local governments would through the Opportunity to Recycle (OTR) process assign funding eligibility identifying the portion of funding available to recipients in cases where the local government was assigning eligibility to multiple recipients

What is the process for unincorporated counties and cities under 4,000 in population?

- CAA would encourage local governments and eligible service providers to submit contamination reduction funding budgets, identifying what the CRF will be utilized for, to CAA for pre-approval prior to the start of each program year – this process would expedite the processing of payments later in the year

A pre-approval process was not contemplated for contamination reduction funding. As the regulator, if contamination reduction plans continue to be required by DEQ, why would a pre-approval process also be required with CAA? How is the pre-approval process envisioned?

- Where recipients want advance funding for contamination reduction programs, they would submit a budget for eligible items to CAA prior to the start of the program year (timing to be determined)
- Recipients that are provided advanced funding in relation to the contamination program would need to monitor spending and provide CAA with updates confirming advance funds were utilized for eligible contamination reduction program elements (timing to be determined)

Will the PRO cover administrative costs? It would be useful to establish key metrics for outcomes to achieve contamination reduction over time and then get prescriptive.

- In the event that recipients of advance funding related to the contamination reduction program had not spent the advance funding by the end of the funding year, they would be required to return unspent advance funding amounts to CAA (timing to be determined)

There could be a variety of circumstances that result in advanced funding not being spent. Would there be an intermediary step before funding is required to be returned? Is there a possible role for DEQ to engage in a conversation to assess a possible extension?





## Ensuring 10% Post-Consumer Content in Roll Carts

Many manufacturers of roll carts currently offer 10% or more post-consumer content in new containers. To get the postconsumer material needed, manufacturers need access to residentially sourced resin and there has been concern in the past about an adequate supply of this material. Some manufacturers may indicate that, depending on the size of the container and the weight of the resin used the purchaser, there may be the need for a small premium for a 10% cart during procurement. However, some cart manufacturers are already able to provide 10% post-consumer content at the same price and same warranty terms as 100 percent virgin resin carts.

CAA proposes to work closely with local governments and haulers to facilitate procurement that ensures the 10% standard is met and that the content is derived from residential post-consumer sources.

## Measures to ~~Protect Ratepayers from Increased Costs~~ Provide Downward Pressure on Rates

A more accurate way to characterize how ratepayers will be affected is that the RMA is intended to provide downward pressure on rates, rather than protection. There are many variables that go into rates and the RMA will result in significant changes to Oregon's recycling system, an important one being shared responsibility for funding. No one can determine how these changes will impact ratepayers until the new law is fully implemented.

Under the RMA, producers will provide funding for several activities that are currently financed indirectly through ratepayer recycling fees. In addition, producers will fund activities designed to implement recycling system improvements. While the level of many of these investments have yet to be finalized, the investments are anticipated to be significant and ~~will~~ may indirectly protect existing ratepayers from fee increases as local governments and system participants will no longer be required to recover such costs exclusively through rate payers.

Producer funding directed toward existing activities that should provide ~~ratepayer protection~~ downward pressure on the costs of managing recyclables include:

- Annual compensation to CRPFs to cover current operating and contaminant disposal costs as well as future system improvement costs
- Annual local government and service provider contamination reduction program funding
- Funding for local government and service provider transportation of covered products for more than 50 miles

New sources of producer funding directed toward recycling system improvements that should provide rate payer protection include:

- Producer funding for expansion of local government collection services
- Close to 50% of CRPF compensation relates to recycling system improvements associated with RMA obligations
- Producer funding for the collection of PRO acceptance list materials including potential funding in support of continued curbside collection of select materials
- Producer funding for the provision of local government education and outreach materials
- Producer funding to ensure collected materials are recycled at responsible end markets
- Producer funding for waste prevention and reuse projects designed to lower the environmental impact of covered products

With respect to the processing costs of collected materials and the requirement under 459A.923 (2) which requires PROs to share in processing costs to allow local governments to reduce the financial impact on ratepayers, CAA supports data reporting processes that would allow it to provide local governments with an annual estimate of PRO funding provided to processing facilities in relation to the volume of commingled materials collected in their jurisdiction. This would allow individual local governments to take PRO funding into account when setting ratepayer fees and processes for their local service providers. CAA can track certain commingled volumes through the provision of transportation subsidies, but will likely require additional reporting by CRPFs to ensure that this information is accurate on a local government basis. CAA will



work with DEQ to review various data reporting requirements under the RMA with the goal of providing this type of information to local governments.

CAA also supports the monitoring of developments at CRPFs over the course of the program plan in relation to the anticipated investments and costs identified through the study by Crowe on the Oregon Processor Commodity Risk Fee and Contamination Management Fee.<sup>1</sup> This is necessary to review whether anticipated investments were made and to review whether processing facility anticipated cost estimates were accurate. Such information will help refine forecasting estimates associated with anticipated future studies related to the calculation of CRPF processing fees. CAA believes that DEQ is best positioned to gather this information as a requirement of CRPF permitting reporting.

Finally, CAA has an obligation under 469A.875 to describe how it will provide funding to allow local governments to protect ratepayers from the increased costs associated with processing and marketing recyclable materials. As noted above, CAA will be making significant investments to support recycling throughout the state and indirectly protect ratepayers. CAA will provide local governments with an annual summary of RMA funding in relation to materials collected in their jurisdiction so that these amounts can be reviewed by local governments when conducting ratepayer reviews in relation to recycling services.

It is unclear how a CRPF will track individual loads received from multiple jurisdictions. The CRPF will not know where materials come from in all cases, and certainly down to a jurisdictionally-specific level. The same can be said for “reloads”. Much depends on what a local government decides to do with funds and how the regional transfer stations operate. They may not have information at the individual jurisdiction level for CAA to report to those local governments. New costs or savings at a reload facility would be passed on to the collection service provider in the tip fees, which would then be allocated across multiple jurisdictions. The allocation methods called for in collection franchise agreements (where they exist) may vary from the methods employed by CAA.

If the local service provider is a transfer station that is not regulated, there is a gap with the relationship between the shipping entity and the local government. The scenarios could be complex and differ on a case-by-case basis. It is not clear how CAA can provide information in way described, and how it is possible to draw a direct line between the dollar amount of the transportation subsidy CAA pays to a reload/transfer station and rate payers. Please clarify why this provision is needed. As proposed it is infeasible and not clear how the information is relevant for use in a local collection rate-setting process. ORRA suggests CAA work with local governments and service providers on solutions to this reporting requirement.

#### iv. Start-Up Approach for Time-Sensitive Tasks

Given the program start date of July 1, 2025, there are time-sensitive tasks that need to be completed during 2024 and early 2025.

The expected start-up tasks include:

1. Negotiating with and then providing associated compensation (with a single accounting point-of-contact system) to local governments and service providers for service expansion
2. Setting up a single accounting point-of-contact system for compensation of local governments and service providers for expenses not related to service expansion (i.e. transportation funding, contamination funding, roll cart funding, etc.)

For the role of the service provider, it is unclear who a single point of contact may be when serving multiple transfer stations with multiple jurisdictions.

3. Setting up a single accounting point-of-contact system for payment of contamination management fees and processor commodity risk fees to CRPFs.

In relation to the stated start-up tasks, CAA will begin outreach to and preliminary negotiations with all respondents to the initial needs assessment to further develop understanding of service expansion funding needs. Details of this proposed outreach, including ways to gather information that uses stakeholder time efficiently (by addressing multiple related topic areas for example), are included under the “Proposal for an Oregon Recycling System Optimization Project” section above. By June 30, 2025, the development, buildout, and implementation of a local government-facing portal will be completed. The portal solution will provide an easy to use yet secure platform for producers, service providers, and state/local

<sup>1</sup> Crowe. *Study Results: Processor Commodity Risk Fee / Contamination Management Fee*. Retrieved March 8, 2024 from <https://www.oregon.gov/deq/recycling/Documents/TWGTASK4-5Report.pdf>.





stakeholders to interact with CAA. All data within the portal will be encrypted to safeguard against external threats and ensure the confidentiality of data.

Please provide clarity on who will have access to what information through the portal.



For local governments and service providers, the portal will allow access through a secure user ID and password. Once in the portal, service providers will be able to view their claims, account history and balance due, and reports and notices. Additionally, the portal will provide multiple means for service providers to send their claims data to CAA through data exchange, structured file upload, or direct entry. As described above, details for administering each of the individual reimbursement programs will be discussed with local governments during the next phase of outreach. This process will inform further specific portal requirements.

In parallel to local government and service provider outreach, CAA will continue its discussions and engagement with Oregon's eligible CRPFs to better understand their needs and align on administrative processes for the payment of contamination management fees (CMF) and processor commodity risk fees (PCRF). Payment of these fees will also be facilitated through CAA's secure portal system.

Leveraging functionality that will support the overall achievement of Objective 1, including ensuring that materials are collected and processed for recycling in Oregon are consistently delivered to responsible end markets, CAA will provide full material flow traceability through a system that manages and reconciles inventory flow from initial possession, through validation of receipt by responsible end markets. This same functionality will support the track and trace needs under the transportation reimbursement process.



## b. The PRO Recycling Acceptance List

ORRA supports the ability for local governments to continue to collect PRO materials through curbside collection where that is occurring now, and exploring additional opportunities in communities who are not currently collecting PRO materials. Allowing the PRO to count these materials toward meeting their convenience and performance standards aligns with a fundamental premise and intent of the RMA to utilize existing infrastructure to maximize efficiencies and minimize costs within Oregon's recycling system.

This section outlines activities, timelines, and recommendations for increasing diversion of materials named on the PRO Acceptance List from disposal, including proposed approaches to meeting convenience and performance standards and setting collection targets.

As noted below, CAA has completed a GIS mapping exercise to assess existing depots and alternate collection sites in relation to the RMA rule requirements. In general, where there are service gaps in relation to RMA convenience standards, local governments are currently collecting some PRO materials through curbside collection. These local governments have indicated to CAA that they would like curbside collection of certain PRO materials to continue under the RMA and CAA has indicated its interest in working with local governments to support this added level of convenience.

As the exact number of physical collection points that CAA will propose is dependent on the outcome of local government discussions in relation alternate collection activities in key local government jurisdictions, CAA has not aligned on a proposed number of physical collection sites for PRO acceptance list materials at the start of the Program. The numbers provided below are initial estimates, which combine physical locations with alternate activities.

As CAA conducts further outreach in relation to assessing local government service expansion requests, it will also work with local governments to confirm potential participation in the collection system for PRO acceptance list materials. These discussions will enable the development of a more detailed plan for the collection system which in turn will layout a detailed proposal for CAA's compliance with convenience standards as part of the anticipated second program plan required in September.

## i. Proposed Approach to Achieving Convenience Standards

### Requirements

Through the rulemaking process, DEQ has defined the convenience standards for depots to ensure Oregonians have reasonable and equal access to recycle materials that the PRO is responsible for collecting and managing. ORS 340-0900640 outlines minimum sites for counties, cities and the Metro region.



Figure 1. An infographic summarizing the requirements of recycling access laid out in the RMA

The PRO will be required to have a minimum of:

- One depot in every county
- One additional collection point in counties with over 40,000 residents
- Additional depot locations for counties in the Metro region (Clackamas, Multnomah, and Washington Counties)
- A depot in cities of 7,000 or more for cities outside the metro region
- A depot for every city of 14,000 within the Metro region
- Additional collection points based on population and location of the city

The achievement of this distribution is demonstrated in Appendix F.



In addition to minimum regional requirements for depots, there are additional considerations that CAA is factoring in when considering optimal locations for siting depots, including:

- Incorporated versus unincorporated parts of counties
- Proximity to public transit in the multi-depot cities
- A goal that 95% of Oregonians live within 15 miles of a depot

Further, enhanced convenience standards exist for PE film, plastic buckets and pails, glass bottles and jars, PE and PP lids and caps, and HDPE package handles.

Block EPS, pressurized cylinders, aerosol packaging, aluminum foil and shredded paper are not included in the materials that must be collected at locations that meet the enhanced convenience standards. However, CAA, when possible, proposes to attempt to have most existing permitted sites, collection events and on-route (in specific urban areas) collect most, if not all PRO materials (collected separately from Universal Statewide Collection List materials), meeting the enhanced convenience standards for all materials while minimizing costs to the system and increasing convenience for the user. All depot locations shown in this section on the maps (Figures 2 and 3) and in Appendix F are being considered as enhanced locations accepting all PRO materials.

CAA will also consider alternative depot locations, where necessary for certain product categories, such as PE films, aerosols and pressurized cylinders. The use of on-route collection in certain metropolitan areas, at no additional cost to residents, is also being explored as a means to help meet convenience standards.

Further discussion of suggestions around the proper management of pressurized cylinders and block EPS can be found in the relevant sections below.

## Network Analysis and Mapping

Given all the requirements to meet convenience standards, CAA estimates it will need to establish between 138 and 189 points of collection for materials on the PRO acceptance list. Points of collection refer to physical depots and events. The number also includes 38 identified areas where on-route collection may, in part, replace the need for a physical depot.

CAA contracted with IncaTech, a consultant group specializing in geospatial analysis, to utilize a GIS mapping tool to predict where coverage might be possible through existing depots and permitted facilities. Lists of prospective depot sites were prioritized and input separately as layers of information to produce different network coverage scenarios.

The RMA requires the PRO to prioritize outreach to permitted DEQ facilities and existing depots. CAA will issue letters to all permitted and existing sites inviting them to participate in the PRO depot network. This will occur in the first stages of the ORSOP and be followed by a series of outreach activities to prepare local governments and service providers for the ORSOP. Through this outreach, permitted DEQ facilities and existing local government depots will receive no less than two specific and direct requests to consider joining the PRO depot network. Access to webinars, information offered on the CAA website, and other anticipated electronic communications will further increase awareness opportunities for these sites as required in ORS 459A.896(1)(a).

A map of existing depots and permitted facilities was layered over the county and city convenience standard requirements to determine where gaps in convenience standards would exist if all existing locations joined the network as 'enhanced'



locations. Given the location requirements, many gaps were discovered in the state where alternative locations or methods of collection are needed.

To fill some of the gaps, CAA researched likely participating partner locations of existing refuse-related industry locations and community-based organization (CBO)/current Ecycles locations. CAA also noted and layered many of the existing permitted locations, as well as potential future partner locations that could serve as backup in cities where convenience standards would not be met if some of the central existing permitted locations chose not to participate.

173 existing permitted depot sites were identified with additional plausible existing locations (hauler yards, CBOs, etc.). These 173 locations cover much of the state, meeting the state convenience standards of reaching more than 95% of residents within a 15-mile range and having at least one site per county. However, CAA may not be able to initially meet the city convenience standards, leaving gaps in some of the cities. Strategies to close gaps in convenience standards are explained below.

**How will this work for communities that want the same services across multiple jurisdictions if those smaller jurisdictions are not the targeted community for meeting the convenience standard?**

## Closing Gaps to Meet Convenience Standards

The initial phase of depot implementation is estimated to begin in 2025 by expanding collection of PRO material to the participating existing depot and permitted site locations.

Many existing hauler sites and permitted locations have expressed interest in participating as a PRO material collection point, however confirmation of participation is not yet confirmed. CAA has also identified over 285 backup sites that could be substituted if any existing facilities ultimately chose to not participate as a PRO collection point.

CAA also proposes to conduct outreach to retailers to explore existing or expanded collection opportunities for certain product categories, such as PE films, block white EPS, and pressurized single-use containers.

In metropolitan areas where on-route glass collection services currently exist, CAA will explore the potential of adding certain PRO materials to on-route collection services. CAA has sent out a questionnaire to Metro Regional governments to explore the economic feasibility and practicality of curbside collection. In the event that CAA and the local governments agree this is the best way to meet convenience standards for PRO materials, CAA proposes the number of depots required be adjusted in those enhanced service areas. CAA recommends offering direct service for the collection of PRO materials as it would help increase participation for all residents, increasing recovery rates and broadening access for residents.

CAA will explore the potential of enhanced curbside collection of PRO materials for both single-family and multifamily residents. To further address underserved communities and neighborhoods, CAA will consider hosting collection events in those identified areas.

As the depot network is built, there may be instances where barriers exist in establishing depots, such as a lack of available commercially zoned properties, or locations that do not immediately meet performance or geographic convenience standards. Where there are gaps and barriers that prevent ready identification of a suitable depot location, the CAA team will consider all practicable measures to work with prospective partners to develop a suitable site. Until a site can be developed, collection events may be necessary to meet convenience standards (more details on events below).

In these locations, CAA will explore one of three main options to fill the gap:



1. Adding PRO materials to a curbside container service, separate from USCL collections, and available at no cost to single family and multifamily properties to meet and exceed the convenience standards. Property density, service provider availability, and economic viability will guide this option
2. Partner with a CBO or independently host collection events regularly in areas lacking a permanent depot location
  - a. An emphasis on events in underserved areas of the cities will be prioritized. This option will be better suited where sites and infrastructure are limited and/or there is a lack of economies of scale for the alternative options
  - b. Option 2 and 3 will be combined in areas where single family convenience standards are met by onroute collection by adding targeted events to multifamily apartment complexes multiple times a year
3. Constructing a new facility to act as a depot location for PRO items in the community. Site availability and economic viability will likely be the main drivers of this option

## Running Collection Events

For events, CAA proposes to work with the municipality and local service provider(s) to prepare events that will best serve the population. CAA will work with cities and counties and service provider(s) to find the most suitable sites for collection events and determine the best time and frequency of hosting events. CAA will work with jurisdictions to promote the collection events and collect data on utilization. The events will either be staffed by the local municipality and/or local service provider(s) and reimbursed by CAA, or by a partner CBO or local COBID certified contractor with experience in waste management. Design for these events will be based on the models of existing Metro area collection events such as Metro Hazardous Waste Rounds Ups, City of Gresham Earth Day Events, Lane County's Plastics Round Ups or James Recycling's recycling collection events and they may be combined to increase participation.

CAA team members and partners have experience conducting similar events in other parts of the U.S. and Canada. The type of event will depend on the community's needs and what other disposal options currently exist. Events will be conducted in accordance with the same performance standards as depot locations (outlined in the Performance Standards section), offering free collection services and collecting covered materials in a way that preserves the quality of the material and prevents risk of litter or loss of materials.

## Requesting Variances

Onboarding the backup locations, siting and construction of new locations and event implementation for filling convenience standard gaps will begin in 2025 and CAA expects its proposed collection system to be completed by the end of the program plan. CAA intends to meet convenience standards in all service locations via one of the three options identified above for targeted communities.

In the event a suitable location cannot be identified for a permanent collection location or collection event, but a suitable location is established within a reasonable distance, CAA will request a proximity exemption variance. CAA proposes a reasonable distance would be 15 miles from the established depot serving as the basis of the proximity exemption to the jurisdiction where the PRO depot location/collection service is lacking.





If there are extenuating circumstances beyond the PRO’s control, including natural disasters such as wildfires and floods, or other situations that could affect service to a community for a prolonged period, CAA will seek a temporary variance on operations of that depot.

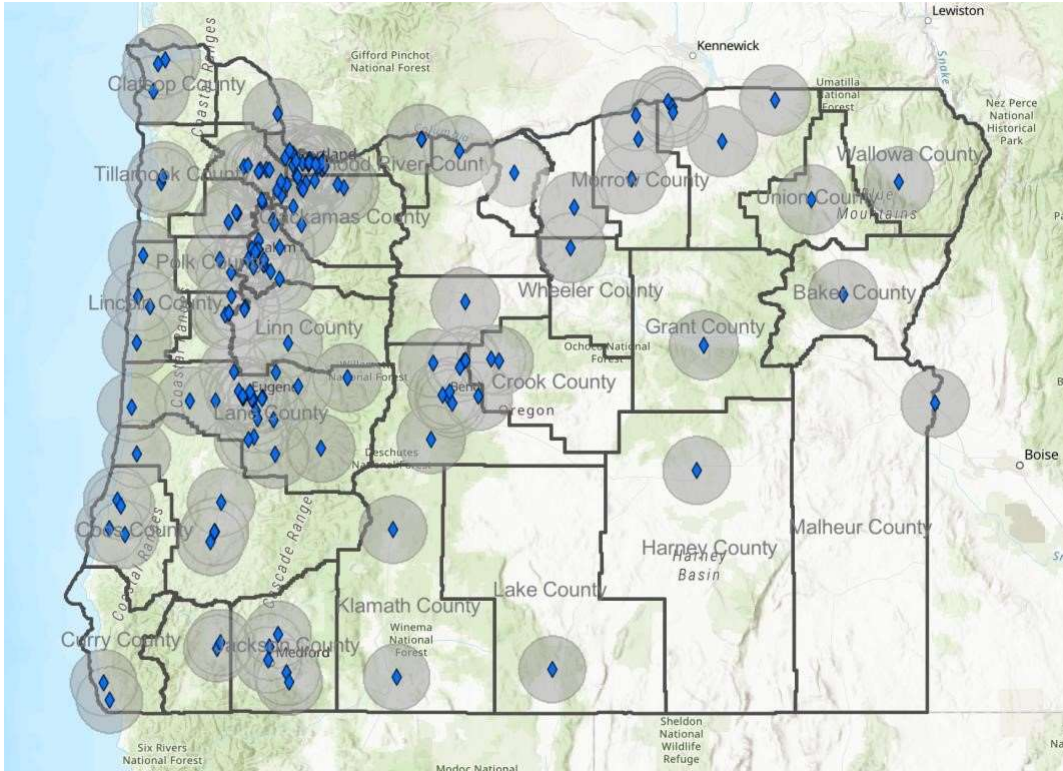


Figure 2. Proposed sites to meet performance standards and most convenience standards.

Using the existing collection sites of permitted facilities and local government depots, CAA has identified 142 suitable existing sites that, combined with special events and/or enhanced curbside service, will serve 96.9% of the population within a 15-mile buffer, based on 2020 census data.

	Number of Existing Collection Points	Total Population	Population within 15 Miles	% Beyond 15 Miles	% of Population within 15 Miles
State of Oregon	173	4,237,256	4,105,681	131,575	96.9%

Table 3



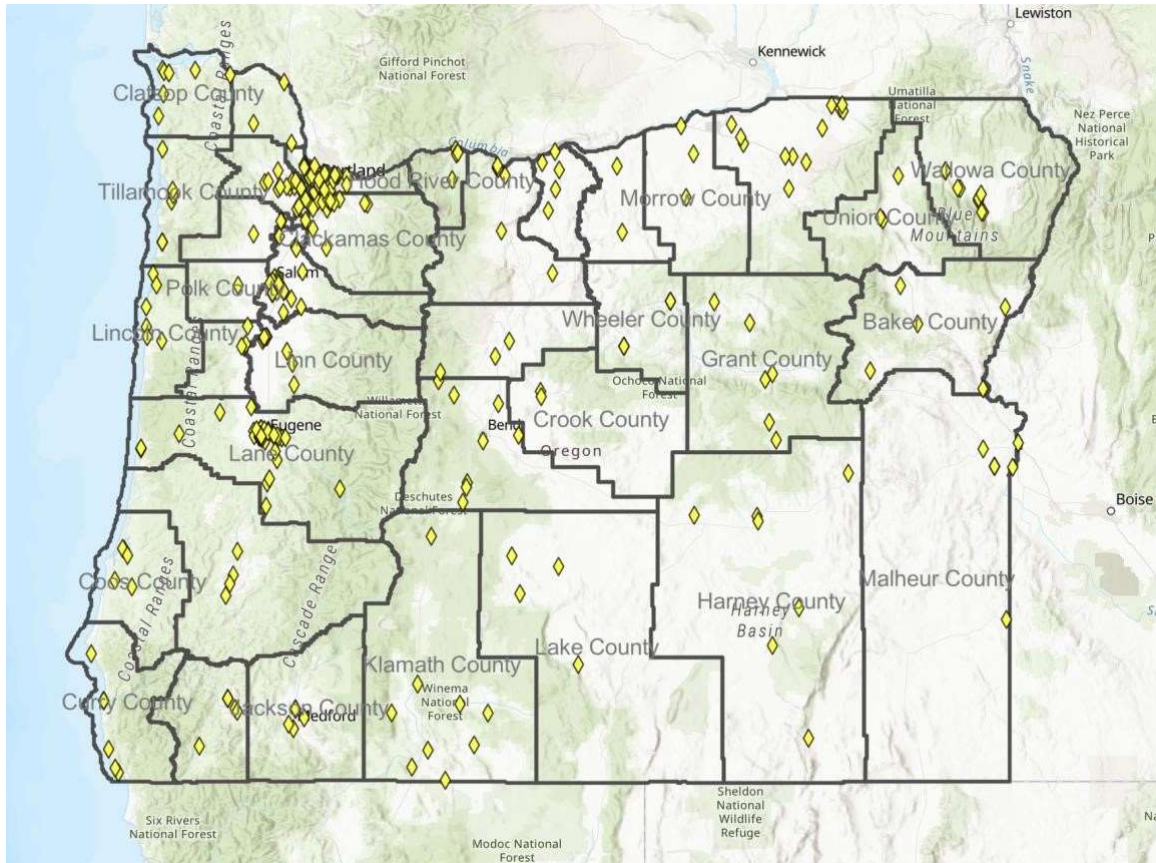


Figure 3. Identified backup sites where proposed sites do not wish to participate.

Due to the magnitude of the task and the need for the ORSOP, outreach to all sites has not yet been completed. CAA will prioritize detailed outreach to inform the planning processes. However, based on preliminary discussions with local governments and their service providers, CAA believes many of these sites will host depot collections for at least some PRO materials.

As mentioned above, CAA recognizes not all permitted sites and local government depots will elect to accept PRO depot materials. The requirement for a higher concentration of depots in metropolitan areas will also require additional locations beyond the existing sites. Anticipating this need, CAA has consulted with several organizations to explore the feasibility of utilizing their services to fulfill the remainder of the convenience standards requirements. Those organizations include:

- St. Vincent de Paul
- Bring Recycling
- Oregon Beverage Recycling Cooperative
- Habitat ReStores in the Portland Area
- James Recycling in the Metro Area
- City of Roses Disposal and Recycling
- Trash for Peace
- The Arc of Portland

All of these organizations, which are either non-profit or minority owned/operated, have expressed interest in continuing to explore the opportunity to be part of the PRO depot network.



Once the program is underway, to ensure compliance with convenience standards for transit access, CAA proposes to use the GIS mapping tool to overlay public transit routes to ensure the additional depot locations meet the proximity requirements for access to public transit.

## Underserved Populations

The CAA team has also considered mechanisms for collecting PRO materials from residents that might not be able to access depot points. CAA will explore the possibility of providing valet services through haulers currently servicing the area, many of which offer a form of subscription collection service, such as Recycle+, in metropolitan areas. The contracted hauler's ability to offer valet services across the state will be explored as part of the proposed ORSOP.

CAA proposes to develop eligibility criteria for these valet services. Some of those criteria could include that a resident is a recipient of Meals on Wheels, receiving home care services, and/or set-out/set-back assistance. CAA proposes to consult with organizations representing aging and disabled populations to develop the appropriate criteria for eligibility and means to educate these populations about collection services available to them.

Just as CAA has been exploring working with a on route collection model for areas lacking sufficient depots, these collection methods are also being explored for collecting PRO and USCL materials for handicapped individuals via the same method. In the Portland area for example, CAA is exploring contracting with Trash for Peace to use electric vehicles (cars/vans/bikes) to serve mobility-limited populations within the city in addition to exploring similar services that may be offered by haulers.

## ii. Proposed Approach to Addressing Performance Standards

See qualification below for depot PRO materials.

Once the depot network is developed, it will be CAA's responsibility to ensure that each site is operating in conformance with the performance standards defined in the rules. Oversight includes ensuring:

- Sites and services consistently conform to operating standards
- Depots are free to the public for PRO materials
- Sites are well promoted to maximize awareness and participation
- Infrastructure around the site promotes ease of accessibility
- Quality of recyclable materials is maintained
- Depot sites have a positive impact on the communities and environment within which they operate

CAA proposes to build multiple check points into the process of establishing and maintaining the network in a way that meets all these performance standards.

## Criteria for Site Selection

See suggested clarification below to hours of operation, was the intent that one of the days falls on a weekend, not that one hour would be sufficient? Also see questions on ADA accessibility.

CAA is responsible for reaching out to permitted facilities and existing locations to assess their interest in participating as a PRO depot and their suitability as a site. If a permitted facility or existing depot location is found not to conform to the



performance standards, CAA will reconsider the eligibility of that depot to serve as a drop off facility within 12 months of that depot correcting any non-conformance to the performance standards.

CAA will also ensure hours of operation conform to the rules. If a depot is located at a “parent facility”, such as a permitted facility, access to the PRO recycling area will be open those same hours. For all other collection points, or “stand alone” sites, CAA will ensure they are open for at least 4 days a week, 8 hours a day and that one of those operating hours-days falls on a Saturday or Sunday.

All sites must meet accessibility standards, having ADA compliant recycling areas in prominent places or marked so residents can easily access recycling opportunities. The sites need to also be accessible from a transportation perspective, ensuring roads and public spaces are suitable for residents to reach sites safely and for logistics partners to service. For collection opportunities that may be co-located with retail or other commercial activities, clear signage on how to access the recycling system will be made available at entrance points.

ORRA supports accessibility to recycling areas. Specifically, what would the ADA compliant criteria look like? Currently, some depot sites may use staffing to meet ADA requirements. Would the PRO only cover a portion of staffing costs? If the PRO contract requires ADA accessibility, would the PRO only reimburse PRO materials that make up depot total volume, e.g. if PRO materials are 10%, reimburse 10% of the costs to be ADA compliant? CAA may want to clarify with local development codes what accessibility standards mean in their specific jurisdiction. It may be that these changes to an existing facility are far more involved and costly than expected or practical to implement. Specifying that some minimum standards, rather than “meet accessibility standards” may offer more flexibility while providing the intended access.

Sites will be fenced or have some other enclosure that acts as a litter mitigation measure. All collection areas shall be covered by a roof or have lidded bins that protect the material's quality and prevent water from collecting in covered product collection areas.

Many sites are not currently staffed, fenced, or have a structure. As proposed, there may be significant additional costs necessary to meet the needs of a particular site.

## Establishment of Depot Sites and Contracts

As depot locations are brought on board, CAA will assess sites for additional equipment and infrastructure needed to meet the performance standards. Additional staff time necessary to fulfill the operational obligations of the PRO depot network will also be assessed and worked into the payment schedule. Each site will enter into a services contract with CAA, which will outline performance expectations as terms of the contract.

CAA will also document that all operational expectations are in place before a depot location is added to the network. CAA will create a site audit record for each site, demonstrating that each depot location can meet the performance standards at the outset of operating in the program.

Depot staff will undergo initial onboarding training with their CAA point of contact. Staff will receive training in all operational procedures, become familiarized with the system for pick-up requests, and learn where to find resources to promote their services. CAA will provide a depot management handbook outlining the above information to all depot sites.

CAA will work with collection sites to determine the best compensation method. Collection volumes may be low for some sites, in which case factoring a per pound reimbursement might not be practical. To adequately accommodate for the fixed space and labor costs, CAA may need to compensate collection sites based on a flat, per month service fee. Terms of compensation will be part of the depot negotiation process.

A provision of the contract will state that any incidents that could substantially impact services offered or require emergency response be reported to the PRO within 24 hours. That will allow the PRO 24 hours from the time of notification by the collection depot to convey incidents to DEQ within the two business days defined by rule.

## Operational Support

Once a depot is operating in the program, CAA will provide resources to support their operations. CAA anticipates offering the following resources:



- newsletter for depots to keep them informed of the progress of the program, feature information on best practices, and remind them how to contact the team for assistance
- Offer webinars to ensure operators are familiar with operational procedures
- Develop a media kit that will help depot sites promote the PRO collection opportunities alongside their other services
- Have access to digital resources like the PRO depot management handbook and digital files for signage

To ensure residents across Oregon have an equal opportunity to recycle, CAA will make education and promotional materials available in multiple languages. Different language options offered for depot education will mirror the language options used in each jurisdiction for broader program education elements.

## Annual Audits

CAA will develop an audit cycle that will include a mix of on-site and desktop audits performed each year for every site. Onsite audit inspection will be conducted to ensure operations are running smoothly and in accordance with the terms of the contract. Desktop audits and on-site audits will assess the same criteria. When a desk audit is performed rather than an onsite audit, documentation via photos, promotional efforts and compliance documentation will be requested. All the same documentation will be gathered by CAA staff when conducting an on-site audit.

ORRA suggests a minimum annual requirement to conduct an on-site visit for depot sites, and not be allowed to solely meet the requirement with desktop audits.

## Audit Criteria

The audit criteria will include, but not necessarily be limited to:

- Adequate signage advertising the program, program hours, who residents can contact if there is a complaint about the site and noting that the program is free
- Record of program promotion throughout the year
- Certificates of insurance
- Demonstration that staff are knowledgeable about the PRO program, PRO depot training is provided to all new employees, and employees have access to the PRO depot management handbook
- A mechanism for logging site complaints directly and documentation that complaints were forwarded to CAA

## Contamination Management

See below suggestion that CAA recommend, rather than require assistance with drop-offs.

CAA ~~will require, when feasible,~~ recommends an on-site staff member to be present to assist the public with drop-offs of PRO materials. This staff member will ensure cleaner material streams and will be an educator to the public about the PRO depot system and what it can collect. Where repeated contamination or illegal dumping issues arise at a site, CAA may use monitoring technology to address issues. Signage will be prominently placed to offer instructions on management of materials that are not accepted in the collection system and would therefore contribute to contamination.

If a load of material is determined to be too contaminated for an end market, the PRO will explore options to remedy the contamination situation through initial sorting. If that is not possible, the PRO will choose to landfill the material and notify DEQ within three business days of disposal. The notification will include a description of:



- The nature of contamination
- The cause of contamination
- The remedy explored to improve the quality of the contaminated load
- The remedy that will be put in place to prevent future contamination

## Specific Material Handling Requirements

### Block White EPS Foam Management

There are three regions in the state that have established foam densifying operations or are themselves a recycling market for block white EPS foam. Outside of these areas, CAA will work with specific PRO depot locations or partners to house nonthermal foam densifiers for consolidating the foam in the surrounding communities. CAA is exploring placing densifiers and exploring mobile densification near Grants Pass, Klamath Falls, Burns, Redmond, Ontario, The Dalles and Pendleton. These sites will prevent the movement of loose polystyrene for more than 75 miles. Where these sites do not meet the requirements, third-party sites will be contracted and/or mobile units will be dispatched. Additional contracting with these locations for staff and proper compensation will be negotiated with those sites.

### Pressurized Containers and Aerosols

CAA recognizes that all aerosols and single-use pressurized cylinders will be managed through a household hazardous waste (HHW) system according to OAR 340-090-0650(2)(b). The DEQ permitted facilities that CAA will be reaching out to as priority PRO depot locations meet the criteria of being staffed, and some have permanent HHW collection sites.

In addition to working with the permitted DEQ facilities that offer HHW collections, CAA is reaching out to contractors that host events for many of the counties across Oregon to explore how CAA can support the collection of aerosol containers and pressurized cylinders through those programs.

CAA has been in contact with PaintCare to explore the potential of partnering on promotion and coordination of HHW collection points and events where both programs are supporting the cost of managing covered products. Where there is an opportunity to partner on specific PaintCare collection events, CAA will consider co-sponsorship of those events. Once collected, both aerosol and pressurized cylinders would be managed by licensed HHW material handlers. CAA proposes reporting recovery of those products in empty containers weight, if it is possible for third party vendors managing the evacuation of the packaging to provide that data. If that is not possible, CAA will need to develop a calculation for a proxy weight that would be used for reporting.

CAA will not accept aerosol cans or pressurized cylinders from any non-residential generator unless that non-residential generator affirms in writing its status as a very small quantity generator pursuant to 40 CFR 260.10 and 40 CFR part 262.

The table below shows the counties currently supported with either a permanent HHW collection point, collection events or a combination of both. Aerosol containers and pressurized cylinders are items commonly managed through these existing programs, and CAA will seek to finance the collection and management of those products in partnership with those jurisdictions. CAA estimates that 94.6% of the Oregon population currently has access to some form of HHW collection through their county.

ORRA supports pressurized containers and aerosols meet all state and federal requirements and be handled and managed as hazardous waste, as well as exploring partnerships for collection points and events such as PaintCare.





The table below also identifies the counties that are lacking any HHW access for residents. CAA will prioritize hosting additional collection events for aerosols and pressurized cylinders in those jurisdictions.

ID	County	2022 Population	Wasteshed	HHW Sites	HHW Events	HHW Sites	HHW Events	No Coverage
801	Baker	16,860	Baker	Yes	-	16,860	0	0
802	Benton	93,976	Benton	-	Yes	0	93,976	0
803	Clackamas	425,316	Part of Metro	Yes	Yes	425,316	425,316	0
804	Clatsop	41,428	Clatsop	-	Yes	0	41,428	0
805	Columbia	53,014	Columbia	-	Yes	0	53,014	0
806	Coos	65,154	Coos	-	Yes	0	65,154	0
807	Crook	25,482	Crook	-	Yes	0	25,482	0
808	Curry	23,662	Curry	-	Yes	0	23,662	0
809	Deschutes	203,390	Deschutes	Yes	-	203,390	0	0
810	Douglas	111,694	Douglas	Yes	-	111,694	0	0
811	Gilliam	2,039	Gilliam	-	Yes	0	2,039	0
812	Grant	7,226	Grant	Nothing	Nothing	0	0	7,226
813	Harney	7,537	Harney	Nothing	Nothing	0	0	7,537
814	Hood River	23,888	Hood River	-	Yes	0	23,888	0
815	Jackson	223,827	Jackson	-	Yes	0	223,827	0
816	Jefferson	24,889	Jefferson	Nothing	Nothing	0	0	24,889
817	Josephine	88,728	Josephine	-	Yes	0	88,728	0
818	Klamath	69,822	Klamath	Nothing	Nothing	0	0	69,822
819	Lake	8,177	Lake	Nothing	Nothing	0	0	8,177
820	Lane	382,647	Lane	Yes	-	382,647	0	0
821	Lincoln	50,903	Lincoln	-	Yes	0	50,903	0
822	Linn	130,440	Linn	-	Yes	0	130,440	0
823	Malheur	31,995	Malheur	Nothing	Nothing	0	0	31,995
824	Marion	347,182	Marion	Yes	-	347,182	0	0
825	Morrow	12,635	Morrow	Yes	-	12,635	0	0
826	Multnomah	820,672	Metro	Yes	Yes	820,672	820,672	0
827	Polk	88,916	Polk	Yes	-	88,916	0	0
828	Sherman	1,908	Sherman	-	Yes	0	1,908	0
829	Tillamook	27,628	Tillamook	Yes	-	27,628	0	0
830	Umatilla	80,523	Umatilla	Nothing	Nothing	0	0	80,523
831	Union	26,295	Union	-	Yes	0	26,295	0
832	Wallowa	7,433	Wallowa	Yes	-	7,433	0	0
833	Wasco	26,581	Wasco	-	Yes	0	26,581	0
834	Washington	605,036	Part of Metro	Yes	Yes	605,036	605,036	0
835	Wheeler	1,456	Wheeler	Nothing	Nothing	0	0	1,456
836	Yamhill	108,261	Yamhill	-	Yes	0	108,261	0
<b>Total</b>		<b>4,266,620</b>				<b>3,049,409</b>	<b>2,836,610</b>	<b>231,625</b>
						<b>71.5%</b>	<b>66.5%</b>	<b>5.4%</b>

Table 4



## Compensation

CAA proposes to contract with each location for wages and salaries for additional depot employees needed to monitor and maintain PRO materials.

## Reuse

CAA will explore opportunities for supporting reusable packaging at depot locations and events. As depot locations and events will be staffed there may be opportunities for collection of reusable packaging.

If member producers express interest in introducing reusable packaging formats, CAA will work those producers and other stakeholders to assess the logistics and operational requirements required to facilitate collection through the PRO depot system. This will likely require additional reverse logistics arrangements specific to refillable packaging. Depending on the status of the material in question, incorporation of reusable packaging into the PRO acceptance collection system may also require material reporting category changes and program plan amendments. CAA will work with producers to assess the full financial and operational implications of managing reusable packaging. Where appropriate trials may be implemented to assess feasibility.

## Advanced Notification

Before considering adding any materials for collection at the depot, including a reusable packaging format as described above, CAA would engage with DEQ and local service providers in a process of notification six months before implementation. At that time of notification, CAA will produce data relevant to the proper screening assessment, which relates to sufficient availability of responsible end markets.

## Promotion of the PRO Depot Network

The statewide promotional campaign, as part of the broader education and outreach component of this Plan, will focus on three main areas: the USCL, the PRO recycling acceptance list collection materials (including how to take advantage of PRO Recycling material collection opportunities) and reducing contamination (both in terms of proper preparation of materials and avoiding non-accepted materials).

Collection opportunities will be promoted via a CAA-developed website that lists the available depots throughout the state. This will include hours of operation and site accessibility information. Customizable collateral that will be made available to local governments via an online portal and then distributed through their existing channels will also reinforce relevant messaging about depot recycling opportunities.

Educational collateral and campaign material will also highlight the importance of proper preparation of materials for recycling. CAA proposes to use proven motivational messaging to address key issues and inform residents about the new opportunities to recycle materials in their area.

To ensure that materials are accessible and culturally relevant, CAA has built in audience research and consultation processes with local governments, community-based organizations, targeted community focus groups, DEQ and the Oregon Recycling System Advisory Council (ORSAC). This is to ensure that all educational collateral is informative, well-designed,



culturally relevant and actionable. Local governments will also be able to tailor materials to their area via CAA's online portal.

More information about CAA's proposed approach to education and outreach, including education and outreach specific to the PRO depot network, can be found in the "Education and Outreach" section of the Operations plan.

## Equity in Performance Standards and Collaboration with the Community

As mentioned in the Convenience Standards section above, CAA has been in talks with several CBOs around the state that have expressed interest in staffing and maintaining depots. Several of the CBOs function as workforce development programs, such as Trash for Peace's Environmental Promotor program or The Arc's Job Training programs for individuals with Intellectual and Developmental Disabilities (IDDs). Working with these CBOs to utilize the management of the depots as a training ground for workforce development aligns with the current goals of many of these programs. Saint Vincent de Paul and James Recycling also have similar workforce development programs tailored to individuals with differing physical and mental abilities. CAA aims to make some of the depot contamination management and other processes obtainable for individuals with differing physical and mental abilities.

### iii. Start-Up Approach for Establishing the Depot Collection System

In the sections above relating to meeting convenience and performance standards, there are several references to CAA's plans to contact existing depot locations as well as pursue opportunities to partner with new locations or offer alternative solutions. As previously noted, CAA plans to undertake this start-up activity (previously an interim coordination task) as part of its proposed ORSOP. However, given there are several considerations that are PRO depot specific, the outline below explains in more detail the tasks and timings specific to this aspect of the needs assessment work.

#### Phase 1: Preparation (April 2024)

CAA's first phase of work to establish a depot collection system will focus on preparing for outreach and engagement. Likely activities during this phase include, but may not be exclusive to:

- Working with Oregon DEQ and other stakeholders to identify key information gaps to inform outreach and analysis process, for example, the potential role of transfer stations in the depot network
- Refining the target list of existing and potential depot partners, including identifying overlaps with outreach to local governments and service providers
- Drafting consultation materials e.g., background and planning documents that will include (at a minimum) explorations of the following for existing depot/drop-off sites including those run by Local Governments/service providers, and new sites:
  - Existing collection provision and capacity (if applicable)
  - Appetite and capacity for expansion (existing and new sites)
  - Estimated cost of expansion





- Specific material questions relating to current and potential handling e.g. proposed status of glass, handling needs for materials like EPS, aerosols etc.
- Understanding Education and Outreach provision and needs

## Phase 2: Consultation, Enhanced Analysis and System Design (May-August 2024)

CAA's second phase of work will focus on conducting outreach, leveraging efficiencies where this may overlap with other outreach to local governments and service providers in relation to curbside service. Activities may include, but will not be limited to:

- Undertaking outreach to local government and potential partner depot operators, using the following potential methods:
  - Direct outreach, potentially via a survey mechanism (efficiencies with ORSOP to be explored)
  - Follow-up calls and meetings to pursue negotiations with potential depot partners
  - Group meetings to facilitate coordination at the watershed level
- In parallel to, and informed by, the outreach and consultation process:
  - Exploring and modeling options for materials management including aggregation, transportation and Responsible End Market management, informed by learnings from survey and other outreach
  - Refining the GIS mapping work CAA has commissioned to date with IncaTech to revise estimates of schedule for meeting convenience standards
  - Developing detailed approach to meeting performance standards, further developing and refining the initial proposals outlined in this submission
  - Refining the plan for achieving collection targets and adjusting corresponding aspects of the Program Plan
  - Liaising cross-functionally or across PRO(s) on Education and Outreach needs

## Phase 3: Revised Draft Development and Iterations (September 2024)

Informed by additional 2024 outreach, CAA will update plans for the PRO acceptance list collection system.

## Phase 4: Operationalization and Onboarding (January-June 2025)

Subject to DEQ approval of the CAA program plan, CAA will focus on the operationalization of the Oregon PRO depot network. Activities may include, but will not be limited to:

- Finalization of contracts with local governments, service providers and end markets
- Finalizing the launch of reporting and accounting systems while onboarding key stakeholders



## Phase 5: Launch

By June 30, 2025, the first phase of PRO acceptance list collection points will be open. This will provide continued opportunity to recycle in Metro areas where items formerly on local government recycling acceptance lists have moved to the PRO recycling acceptance list. Over the course of the program plan CAA will on board additional collection sites to fully achieve convenience standards. Continued education and outreach efforts will ensure accurate information for residents regarding depot location, depot accepted materials, proper preparation of materials for recycling and top-level contaminants to avoid.

## iv. Proposed Depot Collection Targets

CAA has developed initial proposed collection targets for the PRO depot network. Where possible and where data were available, information from Cascadia's *Overview of Scenario Modeling: Oregon Plastic Pollution and Recycling Modernization Act* (referred to from here on as the "Cascadia report") was used to generate the values in the following section. Where data were not available, supplemental sources from depot programs in Ontario (the Resource Productivity and Recovery Authority for general blue box materials and the Orange Drop program for hazardous materials) were referenced.<sup>2</sup>

For the purposes of simplifying equations to demonstrate estimated collection rates per location, the following section will reference a number of depot locations. In this section, the term "depot" is used to represent physical locations, events and curbside services for PRO materials as explained in the *"Proposed approach to meeting convenience standards"* section of the Program Plan. Strictly for purposes of calculations here, but pending a number of considerations going forward, the table and text below use 173 sites against projected collected tons.<sup>3</sup> The numbers are presented as an average per site per year, recognizing that, in reality, some sites will collect more material than others.

For purposes of projecting collection targets in this section and subject to additional analysis in future versions of this Plan, CAA also assumes that 15% of the Oregon population will participate in depot and related services.

**What is the source data for the 15% population assumption for participation in depot and related services?**

<sup>2</sup> <https://stewardshipontario.ca/wp-content/uploads/2022/06/SO-2020AR-FINAL-002-3.pdf>

<sup>3</sup> Variables that will affect or determine the final number of collection sites include but are not limited to 1) the percentage of local governments agreeing to host sites, 2) DEQ's flexibility in meeting convenience standards by city, 3) value of curbside collection to displace number of depots, 4) number of sites that can accept all materials vs a more limited range, 5) materials management standards for aerosols and pressurized containers as HHW, 6) the ability to use existing film drop-off points at retailers, and 7) the ability to substitute events for sites



## Proposed Collection Targets and Rates

Material	Proposed Collection Targets and Rates	Average Tons/Year Per Collection Point	Average Pounds Per Participant Per Year
Steel and Aluminum Aerosol Packaging	325 tons (11.6% collection rate)	1.03	1.88
Single-Use Pressurized Cylinders	120 tons (15% collection rate)	0.38	0.69
Polyethylene Film Packaging	1,950 tons (5.9% collection rate)	6.16	11.27
Aluminum Foil and Pressed Foil Products	390 tons (6.2% collection rate)	1.23	2.25
Block White Expanded Polystyrene	490 tons (9.2% collection rate)	1.55	2.83
Polyethylene (PE) and Polypropylene (PP) Lids and High-Density Polyethylene (HDPE) Package Handles	290 tons (10% collection rate)	0.92	1.68
Plastics Buckets, Pails, and Storage Containers	975 tons (15% collection rate)	3.08	5.64

Table 5

## Material-Specific Discussion

### Steel and Aluminum Aerosols

Data on available steel and aluminum aerosols is very limited. Data that was available from the Cascadia report did not provide any generation estimates specific to aerosol cans. Data from other jurisdictions and sources<sup>4</sup> suggest approximately

<sup>4</sup> These include capture rate data from The Recycling Partnership and proprietary data from other programs



2,800 tons of empty containers were generated in Oregon in 2023. The Cascadia report suggests 166 tons of aerosols would be collected at depots. However, data from other Oregon sources, such as facilities that are currently handling this material, suggests the number could be significantly higher. It is estimated that approximately 325 tons of empty aerosol containers will be collected. Thorough education and outreach will help increase diversion.

Overall, the collection rate is estimated to be approximately 11.6%. An average of 1.03 tons (empty package weight) are expected to be collected per each through the collection point network, at an estimated average of 1.88 pounds collected per participant per year.

CAA recognizes that aerosol containers will need to be managed as HHW items. CAA is currently working with both permanent and event collection HHW providers to understand the volumes that will be collected through those channels and recovered by the PRO. As CAA learns more about the volumes currently collected through HHW programs, this collection calculation may be revised.

### **Single-use Pressurized Cylinders**

The Cascadia report did not have any specific generation data on single-use pressurized cylinders. The only source identified was from the Orange Drop program in Ontario, Canada. Extrapolating from data available from the annual reports it is estimated that approximately 800 tons of pressurized containers were generated in Oregon in 2023. Through an aggressive depot collection education program, it is anticipated that up to 120 tons may be collected.

The projected collection rate would be approximately 15%, averaging 0.694 tons per each collection point or approximately 0.38 per participant per year.

### **Polyethylene Film Packaging**

Data from the Cascadia report suggests approximately 66,000 tons of polyethylene (PE) film were generated in 2023. Assuming 50% falls within the RMA scope<sup>5</sup>, approximately 33,000 tons are generated and available for collection. An estimated 1,950 tons will be collected per year, which is a number consistent with data from available Canadian depot programs. Consumer confusion over flexible films may result in a mix of film resins being captured at the collection points.

Overall, the collection rate is estimated to be approximately 5.9%. An average of 11.272 tons are expected to be collected per each of the collection points in the network, at an estimated average of 6.16 pounds collected per participant per year. As part of the depot network for film collection, CAA will reach out to the retailers currently collecting film in the state to see which locations may be voluntarily added to the PRO collection network for film.

DEQ designated PE film as a PRO depot material due to concerns surrounding the material's compatibility with the existing recycling system. While not challenging this decision, CAA believes that this material could eventually be introduced into the USCL list and that improving long-term collection rates will likely be necessary to meet statewide plastic recycling goals.

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<sup>5</sup> This assumes that 50% of PE film is out of scope because it is generated as wrap by non-RMA retail, distribution center and industry sources. This estimate aligns with other industry sources, for example The Recycling Partnership capture data, accounting for some increases due to commercial volumes but also some decreases due to plastic bag bans in Oregon. Note that this same generation figure is used in the denominator of the plastics recycling rate calculations below.



As such, CAA will work with Oregon processing facilities to review strategies for management of PE film as well as adding non-PE films over time. Assessment may include the implementation of research opportunities once the Program Plan period commences to better understand opportunities. Meanwhile, CAA also plans to further investigate the volume of PE film material flowing through depots, the commingled stream (as contamination) and specialized collection services to inform potential research and trials while meeting its obligation to ensure the disposition of this material to REMs.

### **Aluminum Foil and Pressed Foil Products**

The Cascadia report provided no specific generation estimates for aluminum foil and pressed foil products. Estimates from other sources, including The Recycling Partnership (The Partnership), suggest 6,300 tons of residential material were generated in 2023. Based on The Partnership's estimates for collection, corroborated by available information from Canadian depot programs, CAA estimates that approximately 390 tons of aluminum foil and pressed foil products will be collected through PRO depots (Cascadia's report suggested only 50 tons may be collected as it is common for residents to place their aluminum foil products in their curbside container, but this figure seems too low).

A general trend towards grocery products moving away from aluminum foil trays into polycoated boxboard formats may impact the volume of foil products generated over time. Less expensive, freezer-safe and microwave-safe, boxboard trays are increasingly replacing aluminum foil products. Provided that assumed participation rates remain the same, the estimate of collected tonnage may become aggressively high over time.

Overall, the collection rate is estimated to be approximately 6.2%. An average of 2.254 tons are expected to be collected per each of the collection points in the network, at an estimated average of 1.23 pounds collected per participant per year.

### **Block White Expanded Polystyrene (EPS)**

The Cascadia report suggests approximately 5,300 tons of foam polystyrene were generated in 2023. However, the report noted there was some downward pressure on EPS for generation. Using available data, adjusted for recent reductions in EPS usage suggests approximately 490 tons will be collected.

This estimate is consistent with data available from depot programs in Canada. It should be noted that producers utilizing EPS packaging are under pressure to replace it because of the perception of its impact on ocean beaches and marine litter. EPS is being replaced by molded pulp forms, corrugated cardboard forms and expanded PE and PP foams. Therefore, the collection estimate may be on the high side if these other cushion packaging forms continue to make inroads.

Overall, the collection rate is estimated to be approximately 9.2%. An average of 2.83 tons is expected to be collected per each of the collection points in the network, at an average estimated 1.55 pounds collected per participant per year. CAA will also be approaching enhanced recycling service programs, such as Recycle+, to offer management of those collected materials, like EPS, to ensure they are recycled by REMs. These volumes may also be included in the PRO annual recovery calculations.

### **PE and PP Lids and Caps and HDPE Package Handles**

There is little available data on generation of these materials as typically both are part of a larger tubs and lids collection program in many jurisdictions. Based on 7.5% of the weight of HDPE and PP bottles, tubs and lids captured in selected Canadian programs, 290 tons are expected to be collected through the collection point network. Overall, the collection rate



is estimated to be approximately 10%. An average of 1.676 tons are expected to be collected per each of the collection points in the network at an estimated average of .92 pounds collected per participant per year.

DEQ has included PE and PP lids on the PRO depot collection list due in large part to sortation concerns (they are permitted on the USCL when screwed or snapped onto containers). Realistically, caps and lids will likely have low collection rates, given the time cost associated with households having to collect them and drop them off at designated depot drop-off points. However, CAA will ensure extensive education and promotional materials are distributed to direct people to take their caps and lids to local drop-off depots.

CAA believes this material, inclusive of HDPE package handles, should eventually be introduced into the USCL list, as lids and caps that are screwed or snapped onto containers are already an accepted USCL material. CAA is in contact with an Oregon-based manufacturer of HDPE package handles that has completed further CRPF-focused studies since the rulemaking process. CAA proposes to discuss the findings of this new research with DEQ and Oregon CRPFs, as well as exploring other research needs, potential design improvements among producer members and ways of better communicating to residents once the Program commences, with a view to making the case for their inclusion on the USCL.

### **Plastic Buckets, Pails and Storage Containers**

The Cascadia report does not provide categorization or other levels of granularity that produces a generation figure for plastic buckets, pails and storage containers. For purposes of projecting a collection target, it is assumed approximately 6,500 tons of this material are generated per year. Some of this material is likely currently found in curbside recycling loads in Oregon, but CAA will focus education on driving the right materials to depot locations. At depots, it is estimated that approximately 975 tons will be collected, although this estimate is higher than data available from depot programs in Canada.

Overall, the collection rate is estimated to be approximately 15%. CAA expects 5.636 tons to be collected on average per each of the collection points in the network. An estimated 3.08 pounds per participant per year will be captured.

### **Glass**

Glass currently collected in Oregon via separated curbside streams totals upwards of 38,000 tons annually. Additional glass bottles and jars are expected to be collected through new communities getting access to glass recycling. Many residents in more rural areas, or who self-haul in Oregon, already take glass to their local depots for recycling. Through an enhanced public education and promotion campaign, CAA estimates that an additional 3,100 tons of glass, for a total of approximately 41,100 tons will be collected through the network of collection points, and on-route collection where local governments choose to preserve those services (subject to negotiations between CAA and the local governments). This estimate is consistent with the estimates provided by Cascadia. Overall, with an estimate of 77,000 tons of glass available for collection, this translates to an estimated collection rate of 53%; eight percentage points higher than the required rate of 45% under the program.

Challenges associated with glass contaminants in the commingled stream are well understood by CAA and will inform the education and outreach strategy. Given that glass bottles are used in food contact applications, relevant education and outreach will also address appropriate disposal practices in case of high levels of food contamination and will mirror that of delisted materials with similar use cases, such as aluminum foil.



## Supporting the Oregon statewide plastics recycling rate (ORS 459A.926)

The state of Oregon has established a statewide recycling goal for plastic packaging and plastic food service ware, with targets of:

- At least 25% by 2028
- At least 50% by 2040 and in each subsequent year, and
- At least 70% by the calendar year 2050 and each subsequent year

The establishment of the statewide PRO depot network along with the USCL will significantly increase access and opportunity uniformly across the state for all Oregonians. The transportation reimbursement to local governments and their service providers will also serve as an economic equalizer across the state, addressing an existing and significant barrier to plastics recycling in more rural parts of Oregon.

CAA expects the increase in access to recycling for a greater range of plastic products, coupled with the continued success of other recycling programs, such as OBRC, to allow the state to reach the first plastics recycling goal of 25% by 2028.



## c. Materials Strategy

CAA acknowledges that specific materials need special attention and potential action to help in the achievement of this plan's objectives and goals, as well as the goals of the RMA. These activities connect to the objectives relating to addressing packaging impacts, the expansion of recycling opportunities, the achievement of the plastics recycling goal, and the utilization of responsible end markets.

Many CAA members have made significant investments to support the successful collection and recycling of certain materials nationally and, in many cases, in Oregon specifically. As CAA works to address packaging impacts, the expansion of recycling opportunities, and the achievement of recycling goals and targets, the organization is committed to further leveraging work being done by existing material-focused groups and organizations where applicable. Examples of this type of work include The Recycling Partnership's PET Recycling Coalition and the Poly Coated Paper Alliance. It is a priority of CAA to avoid unnecessary duplication of efforts.

CAA is also committed to exploring opportunities to achieve the broadest possible system benefits from any agreed and funded system interventions. For example, if any investments are made in CRPFs in Oregon, CAA proposes to work with CRPFs to agree when and whether these may stand to benefit more than one material category.

In addition to the specific material actions identified below, CAA will continue to work with stakeholders in reviewing other RMA material issues and options. For example, CAA noted support in its Phase I RMA Rules submission for the inclusion on the USCL of PE and PP lids and caps and HDPE package handles. While CAA does not have a specific action plan in relation to these materials at the time of this submission, the group will continue to assess these materials and potentially other USCL additions with Oregon stakeholders in the context of other materials management discussions. Any recommendations for the addition of other materials to the USCL or recommendations for trial assessments of other materials would be presented as program plan amendments at a later date.

To effectively improve collection and recycling in Oregon in accordance with the RMA, several material-specific issues must be addressed. In this section, CAA reviews:

1. Proposed additions to the USCL
2. SIMS on the USCL
3. SIMS on the PRO Recycling Acceptance List
4. Proposals to engage on commingled collection of some materials on a trial basis
5. Initial plastic recycling rate projections

Under the RMA, Oregon's system is designed to change as technology changes and responsible end markets are developed. In the future, with advances in technology and investments in processing facilities, we expect there will be the ability to meet more of the statutory criteria for materials to be added to the USCL. ORRA maintains that at this time, no additional materials are ready to be added to the USCL. We look forward to this evolution and continuing to assess materials for possible inclusion on the USCL in future program plans, designated as SIMS, or on a trial basis.





## i. Proposed Additions to the USCL

In addition to taking steps to establish universal adherence to the currently approved USCL, CAA is proposing pathways for some other materials to be added to the USCL.

### PET Thermoforms

ORRA appreciate the delay until 2027 while markets and sortation technology improve as well as education processes occur. On-ramping too soon could be problematic because it would be difficult to remove if unforeseen issues arise. The ability to market with PET bottles may be problematic because of the level they could saturate the current bale.

#### Material Status

CAA recognizes that some PET thermoforms have not been included in the USCL list and DEQ has classified them as a SIM. CAA intends to take steps that will justify the addition of those PET thermoforms to the USCL list, which in turn will encompass CAA’s obligations to address the concerns raised by Oregon DEQ via the SIMS list. CAA proposes that appropriate actions be taken to include PET thermoforms on the USCL by July 1, 2027.

DEQ’s overall material collection determination has kept PET thermoforms off both the USCL and PRO depot lists, meaning these materials will not be collected as a part of curbside commingled streams. However, studies across the country find that even when *not* accepted as a part of curbside commingled collection, thermoforms can make up to 10% of an average PET bale.<sup>8</sup> To minimize the loss of thermoforms as CRPF residue, CAA proposes to engage with CRPFs as outlined below to create a seamless system for PET thermoforms.

Under CAA’s proposal, PET thermoforms would ultimately be collected statewide as part of commingled curbside streams and would be processed and sent to responsible end markets (REMs) by CRPFs. In the interim, CAA will engage with the specialized subscription-based collectors of PET thermoforms and CRPFs to understand the volumes and processing picture for those materials – and to ensure REMs are being utilized.

#### Performance Against ORS Criteria

CAA acknowledges that Oregon DEQ made its decision to exclude PET thermoforms from the USCL based on a set of key criteria in ORS 459A.914(3). Chief among DEQ’s concerns is a lack of consistent, responsible end market demand for the material, which in turn has caused limited CRPF acceptance and inclusion in curbside programs. The table below provides information to address the key challenges for PET thermoforms, referencing the specific determination criteria outlined in ORS 459A.914(3). The information has been gathered through ongoing research and engagement with a wide range of stakeholders involved with PET thermoform recycling issues (more details can be found in Appendix D).

Criteria	Performance
<p><b>The stability, maturity, accessibility and viability of responsible end markets</b></p>	<p>Reclaimer investments and interest in PET thermoform recycling are dynamic and growing, with regional end markets available to Oregon CRPFs and new markets actively developing.</p> <p>CAA proposes to facilitate PET thermoform markets between Oregon CRPFs and responsible end markets.</p>

	<p>CAA also acknowledges the role it will need to play in directing existing PET thermoform collection (e.g., via specialized collection services) to REMs while PET thermoforms remain non-USCL materials.</p> <p>Further, CAA notes there currently is market demand for thermoform-derived rPET (most prominently by berry company Driscoll's) that considerably outweighs the current supply. CAA expects more producers to join this existing end user in demanding thermoform-derived rPET.</p>
<b>Environmental health and safety considerations</b>	<p>PET thermoforms do not present any immediate or substantial health and safety concerns to the recycling process. Concerns with PET thermoform reclamation include water usage and wastewater management. However, it is noteworthy that there is no indication that thermoform reclamation requires any more water than PET bottle reclamation.<sup>6</sup> CAA proposes to examine water consumption in PET thermoform reclamation as part of its end market engagement and, as needed, develop interventions to reduce water consumption and improve usage of best practices in wastewater treatment.</p>
<b>The anticipated yield loss for the material during the recycling process</b>	<p>Yield loss during reclamation includes both the intended removal of non-PET materials and the unintended loss of PET. The removal of non-PET items during pre-sorting at the reclaimer causes an unavoidable simultaneous loss of erroneously removed PET. Both forms of yield loss at pre-sorting can be minimized by implementing more effective sorting equipment and procedures at CRPFs. Reclaimers also experience loss of PET due to the generation of fines, which tends to be greater in PET thermoform reclamation than PET bottle reclamation. CRPFs can minimize yield loss due to fines generation by implementing best practices and optimizing equipment and processes.</p>
<b>The material's compatibility with existing recycling infrastructure</b>	<p>To date, only two Oregon CRPFs are accepting and marketing PET thermoform material gathered through specialized collection programs separate from curbside commingled collection. The current lack of acceptance in municipally managed collection programs is a result of a historical lack of end market demand, which has only recently improved. CAA proposes to address the nexus of CRPF acceptance/reclaimer demand that then creates the condition for universal collection.</p>
<b>The amount of the material available</b>	<p>Information submitted by various stakeholders in Oregon's rulemaking and material assessment processing solidly documents the established, scaled presence of the PET thermoform material in the packaging stream.</p>
<b>The practicalities of sorting and storing the material</b>	<p>PET thermoform sortation and storage at CRPFs is an established practice, most prominently in California. CAA proposes to explore the need for CRPF investment in this equipment and facilitate this as appropriate.</p>
<b>Contamination</b>	<p>Contamination results from mistaken public recycling of lookalike materials and design issues with PET thermoforms, including the use of recycling-incompatible glues and labels. An additional challenge can arise from residual food waste on PET thermoforms. CAA proposes to develop mechanisms to address and minimize all these challenges.</p>
<b>The ability for waste generators to easily identify and properly prepare the material</b>	<p>CAA proposes to develop mechanisms designed to reduce the presence of lookalikes in the packaging stream (without creating adverse environmental impacts) as well as clear education to help generators correctly identify the materials that should be placed in commingled recycling.</p>

<sup>6</sup> Based on conversations with internal PET thermoform experts at The Recycling Partnership.



<b>Economic factors</b>	While there are no direct measurements of PET thermoform value marketed by CRPFs, PET thermoform bales marketed by California MRFs have consistent positive value, as demonstrated by <a href="https://recyclingmarkets.net">RecyclingMarkets.net</a> . Similarly, <a href="https://prcc.org">Plastic Recycling Corporation of California (PRCC)</a> 's website indicates that at the time of submission, thermoform-only bales trading at 8 cents per pound, which is a
	fraction higher than commingled bottle and thermoform bales and only two to three cents per pound lower than bottle-only bales. <sup>7</sup> If this value translates to Oregon when PET thermoforms are collected and processed, it could improve the current “blended value” of all processed materials. CAA’s plan articulates market-related mechanisms that will help to guarantee the value of PET thermoform material to CRPFs. Once established in collection, CAA’s PCRf payments will help support PET thermoform sortation and marketing.
<b>Environmental factors from a life cycle perspective</b>	N/A

Table 6

CAA submits that PET thermoforms have a positive trajectory in relation to the challenges detailed above and that concerted action in the implementation of this Plan will encourage that trend, thus facilitating the addition of PET thermoforms to the USCL.

**Proposed Action Steps and Timeline for Inclusion on USCL**

As part of its implementation of this plan (once approved), CAA proposes to take the following steps to facilitate inclusion of PET thermoforms on the USCL:

1. Explore providing technical and financial assistance to CRPFs to receive and sort PET thermoforms for shipment to responsible end markets
2. Facilitate end market demand for PET thermoforms to ensure that all CRPFs gain the continuous ability to send PET thermoforms to REMs
3. Address design issues that hinder PET thermoform recyclability

With the implementation of the action steps outlined above during the first Program Plan, CAA proposes that PET thermoforms can be considered for addition into USCL on July 1, 2027. In the interim, CAA will explore ways to direct thermoform collection (e.g., via specialized collection services) to CRPFs with existing sortation capabilities to concentrate the flow of materials and facilitate disposition of these material to REMs.

CAA financing for activities related to the potential inclusion of PET thermoforms (currently not accepted for recycling) will be managed through the collection of fees applied to these materials. This fee setting principle will be applicable to material management development costs associated with other materials. CAA will allocate specific material development costs to those specific materials through the fee setting process.

**ORRA agrees it is reasonable to reassess PET thermoforms and take appropriate actions for consideration to include on the USCL.**

<sup>7</sup> Based on values indicated on <https://prcc.biz/pricing/> accessed on 5<sup>th</sup> February 2024.



## Transparent Blue and Green PET Bottles

ORRA considers this a clarification and supports inclusion of transparent blue and green PET bottles on the USCL. We recognize that most facilities are already receiving these materials. It would be helpful to have clarity on what is considered “transparent.”

### Material Status

DEQ only included clear PET bottles on the USCL. However, CAA understands from stakeholder discussions that transparent blue and green PET bottles are widely recycled and recommends that transparent blue and green PET bottles be added to the USCL by July 1, 2025.

CAA understands that transparent light blue PET bottles are treated separately from transparent dark blue PET bottles, with transparent light blue PET bottles being desired by reclaimers to counteract the gray color of rPET derived from clear bottles. Based on email correspondence with subject matter experts from the National Association for PET Container Resources (NAPCOR), the Association of Plastic Recyclers (APR), and The Recycling Partnership, CAA understands that transparent dark blue PET bottles are often combined with transparent green PET bottles with minimal impact on endmarket suitability.<sup>8</sup>

Given that Oregon is a deposit state, with many transparent blue and green bottles collected for recycling via redemption centers, CAA anticipates that adding transparent blue and green PET bottles to the USCL will add a relatively small volume of material to CRPFs.

### Performance Against ORS Criteria

Criteria	Performance
<b>The stability, maturity, accessibility and viability of responsible end markets</b>	Consultations with reclaimers made clear that transparent blue and green PET bottles are routinely and successfully routed to established, stable end markets in the Pacific Northwest Region and other parts of the U.S. Also of note, APR and ISRI bale specifications <sup>9</sup> are inclusive of transparent blue and green PET bottles with no limitations on either. CAA will monitor and consistently engage reclaimers to understand and suitably address any issues that arise in processing or marketing this material.
<b>Environmental health and safety considerations</b>	Transparent blue and green PET bottles do not present any immediate or substantial health and safety concerns on the health or safety of CRPF operators.
<b>The anticipated yield loss for the material during the recycling process</b>	Yield loss for transparent blue and green PET bottles is not significantly different than the yield loss during reclamation of clear PET bottles, which can be minimized by optimizing equipment and processes.
<b>The material’s compatibility with existing recycling infrastructure</b>	Transparent blue and green PET bottles are already collected and sorted successfully from commingled streams in Oregon.

<sup>8</sup> Interviews with ORPET and email exchange with NAPCOR, APR, and The Recycling Partnership.

<sup>9</sup> APR’s model bale specifications for PET bottle with PET thermoforms and APR and ISRI’s model bale specifications for PET bottle bales without PET thermoforms states that transparent green and transparent light-blue PET are an acceptable part of a model PET bale. See APR’s [Model Bale Specification: PET Bottles \(No PET Thermoforms\)](#), APR’s [Model Bale Specification: PET Bottles with PET Thermoforms](#), and ISRI’s [Bale Specification: PET Bottles \(No PET Thermoforms\)](#). Documents accessed on 02/22/2024.



<b>The amount of the material available</b>	Transparent blue and green PET bottles are already collected and sorted successfully from commingled streams in Oregon.
<b>The practicalities of sorting and storing the material</b>	Transparent blue and green PET bottles are already collected and sorted successfully from commingled streams in Oregon.
<b>Contamination</b>	There are likely no contamination issues that are specific to the acceptance of transparent blue and green PET bottles.
<b>The ability for waste generators to easily identify and properly prepare the material</b>	Engagement with stakeholders has led CAA to believe that transparent blue and green PET bottles are easily identifiable by waste generators. Transparent green and blue PET lookalikes made of other resins are also uncommon.
<b>Economic factors</b>	The existing market economics surrounding PET bottle recycling account for the value of transparent blue and green PET bottles and have demonstrated a viable amount of economic productivity.
<b>Environmental factors from a life cycle perspective</b>	N/A

Table 7

## Spiral Wound Containers

### Material Status

Spiral Wound Containers were included in DEQ’s draft USCL rule until they were removed by DEQ just prior to submitting the proposed rule to the Environmental Quality Commission (EQC). This removal occurred because an in-state market, Cascade Steel Rolling Mills Inc. (CSRМ), provided a formal written comment that while the company “is adopting a neutral position regarding the addition of spiral wound cans” it had concerns regarding “the potential impact of these materials on emissions of air toxics and other pollutants.”

Although Sonoco (the primary manufacturer of spiral wound containers) reported a screening-level life cycle assessment demonstrating that for five of six impact factors evaluated, the added (global) environmental benefits of increased steel recycling outweigh higher (local) emissions associated with combustion of the non-steel fraction of the package, DEQ chose to remove them from the draft rule submitted to EQC to provide “Cascade Steel Rolling Mills and Sonoco additional time to better evaluate outstanding concerns involving local air emissions.”

CSRМ and Sonoco have subsequently met, and we understand had a positive discussion. As of the time of this program plan submission, however, CSRМ had not yet provided a final decision to Sonoco. There are currently 112 steel mills in the United States, of which CSRМ is only one, and regardless of the decision by CSRМ, CAA proposes to add/restore spiral wound containers to the USCL via this program plan. Other steel mills that Sonoco has approached for their acquiescence to recycling steel can bundles with spiral wound containers in them have not raised air emissions concerns. In fact, Sonoco has submitted letters from the following steel mills that accept spiral wound containers in their incoming stream:

- United States Steel Corporation (on behalf of their six U.S. steel mills)
- Nucor – Plymouth, Utah location (Nucor has 20 U.S. steel mills, including a mill in Seattle)



- ArcelorMittal Dofasco – 13 U.S. steel mills
- Algoma Steel Inc., Sault Ste. Marie, Ontario, Canada

## Performance Against ORS Criteria

When removing spiral wound containers from its draft rule, DEQ stated in its comments that:

“DEQ understands that paper cans are appropriate for recycling given consideration of all other criteria contained in ORS 459A.914(3) and if this concern regarding potential air emissions can be addressed. A producer responsibility organization may propose adding this material to the Uniform Statewide Collection List using the program plan mechanism described in ORS 459A.914(4)(b).”<sup>10</sup>

CAA is not submitting additional information with respect to ORS Criteria at this time.

## Proposed Action Steps and Timeline for Inclusion on USCL

CAA proposes to include spiral wound containers on the USCL effective July 1, 2025. Existing equipment in Oregon’s CRPFs – specifically magnets and paper screens – sort spiral wound cans into acceptable market grades (primarily steel cans, and, to a far lesser extent, mixed paper) at sufficiently high effective sorting rates. No additional labor or equipment is needed for CRPFs to successfully sort and market spiral wound cans in incoming commingled material.

If the inclusion of spiral wound paperboard cans in steel can bundles is proven to cause CSRMs to exceed their DEQ air permit, then CSRMs would not be deemed a responsible end market. Under this circumstance CAA proposes to develop a list of alternative steel mills that purchase steel can bundles with spiral wound containers and to distribute such list to CRPFs so that their steel can bundles go to alternative responsible end markets, of which there are many.

ORRA’s position has not changed—spiral wound containers are not yet ready for inclusion on the USCL. The two local markets that receive the majority of Oregon tin cans do not want them in the mix. Instead of a local market it would require shipping across multiple states. Shipping the bales long distance instead of locally is inefficient and could worsen environmental outcomes, especially when considering the shift for a small percentage item when the steel can is the main material. This material should not be included on the USCL until local markets can support the small volume—acquiescence is not the same as markets desiring the material.

## ii. Specifically Identified Materials on the USCL

ORRA supports the comments provided by CRPFs in a December 5, 2023 memo to DEQ prior to the designation of SIMs. The memo outlined concerns with Polycoated Gable-Top Cartons and Aseptic Cartons, and Nursery Packaging. The concerns outlined in the memo remain valid and illustrate why these materials are of continuing concern to processors, and why ORRA did not support inclusion of these materials on the USCL. The memo acknowledges that continued work is needed to execute a plan to better manage these materials. ORRA and processors support that there should continue to be a process to designate SIMs, and are committed to working through concerns about these materials with CAA. ORRA appreciates CAA continuing to look at easing the burden of the item in ways such as consolidation and marketing these materials.

Some materials that are included on the USCL are also considered SIMs by DEQ. As these materials will require particular attention, CAA proposes implementation of the following strategies to address relevant recyclability challenges.

### Polycoated Gable-Top Cartons and Aseptic Cartons

CAA acknowledges that polycoated gable-top and aseptic cartons have been identified as a SIM in addition to being included on the USCL. Currently, it is estimated that about half of Oregon households are served by collection programs that include cartons and this will grow to all households by July 2025. It is CAA’s understanding that Oregon’s CRPFs currently include

<sup>10</sup> <https://ormswd2.synergydcs.com/HPRMWebDrawer/Record/6446398/File/document>, top of Page 7 of 105.



cartons in mixed paper bales and do not sort cartons into a separate PSI 52 grade bale. To date, CRPFs have not seen the value in marketing cartons separately from mixed paper.



## Processing and Marketing Challenges

CAA aims to address issues associated with processing and marketing of this material by engaging with key stakeholders, as well as identifying logistical issues that CAA can play an active role in resolving.

CAA proposes to work with CRPFs to explore the barriers they face in sorting and/or storing cartons and work with interested producers and associations, such as the Carton Council of North America, to review funding options for any necessary incremental infrastructure.

CAA also proposes to explore offering a marketing service for cartons, which would be voluntary for CRPFs that elect to take advantage of it. For example, CAA would collect carton bales from individual CRPFs on a pre-agreed cadence, consolidate them into truckload quantities, and market them. CAA would then compensate CRPFs for the tons marketed. This could be based on the Pacific Northwest index price for PS54 Mixed Paper as reported on RecyclingMarkets.net's Secondary Materials Pricing (SMP).

In exploring these options, CAA will ensure materials are routed to responsible end markets and will consider adjustments to its fees to provide any necessary funding. In scenarios in which CAA possibly markets materials on behalf of CRPFs, CAA will work with the facilities to determine the best way for material revenues to be factored into PCRPF payments.

## Nursery Packaging

There are problems with sortation, markets, and contamination caused by generator confusion with look alike materials, and that is why they should continue to be a SIM if included on the USCL.

CAA acknowledges DEQ's recommendation to place all nursery packaging in the SIM list while designating only HDPE and PP-made nursery packaging as material approved for curbside commingled collection with inclusion on the USCL.

## Education and Outreach

CAA recognizes that the USCL status recommended for HDPE and PP-based nursery packaging will require the program plan to account for communities that may not have collected these pots and trays thus far. Education and outreach will aim to minimize contamination, in particular from problematic PS nursery packaging. To accomplish this, CAA proposes to:

- Explore the need to gather data on which communities in Oregon, prior to July 1, 2025, collect nursery packaging and which ones don't. When done for nursery packaging, data will try to capture the number of communities that collect/do not collect the material, quantities and seasonal trends in the generation of this material as a curbside recyclable, and extent of contamination from PS and LDPE lookalikes. Similar data collection exercises will be explored for all SIM materials
- Explore opportunities for reuse and recycling of this material at Oregon-based nurseries and explore ways for CAA to leverage this information in its education materials, prioritizing options for reuse wherever possible
- Identify and segment communities in Oregon based on those that are most acutely affected by nursery packaging's inclusion in the USCL. This segmentation could be based on the determination of which communities have accepted nursery packaging prior to July 2025 and which ones have not
- Design outreach strategies in a phased manner to account for the segmentation. For example, for communities where curbside collection of nursery packaging is set to start in 2025, the focus will be on informing households of the availability of commingled curbside collection of nursery packaging. For households already participating in curbside collection of nursery packaging, CAA will focus the education and outreach strategy on mitigating contamination





- Determine a suitable strategy to help residents identify recyclable nursery packaging from contaminants (lookalikes). The strategy will aim to help residents differentiate HDPE and PP-based pots and trays from contaminant materials, examining different approaches, (by use of the resin identification code, for example) As a first step, CAA will investigate the scale of the contamination issue from PS and LDPE lookalikes in the recycling stream through conversations with CRPFs.

### Processing Improvements

To minimize contamination and improve processing efficiencies of CRPFs, CAA proposes to better understand how Oregon CRPFs are receiving, sorting and marketing nursery packaging as part of their current operations, for example, if these materials baled as part of mixed plastics bales. CAA also plans to engage with CRPFs and reclaimers including Denton Plastics, Merlin Plastics and EFS to understand the scale of the contamination issue with nursery packaging.

As part of a broader stakeholder engagement strategy, CAA will include additional efforts to ensure successful and responsible recycling of nursery packaging. CAA proposes to identify key manufacturers of nursery packaging and industry associations such as the Oregon Association of Nurseries and engage with them on strategies to minimize contamination.

## iii. Specifically Identified Materials on the PRO Recycling Acceptance List

### Steel and Aluminum Aerosol Containers

CAA recognizes that steel and aluminum aerosol containers have been designated as a SIM and will be removed from curbside commingled collection, primarily in the Portland Metro area. Aerosol containers have thus far been collected in many Oregon communities, making education and outreach an important component of the program plan for these materials. Residents' education will include awareness about the de-listing of aerosol containers and referring residents to household hazardous waste program as detailed below. To meet this need, CAA proposes to:

- Segment Oregon communities based on whether they have had curbside commingled collection of aerosol containers or no collection prior to July 2025
- Create distinct outreach strategies for communities based on segmentation status of curbside commingled collection
- Create an outreach strategy for periodic reminders and awareness to residents on PRO depot collection centers and HHW collection centers, including a "best practices cheat sheet" for disposal of aerosol containers

Subject to member alignment on relevant fee implications, CAA proposes to consider continuing to engage in systemic changes to minimize hazard potential and perceptions of aerosol containers and to improve the recyclability status of this material. These may include:

- Build on DEQ's work in examining hazard perceptions related to aerosol containers by investigating the proportion of aerosol containers generated in Oregon that could be hazardous either due to substances contained in them (e.g., pesticides) or from the propellants. To this end, CAA has engaged with key stakeholders to learn that the majority share (~65%) of aerosol containers in the U.S. are used in non-hazardous consumer segments like personal care, household products and food products. CAA proposes to investigate similar trends for Oregon. Further, with respect to propellants, a key design intervention identified by CAA through stakeholder interviews was replacing liquified or



compressed gas propellant with nitrogen or compressed air propellant, which is less hazardous as the can becomes less pressurized with use and is non-flammable, unlike liquified gas

- Work with the U.S. Aerosol Recycling Initiative, led by the Can Manufacturers Institute and Household and Commercial Products Association, to learn more about aerosol manufacturing, consumer and end markets, and recycling
- Explore synergies with existing household waste management companies in Oregon to leverage their experience in collecting and emptying potentially hazardous non-empty aerosol containers
- Explore developing logistical models to link household waste management companies and CRPFs/secondary processors to determine the most cost effective and intuitive approach for aerosol container recycling in Oregon
- Engage with CAA members to examine appropriate market-based strategies, including ecomodulation, for phasing out hazardous propellants

ORRA maintains that steel and aluminum aerosol containers should be handled as hazardous materials. There are so many variables that lead to customer confusion and great risk for health and safety to the public and workers that handle these materials. If the volume of material is high enough to trigger thresholds for U.S. DOT hazmat requirements, service providers could not haul material without additional certifications, training, and costs. ORRA recommends that CAA investigate and understand the requirements of US Department of Transportation Pipeline and Hazardous Materials Safety Administration for transportation of aerosol containers.

Another qualified entity would need to service the materials at a significantly higher cost. ORRA would like clarity from DEQ on existing hazardous materials requirements and why these materials would not be handled as hazardous waste under state and federal rules and regulations? Under CAA's proposed program plan would haulers be responsible for transporting these materials? Any de-listing (or on-ramp) needs extra communication and outreach around the changes.

## Aluminum Foil and Pressed Foil Products

CAA acknowledges the addition of aluminum foil and foil products to the list of SIMs. Oregon DEQ cited reasons for this designation that include concerns around food contamination, ability to sort due to the material's flat shape, and realities of smelter yields. CAA's interventions will focus on developing a suitable education and outreach strategy that will help residents recycle these products at appropriate depot drop-off points and not add to the commingled stream as a contaminant.

CAA may continue to explore paths for this material to be included on the USCL in future program plan periods.

A key challenge will be instigating a change to the long-standing practice of collecting this material curbside in parts of the state while simultaneously creating outreach materials that inform residents of appropriate depot locations. CAA's approach to developing this strategy will include the following steps:

- Segmentation of Oregon communities based on whether they have had curbside commingled collection of aluminum foil and foil products in the past or no collection prior to July 2025. Communities that have historically treated foil as a curbside commingled collection material are likely to be most acutely impacted by this change, and CAA will design the education and outreach strategy to minimize contamination from this group
- Communities across Oregon will be targeted for outreach on depot collection points for aluminum foil and foil products
- Given that aluminum foil and foil products are often used in food contact applications, CAA will design education and outreach materials that address appropriate disposal practices for food contamination

ORRA supports aluminum Foil being designated as a SIM. We have concerns about marketability and whether this material is desired by REM as it costs more to separate from other aluminum products. We would like to see the most updated information on marketability, and question whether this material can be recycled?

## Shredded Paper

Shredded paper is on the PRO Recycling Acceptance list and has been designated a SIM. Much like aluminum foil, shredded paper has been collected by communities in Oregon and the de-listing of this material from collection lists will impact the residents of those communities. Education and outreach will be the primary intervention for shredded paper and will mirror that of other de-listed materials such as aluminum foil.

ORRA supports shredded paper being designated as a SIM until financing is available and investment is made to upgrade existing processing facilities and a pilot is completed to understand if the material is reasonable to get out. Research also needs to be completed and investments made to improve capture rates.



## Glass Bottles and Jars

CAA acknowledges DEQ's decision to include glass bottles and jars on the PRO Recycling Acceptance list and classify them as SIMs.

Glass bottles and jars are currently collected in some areas of Oregon as a separated curbside stream, and the communication necessary with respect to glass containers will be tailored to the outcome of discussions with local governments on the development of the collection system for PRO Recycling Acceptance List materials. Where local governments choose to discontinue existing on-route collection systems for glass, CAA will tailor communications to orient residents toward glass drop-off and discourage placing glass in the commingled stream.

As detailed in the PRO Recycling Acceptance list section of this plan, CAA anticipates that a mix of curbside and depot glass collection will support the achievement of the glass collection target.

As noted in an earlier comment, to what extent is investment going to be made in glass infrastructure when there is a possibility that wine bottles will be included in Oregon's Bottle Bill instead of the RMA?

## iv. Proposal to Trial Commingled Collection of Non-USCL Materials

There are two material groupings that DEQ has designated as SIMS that are neither USCL nor PRO Depot materials. These are polycoated paper packaging and single-use cups. While these materials are not currently being recommended for inclusion on the USCL, CAA believes that to adequately address the challenges identified under the SIM designation, it is appropriate to explore commingled collection of these materials on a trial basis after program commencement, with a view to better understanding current generator behavior while at the same time working to understand and address other system barriers to the inclusion of these materials.

In general, trials may be confusing with the USCL—outreach and education will need to be clear with a heavy focus that it is a trial and the material may not be recyclable and that it is unknown whether the trial will be successful. Please provide clarity on how the trials will be run. Will they involve areas, loads, and tracking of those loads that don't include the material?

Another approach would be to start with depot collection and assess the % of the material that can be recycled. Historically, source separated materials started at a depot first to understand if the materials were recyclable and yields desired by REMs. Even if the material can be recovered, what happens with the material if there is no REM? An alternative approach may be to look at neighboring states that already accept these materials.

## Polycoated Paper Packaging

CAA acknowledges that polycoated and similar paperboard packaging have not been included on any collection list due to concerns surrounding their recyclability. DEQ noted challenges in both sortation and yield. On the issue of yield, DEQ has questioned whether these materials are effectively recycled by paper mills, if they are readily recyclable (e.g. polycoated paperboard vs. paperboard with wet strength), and if they showed a high rate of recovery.

CAA also notes that DEQ requests that prospective PROs propose efforts to understand and address the impact of user behavior on CRPFs and end markets if polycoated paperboard packaging is collected as a part of commingled recycling. CAA posits that without collecting this material in a commingled curbside trial environment, once the USCL formally launches on July 1, 2025, it will be challenging to replicate these behaviors and impacts. Therefore, CAA proposes the use of commingled curbside trials after the commencement of the program period to address this material category's SIM designation, while also exploring future paths to the USCL.

In order to meet DEQ's expectations for this material, CAA proposes conducting time-limited, geographically-bound commingled collection of these materials to derive real-world, actionable insights:

- The trial(s) will primarily aim to understand resident behavior, notably waste generators' ability to differentiate recycling information on polycoated paperboard, polycoated paper cups, and cartons. Education and outreach tactics will be deployed to communicate the appropriate actions

ORRA processor members note that polycoated is a broad term and these materials historically have not had high recovery rates at mills. There are concerns around food contamination and look alike contamination.



- The trial(s) will aim to understand the nature and quantities of polycoated paper generated, as well as an initial estimate of the quantities of these materials that end up in mixed paper bales

To scope and plan these trials in the right geography, CAA will research regions where variables and metrics that could affect results are strongly controlled. Ideally, CAA would target trial regions where willing local partners have:

- Strong, stable control or influence over accepted materials lists
- Consistent service populations that can be successfully engaged with highly targeted education information
- Consistent flows of collected materials to specific CRPFs
- CRPFs that are willing and able to participate in the trial to track materials to bales
- Responsible end markets willing to participate in the trial to test yield and other factors

CAA proposes to work with relevant stakeholder partners (DEQ, local governments, CRPFs, haulers, and end markets) prior to any trials to develop a detailed project plan for execution factoring in the following considerations:

- Goals and objectives of trials
- Timing and duration
- Stakeholder partners
- Geography (communities potentially impacted)
- Logistics of franchised hauling
- Resident education (what are the related baseline education materials and how will this work within the broader education and outreach plan)
- Costs associated with the proposed trial

The trials would aim to track materials very specifically from route to bale to market and ensure no other material changes to the stream or service changes are happening at the same time.

In addition, CAA proposes to address concerns surrounding stability, accessibility, and viability of end markets for this material by engaging with CRPFs and end markets to understand an acceptable proportion of this material that will not adversely affect end market applications. Currently, some processors can handle up to 20% of polycoated paperboard (including polycoated cartons and aseptics) in mixed paper bales.<sup>11</sup> CAA proposes to explore options to model the proportion of polycoated paperboard currently in mixed paper bales and study the implications of an increase. An in-depth CRPF study could entail examining CRPFs that sort polycoated cups into mixed paper bales separately from those that sort cups into grade 52 carton bales. Such studies could further entail downstream market research for mixed paper bales with polycoated cups.

Furthermore, CAA recommends assessing the re-pulpability yield of mixed paper trials. This could potentially include assessing specific packaging structure potential re-pulpability yield to inform education and outreach.

## Single-Use Cups

DEQ has excluded single-use PP and PET clear cups from recycling collection lists due to contamination concerns. DEQ stated that the inclusion of single-use cups in acceptance lists may introduce contaminants like trays, clamshells, plates, and food waste, as well as contamination from PVC and PS lookalike packaging. CAA further notes DEQ's request to propose efforts to understand and address the challenges this material poses to the recycling system.

CAA proposes no change to the SIM designation for single-use cups and proposes to conduct a trial study to better understand user behavior and to investigate the challenges single-use cups pose to the recycling system. CAA proposes that the limited time, geographically bound trial(s) be conducted after the program period commences in July 2025.

Prior to the trials, CAA will work with relevant stakeholder partners (DEQ, Communities, CRPFs, haulers, end markets) to develop a detailed project plan for execution factoring in the following considerations:

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<sup>11</sup> Based on consultation with a key stakeholder processing mixed paper bales.



- Goals and objectives of trials
- Any material overlaps (for example, polycoated paper cups that may fall into both categories) and how to deal with these
- Timing and duration
- Stakeholder partners
- Geography (communities)
- Logistics of franchised hauling
- Resident education
- Costs associated with trial

The geography of the trials will be determined in a similar manner as for polycoated paperboard packaging as detailed in the above section.

In addition, CAA proposes to address information gaps and concerns surrounding single-use cups. For example, the organization could engage CRPFs and reclaimers receiving single-use cups to understand the extent of yield losses expected with these materials. Additionally, CAA proposes to examine the extent of contamination introduced from lookalikes made of PS and understand challenges this may create during the processing of this material.

## **v. Initial Plastic Recycling Rate Projections**

This section of the plan provides CAA's best estimate of the current plastics generation and recycling rate in Oregon in relation to the 2028 recycling target of 25% that is laid out in the RMA. It also provides information on the elements of this plan that can be expected to contribute to achieving the goal, which form a critical part of Objective 2 of this plan: increase the diversion of recyclable materials from disposal.

### **Preliminary Plastic Recycling Rate Projections**

Oregon currently has limited official data on the generation and recycling of plastic material, especially at levels of detail that would allow a more precise understanding of recycling rates for specific plastic materials, including the generation



source of these materials (e.g., residential vs non-residential). Oregon DEQ has indicated that it will work to release data by August 2024 for the year 2022 to help inform planning toward achieving plastic recycling goals and related calculations.

In the interim and per guidance from DEQ and with no other data source known to CAA to use for this plan, CAA has used data produced by the [Overview of Scenario Modeling: Oregon Plastic Pollution and Recycling Modernization Act](#) and the [2021 Oregon Material Recovery and Waste Generation Rates Report](#) to make a preliminary estimate of the baseline plastics recycling rate, as shown below. Per guidance from DEQ, CAA has included plastics subject to deposit in the calculations as well as food service ware.

Note that the table below includes an estimate of the *net generated materials* that are presumed to be in scope of the RMA, applying the percentage assumptions displayed in the table. The objective was to try to estimate, account for, and then exclude materials such as film wrap recycled in distribution centers that is baled and sent to markets directly, never entering the residential and commercial recycling streams that are focus of the RMA.

CAA welcomes additional data and guidance from DEQ on this issue to ensure that the assumption percentages are correct (or whether they should be applied at all). The estimates in the table are shown for 2023 as a baseline and for 2028, the year in which the plastic recycling goal must be met. CAA recognizes that DEQ may set the baseline year as 2022 in its August data release.

Materials	2023 Generated (tons)	2028 Generated (tons)	Assumed % in Scope (Residential Sources + Small Commercial)	2023 Adjusted Generated (tons)	2028 Adjusted Generated (tons)
PET Bottles (Deposit)	16,864	17,363	75%	12,648	13,022
HDPE Bottles (Deposit)	171	173	75%	129	130
PP Bottles (Deposit)	171	173	75%	129	130
Other Deposit Plastic Bottles	343	346	75%	257	259
Other Pet Bottles & Jars	14,912	15,649	90%	13,421	14,084
HDPE Bottles & Jars	12,683	13,239	90%	11,415	11,915
PP Bottles & Jars	504	523	90%	453	471
Other Bottles	936	947	90%	843	853
PET Tubs	919	924	90%	827	832
HDPE Tubs	5,476	6,206	90%	4,928	5,585
PP Tubs & Small Rigids	7,406	7,688	90%	6,666	6,919
Other Accepted Tubs & Pails	533	536	90%	480	482
PET Thermoforms	7,879	8,483	90%	7,091	7,635
Other Rigid Plastic Containers	11,103	11,258	90%	9,993	10,132
PP Rigid Products	11,976	12,200	90%	10,778	10,980
Other Bulky Rigids	28,897	29,438	90%	26,007	26,494
PP Rigid Packaging & Products	10,987	12,411	90%	9,888	11,170
Polystyrene Foam	5,283	5,424	90%	4,754	4,882



Solid Polystyrene	2,527	2,594	90%	2,274	2,335
Other Non-Recoverable Plastic	54,682	55,733	90%	49,214	50,160
PE Film	65,989	81,460	50%	32,995	40,730
Other Recoverable Film	1,283	1,273	90%	1,155	1,146
Plastic Pouches	1,937	1,972	90%	1,743	1,775
Other Film	50,904	51,937	90%	45,814	46,744
<b>TOTAL</b>	<b>314,365</b>	<b>337,950</b>		<b>253,900</b>	<b>268,863</b>

Table 8

The denominator estimated above for the adjusted total plastic generation for 2023 is 253,900 tons. This number can be compared to data from DEQ’s 2021 Recovery Rate report that includes recycled tonnage information to then estimate the current plastic recycling rate (presuming that 2021 recycling rates have not changed substantially between 2021 and 2023). Table 9 below shows the tonnage recycling data from the Recovery Rate report:

Material	Tons Recycled
Composite Plastic	1,185
Mixed Plastic	N/A
Other Plastic (P7)	N/A
Plastic Bottles	N/A
Plastic Film	10,442
Plastic Other	7,380
Rigid Plastic Containers	31,531
<b>Total</b>	<b>50,538</b>

Table 9

The data in Table 9 does not provide enough detail to map to the specific material generation in Table 8, nor to help decide whether any of the 2021 recycled tonnage should be excluded for being out of scope with the RMA and the plastics recycling goal. However, the overall totals allow for a general estimate of the baseline plastics recycling rate in Table 10.

Recycled Tons	50,538
2023 Generated Tons	253,900
Plastics Recycling Rate	20%

Table 10





Using the 2028 Generation estimate in Table 8, it is also possible to project the necessary tonnage that would need to be recycled to meet the 25% goal and to calculate the net recycled tonnage growth over the baseline that would be needed to meet the goal.

<b>2028 Projected Tons Generated</b>	<b>268,863</b>
<b>Recycled Tons needed to meet 25% target</b>	67,216
<b>Difference between target tonnage and 2023 baseline</b>	16,678

Table 11

Table 11 provides a preliminary estimate that an additional 16,678 tons of plastic would need to be recycled per year over current tonnage to meet a 25% recycling goal in 2028. Again, CAA acknowledges that DEQ’s data release in August 2024 may alter this analysis substantially.

The implementation of this plan includes elements that are expected to result in more recycled plastic, thus allowing Oregon to meet its plastics recycling target. At a very general level, with a great deal of uncertainty as to the true potential of each of these elements to contribute additional tons, Table 12 displays the main elements and notation on how they might create new recycled plastic tonnage. Where available data allowed, the notes include a preliminary projection of new tons.

Plan Element	Notes on Potential Impact
<b>Expand curbside, multifamily, and small commercial recycling access through local government needs assessment requests</b>	CAA funding and support of local government requests for new collection infrastructure should result in the collection of additional plastics. Projected tons are difficult to estimate without more data on the number of generators who will receive new service, their generated tonnage, and anticipated participation and participant capture rates.
<b>Enhance collected material mix in local programs to meet USCL requirements</b>	As collection programs add new plastic materials to meet the USCL requirements, it should result in more plastic tons. A rough projection for new polypropylene collection alone is about 1,400 tons/year.
<b>Implement PRO Depots that collect specific plastics</b>	CAA (and potentially additional PROs) will collect a range of plastic materials at new and existing depots. A preliminary estimate of new plastics collection is 3,840 tons/year.
<b>Add PET thermoforms to the USCL and local collection</b>	CAA is proposing to add PET thermoform packaging to the USCL by 2027, at which point thermoform collection could provide as much as 1,500 new plastics tons per year toward the plastic recycling goal.
<b>Enhance plastics capture at Commingled Recycling Processing Facilities</b>	PCRF and CMF payments, along with regulatory mandates to improve capture rates and bale quality, are expected to reduce plastic material disposed at CRPFs and increase tonnage recycled. It is difficult to project the associated tonnages without more direct engagement with individual CRPFs.
<b>Improve recycling participation and participant capture rates in collection programs</b>	CAA’s educational efforts and coordination with local recycling programs and franchised haulers may include specific efforts to raise participation and plastics capture rates (a 2019 Metro capture study showed a 68% capture rate for colored HDPE bottles collected from single-family households and a 35% rate for PP tubs, assumed to be the high end for most Oregon recycling programs and showing room for improvement). It is difficult to project the amount of new tonnage that could be expected from educational efforts without more





	specific data from local programs and haulers on current participation and participant capture rates.
<b>Expand curbside, multifamily, and small commercial recycling access through local government needs assessment requests</b>	CAA funding and support of local government requests for new collection infrastructure should result in the collection of additional plastics. Projected tons are difficult to estimate without more data on the number of generators who will receive new service, their generated tonnage, and anticipated participation and participant capture rates.
<b>Enhance collected material mix in local programs to meet USCL requirements</b>	As collection programs add new plastic materials to meet the USCL requirements, it should result in more plastic tons. A rough projection for new polypropylene collection alone is about 1,400 tons/year.
<b>Implement PRO Depots that collect specific plastics</b>	CAA (and potentially additional PROs) will collect a range of plastic materials at new and existing depots. A preliminary estimate of new plastics collection is 3,840 tons/year.

Table 12

In summary, CAA has provided in this section a preliminary calculation of the baseline generation and recycling tonnage subject to 2028 plastic recycling rate target in Oregon and has identified the plan elements that will help achieve the target. Implementation of the plan will provide new data that will allow CAA to adjust its strategies. CAA will continue to engage DEQ in the search for better data and estimates of plastics generation and recycling as well as continue to seek DEQ guidance on what materials are subject to the recycling goal calculations.

## vi. Ensuring Responsible End Markets

CAA will ensure that covered products and contaminants collected with covered products are managed and disposed of in a manner that aligns with Objective 1 of the program plan (Reduce the negative environmental, social, and health impacts from the end-of-life management of products and packaging).

An important component of this management strategy is the transfer of such materials to responsible end markets (REMs).

In general, ORRA agrees with feedback from DEQ offered in the Recycling Council REM Sub-Committee that CAA sets out an approach to selecting verification bodies, verifying facilities against the “responsible” standard, tracking material flows, auditing verification results including through the use of random bale auditing, and classifying and addressing non-conformances. Overall, their approach to the plan is largely holistic and aligned with requirements in statute and rule. One key missing piece is the detailed standard with specific criteria and performance indicators that facilities will be verified against. DEQ also notes several areas where additional detail or clarification is desired and/or a more robust approach.

ORRA supports REMs and would like clarity on how all participants will collaborate in the next plan. We look forward to working with the PRO to share responsibility to ensure successful implementation of the RMA.

### Example End Markets

Based on discussions with CRPFs, CAA anticipates that most covered products collected for recycling under the RMA program will be processed in North America, with the exception of:

- Mixed paper
- Aseptic and gable top cartons (a mix of North American and overseas markets)
- Expanded polystyrene protective packaging (block white EPS)

Based on industry knowledge, CAA team expertise, and discussions with CRPFs, an initial assessment of the entities that could potentially use materials collected in Oregon range between 130 and 150 entities, excluding plastic converters. Examples include:

- OCC and Mixed Paper: NORPAC, Pratt Industries
- HDPE: Denton Plastics

What is considered a plastic converter and why are they excluded?



- Mixed Plastics: Merlin Plastics, EFS-Plastics
- Cartons: Sustana Fiber, Great Lakes Tissue
- Glass: Glass to Glass
- Polystyrene: Nepco

For commodities processed overseas (e.g., mixed paper), CAA will work in close collaboration with material brokers to ensure its obligation under ORS 459A.860 to 459A.97. For example, CAA will assist in getting the self-attestation forms from brokers' clients.

## Verification of REMs

Steps need to be taken to ensure there is an REM before a material is added to the USCL.

CAA has developed end market verification processes for jurisdictions where it has been designated as a PRO (Colorado, California). CAA's verification approach was designed based on the principles of the International Organization for Standardization's Guidelines for auditing management systems (ISO 19 011) with input from the expertise of PROs active in other jurisdictions with similar REM verification requirements (including European PROs). CAA's verification approach is a three-step process (see table below):

1. Initial screening
2. Reporting review
3. Entities verification

Verification bodies will be contracted by CAA to undertake the audit step. They will be selected based on several criteria, such as:

- Capacity to perform overseas audits (e.g., the verification body has local offices or agents in targeted overseas market) as well as North Americans audits → Experience in chain of custody verification
- Experience in waste management
- Experience in health and safety
- Existence of policy for prevention of conflict of interests
- Compliance to ISO 17065 (Conformity Assessment – Requirements for Bodies Certifying Products, Processes and Services)
- Possesses professional liability insurance
- A proposal of standards to use to measure REM compliance → Cost of services

CAA will also rely on DEQ endorsement of verification programs.

CAA will also contract only with certification bodies that fulfill the requirements of ISO 17065 (Conformity Assessment – Requirements for Bodies Certifying Products, Processes and Services).



Verification Action	When	Who	Purpose
Initial screening	Immediately for each unverified end market	CAA and CRPFs (collaboration)	<ul style="list-style-type: none"> <li>Obtain self-attestation form</li> <li>Pre-approve markets</li> </ul>
Reporting review	Quarterly	CAA	<ul style="list-style-type: none"> <li>Detect any reporting anomalies</li> <li>Calculate yield</li> </ul>
Entities verification	Annually	Verification bodies contracted by CAA	<ul style="list-style-type: none"> <li>Verify compliance with REM standards</li> </ul>

Table 13

The verification will also include a material tracking component, ensured by:

- A Material Flow Management System that will be made available to the different stakeholders of the supply chain for their reporting obligation under the regulation (e.g. CRPFs quarterly disposition reports) and will ensure data confidentiality is preserved
- A random bale tracking process, connected to the material flow management system
- An agreement with brokers that will voluntarily collaborate with CAA to ensure they will provide the required information for verification

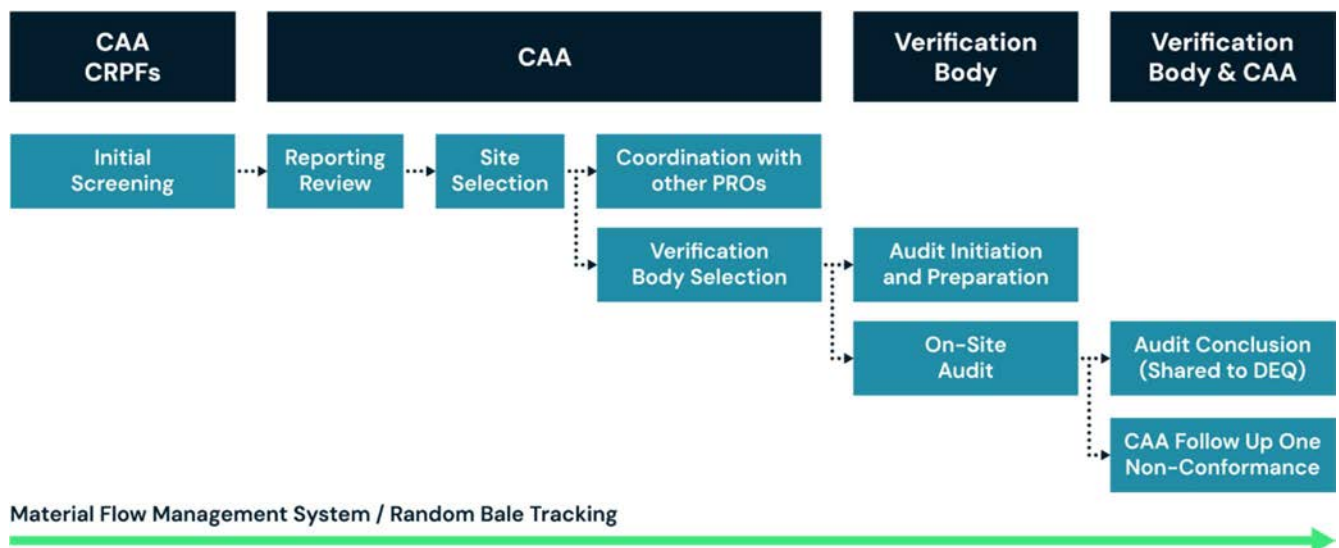


Figure 4. Infographic visual aid depicting the proposed Material Flow Management System.

### Verification Sampling Plan

Not all entities will be verified every year. By July 1, 2027, all entities will have been verified at least once. The CAA on-site audit cycle will be performed on a five-year cycle, with every entity verified on-site every five years after the first on-site verification. In the interim, desk audits (review of documentation) will be performed.

CAA will determine the sites to be verified based on the following criteria:



- Tonnage received: larger tonnage will be prioritized
- Previous verification: sites that have not been previously audited will be prioritized
- Risk of non-compliance: overseas end markets and entities for which CAA has received information related to potential non-compliance spotted in the quarterly reporting review will be prioritized
- Compliance with other verification process: entities already participating in other certification (e.g. recycled content) or verification programs (e.g. food grade quality control) will *not* be prioritized if stakeholders share relevant information and if that information allows CAA to verify compliance against REM standards

### Specific Verification Approach by REM Standard

- **Verification of compliance to laws and regulations:** For each end market, the verification process will make sure to list any local, state, and national laws and international treaties applicable to the entity. This work will be undertaken by the verification body(ies) retained by CAA. Based on this assessment, the verification body(ies) will inform CAA of its strategy to measure compliance to laws and regulations. At a minimum, CAA can expect the verification body(ies) to review operating permits of the entities.
- **Verification of chain of custody:** CAA will use an internal system to enable continuous material tracking throughout the value chain (material flow management system). The detail of how the system will work is presented below. The audit process includes an audit initiation and preparation phase between the verification body and the entity verified, in which the paper trails related to chain of custody (e.g. purchase orders, processing information such as conversion factors, production and stock records, sales orders, inventory balance) will be reviewed. On-site audits will review the chain of custody documents for specific loads. Finally, CAA will use random bale tracking, as described in the section below.
- **Verification of environmental compliance:** For each end market, the verification body will list the applicable laws and regulations. It will also request any relevant information during the audit initiation and preparation phase, such as environmental procedures or the existence of an environmental management system (EMS). Based on this assessment, the verification body(ies) will inform CAA of its strategy to measure environmental compliance. At a minimum, CAA can expect the verification body(ies) to review operating permits of the entities and to document plastic leakage during on- site visits.
- **Verification of recycling yield:** CAA will provide access to the material flow management system to the verification body(ies) in order to measure and verify yield compliance.

### Investigating Non-Compliance

For each entity audited, the verification bodies contracted by CAA will provide an audit report that will clearly state:

- If the end market entity passes or fails each of the REM standards, and the rationale for each potential fail
- If the end market entity can be deemed responsible or not (if it is not deemed responsible, the report will list steps that would be required to bring it into compliance)

The report will not contain detailed information about the entity for confidentiality purposes.



Instances of non-compliance are most likely to be reported to CAA during the verification process, by the chosen verification body. Once CAA is informed, representatives will review the non-compliance finding with the verification body and the entity in question at the earliest reasonable date following the initial finding. The investigation will help to determine if the entity is confirmed to be non-compliant, the level of severity of the infraction, and the appropriate course of action as described in the section below.

DEQ will receive the verification report and will be informed of any entity that is not compliant after CAA's review process.

## Actions to Address Non-Compliance

The verification report will clearly state if the end market entity can be deemed responsible or not and, if not, steps that would be required to bring it into compliance. CAA will provide non-compliant entities with this information along with guidance to support corrective action. The verification body will classify potential non-compliance according to the severity of the infraction: Based on ISO 19 011, CAA will classify non-compliance into three categories of severity:

- Minor non-compliance → Major non-compliance
- Disqualification non-compliance

Please provide an example of each. How would this involve the Broker that ships to a non-REM?

In collaboration with the Verification Body, CAA will define the rules and criteria to classify non-compliances in the appropriate category. Entities with minor and major non-compliances will have the opportunity to take corrective action of the situation in a defined period of time. Entities with disqualification non-compliance will not have that opportunity. Entities with minor compliance could be considered a REM during the time they are taking corrective action.

## Requests for Temporary Variance in Verification

Do the variances ( 1 & 2 ) align with RMA criteria for REM?

CAA requests temporary variance from the required components of a verification under the following conditions:

1. When another PRO has already approved the end market and deemed it responsible
  - a. Other PROs periodically verify the end market on its performance (e.g. recycling yield) and compliance to their jurisdiction's requirements or the PRO's policy. For example:
    - i. LDPE recyclers in North America that process materials from the agricultural sector may be audited by Clean Farms, a Canadian PRO for agricultural products
    - ii. Paper mills in Asia may be audited by Valipac, a Belgian PRO for packaging material, in compliance with the Waste Shipment Directive Regulation
  - b. CAA requests variance instances for when an entity can prove, with evidence, it has been audited by a recognized PRO within the last three years and can provide a self-attestation of its compliance to REM standards under the RMA
  - c. If an entity can only prove compliance against certain but not all REM standards (e.g. environmental compliance), CAA will undertake the verification against the missing REM standards
2. When an end market entity already has certification requiring verification (e.g. recycled content, food grade)



- a. Several entities are already engaged in different certification schemes, such as recycler certifications (e.g. EuCertPlast, FDA LNO) or recycled content certifications (e.g. SCS, ISCC+)
  - b. The rationale is similar to what is detailed above for cases when there is verification from another PRO program.
  - c. CAA requests variance when an entity can prove, with evidence, it has been audited by a recognized certification scheme within the last three years and can provide a self-attestation of its compliance to REM standards under the RMA
    - i. If an entity can only prove compliance against certain but not all REM standards (e.g. environmental compliance), CAA will undertake the verification against the missing REM standards
3. Domestic landfills will be deemed responsible, unless CAA receives information on potential noncompliance
- a. Landfills and disposal sites in U.S. and Canada are already verified and controlled periodically by local environmental agencies
  - b. CAA requests variance for landfill or disposal sites in the U.S. and in Canada, as soon as they provide an operating permit delivered by the local authority. Verification might be performed if information regarding potential noncompliance is provided to CAA

### Tracking Material Flows

CAA is developing an internal material flow management system to enable continuous material tracking throughout the value chain. The material flow management system is a cloud-based platform that provides the following services, among other capabilities to be determined:

- **Collect and store integral data** from external service provider partners, from haulers to end markets, including loads and weights of materials received, processed and shipped out, inbound and outbound data, and information on stakeholder process and environmental compliance. The system will provide “track and trace” functionality with the ability to securely receive transaction data through system-to-system data exchange, file upload, or secure web-based data entry
- **Protect confidential data.** The platform will implement data security measures that meet the highest security standards, including native encryption of all data, real-time event monitoring, field-level monitoring and audit trails, and field-level data sensitivity
- **Ensure independent verification.** Data and disposition reporting will be tracked and maintained in a manner that can easily be made available for auditing by authorized external parties
- **Report information** to stakeholders for accountability through the secure-access stakeholder portal

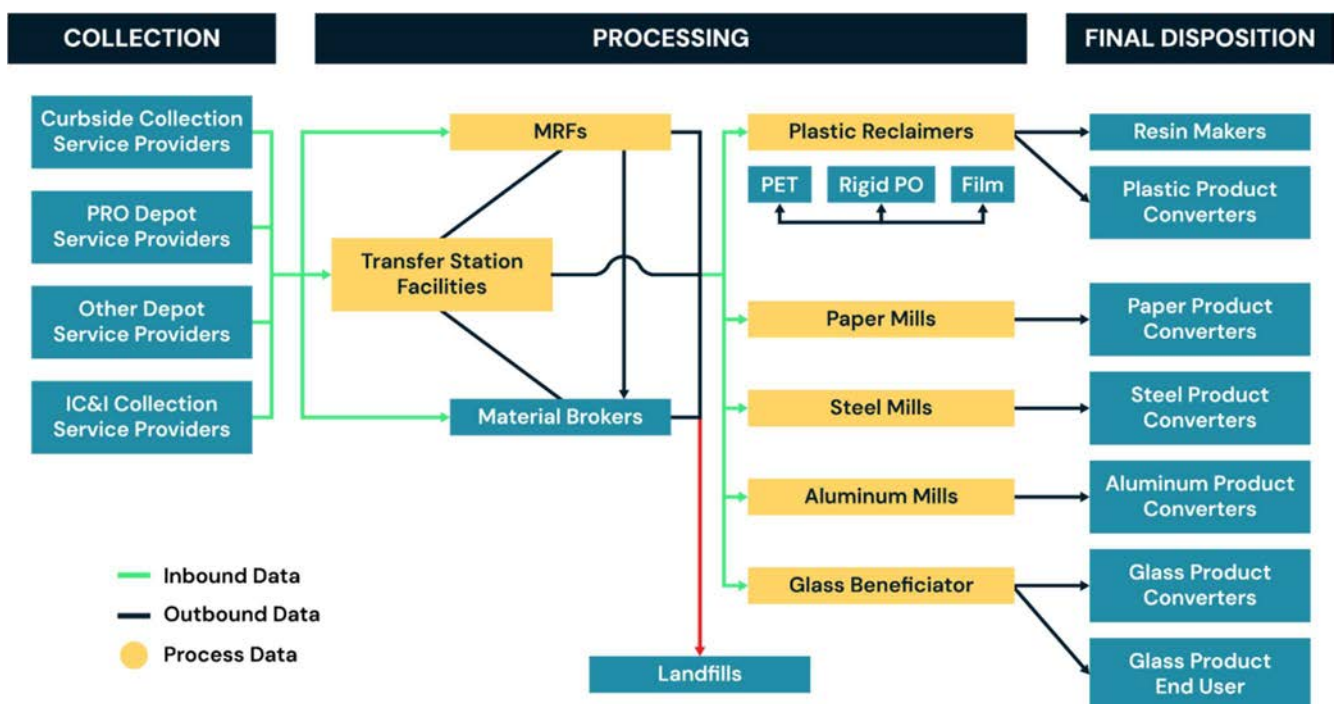


Figure 5. Infographic depicting the fate and transport of different materials from collection through to disposition.



### **Accounting For Disposition and Yield**

CAA will implement measures to account for end market variance in disposition and yield when obligated materials from Oregon mix with non-obligated materials from elsewhere.

CAA will use one of the following chain of custody model defined by ISO 22095:2020

- Controlled blending model
- Mass balance model with rolling average percentage method

The controlled blending model will be used when an entity is using materials from Oregon mixed with other sources in a batch production. ISO 22095 requires that the ratio between Oregon and non-Oregon materials is known for all outputs, at all times, for a contained volume (see figure below). This model will be limited in its application as most of the recycling industry does not utilize batch production.



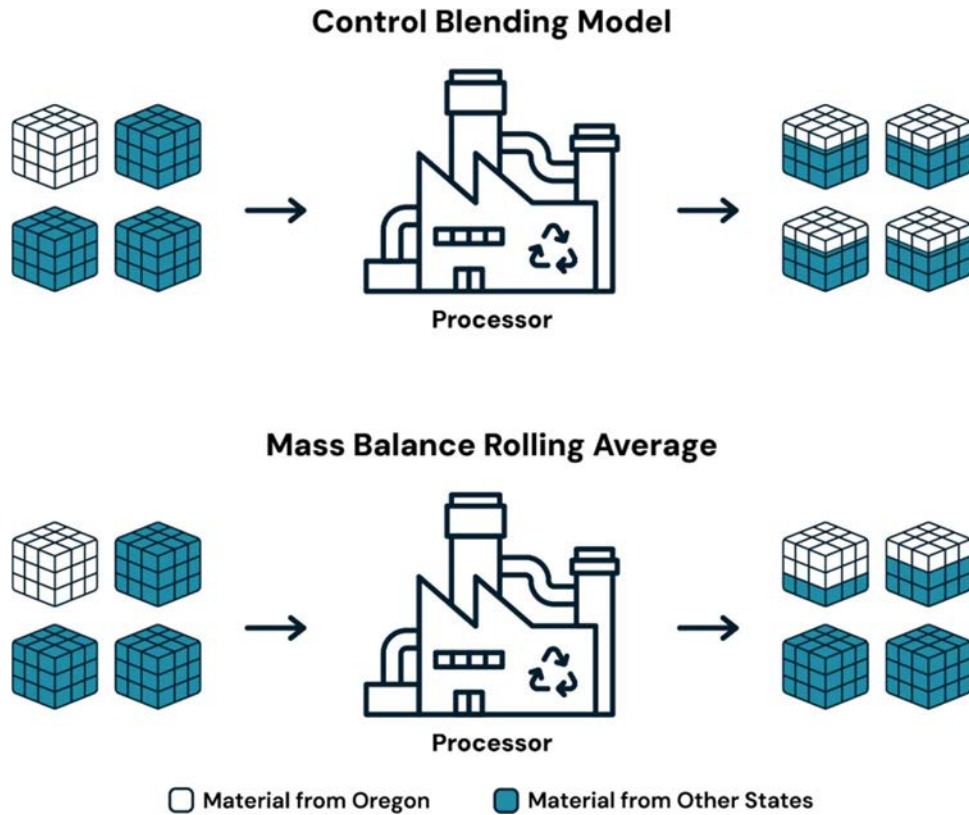


Figure 6. Controlled blending model example from ISO 22095.

The mass balance model with rolling average percentage method will be used for continuous processes. This is the method most commonly used in the recycling industry, including for mechanical recycling of plastic. The model as defined by ISO 22095 requires calculating an average percentage of Oregon and non-Oregon materials for each output. It also requires claim period. CAA defines those boundaries as follows:

- Single site only (no multiple sites possible)
- Average to be calculated at most quarterly and annually
- Characteristic to be used: Oregon source vs non-Oregon source

## Auditing the Verification Program

CAA plans to take a number of steps to ensure a reliable and high-performing REM system.

CAA will select verification bodies that are compliant with ISO 17065 (Conformity Assessment – Requirements for Bodies Certifying Products, Processes and Services). This will give CAA the confidence that the REM verification process will be undertaken with professionalism, ethics and neutrality.

CAA's verification program is based on ISO 19011 standards. For the verification to be performed efficiently, the verification body usually guarantees the confidentiality of the information shared, providing a report that only states if the entity





passes or fails compliance against the requirements. Nevertheless, whenever possible, CAA reserves the right to carry out spot checks of the verification work. For instance, CAA representatives may accompany the verification body randomly onsite visits or take other steps to audit the verification process. It may also spot check certain documents that can be made available to CAA.

CAA's verification approach includes a reporting review step, to be performed quarterly, to verify different data sources. An example would be spot bale audits or comparing a CRPF's outbound weight with the inbound information from a corresponding end market. Verification will be performed on 100% of outbound tonnage from CRPFs and PRO depots, with the exclusion of the de minimis level from DEQ.

## Random Bale Auditing

To complete the robust chain of custody control through the material flow management system, CAA will randomly audit the journey of materials through the recycling system. Two types of random tracking will be performed:

- Tracking from the curbside, to determine if household packaging ultimately ends up in a commodity bale or in landfill. As part of this effort, CAA will work with CRPFs to coordinate with their measurement of material capture rates to meet standards set in rule
- Tracking from the CRPF, to determine the fate of loads of specific material managed by brokers

The approach to tracking from CRPFs will be informed by a risk analysis that will be evaluated according to several criteria, including but not limited to:

- Shipment destination: Bales more likely to be sent to overseas markets will be prioritized
- Number of entities handling material: Bales handled by the highest number of entities (i.e. different brokers) will be prioritized
- Past audit results: Bales most likely to be sent to recyclers whose audit results have demonstrated minor or major non-conformance compliance on chain of custody documentation will be prioritized
- Number of end markets: Bales that do not have a high number of responsible end markets will be prioritized

Based on initial assessments of the criteria the above, CAA will likely prioritize the random tracking of the following commodities:

- Mixed paper (grade 54)
- Cartons (grade 52)

CAA envisions using up to 33 trackers per year:

- Eight for material collected at the curb (one for each of the eight CRPFs expected to be part of the program)
- Up to 20 for mixed paper bales (one for each potential broker)
- Up to five for cartons bales (one for each potential broker)

ORRA requests that for the purposes of tracking materials collected at the curb, battery-powered trackers are not utilized until after sorting at the CRPF (prior to transport to market). The advent of lithium-ion batteries in the waste stream has caused significant health and safety risks, costs to ratepayers, and environmental impacts resulting in catastrophic fires in trucks, facilities, and landfills.



CAA will undertake the work to affix the tracker devices at the curb or in the bales according to a schedule to be defined. CAA will then verify:

- If products end up in landfill before or after the CRPF process
- If loads and bales are compliant with the shipment documents, informing DEQ of any form of non-compliance

CAA is currently working with different tracking device providers to select the best device, both for overall tracking integrity and to help prevent any potential risks around recycling safety.

## Supporting Responsible End Markets

CAA's proposed budget includes a dedicated fund for end market development initiatives. The fund will be financed through producer fees and be approximately 3-5% of expected commodity values.

Following internal pre-assessment of existing markets, CAA has identified several commodities expected to require market improvement to satisfy RMA requirements for REMs. CAA does not currently anticipate a need for market improvement for commodities that are not specifically listed below:

- Mixed paper (grade 54)
- Cartons (grade 52)
- Glass
- Mixed plastics
- Flexible PE plastics
- Polystyrene
- PET thermoforms

CAA will maintain active market development programs for commodities and materials listed above and will take reasonable and practicable steps to facilitate the sale of collected materials to responsible end markets. CAA's ability to facilitate the flow of materials to responsible end markets is predicated by the voluntary agreement of those entities that control the flow of those materials. Actions to support REM development may include:

- Providing technical assistance, brokerage services, and/or information on responsible end markets to materials marketers
- Purchasing and reselling materials that otherwise are not being sold to responsible end markets (under certain conditions)
- Providing wherever possible a supply guarantee to reclaimers so they can secure investments. CAA will focus on taking ownership of commodities lacking end markets
- Working in close collaboration with existing investors and market development program managers, such as The Recycling Partnership and Closed Loop Partners
- Working in close collaboration with public sector market development programs, such as those in California and Washington
- Assessing leverage to promote recycled content in products to pull market demand



Specific actions/strategy will be developed for each commodity/material during the program plan review period and will be included in the revised program plan submission.

## Producer Exemptions Under 459A.869 (13)

Under the RMA, producers can demonstrate that certain products are exempt from covered product requirements when those materials are not collected under an Opportunity to Recycle program, are not separated from other materials at a commingled recycling processing facility, and are recycled at a responsible end market.

Although demonstrating conformity with 459A.869 (13) is not a formal PRO obligation, CAA will work with producers and recyclers where applicable to ensure that materials collected in relation to this potential covered product exemption are being recycled at REMs. This may include additional tracking and reporting requirements administered by CAA.

## Responsible End Market Development Guiding Principles

The planned responsible end market development program will be guided by four key principles:

1. **Partnership.** CAA will undertake investments in market development activities in partnership, where possible, with other parties (e.g. the private sector, local governments, and state and federal interests)
2. **Link to targets.** CAA's market development investments will be linked to material specific targets. The emphasis will be on market development opportunities that support end markets for targeted materials at the lowest overall cost
3. **No cross-subsidization.** CAA, wherever possible, will avoid cross-subsidization of material specific market development. For example, glass producers will be responsible for funding glass market development activities that are approved by the CAA Board. Where investments benefit a range of materials, costs will be allocated across all benefiting materials
4. **Competitive proposals.** Where feasible, CAA will implement a request for proposal/competitive bid process for allocating market development funds. CAA will identify its market development priority areas and will invite interested parties to submit proposals to meet CAA's requirements at the lowest cost. The final decisions regarding market development investments will rest with the CAA Board

Furthermore, CAA has defined a series of principles under which it will take practicable actions to ensure the integrity of REMs:

- CAA will take actions according to type of non-conformance (e.g. CAA will not take action for disqualification nonconformance)
- CAA will take practicable actions in priority at North American entities and will limit its actions overseas → CAA may consider financial levers under specific considerations, in the form of financial de-risking measures → CAA will not take actions if:
  - Other REMs already exist for the relevant material
  - The entity processes a low volume from Oregon
  - The entity is not financially stable



## vii. Upholding Oregon's Materials Management Hierarchy

CAA will uphold Oregon's materials management hierarchy, specifically with regard to the third principle: recycle material that cannot be reused, with preference given to recycling pathways, methods and responsible end markets that result in the greatest reduction of net negative impacts on human well-being and environmental health.

CAA has identified the previously named end markets as representing the highest and best use of their respective materials because they represent the lowest environmental impacts of all end markets analyzed by DEQ LCAs.

### Material-Specific Strategies

Based on existing information and on DEQ analysis for specific end markets, glass, cartons and polystyrene require unique materials management strategies. CAA will work on selecting specific end markets for each of those materials, and the organization may compare the solutions through an LCA that follows ISO 14040 Standard (LCA principles and framework) to identify those with the better environmental outcomes.

#### Strategy for Glass

Glass will have to be processed by a glass beneficiation plant before it is sent to the final user. However, the capacities of the accessible beneficiation plants in Oregon or nearby states are limited. Therefore, CAA will support the development of production capacity to diversify potential markets for recovered glass, through supply agreements.

For instance, CAA could offer long-term glass volume assurance to help de-risk the investment in a glass processing facility designed to process depot glass. This facility could supply the traditional glass container and fiberglass manufacturing markets, as well as other markets, such as abrasives, water filtration media, and pozzolan. An LCA may be performed according to the targeted end markets.

In the short term, considering the current lack of processing capacities, CAA will continue to explore end markets that can use glass in aggregate form, such as road bedding or ornamental mulch, comparing them with other options while taking into consideration the materials management hierarchy).

#### Strategy for Cartons

CAA will work in close collaboration with the Carton Council to partner with specific end market entities that are involved in pulping activities, such as tissue production, notably in North America (e.g. Kimberly-Clark de México, S.A.B. de C.V., Sustana Fibers, and Tissue Depot formerly known as Great Lakes Tissue).

#### Strategy for Polystyrene

In accordance with DEQ's LCA on polystyrene, CAA will prioritize end markets that utilize mechanical recycling over nonmechanical recycling.



## d. Education and Outreach

In general, this section seems targeted to educating on increasing tons and not enough focus on reducing contamination. The focus on capture rates sends a “recycle more” message that is confusing and could lead to more contamination.

In this subsection of the plan, CAA details how it plans to conduct education and outreach activities in support of USCL and PRO Recycling Acceptance list materials, as well as the statewide promotional campaign.

Due to the nature and timing of start-up activities required for education and outreach (previously an interim coordination task), CAA has integrated the requirements for that activity within this section. CAA and its partners plan to consult with local governments and their service providers, ORSAC, DEQ, and community-based organizations to garner feedback throughout the development of educational materials and plan formulation process.

### i. Goals for Education and Outreach

1. Effectively build widespread recycling awareness among all Oregon waste generators in the scope of the RMA, including residents living in single-family homes and multifamily communities, as well as commercial businesses, institutions, and non-governmental organizations. Awareness efforts will leave these waste generators with:
  - a. An understanding of the Uniform Statewide Collection List, highlighting recent revisions to the list and an understanding of the PRO-Depot collection list, with an emphasis on newly added or removed items

Promoting the list should also include proper preparation and common contaminants.

- b. An awareness of SIMs and how residents, municipalities, and counties will interact with these materials

We do not see the value in making residents, cities, and counties aware of SIMs. That is back end information that could be confusing.

- c. Knowledge of which materials will be collected at curbside versus which materials will be handled at depot drop-off points
    - d. Access to information about the location of depots and instructions for how to properly prepare materials for drop-off at those locations
  2. Develop educational materials that are culturally responsive to diverse audiences across this state, including people who speak languages other than English and people with disabilities
  3. Deliver support and messaging proven to effectively increase participation and capture of recyclables. The education and outreach will contribute substantially to the established goal for increasing the plastics recycling rate (25% by 2028, 50% by 2040, and 70% by 2050), thereby contributing to the RMA’s goal of maximizing the use of existing infrastructure
- This element was difficult to understand as it seems to be two different thoughts. Please clarify the connection here. How does increased participation contribute to the RMA goal of maximizing the use of existing infrastructure?
4. Include a systematic focus on and complement programmatic efforts to reduce contamination of recyclable material streams

Accomplishment of these education and outreach goals ladder up to the overall program plan goals, in particular Objective 3 (improve public participation, understanding, and equity in the recycling system) and Objective 2 (increase the diversion of recyclable materials from disposal).

CAA proposes to conduct annual assessments to measure effectiveness of the campaigns and progress toward the goals outlined above.

What will the annual assessments consist of?



## ii. CAA's Education and Outreach Plan

CAA and partners, in consultation with ORSAC, will develop educational resources and promotional campaigns to promote the USCL, as well as depot recycling programs. CAA will coordinate and fund the distribution of education and outreach materials through statewide promotional campaigns following the first establishment of the USCL and after each revision of the USCL, but not more frequently than once per calendar year.

### Supporting Widespread Awareness and Understanding

This section outlines CAA's proposed approach to building widespread consumer awareness and understanding of the USCL, the depot recycling network and other recycling services available to them.

#### Audience Research

Note question below on commercial sector activity.

The target audiences for education and outreach efforts under the RMA are described broadly below. Residential audiences can be further segmented by demographic characteristics. A keystone workstream will be to complete in-depth audience research to effectively develop and deploy messaging that resonates with each group.

- Single-family household residents
- Multifamily households residents
  - Multifamily property management
- Residents that will utilize drop-off/depots
- Commercial businesses, institutions, and non-governmental organizations

Is there data on what % of the commercial sector is actively participating and/or has access to recycling?

Audience research will consist of the following activities:

- Statewide Quantitative Survey: Gather attitudes, perceptions and opinions on current recycling practices, and the current system including understanding and satisfaction
- Qualitative Interviews:
  - Explore knowledge and attitudes surrounding the recycling of certain materials
  - Identify gaps in recycling knowledge and points of confusion
  - Gather feedback on concepts/messaging in terms of relevance and motivation
  - Research to be conducted in English, Spanish, Chinese, Korean, Arabic, Russian, Vietnamese, and Ukrainian

Anticipated audience considerations include:

- 4.2 million residents, living across 1,642,451 households
- 120,704 employer establishments (single physical locations at which business is conducted or where services or industrial operations are performed; companies or enterprises may consist of more than one establishment)
- Translations and transcreations to the following language groups: Simplified Chinese, Traditional Chinese, Korean, Arabic, Russian, Vietnamese and Ukrainian



- Responsive communications strategies to serve an increasingly diverse population
- Accounting for gaps in rural vs. urban use of internet to access government services
- An estimated 35% of Oregon's recycling is generated by the commercial sector, thus substantial investment is needed to effectively capture recyclables from this sector

## Developing Messaging

Leveraging key insights from behavioral science research and best practices in motivational messaging for effective outreach, CAA and its partners propose to develop key messages tailored to different audiences in Oregon, which will likely include Portland Metro Region, communities outside of the Metro region with more than 4,000 residents, and rural communities.

## Messaging Best Practices

Note recommended added bullet below.

CAA proposes to leverage proven best practices in motivational messaging to build participant confidence, improve recycling behaviors among residents, and increase capture of recyclable materials. Motivational messages will be paired with instructional messaging, tailored to target audiences. Key messages that will be communicated to the public include but are not limited to:

- An explanation of the USCL
- An explanation of recycling services, including depots and how to sign up for/access services
- Accepted materials vs. not accepted materials
- Instructions for preparing materials for recycling
- Information on the importance of not placing contaminants in curbside recycling bins and carts
- Key messages will be clear and free of jargon
- Alignment with local government and service provider messaging

## Consultation and Testing

Campaign messaging may incorporate the best practices described above but should be tested and refined to ensure local relevance and cultural sensitivity. CAA proposes to evaluate and adjust its messaging based on a statewide quantitative survey, focus groups, and consultation with Oregon recycling program staff local CBOs.

## Change Management

As the RMA is implemented, there will be differing changes to accepted materials lists across the state, and education and outreach will play a critical role in alleviating the burden and confusion of these changes on key audiences. For instance, as infrastructure and responsible end market development goals are met, the USCL and depot recycling lists may evolve. Additionally, some communities may be exempt from implementing the USCL on the effective date and will come into compliance over time.

Importantly, the effects of these changes may be experienced unevenly across the state. For some communities, updates to the USCL could create feelings that materials are being taken away, and for others, it will be clear that materials are being added. The overall communications strategy must account for the implications of these perceptions.



## Material-Specific Considerations

Message development will account for the considerations identified in the Materials Strategy section above with regard to SIMs to the fullest extent possible.

For plastics in particular, the expectation is that the majority of resin types, with perhaps the exception of plastic films and expanded polystyrene (not collected curbside), may end up in curbside containers. All efforts will be made through education and outreach to limit contaminants and contamination, and advance collection of all plastics through the depot network where appropriate.

## Delivering Messaging

CAA and partners propose adopting the following best management practices, where appropriate, for delivering communications and messaging to effectively capture attention and motivate appropriate recycling behaviors. Effective strategies will vary depending on the target audience, and are grouped as such:

### General Best Practices:

- Behavioral research has not found general “awareness” campaigns to be effective in driving behavior change to increase recycling. Beyond ensuring that residents are aware of recycling in their community, efforts should focus on why and how to recycle
- To capture resident attention and motivate appropriate recycling behaviors, information should be provided to the resident close to where the behavior will occur – most likely, at home. This is what makes direct mailing effective as well as equitable in reaching communities with lower internet accessibility rates
- Recent research suggests that information should only include up to five categories of accepted and unaccepted materials with images and clear language – any more is overwhelming to the resident. CAA will develop a strategy for clearly and succinctly communicating the USCL to customers, while ensuring that they also have access to detail guidance where needed
- Residents need to make the choice to recycle each day, which requires sustained effort. At least one annual mailer is a best practice as a minimum level of recycling education
- A dedicated recycling landing page on local government websites with relevant recycling information for all user groups is a strong step to help funnel searches from residents looking for information online → All information should be presented using clear language.
- Direct mailings with a top issue (one item that is a top contaminant) are helpful in reducing contamination, especially when paired with cart tags
- Recycling messaging delivered by multiple mailers has been observed to significantly increase recycling participation in one pilot study
- Ongoing research findings imply that multiple interventions (e.g. mailers AND cart tags AND in-person outreach) may be required to meaningfully increase recycling
- Delivering messaging by cart tag is memorable and has proven effective at increasing recycling tons in several pilot studies





### Multifamily Recommendations:

- When working with multifamily properties, education and support needs to be provided to residents and property managers. Materials should be written with both audiences in mind, with separate pieces for managers and residents
- Property managers need to be provided with information on regulations, best practices for recycling, how to set up recycling at the property, and resources to educate residents about how to recycle properly
- In-unit recycling bins or totes are a promising strategy for increasing multifamily resident participation, but further research is needed to understand the impact of this tool
- Signs posted near or on recycling containers can help to increase the clarity of what is accepted in the recycling stream. [Portland's free signs](#) are a great example of a helpful tool
- Behavioral scientists recommend introducing new concepts at points of change in people's lives – such as a move. A move-in packet that includes recycling information is a helpful tool for new residents

### PRO Depot/Drop-Off Recommendations:

CAA and its partners will ensure that in conjunction with messaging aimed at building awareness of the USCL, educational collateral and the statewide campaign will promote the depot network, including site locations and instructions for preparing materials. In addition, once customers arrive at the depot, it is important that they are provided with clear guidance and instructions.

- Clear signage at the drop-off location (both on containers and at the facility entrance) can help drive correct behavior
- Specific messaging provided around confusing and hard-to-recycle materials, such as film, will help residents correctly sort their recyclables
- A single-issue postcard can be used to highlight materials that are common contaminants
- "Oops" tag handouts can be given to all patrons on-site, not just those bringing contamination

Is there data that this practice is effective and are there examples of other jurisdictions who have successfully utilized this method?

- Person to person engagement on-site will help residents understand what to recycle and that recycling exists at the site

### Recommendations for Commercial Businesses, Institutions, and Non-Governmental Organizations:

ORRA's initial response is that these recommendations will entail a considerable amount of work. Who is envisioned to do this work and will pay for the work to be done? Many jurisdictions will not have dedicated staff to do this work. If the expectation is local jurisdictions will do the work, will the costs for staff be paid for?

- Create technical assistance resources to help businesses throughout the state, especially outside of the Portland Metro area to:
  - Recycle covered materials
  - Ensure internal collection bins

Are internal collection bins allowable costs for reimbursement?

- Establish guidelines and a minimum recycling service standard for recycling service by business type

Who will be responsible for establishing these guidelines and minimum recycling service standards?

- Make recycling signs and instructions available to businesses
  - Create recycling sign portal with downloadable signs, or available for order and mailed to the business
  - All signs should clearly identify recyclable materials in no more than five categories and include the top five common contaminants in a "no" category



- Ensure Recycling is convenient for employees to access. Co-location of recycling and garbage containers is the most convenient setup within a business, both inside the businesses and for external containers
- Tailor messaging and support provided to businesses depending on size and generator type. Each of these generator types face different barriers to recycling, have different recycling systems in place and generate different types of recyclable materials:
  - Institutions: healthcare, university, schools
  - Franchise and chain businesses
  - Independent small businesses ○ Restaurants, retail and manufacturing

## Developing Educational Materials

Note recommended added bullet below.

CAA will fund and coordinate the development of the following educational resources, which will communicate:

- Materials identified for recycling as described in the USCL.
- Requirements to properly prepare materials for recycling
- The importance of not placing contaminants in commingled recycling collection
- Information about depot recycling, including locations and instructions for preparing materials for drop-off
- Materials developed are consistent and align with local government and service provider messaging and obligations under the Opportunity to Recycle to meet existing OTR and RMA requirements.

## Educational Materials for Local Governments and Service Providers

Note addition to last bullet in this section.

Educational materials will be made available in digital and print formats for local governments. Materials will be translated and transcreated into Spanish, Simplified Chinese, Traditional Chinese, Korean, Arabic, Russian, Vietnamese and Ukrainian.

Materials will be developed and made available in an electronic format via an online portal to local governments and their authorized service providers for customization to local conditions. Customization options will allow local governments to easily adapt the materials below to communicate their individualized phase-in timeline to their local public. Customization is also necessary in allowing for adaptation as accepted materials lists change over time due to end market dynamics and other factors.

Specific collateral will include:

- Photos/illustrations of accepted items and photos/icons of key contaminants
- Sample text for informative, motivational, and instructional messaging
- Handouts and/or mailers, including postcards, brochures, full-page flyers, door hangers, and magnets
- Social media toolkits and digital media materials
- Signage for depots, commercial and multifamily recycling enclosures
- Decals for roll carts and containers.



## Plans for an Online Portal

CAA proposes to provide an online portal for local governments and their designated service providers (and any other entities such as commercial businesses, if planned) to easily access, customize, print and mail educational collateral at no cost.

Users of the portal would be able to:

- Access templates for the various educational materials listed above that has been strategically designed based on best practices to effectively deliver recycling messaging
- Accommodate educational materials for relevance to different types of recycling programs, especially curbside pickup and drop-off programs
- Produce coordinated educational materials that is thematically aligned for cohesive recycling education and outreach across the state
- Customize materials in seven additional non-English languages spoken in Oregon
- Easily customize materials to reflect their local contact information
- Customize materials to accommodate the different bin colors across programs

CAA has built support for local governments and designated service providers in the utilization of the portal into its staffing plans.

## Communicating Directly with the General Public

CAA will maintain a website for Oregon residents to learn about recycling by accessing information on the RMA, the USCL, collection points and depots, and in-home recycling best practices. CAA will also explore opportunities to implement responsive customer service tools via its website.

CAA will include messaging on its public-facing website that is aimed at building public confidence in the recycling system and the RMA. Messaging will include information about the PRO's requirement to ensure materials are transferred to responsible end markets and its methodology for doing so. Additionally, CAA will make life cycle assessments conducted by producers to meet obligations of the RMA accessible on this website and will accompany these postings with clear and jargon-free explanatory language to ensure this information is accessible to all members of the public.

Additionally, CAA will provide material for local governments to include on their websites, allowing local governments to include more detailed information about accepted and not accepted material. In this way, local governments will continue to serve as a resource for residents that want to learn more about recycling in their locality.

## iii. A Description of the Statewide Promotional Campaign

CAA and partners propose to employ a phased approach to the statewide campaign that will focus on (1) communicating statewide changes to the recycling system in 2025 and introducing new resources, and (2) maintaining awareness throughout 2026 and 2027, while driving increased participation and capture to meet goals set by the RMA.

Throughout both phases of the education and outreach plan, CAA and partners will be focused on delivering messaging and collateral that builds awareness among Oregon residents and organizations and effectively introduces the USCL list. The organization will leverage proven motivational, empathetic messaging in bold, bright colors that will appeal to recyclers



who need more encouragement (based on our audience segmentation), pairing that outreach with detailed instructions for customers to participate successfully in the new system.

### Phase One/Year 1: Program Launch

**Dates:** Begins July 1, 2025, extending as recommended throughout the calendar year.

**Phase Description:** “Change is here!” Introduction of the USCL and depot recycling program. Getting the right information to the right audiences to educate and encourage them to recycle and increase awareness.

**Anticipated Channels:** Meta, YouTube, display ads, streaming audio, radio, digital out of home, printed mailers/handouts tailored to key audiences.

- Key Insight: Based on 2023 pilots, display ads were a top source of impressions and clicks, driving website traffic at a higher rate than the rest of the tactics and showed the highest click-through rate (CTR) of the channels. Display average CTR is 800% higher than the average industry benchmarks, making this a great potential channel for Phase 1

Special Audience Considerations:

CAA proposes to explore the option of creating (not simply translating) an original Spanish language campaign that would parallel the English statewide campaign

CAA recommends specific materials for multifamily/apartment complex management companies that will need to prepare for and communicate changes to their residents.

- Similarly, commercial businesses that offer office or public space recycling, should receive “change is coming” messaging/packets and support for setting up new systems

Desired Outcomes:

- Drive audiences to key PRO resources (i.e., the PRO’s website)
- Increase awareness of new recycling guidelines, including both the USCL and depot network
- Increase public confidence in Oregon’s recycling program
- Begin to drive increased participation

### Phase Two/Years 2 and 3: Continued Engagement Phase / Material-Specific Supports

**Dates:** January 2026 through December 2027

**Phase Description:** Deliver support to effectively engage frequent, infrequent, and non-participating audiences and achieve increased capture of target materials. It is also possible that during these subsequent years, additional changes will be made to the USCL and depot accepted material lists, and therefore elements of this phase will need to be focused on communicating those changes and managing customer expectations.

Anticipated priority channels:

- Leverage moments of change (e.g. recycling welcome kits for residents who fill out change of address forms)



- CBO partnerships, especially for equitable outreach
- Ads: Google search, Meta, native, phone texts, YouTube, CTV/OTT (streaming TV)

Desired Outcomes:

- Continue to drive audiences to key PRO resources (e.g., the PRO's website)
- Continue to build confidence in Oregon's recycling program
- Achieve increased participation in local recycling programs and PRO depots
- Increase the capture of recyclable materials, with a focus on underperforming target materials

## Campaign Applications and Channels

CAA proposes the following campaign, intended to be deployed in the phased approach described above:

- Advertising assets: Video, radio, banner, social, outdoor, print, search and community media ads.
- Recycling signage/decals for depots, enclosures and carts
- Print materials: Up to three brochures or full-page flyers as well as a mailer, cart tag and a door hanger

## iv. A Culturally Responsive Approach

CAA will ensure that educational materials and campaigns are culturally responsive to diverse audiences across this state, pursuant to ORS 459A.893(3). This includes, at a minimum:

- Including people who speak languages other than English and people with disabilities
- Ensuring materials are printed or produced in languages other than English and are accessed easily and at no cost to local governments and users of the recycling system

## Translation and Transcreation

CAA and its partners propose to translate and transcreate all education and outreach materials into those languages spoken in Oregon by at least 1,000 people over the age of five who spoke English less than very well according to the most recent American Community Survey.

In-language content will be transcreated, not simply translated. CAA and partners will engage linguists and multicultural experts to ensure materials resonate with intended audiences by taking into account language, but also cultural relevancy. For example, materials for different multicultural communities would be designed with images of recyclable items that are most commonly found in the households of the community that is being targeted. CAA understands that under ORS 251.167, information on the most-commonly spoken languages in the state of Oregon and its counties is updated periodically for the purpose of disseminating accessible information on voting to the public. CAA will use this information in formulating and updating its plan to fulfill these accessibility requirements.



Translations and transcreations include up to ten digital ads, recycling enclosure signs, three brochures or full-page flyers, and up to three print designs (either for a postcard, mailer, door hanger or similar sized piece).

### **Co-Creation**

Co-creation will be employed for development of campaign materials and multifamily outreach. Co-creation gives community members a chance to participate in campaign design through community-level listening sessions to deepen mutually beneficial relationships. Other connective strategies could be use of an advisory board, active liaisons, or trusted advisors.

### **Accounting for Future Diversity**

The U.S. Census Bureau considers Oregon among the states rapidly becoming more diverse with time. Any outreach plans developed to educate and inform the public about recycling should strive to be responsive to future changes to Oregon resident demographics.

### **Partnerships with Community-Based Organizations**

To achieve an inclusive and equitable education and outreach program, CAA plans to engage community-based organizations (CBOs) as advisors to its education and outreach efforts, as well as implementation partners.

### **Designed for Accessibility**

Educational materials created for the campaigns will follow ADA compliance and best practices as well as the principles of universal design, where products, services or environments are designed so that anyone – no matter their age or ability – can use that design with minimal or no accommodations. Examples include:

- Considering color blindness and legibility when selecting color palettes, fonts, text size and imagery. This could include avoiding small print and reverse type and leveraging color blindness testing tools for designers
- Ensuring all elements meet or exceed the Web Content Accessibility Guidelines 2.1 AA (WCAG) requirements
- Building accessible features into electronic versions of collateral that are intended for the general public so they include “alt text” for images and all copy and visuals are “screen reader ready”
- Using plain language and using simple sentences with relevant examples
- Making use of imagery, icons and other visuals rather than large blocks of text to more quickly and easily communicate information and demonstrate processes
- Providing materials in a range of formats to reach across digital access and literacy gaps (e.g. digital ads as well as television, radio, print, and outdoor ads and offering detailed information via websites as well as printed mailers and brochures)



## v. Schedule Including Proposed Timing of Start-up Approach

CAA and its partners propose to develop educational collateral and the subsequent implementation strategy of the statewide promotional campaign in a deliberate and phased approach. In parallel, CAA anticipates working on a second draft program plan submission for September 2024.

The visual timeline for this proposed implementation plan can be found in the preliminary program implementation timeline featured in Appendix M.

### April – June 2024:

- Quantitative survey of Oregon residents, analysis, and reporting of results and key findings
- Develop campaign strategy based on survey results and existing best practices
- Preliminary concepting for the campaign
- Kick off engagement with CBOs and local governments to consult on strategy
- Work with ORSAC to set a presentation schedule through July 1, 2025
- Confirm the material approval schedule with OR DEQ through July 1, 2025.

### Late-June 2024:

- Proposed Activity: Consult with ORSAC Education and Outreach Committee to review and provide feedback on the draft campaign concept prior to testing.

### July-September 2024:

- Conduct qualitative audience research to test the campaign concepts
- Develop USCL instructions/communications strategy, including key terms
- Local government review of USCL instructions/communications strategy, including key terms

### Early- or mid-October 2024:

- Proposed Activity: Detailed report on audience research and campaign concept recommendation presented to ORSAC, with materials to be provided at least 2 weeks prior

### October 2024 – January 2025

- Conduct qualitative audience testing to inform transcreation of outreach materials
- Produce batch 1 materials (those required for Feb 1 distribution): USCL guide, cart label, style guide, messaging timeline, newsletter article, web domain/QR code
- Local governments to review batch 1 materials over two 2-week periods
- Initial drafting of batch 2 materials (those required for April 1 distribution): Social toolkit, press release, newsletter article, website with 'change is coming' messaging, print materials - USCL mailer/poster, postcard, bill insert, depot/enclosure signage, available in agreed-upon languages



- Local governments to review batch 2 materials over two 2-week periods
- Develop media planning strategy and establish hotsheet of advertising specifications

### January 2025:

- Proposed Activity: Present batch 1 materials to ORSAC
- Submit batch 1 materials to DEQ for approval

### Key Deliverables by February 1, 2025

The following **guidance documents and editable design files** will be available to local governments and service providers for download:

1. Photos of all materials on the USCL, materials being removed from lists around the state, and contaminants of concern, in both low and high resolution
2. An in-mold label graphic for roll carts
3. A style guide to help ensure residents experience a unified aesthetic and feel whenever and wherever they receive recycling information in the state (see attached example of Metro Multifamily Decals and Signage Playbook) that includes fonts, colors, as well as a vetted list of terms (e.g., when to use “bins” versus “carts,” “recycling” vs “recyclable materials,” etc.) in agreed-upon languages
4. A recommended phased messaging timeline for local governments and service providers to adhere to
5. A Customizable newsletter-style article with “change-is-coming” messaging (i.e., change is coming July 1 and why, look for more information in June)
6. A QR code to public-facing website with an identifiable and memorable domain name that local governments and service providers can use to direct their residents/customers to more information

### February – April 2025

- Complete production of batch 2 materials for April 1 distribution.
- Initial drafting of batch 3 materials (those required by June 1) - Website strategy, design, development and QC to have live, updated with downloadable materials.
- Initial production of batch 4 materials (those required by July 1) in English - Ad materials - video, radio, banner, social, native, OOH, print, search.
- Local governments to review batch 4 English materials over two 2-week periods
- Upon approval of English materials, transcreated materials will be developed
- PR planning, messaging and materials development (early milestone is 'change is coming' release)
- Initiate business association outreach
- Initiate mail house coordination
- Design, build and test education and outreach electronic portal





## Key Deliverables by April 1, 2025

**Electronic Portal** launches by 4/1/25 to support outreach efforts conducted by local government and service providers. The following materials will be available for download via electronic portal:

1. Social media toolkit with change-is-coming messaging in agreed-upon languages
2. Example and customizable brochure in agreed-upon languages that is simple, clear, and free of jargon that also serves as mailer/poster and includes:
  - a. Basic preparation information (“empty and dry”)
  - b. Top 3-5 contaminants to keep out
  - c. Limited Yes/No poster that can be posted near receptacles and includes a QR code to the publicfacing website with comprehensive list of accepted items and contaminants
3. Additional example and customizable resources, including social media toolkit, newsletter, postcard, billing insert, press release, available in agreed-upon languages, that deliver the following messages:
  - a. The system is changing July 1 and why
  - b. Benefits of the new system
  - c. How to participate—action steps
4. Example and customizable container stickers and depot/enclosure posters and signage in agreed-upon languages, available in different sizes developed through consultation with local government

## April – June:

- Complete production of batch 3 materials for June 1 release.
- Ongoing business association outreach
- Ongoing mail house coordination
- PR planning, messaging and materials development (early milestone is 'change is coming' release) → PR materials development (early milestone is 'change is coming' release).
- Initiate media negotiation and coordination

## Key Deliverables by June 1, 2025

The following **print materials** will be available for local governments and service providers to order for delivery by June 1, available in different sizes developed through consultation with local governments in agreed-upon languages, made of waterproof materials that are appropriate for indoor and outdoor use:

1. Signage for depots and commercial and multifamily recycling enclosures
2. Stickers for roll carts/containers

A live **public-facing website** with memorable domain name, populated with change-is-coming messaging will also be available by June 1. Information posted to the site will explain/include the items below. Information will be available/accessible in all agreed-upon languages:



1. The Oregon recycling system is changing July 1, and why
2. The benefits of the new system
3. How to participate—action steps
4. A downloadable poster to hang near receptacles that includes:
  - a. Basic preparation information (“empty and dry”)
  - b. Limited Yes/No list
  - c. QR code to the website itself with comprehensive list of accepted items and contaminants
5. A complete Yes/No list for materials, closer to <https://www.oregon.gov/deq/recycling/Documents/rmaMatAccept.pdf>, but using customer-friendly terminology
6. Detailed preparation information and list of common contaminants

### Key Deliverables by July 1, 2025

- Formal campaign launch
- All other USCL educational resources made available

### 2026-2027

- Campaign continues as described in the campaign section of the education and outreach plan

## vi. Relevant experience

Note the addition of Oregon specific industry knowledge.

Given its widespread reputation as a leader in recycling education, The Recycling Partnership has been a partner to CAA in developing plans for the education and outreach aspects of the program plan. CAA will also consult with The Recycling Partnership as a potential partner to execute the education and outreach plan. CAA believes the team tasked with delivering this work needs to have:

- **Industry Knowledge** – A deep understanding of the recycling and waste management sector **specific to Oregon**, including knowledge of current trends, challenges, and opportunities. The qualified firm will have considerable experience with deploying recycling education and outreach campaigns that measurably improve the performance of recycling programs
- **Communication Expertise** – Proven experience in developing comprehensive communication strategies that resonate with diverse audiences. The firm will show demonstrated proficiency in utilizing various communication channels, including traditional media, social media, and digital platforms
- **Stakeholder Engagement** – Experience identifying and engaging with key stakeholders, including local governments and recycling service providers. This experience should extend to building partnerships and collaborations to enhance the reach and impact of campaigns
- **Campaign Development** – Previous success in developing and implementing large-scale, statewide campaigns. The goal is outreach that leverages creativity and innovation to craft compelling messages and materials that effectively convey the campaign's goals



- **A Data-driven Approach** – Utilization of data and analytics to inform the development of materials and to measure the success of outreach interventions
- **Cultural Sensitivity** – Understanding of the cultural diversity within the state, ensuring that the campaign is inclusive and resonates with various demographic groups
- **Adaptability** – Flexibility to adapt strategies based on feedback, changing circumstances, and emerging trends



# Financing

## a. Membership Fee Structure and Base Fee Rates

### i. Product Speciation for the Fee Structure

CAA proposes a product speciation list of 62 materials, grouped by eight material categories as described below. This list was developed based on our understanding of the RMA requirements, our experience with EPR programs in other jurisdictions, and the USCL and PRO accepted material lists developed by DEQ as a part of rulemaking. We also considered its potential for “nestability” with other EPR programs, such as California, to enable producer reporting synergies between Oregon and other state programs.

<p><b>Printing and Writing Paper</b>                  Newspapers                  Newsprint (inserts and circulars)                  Magazines, Catalogs and Directories                  Paper for General Use                  Other Printed Materials</p>	<p><b>Plastic – Rigid</b>                  PET (#1) - Bottles, Jugs and Jars (Clear/Natural)                  PET (#1) - Bottles, Jugs and Jars (Pigmented/Color)                  PET (#1) - Thermoformed Tubs                  PET (#1) - Thermoformed Containers, Cups, Lids, Plates, Trays                  PET (#1) - Tubs                  PET (#1) - Other Rigid Items (including containers)                  HDPE (#2) - Bottles, Jugs and Jars (Clear/Natural)                  HDPE (#2) - Bottles, Jugs and Jars (Pigmented/Color)                  HDPE (#2) - Pails and Buckets                  HDPE (#2) - Tubs, Nursery (plant) pots and trays                  HDPE (#2) - Package Handles, Lids                  HDPE (#2) - Other Rigid Items (including containers)                  PVC (#3) - Rigid Items                  LDPE (#4) - Bottles, Jugs and Jars                  LDPE (#4) - Lids                  LDPE (#4) - Other Rigid Items                  PP (#5) - Bottles, Jugs and Jars                  PP (#5) - Thermoformed Containers, Cups, Plates, Trays (non-nursery (plant))                  PP (#5) - Thermoformed Lids                  PP (#5) - Thermoformed Tubs, Nursery (plant) Pots and Trays                  PP (#5) - Lids                  PP (#5) - Tubs, Pails and Buckets, Nursery (plant) Pots and Trays                  PP (#5) - Other Rigid Items                  PS (#6) Expanded/Foamed Hinged Containers, Plates, Cups, Tubs, Trays, and Other Foamed Containers                  PS (#6) White Expanded/Foamed Cushioning and Void Fill                  PS (#6) Colored Expanded/Foamed Cushioning and Void Fill                  PS (#6) Rigid Non-Expanded                  PLA, PHA, PHB - Rigid Items                  Other/Mixed Rigid Plastic</p>
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<p><b>Glass and Ceramics</b> Glass Bottles and Jars and Other Containers Ceramic - All Forms</p>	
<p><b>Metal</b> Aluminum Containers Aluminum Foil and Molded Containers Aluminum Aerosol Containers Aluminum Other Forms Steel Containers Steel Aerosol Containers Steel - Other Forms Metal - Small Format Pressurized Cylinders</p>	
<p><b>Paper/Fiber</b> Aseptic and Gable-top Cartons Kraft Paper Corrugated Cardboard Corrugated Cardboard (Tertiary/transport) Nonconsumer Paperboard Polycoated Paperboard Other Paper Laminates Other Paper Packaging Paper - Small Format</p>	
	<p><b>Plastic – Flexible</b> HDPE (#2)/LDPE (#4) Flexible and Film Items HDPE (#2)/LDPE (#4) (Pallet Wrap) non-consumer PP (#5) Flexible and Film Items PLA, PHA, PHB - Flexible and Film Items Plastic Laminates and Other Flexible Plastic Packaging</p>
<p><b>Plastic – Other</b> Plastic - Small Format Plastic containers for motor oil, antifreeze, or other automotive fluids, pesticides or herbicides, or other hazardous materials (flammable, corrosive, reactive, toxic)</p>	<p><b>Wood and Other Organic Materials</b> Wood and Other Organic Materials</p>

Table 14

## ii. Development of the Base Fee Algorithm

In the fall of 2023, CAA began consultations with its Founding Members to develop a national fee-setting methodology to be deployed to all EPR enacted states. While the methodology development will continue in 2024, the Founding Members developed a set of guiding principles to guide the development of the fees. The guiding principles underpinning the feesetting methodology are:



## CAA Fee-Setting Guiding Principles

1. **Harmonization:** Fee rates should be developed using a national fee-setting methodology that is consistent across states unless state-specific laws or conditions require adjustments. Fee structures will vary in each state due to state-specific inputs and statutory requirements.
2. **Fairness:** Producers supplying covered materials to end users must contribute to the costs of the recycling system, including those who use materials not collected for recycling or are not recycled.
3. **Material-Specific Costs:** Fee rates will reflect material-specific management costs in each state using the best available data.
4. **Commodity Revenue:** Fee rates will reflect state-specific commodity revenues, and these revenues will be attributed to the corresponding material categories that earned them.
5. **Ecomodulation:** Fee-setting will account for measurable environmental objectives and state-mandated ecomodulation policies using CAA's ecomodulation principles (*which are under development*).
6. **Responsible End Markets:** Fee-setting will factor in the development and maintenance of viable responsible markets with any associated costs borne by the material category and as required by state EPR laws.
7. **Clarity:** Fee-setting materials and consultations will be prepared and conducted in a manner that clearly communicates to producers the principles, methodologies and approach that Circular Action Alliance is using to determine fee rates.

These principles provide guidance for the development of a fair, transparent and effective fee allocation method for producers. For covered materials that are neither collected nor recycled, producers will still incur fees to cover the cost of the recycling system in accordance with the Fairness principle.

## Interim Fee-Setting Methodology

As part of the fee-setting development process, CAA evaluated past and present frameworks used in other jurisdictions that have implemented EPR for packaging and paper products. CAA arrived at an interim method to set the preliminary base fees for the Oregon program plan submission. This methodology is considered interim because further fee-setting considerations, such as the development of the graduated fee algorithm, will be advanced in subsequent program plan amendments. Given the complexity of preparing producers for implementation of ecomodulation, CAA believes further consultation will be required with stakeholders in light of DEQ's proposed LCA impact rule concepts.

The interim fee method allocates the estimated material management costs to covered materials based on their share of supply tons. This upholds the generally accepted "polluter pays principle" in EPR literature whereby materials with large supply quantities pay for a large share of system costs. Material cost variation exists by incorporating material-specific indices generated by an Oregon-based Activity-Based Costing model into the fee allocations. The indices represent the varying costs that each material drives in the recycling system as it is being managed throughout the reverse supply chain from collection to transfer and consolidation, and then transportation to processing facilities. These are used to approximate the relative cost proportionality of covered materials managed in the program to avoid arbitrary crosssubsidization outcomes and to ensure that the statute requirement under ORS 459A.884(3)(b) is satisfied.



Program generated revenues are attributed to the materials that earned those revenues to reduce their share of material management costs.

The base fee schedule will be updated annually at a minimum, to reflect changes to producer supply tons, system operations and costs. The base fee schedule meets the state-mandated requirement under ORS 459A.884(3)(a), where the average base fee rate for covered materials that are not accepted for recycling must pay higher average fees than those materials that are accepted for recycling in Oregon.

## Summary

- The interim fee methodology ensures fairness for producers by differentiating material fees based on a material's supply, cost and revenue profiles
- Materials with the highest supply quantities and management costs pay the highest share of costs
- Materials generating the most commodity revenues benefit from the largest reduction to costs
- Materials that are recycled at high rates do not pay a higher share of costs relative to lower performing materials. This ensures that the core fee principles of Fairness, Material-Specific Costs and Commodity Revenues are upheld

## Separate Allocations for USCL and PRO Recycling Acceptance List Materials

In the Oregon program, there are three separate groups of covered materials: USCL, PRO recycling acceptance list, and materials not accepted for recycling. The first two groups have distinct management systems and funding obligations, e.g. the PRO is obligated to fund the expansion of on-route collection of USCL materials but not the actual collection services of USCL materials, whereas for materials on the PRO recycling acceptance list, the PRO must develop a depot network to receive these materials and then transfer them to a sorting facility or end market. To avoid cross-subsidization of the fees between these groups, the allocation of materials management costs is done within cost boundaries between these material groups.

While materials not accepted for recycling do not incur actual material management costs, they contribute their portion of fees based on their share of supply tons multiplied by cost indices of similar materials. Specifically Identified Materials (SIMs) and other strategic materials targeted for investments are assigned investment costs directly based on their needs.

## Metrics and Other Data Inputs Used to Set Fees

In developing the preliminary fees, CAA relied on estimates and data modeling of critical data inputs provided by CAA project team members with expertise in this field. Once the Oregon program launches, CAA will use actual supply and recycling data to inform fee-setting.

## Allocation of Non-Material Management (Indirect) Costs

Non-material management costs include program operations and administration, program development and regulatory costs. These costs have different cost drivers than material management costs and are often borne by all covered materials.



As a result, these costs are allocated to materials using a consistent but different approach than material management costs.

### Flat Fees

In accordance with ORS 459A.884(6), CAA proposes tiered uniform fees for low volume producers with gross revenues of less than \$10m or covered materials sold for use in Oregon of less than 5 metric tons as follows:

**Tiered Flat Fee Structure (for producers with gross revenues of at least \$5m and up to \$9.99999m)**

Tier Based on Annual Supply Tons	Flat Fee (Base Case)	Flat Fee (High Case)
1 to 2.5 tons	\$600	\$800
Over 2.5 tons up to 4.99999 tons	\$1,300	\$1,700

Table 15

### Publisher In-Kind in Lieu of Paying Fees (Print and Online Advertising)

In accordance with ORS 459A.884(7), CAA shall accept the value of print and online advertising services in lieu of all or a portion of fees payable by newspaper or magazine publishers. Once the fees are determined, CAA will work with the publishers to arrange for advertising products and services of similar value to offset CAA’s education and outreach expenditures. The portion of fees payable in cash by publishers will be negotiated.

### Confidentiality

As per OAR 340-090-0710(2) and with support from DEQ, CAA’s fee-setting methodology is considered proprietary and confidential information. The detailed methodology will be included as part of a confidential addendum to the Program Plan submission.

### iii. Preliminary Base Fee Schedule Ranges

In advance of conducting the Oregon Recycling System Optimization Project, CAA developed a range of preliminary program cost estimates to inform preliminary base fees for publication in the Program Plan. Presenting a range of anticipated program costs is reasonable given the absence of program data and uncertainty with estimates at this early stage.

The fee range was developed using a base case and high case scenario with the base case being conservative and the high case reflecting potentially higher costs due to high variability and uncertainty of cost estimates. Once the Oregon program launches, CAA will use actual program data to inform the program budget and resulting fees.





## Preliminary Base Fees (Material Category Level)

Program Year 2025		Base Case		High Case	
Covered Material Category	Fee Rate	Revenue Budget \$	Fee Rate	Revenue Budget \$	
Printing and Writing Paper	2.0 ¢/lb	\$6,800,000	3.0 ¢/lb	\$7,100,000	
Paper/Fiber	6.0 ¢/lb	\$35,100,000	11.0 ¢/lb	\$45,000,000	
Plastic - Rigid	24.0 ¢/lb	\$48,900,000	43.0 ¢/lb	\$61,300,000	
Plastic - Flexible	37.0 ¢/lb	\$118,300,000	71.0 ¢/lb	\$158,900,000	
Plastic - Other	27.0 ¢/lb	\$2,600,000	49.0 ¢/lb	\$3,300,000	
Glass and Ceramics	14.0 ¢/lb	\$9,200,000	24.0 ¢/lb	\$11,000,000	
Metal	8.0 ¢/lb	\$2,900,000	13.0 ¢/lb	\$3,300,000	
Wood and Other Organic Materials	4.0 ¢/lb	\$1,700,000	6.0 ¢/lb	\$1,700,000	
<b>Total</b>	<b>15.0 ¢/lb</b>	<b>\$226,000,000</b>	<b>26.0 ¢/lb</b>	<b>\$292,000,000</b>	

Table 16

Given the preliminary nature of these fee estimates, CAA strongly advises against relying on these estimated fees to budget producers' compliance costs in Oregon. With the completion of the Oregon Recycling System Optimization Project, CAA will be in an improved position to refine the fee range and likely expand the base fee schedule to reflect the proposed 62 fee reporting categories in the second Program Plan submission.

A final fee schedule will be released once the Program Plan is approved and more accurate cost and supply data are captured to replace estimates.

### iv. Producer Fee Incentives, Other Than Graduated Fee Adjustments

Oregon's Recycling Modernization Act mandates that the average fee rate for covered materials that are not accepted for recycling be higher than the average fee rate for covered materials that are accepted for recycling, as outlined in ORS 459A.884(3)(a). This statutory requirement is arguably a fee incentive that is implemented within the base fee structure, outside of Graduated Fees.

### v. Meeting the Statutory Requirement

In accordance with ORS 459A.884(3)(a), the preliminary base fees for both base and high scenarios satisfy the requirement for the average base fees for covered material not accepted for recycling to be higher than the average base fees for covered materials that are accepted for recycling in Oregon. These are shown in the table on the next page.

Avg. Fee	Base Case	High Case
<b>USCL</b>	6 ¢/lb	10 ¢/lb
<b>PRO</b>	27 ¢/lb	50 ¢/lb
<b>N/ A</b>	<b>31 ¢/lb</b>	<b>57 ¢/lb</b>
	<b>15 ¢/lb</b>	<b>26 ¢/lb</b>

Table 17

As the materials not accepted for recycling tend to be costlier to manage than USCL and PRO recycling acceptance list materials, their resulting average fee rate is higher than that of materials that are accepted for recycling.

In addition, the fee methodology incorporates a discretionary state-adjustment factor to ensure that this condition is met. It is activated only when the average fee of not accepted materials is lower than the average fees of accepted materials. To satisfy the state-mandated condition, this factor shifts material management costs from the group of accepted materials to non-accepted materials using the “goal seek”<sup>12</sup> function in Microsoft Excel, to generate a positive delta between the average base fees of not accepted materials and accepted materials. Once transferred, the costs are allocated amongst the non-accepted materials based on their material management cost proportions. Below are the calculation steps for the state-adjustment factor:

1. One hundred percent of the material management costs are allocated by material specific supply tons using the material cost indices generated from activity-based costing. The non-material management costs are allocated by the material management cost allocation ratio.
2. The average fees of accepted and not accepted material is calculated, as shown in the below table. If the accepted material fee is lower than the not accepted material fee, then the requirement is met and no further action is required.
3. However, if the accepted material fee is higher than the not accepted material fee, as in the below example where the fee per ton for not accepted materials is at \$88.98 and accepted material is at \$103.24 (which is lower by \$14.26), then the requirement is not met.
4. In the next step an optimized percent (8%) of material management cost is assigned to not accepted materials to make their fees higher than accepted materials. Excel goal seek function (Newton-Raphson method) is used to calculate the optimized percent to create a positive difference between accepted and not accepted materials. The remaining 92% of material management cost is allocated using the supply tons and material cost index.
5. The non-material management costs are allocated by the new material management cost allocation ratio after the state-adjustment factor calculation.
6. The new fee per ton will meet the requirement as demonstrated in the tale below:

<sup>12</sup> Technically known as the Newton-Raphson method.

*The numbers mentioned in the example are for illustrative purposes only.*

<b>Material Type</b>	<b>Average Fee per Ton</b>	<b>Average Fee per Ton with State-Adjustment Factor</b>
Accepted	<b>\$103.24</b>	<b>\$95.10</b>
Not Accepted	<b>\$88.98</b>	<b>\$96.10</b>
Difference	<b>-\$14.26</b>	<b>\$1.00</b>

*Table 18*

This factor and its application are designed so that:

- Only the minimum required costs are redistributed from accepted materials to non-accepted materials to ensure minimal cost impact on producers in the non-accepted group because they exert no control over whether their materials are accepted or not, and
- There is no need to determine arbitrary costs to assign onto non-accepted materials because the model algorithm will calculate the minimum costs required to be transferred



## b. Graduated Fee Algorithm and Methods

### i. The Algorithm and Accompanying Descriptive Text for the Proposed Graduated Fee Structure

As per ORS 459A.875(2)(a)(F), the Oregon program shall encourage producers to make continual reductions in the environmental and human health impacts of covered materials. This is to be administered through a graduated fee structure as described in ORS 459A.884, that can be used to adjust fees for producers who make or have made impactful changes to the ways in which they produce, use and market covered materials in Oregon. According to DEQ's latest "Guidance on Ecomodulated Fees," while the law requires PRO(s) to consider at a minimum the five factors<sup>13</sup> listed in the statute, it does not require any of those factors to be included in the fee schedule.<sup>14</sup>

**CAA fully supports the notion of developing a graduated fee structure to incentivize producers to continually reduce environmental and human health impacts and commits to implementing a fee methodology that meets these regulatory requirements.**

As of the submission of this program plan, CAA does not have a specific eco-modulation proposal developed for review. Given the challenges associated with implementing eco-modulation concepts (see below), CAA believes that ecomodulation proposals should be sequenced in the following manner:

1. Interim voluntary eco-modulation options should be developed for producers for implementation as soon as possible after the start of the program on July 1, 2025;
  - CAA would propose developing the details of these interim or voluntary eco-modulation fee adjustments in consultation with producers and other stakeholders to inform subsequent program plan amendments with the goal of alignment on these fee adjustments prior to the start of the program.
2. Parallel to the development of interim voluntary eco-modulation options CAA, will work with producers and other stakeholders to develop permanent membership fee incentives to reduce environmental outcomes. In CAA's view, in order to ensure the effectiveness of graduated fees to establish appropriate price signals that balance action and fairness, CAA considers it imperative to allow adequate time to assess the potential impacts of different approaches, criteria and the required underlying data. In addition, CAA believes that successful implementation requires flexibility to consider how best to structure the graduated fees within the fee-setting

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<sup>13</sup> The five factors listed in 459A.884(4) are (a) The post-consumer content of the material, if the use of post-consumer content in the covered product is not prohibited by federal law; (b) The product-to-package ratio; (c) The producer's choice of material; (d) Life cycle environmental impacts, as demonstrated by an evaluation performed in accordance with ORS 459A.944; and (e) The recycling rate of the material relative to the recycling rate of other covered products.

<sup>14</sup> DEQ (2024). Guidance on Ecomodulated Fees - Plastic Pollution and Recycling Modernization Act (SB 582, 2021), pg. 3.



methodology, including appropriate linking of the level of impacts to the level of bonuses and penalties, the timeframes for their application and the appropriate application within and possibly across material groups.

## Challenges with implementing graduated fees as of July 1, 2025

To ensure successful implementation of ecomodulation adjustments, CAA recommends further stakeholder consultation related to the development of graduated fee algorithms. Challenges with implementation at the start of the program include the following:

### Supply data underpinning fees and fee rates is highly uncertain

Accurate supply data (quantities of each material supplied) is a critical variable used to set fees and to establish appropriate price signals and determine the most effective criteria and structure of the methodology. Both the base fees and graduated fees will be directly tied to the reported supply data. As producers have not yet reported supply data, the estimates of material supplied tons used for preliminary base fees are very uncertain. Based on experience with implementing EPR programs in other jurisdictions, the data will be highly variable in the initial years of the program. Experience has shown that it will take years for producers (and their suppliers) to become familiar with reporting requirements, material category and product mapping, and to establish reliable systems to compile their data.

Further complicating this, the number of producers that will fall within low volume exemption rules or paying flat rates is currently unknown. With exemptions from reporting the quantities supplied, it will take time for CAA to compile reliable data.

### Program costs are uncertain

As with supply data, reliable program financing is critical to the reliability of resulting price signals from both base and graduated fees. Some program obligations are currently being confirmed and refined. Cost estimates for meeting the range of obligations are therefore uncertain at this time. CAA will continue to refine program cost estimates prior to Program Plan implementation.

### LCA rules are being finalized

The rules and standards for conducting LCA studies and for assessing and comparing their results (as per ORS459A.884 and ORS 459A.944) are not finalized and indeed some related to plastics are new. In this emerging context, proposing appropriate criteria and levels for fee graduation is challenging and possibly unfruitful. Finalizing graduated fee structure proposals needs to be coordinated with potential LCA impact reduction criteria and reporting requirements. Otherwise, producers may begin to plan for potential fee adjustment assessments which are subsequently subject to significant changes or refinements to criteria.

### LCA data and the results of LCA studies are limited

Detailed and robust LCA data and the results of LCA studies are limited. Until CAA's Program Plan has been approved, CAA will not be in a position to raise the funds or have the capacity to undertake the necessary analyzes to determine the likely



or possible level of improvement, nor assess the levels of incentives that would be practical and result in the desired environmental outcomes. The corresponding uncertainty with base fee rates compounds this challenge.

### **Data for other potential factors that could be considered is also limited**

Similarly, the data for most factors either suggested by DEQ for consideration (as per ORS459A.884) or that CAA considers potentially important to improving the environmental impact and cost-effectiveness of the program (e.g. post-consumer recycled content, designs causing operational problems), have not yet been compiled, are limited, or are not yet identified.

CAA believes that changes to material attributes may have environmental and/or program benefits, but to date it has not yet had the capacity or opportunity to undertake the research and analysis necessary to fully assess the relative merits, program implications, or levels of incentives that would result in the desired outcomes. For example, CAA believes that some incentives related to post-consumer recycled content might be developed and used judiciously in a reasonable market development action plan as the program evolves, as it has in other jurisdictions.

Flexibility and time will allow CAA to recommend the most impactful criteria for ecomodulation and program improvement, both of which are important to the program's success and consistent with the spirit of the RMA.

Given these considerations, CAA believes the desired outcomes of an effective long-term ecomodulation scheme to reduce environmental impacts will be more effectively implemented with additional input from RMA stakeholders and additional planning by CAA and its producers.

CAA also supports the implementation of eco-modulation factors in the producer fee schedule as contemplated under the RMA. While CAA understands the critical nature of, and fully supports establishing rules governing the clear and rigorous standards by which LCA studies are implemented and compared, it believes that the process for adjusting fees in relation to LCA results should be developed as part of the PRO Program Plan. This will provide the required flexibility to optimize the graduated fee structure over time. CAA strongly recommends that LCA rules do not define how the graduated fees should be implemented in relation to LCA results beyond what is already required through the statute. CAA welcomes the opportunity to establish a systematic process to work with DEQ and other stakeholders to ensure the graduated fees are implemented as soon as possible following the start of the program.

### **Interim Eco-modulation Options**

While the full assessment of long-term graduated fee adjustments, in CAA's view, requires additional data and better information about actual material base fee rates to develop, in the short term, there are a number of fee adjustment options which could be implemented to offer producers incentives to improve environmental outcomes. These interim fee adjustment options could potentially be implemented closer to the start of the program provided that the overall financial implications associated with the adjustments were limited. For example, CAA could consider providing producers with a limited bonus for disclosures of voluntary LCAs that would be available before the data necessary to develop more comprehensive eco-modulation fee structures was available.



## Proposed Program Plan Amendment for Graduated Fees

At the time of drafting this initial submission, CAA proposes to use LCA results as a basis for graduated fee adjustments. Either those from the 25 largest producers by market share that must be submitted to DEQ by December 31, 2026, as per ORS 459A.944, or voluntary LCAs submitted by producers, subject to applicable rule concepts with regards to LCA criteria and their comparison. Similarly, where supported with evidence, CAA may consider modulating material base fees using specific design attributes. In both cases, CAA will propose the criteria by which it will apply the data on LCAs and any recommended attributes to establish graduated fees.

Specifically, CAA expects that the Program Plan amendment outlining the graduated fee structure will provide detailed information on the following items:

- the set of criteria for which bonuses will be available and penalties will be applied, and how they will be used to adjust the fees (i.e. LCA criteria, other factors such as recycled content, either within material categories or if applicable, across material categories)
- the range and magnitude of each ecomodulation bonus and penalty
- the timeframe for which bonuses and penalties for specific materials or producers are applicable
- the administration process by which CAA will accept, assess and qualify approve requests for ecomodulation bonuses

## ii. Methods by which the PRO will Accept and Consider Requests for Ecomodulation Credits

### Conceptual Approach to Determining Graduated Fee Structure

CAA anticipates the probable approach to calculating graduated fee rates, after determining base fee rates, to be as follows:

- Determine eligibility and level of bonuses and applicability of penalties based on:
  - Reported producer supply by reporting category
  - Reported environmental attributes and impact data (criteria yet to be determined)<sup>15</sup>
- Determine which bonuses and penalties apply within each material category and if applicable, across material categories according to criteria yet to be determined

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<sup>15</sup> The factors and criteria for bonus eligibility and penalties and their levels will be determined before implementation in the 2028 program year in consultation with DEQ and producers.



- Determine the values of bonuses and penalties to be issued with the intent of balancing the level of incentives and disincentives for each material category<sup>16</sup>
- Determine the total value of bonuses and penalties including those between material categories where applicable → Publish graduated fee structure
- Include graduated fee adjustments on producer base fee invoices where applicable

If on the other hand, graduated fee rates must be calculated using either forecasted producer supply data or estimated data for the applications for bonuses and for penalties, additional contingencies and possibly specific reserves will need to be incorporated into the fees and fee rates to address potential bonuses and penalties. This is likely to result in both higher fee rates in general to account for contingencies and establishing reserves, as well as more variable fee rates as CAA manages the variability between forecast and actual data. Moreover, it is likely that bonuses will be funded inequitably among producers because the distribution of fees to cover contingency and reserves likely will be different than the actual distribution of bonuses and maluses. It will require considerably more challenging accounting to ensure the most appropriate price signals and minimize inequities.

## Consideration of Recycling Rate as a Factor for Ecomodulation

As part of the development of the base fee methodology, CAA considered including a factor to account for the recycling rate (one of the factors identified in ORS 459A.884(4), namely the “recycling rate of the material in relation to the recycling rate of other materials”). In that approach, a portion of total gross costs of managing covered products in Oregon would be allocated to individual materials according to their relative recycling rate, such that the materials with higher recycling rates would be assigned a smaller portion of the cost and vice versa.

CAA considered this option in conjunction with a corresponding allocation of a portion of the gross costs based on the quantities of material recycled and the associated cost. The recycling rate term was intended in part to mitigate the impact of the recycling cost term that tended to increase the fees for materials recycled to a greater extent relative to those that are recycled to a lesser extent and the creation of a perverse signal that costs can be lowered by selecting materials that are recycled less or substituting materials with a low recycling rate for those with a higher rate. CAA did not carry forward this option, which would have required declaration as an “alternative membership fee structure” pursuant to ORS 459A.884(5). CAA is not proposing to use the recycling rate as a factor in the graduated fee structure at this time.

Furthermore, within the definition of material categories that CAA is proposing, one individual producer’s package is so similar to the next producer’s package within the same fee category that there is no expected difference in recycling rates among covered materials in the same category that could be rewarded or penalized. For this reason, CAA is not proposing to use recycling rates in its graduated fee structure at this time.

However, as part of the process to implement graduated fees, CAA anticipates investigating further the merit and feasibility of using recycling rate within a covered material category, potentially relative to potential targets, either theoretical or established in regulations as a factor in graduated fees. However, obtaining data on an individual producer’s covered

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<sup>16</sup> The factors and criteria for bonus eligibility and penalties and their levels will be determined before implementation in the 2028 program year in consultation with DEQ and producers.





material recycling rate to document the difference in recycling rate from other covered materials in the same category is anticipated to be challenging.

## Consideration of Post-Consumer Recycled Content for Ecomodulation

ORS 459A.884(4) also lists the post-consumer content of a material as one of the factors that a PRO may consider in establishing criteria for the graduated fee schedule.

It is generally recognized that the incorporation of post-consumer content in any particular packaging, paper product, or food service ware item will lead to reduced environmental impacts compared to the same covered product that is made entirely of virgin material. Under these conditions, a producer's choice to design packaging with higher recycled content typically would yield lower environmental impacts. Thus, if a producer had already made the decision to use a particular material type for a packaging application, incorporating higher percentages of recycled content would lead to a positive outcome.

One of the challenges that CAA would have to consider in using post-consumer content in determining graduated fees and the criteria for applying it is the timing associated with the use of post-consumer content. The graduated fee schedule is intended to incentivize change and improvements. Therefore, while several packaging materials and types already have some and even significant portions of post-consumer recycled content, the desired outcome is positive change, i.e. increased content and associated environmental benefit. For incentives to be beneficial then, CAA will need to establish criteria, including a timeframe, that measure and reward such changes.

Initiatives to use post-consumer recycled material in products and packaging have been used successfully to strengthen local markets for recycled material and increased commodity revenue. CAA believes that incentives to improving postconsumer recycled content might be developed and used judiciously in a reasonable market development action plan as the program evolves, as it has in other jurisdictions.

As such, CAA anticipates further investigating the suitability of using this factor in its future proposal for a graduated fee structure.



### **c. Alternative membership fee structure (if applicable)**

CAA is not considering developing an alternative fee structure at this time.



## d. Adequacy of Financing

In accordance with ORS 459A.875(2)(i), CAA is required to establish fees that adequately fund the program operations, ensuring the fulfillment of the RMA requirements and enabling program implementation. These fees shall cover the expected management costs of materials, including collection service expansion, depot network setup and CRPF compensation as well as REM and other strategic development costs. The fees will also cover departmental reimbursements, administrative fees, PRO operations and program reserves.

For the first year of the program, CAA developed a range of program cost estimates that informed the amount of producer fees to be generated.

- Under the base case scenario, CAA expects to generate \$226 million in producer fees to cover estimated program costs of \$219 million.
- Under the high case scenario, CAA expects to generate \$292 million in producer fees to cover estimated program costs of \$287 million.

Note that the discrepancy between forecasted fee revenues and program cost budgets is due to fee rate rounding.

### Program Reserves and Contingencies

CAA is committed to striking an appropriate balance between maintaining a healthy balance sheet while also running an efficient organization with high value for fees for participating producers. Guided by a corporate reserves policy, CAA has established a reserve target and a funding strategy based on the working capital needs, risk mitigation and other financial needs of the Oregon program.

As per ORS 459A.875(2)(m), the preliminary fee budgets under the two scenarios include provisions for program reserves and contingencies. Under the base case scenario, the provision is budgeted at \$46 million and under the high case scenario, the provision is budgeted at \$70 million.

These reserve levels reflect the amounts to be raised in the first year of fees. These will accumulate over two and half years to reach the reserves target by the end of the 2027 program year, which is being considered as steady-state. The reserve target reflects six months of projected annual variable operating costs under a steady-state program year in 2027.

The initial reserve targets referenced in the program plan budget, and rate of accumulation, will be further evaluated before next version of the program plan submission.



## Equity

There is no one-size-fits-all solution to recycling because motivators and barriers vary across age, region, race, ethnicity and other factors.<sup>17</sup> In particular, CAA recognizes that the following factors may influence equity and outcomes in the Oregon recycling system:

- Lack of access to infrastructure and/or practical knowledge about how to recycle properly
- Functional barrier of preparing items to recycle (cleaning, emptying, breaking down items)
- Ability and disability (for example, color blindness might affect a resident's ability to understand educational materials)
- Knowledge barriers (for example, residents might not feel confident in their ability to recycle properly)
- Recycling programs not being set up for full community participation
- Investment in relevant resources and tools as well as information shared differently across the resident population →  
Language barriers
- How community members see themselves represented in the education and outreach materials (visuals, language, staff handing out resources)
- Geography/location and practical considerations tied to location

### CAA's Proposed Approach to Equity

CAA's approach to equity is to strive toward meeting our program goals while being as fair and inclusive as possible in providing access to recycling services and recycling information in Oregon.

To help meet this objective, CAA has sought the expertise of the community-based organization (CBO) Trash for Peace in developing the equity components of this plan. If selected, CAA will continue to work with Trash for Peace and other CBOs in operationalizing its plan in Oregon.

To assess and review equity issues during program plan implementation CAA will consult regularly with the ORSAC and the DEQ to ensure that CAA's activities in Oregon align with the equity requirements of the RMA and CAA's goals for equity.

CAA also proposes some specific equity approaches corresponding to key aspects of its operations plan:

### Equity in the Establishment of a PRO Depot Network

CAA proposes to explore a number of approaches to ensure its depot network is tailored to the varying needs of different Oregonians.

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<sup>17</sup> <https://recyclingpartnership.org/equitable-recycling-outreach>



First, the depot network will adhere to statutory and regulatory requirements around convenience standards. Meanwhile, program leaders will identify opportunities to provide collection for people with mobility challenges, including considering funding for at-home collection, store drop-off, and neighborhood collection events.

Because transportation is an equity issue, CAA proposes to prioritize events and mobile collections that bring recycling closer to communities that must travel farther distances to existing recycling depots.

Furthermore, CAA will work to identify any depot sites on tribal lands, and once identified, CAA will prioritize contracting with these sites.

Program leaders will also explore how compensation plans for collection point staff can be made fair and equitable. And CAA will explore partnerships with community groups that collect PRO depot materials but may not qualify for permits or meet the definition of “depot” or “drop off center.”

**What would an example of this type of arrangement be? Is CAA contemplating subsidizing the establishment of depots for entities who may not qualify for permits?**

## Equity in Responsible End Markets

CAA will work to ensure that new markets for materials collected in Oregon are developed in ways that minimize risks to public health and worker health and safety.

For materials CAA owns, and wherever possible, CAA will also explore options to:

- Provide opportunities to businesses that are small businesses, veteran owned businesses, owned by a disadvantaged class, are not-for-profit businesses, or are B Corp certified
- Provide opportunities to businesses with affirmative labor practices, such as hiring preferences for underserved groups, providing living wages, or utilizing organized labor

**What are affirmative labor practices?**

## Equity in Education and Outreach

As described in the Education and Outreach section above, CAA plans to ensure that educational materials and campaigns are culturally responsive to diverse audiences across Oregon by:

- Translating and transcreating all education and outreach materials into Spanish, Simplified Chinese, Traditional Chinese, Korean, Arabic, Russian, Vietnamese and Ukrainian
- Applying a co-creation approach to give community members a chance to participate in campaign design through community-level listening, Partnering with CBOs as advisors to education and outreach development, as well as implementation partners
- Designing for accessibility, ensuring all collateral follows ADA compliance and best practices as well as the principles of universal design, where products, services or environments are designed so that anyone – no matter their age or ability – can use that design with minimal or no accommodations
- Accounting for disparities in access to information technology, ensuring rural audiences are engaged as well as urban populations



## Equity in PRO Administration

When contracting work to third parties, CAA will develop an approach that provides opportunities to businesses that have certification under the Oregon Certification Office for Business Inclusion and Diversity (COBID) as minority-owned businesses, women-owned businesses, service-disabled veteran-owned businesses, or emerging small businesses. CAA will utilize the COBID website to obtain information on these potential business partners.



## CAA Management and Compliance

In this section, CAA describes its plans for day-to-day management of the program, communications, data gathering, and reporting processes; managing producer compliance; and related policies and procedures. This section directly addresses CAA's Objective 4 for this program plan: "Create a system that fulfills the needs and regulatory requirements of the PRO, its members, and all other relevant stakeholders."

CAA is committed to upholding the highest standards of ethics, integrity, and compliance with all relevant local, state, and federal laws and regulations. CAA recognizes the importance of adhering to legal requirements to ensure the trust and confidence of our stakeholders, including the Oregon Department of Environmental Quality (DEQ), producers, partners, employees, service providers, local municipalities, and the state of Oregon as a whole.

### a. Overall Day-to-Day Management

CAA will provide management of the program's overall day-to-day program operations, steward services, finance and administration, and local government and community activities, utilizing key qualified personnel dedicated to the Oregon program. Collaboration with CAA National and additional CAA state program personnel will occur to ensure all programs are functioning in the most consistent and efficient manner. The CAA management team will conduct activities in accordance with defined policies and procedures.

CAA will staff the program with dedicated resources responsible for the success of the overall program. The CAA National office will also provide support where applicable.

The following resources will be the main points of contact and responsible for program compliance:

#### Primary Contact

Name: Doug Mander

Position: Oregon Program Manager

Phone: (416) 346-2294

Email: [doug.mander@circularaction.org](mailto:doug.mander@circularaction.org)

#### Secondary Contact

Name: Shane Buckingham

Position: EPR Program Planning Lead

Phone: (647) 210-5527

Email: [shane.buckingham@circularaction.org](mailto:shane.buckingham@circularaction.org)

A full list of CAA Oregon team members and their roles will be maintained on the staff page on the website. CAA will notify DEQ within 30 days of key personnel changes related to the Oregon program.



## b. Communications

In this subsection, CAA describes its planned approach to communication and coordination with key stakeholders as part of the implementation of this plan. It also outlines a proposed approach to gathering data and key metrics to inform the measurement of key outcomes, and how key metrics will address elements of the annual reporting structure required by the RMA.

### CAA Plans for Communication and Coordination

CAA understands the effective collaboration and communication with Oregon recycling stakeholders is critical to CAA successfully meeting RMA obligations and delivering on anticipated recycling system improvements.

CAA proposes several multi-stakeholder coordination and communication activities and welcomes feedback from Oregon DEQ regarding these proposals. Note that the frequency of each activity will, by necessity, fluctuate to reflect the program's evolving needs. A set cadence for each effort will be determined that is agreeable to the relevant stakeholders and reflects the program's ongoing needs.

CAA will engage with other stakeholders not specifically highlighted here as necessary.

### General Communications

CAA's website already features a professionally designed and maintained section dedicated to Oregon and the Recycling Modernization Act. This online resource is currently geared toward potential producers, but it will be expanded to target additional audiences, including sections tailored to Oregonians (waste generators), service providers, local governments, and others.

CAA expects it will employ other effective communication tools as demand for information is established in both format and frequency.

### Oregon DEQ

CAA will establish meetings between relevant CAA representatives and Oregon DEQ. CAA and Oregon DEQ would select the appropriate project team members to be included on the recurring event, and each party would be expected to invite others when relevant for specific discussion items identified in advance. This step builds on the strong communication ties that have already been developed between CAA and DEQ.

CAA will also communicate updates and data to DEQ through required reports and according to recommendations developed in consultation between CAA/DEQ and ORSAC.





## Oregon Recycling System Advisory Council (ORSAC)

CAA will appoint a single point of contact for ORSAC, and CAA will have standing attendance at ORSAC meetings and offer the opportunity for consultation as needed.

CAA expects to engage in a regular series of meetings with ORSAC and DEQ to review implementation issues that could arise after submission of this first program plan.

## Local Governments and Service Providers

CAA will undertake a significant amount of communication and coordination activity with local governments and their service providers as part of the proposed Oregon Recycling System Optimization Project.

As detailed in the “Collection and Recycling of USCL Materials” section of this plan, CAA intends to utilize an online portal to process local government and service provider funding requests under different local government reimbursement programs. These programs will be supported by dedicated CAA operations staff that will facilitate stakeholder participation.

CAA will also provide an online portal for local governments and their designated service providers to easily access, customize, print and mail education and outreach collateral at no cost, as described in the “Education and Outreach” section of this plan.

CAA will also host dedicated webinars to support program implementation, and local governments and service providers will be a key audience for these communication efforts.

In addition, CAA will plan to connect with and inform local government **and service provider** stakeholders through connections with groups such as the Association of Oregon Counties (AOC), ~~and~~ the League of Oregon Cities (LOC) ~~and~~ Oregon Refuse and Recycling Association (ORRA).

AOC, LOC, and ORRA are key partners in successfully implementing the RMA. ORRA supports CAA working closely with these associations who represent counties, cities, and service providers across Oregon and looks forward to continuing to work together to successfully implement Oregon’s shared responsibility model with the RMA.

## Commingled Recycling Processing Facilities (CRPFs)

CAA will form a CRPF working group to establish a forum for interaction with processors and also to provide technical assistance, review relevant program timelines and requirements, discuss investment opportunities, and more. CAA will continue to cultivate relationships with processors on an individual level as well in an effort to understand needs and shifting realities at the materials processing level.

CAA will establish standing meetings with the Oregon Refuse & Recycling Association (ORRA), a statewide trade group that serves as a key conduit to processing entities.

ORRA supports CAA establishing a CRPF working group. Both processors and ORRA look forward to continuing to partner with CAA to support successful implementation of the RMA.

## Producers

CAA has been hosting a monthly Producer Working Group (PWG) since 2023 and will continue to do so. The PWG offers a forum for information-sharing and discussion among companies with producer obligations, providing practical guidance on producer-specific topics such as deadlines, requirements, reporting, and more.

PWG members also have access to the Producer Working Group Library, which includes past PWG meeting summaries and materials.



In addition, CAA's website features a [Producer Resource Center](#), which is regularly updated.

For producers, the CAA portal will enable secure registration and password protected login, transaction and balance history, and reports and notices. It will also allow producers to submit their production volumes to CAA for annual fee calculations via data exchange, structures file upload, or direct entry.

## Trade Associations

The Association of Oregon Recyclers (AOR) is an important stakeholder relationship, as AOR membership spans the entire materials management industry in Oregon. CAA will participate in the organization's annual conference (including presenting at the discretion of AOR's conference planning committee) and collaborate on educational forums and/or webinars for AOR members. CAA is open to other forms of engagement that mutually benefit CAA and AOR.

As mentioned earlier, ORRA is another important stakeholder relationship, with ORRA members accounting for a large portion of the solid waste management sector in Oregon. Ongoing communication and relationship-building within ORRA will be a key focus for CAA.

## Other PROs and Multi-PRO Coordination

Given developments prior to the program plan submission deadline, CAA submitted this program plan with the expectation that it is the only PRO submitting an RMA PRO program plan at this time. If additional PROs indicate an interest in submitting program plans, CAA will work with DEQ and those prospective PROs to develop an interim coordination process as required by the RMA framework.

With respect to program plan development tasks, CAA is tracking all program development costs that should be shared with future PROs if they join the Oregon RMA program prior to CAA's recovery of those start-up costs from membership fees.

CAA will include a breakdown of 2024 start-up costs in the proposed 2024 Annual Report anticipated by DEQ in its Phase II RMA rule concepts. CAA's 2025 Annual Report will also identify program development start-up costs incurred in 2025 prior to the start of the program that will need to be recovered from producer fees once the program starts on July 1, 2025.

CAA will then track the recovery of these start-up costs over time so that in the event a new prospective PRO emerges, DEQ and CAA can identify remaining program start-up costs applicable to that new PRO at the time of its proposed entry into the RMA program.



## c. Reporting

### Metrics and Data Collection

In general, ORRA supports CAA's approach to metrics and data collection and looks forward to learning more about the development of these plan elements.

Many aspects of this plan will require tracking of key outcomes and metrics to measure the achievement of program goals articulated in the "Program Goals" section. CAA will use its interactions with key stakeholders to collect data relevant to the objectives, goals, expected outcomes, and key metrics discussed in that section. CAA will establish survey, reporting, and other data collection mechanisms for routine program measurement. CAA will develop standardized reporting templates to ensure consistency of records and provide clear guidelines to all stakeholders required to report data to CAA.

CAA will also ideally receive critical information from DEQ on key elements, in particular related to inbound contamination, capture rate and outbound bale quality at CRPFs. CAA may in some instances pursue studies or other data-gathering exercises to collect essential information. It will use this data and corresponding analytics to report annually to DEQ on plan implementation and goal achievement. CAA will also use this performance information to update its goals, to adjust its plan, and to suggest or recommend overall adjustments to RMA implementation. CAA's intention is to use the submittal of its five-year plan updates as the main mechanism for altering program goals.

### Producer Reporting

CAA will provide participant producers with access to a secure online reporting portal to facilitate the submission of annual supply data. This reporting portal will allow for CAA to capture and aggregate the information that must be submitted to Oregon in the PRO Annual Report, as well as the applicable individual producer data where required.

CAA will monitor the effectiveness of this reporting portal and make adjustments as necessary to improve efficiency and accuracy. CAA will also provide necessary training and support to all producers and relevant stakeholders on the reporting portal's use.

### Annual Reporting

CAA will submit Annual Reports to Oregon DEQ no later than July 1 of each program year, starting in 2026. CAA's Annual Report will contain all information required by 459A.887(2)(a), OAR 340-090-0660(1)(a), OAR 340-090-0670(4), and OAR 340-090-0700(1)(d). It will be written and presented in a manner that can be understood by the general public. The Annual Report will be delivered each year to Oregon DEQ as a searchable electronic file.

CAA will follow the outline for annual reporting proposed in DEQ's management directive including the following elements.

**PRO Description:** Total amount, by weight and type of material, of covered products sold or distributed in or into this state by participating producers in the prior calendar year

**Goals of the Program:** Description of progress toward meeting topline goals in relation to identified program plan outcomes and metrics along with any recommendations to improve recovery and recycling outcomes.

**Program Operations:** Summary of program operations including:



- Progress toward implementing local government recycling system service expansions and improvements
  - Progress toward meeting PRO Recycling Acceptance List material collection targets and convenience and performance standards
  - Measures taken to address the recycling of specifically identified materials
  - Summary of performance in relation to fulfilling responsible end market (REM) obligations including:
    - A summary of quarterly disposition reports and evaluation of adequacy of REMs
    - A summary of actions taken in support of REMs
    - A summary of certification and verification results
  - A description of actions taken in relation to upholding progress in relation to achieving the statewide plastic recycling goal
  - A summary of education and outreach activities
  - Results of any in-person site inspections, material tracking or other audits conducted during the reporting year, including whether any major safety or environmental management practices were not properly followed and, if so, the corrective actions taken

**Financing and Budget:** Annual reports would include:

- A summary of the financial status of CAA, including annual expenditures, revenues and assets
- A description of the membership fee schedule, along with information on the number of producers that received fee adjustments and total fee revenues and an evaluation of the effectiveness of membership fee adjustments in reducing the environmental and human health impacts of covered products
- A complete accounting and summary of payments requested by local governments and local governments' service providers and paid by CAA related to:
  - Service expansion requests
  - Transportation funding
  - Contamination reduction funding
  - Roll cart funding
  - Contamination reduction evaluation funding
- A summary of payments requested by local governments or local governments' service providers that were denied or reduced by CAA
- A summary of payments made CRPFs
- A summary of all other payments made to satisfy CAA's obligations under ORS 459A.860 (Legislative Findings) to 459A.975 (Rules), including but not limited to payments made to support responsible recycling of specifically identified materials (SIMs), as described in ORS 459A.917

Finally, annual reports will include any additional information required by RMA rules and statute. Reports will detail updates around organizational compliance and include findings from an independent accountant's audit of CAA's financial statements.



## d. Managing Compliance

To encourage the compliance of all stakeholders with the RMA, CAA will offer robust support and training to educate producers about program plan requirements. Any material changes to program plan requirements impacting stakeholders will be communicated to producers.

Records pertaining to CAA's implementation and administration of its producer responsibility program will be retained in accordance with applicable law and with CAA's records retention policy.

CAA is committed to maintaining open lines of communication with state and local rule makers and will actively seek clarification on any regulations deemed unclear. Internal controls will be designed to promote adherence to regulatory standards.

### Producer Compliance

Per ORS 459A.869(8), CAA will establish a searchable registry on its website disclosing all CAA's compliant members and the identities of any members determined to be non-compliant members through DEQ enforcement processes alongside the reasons for their non-compliance. In instances where a member or non-member organization is potentially non-compliant with the program plan and/or the RMA, CAA will notify DEQ and the allegedly delinquent producer of the deficiency and provide the producer and opportunity to respond and to cure the delinquency as applicable.

CAA will endeavor to monitor compliance by producer members by conducting periodic operational and record audits, utilizing an audit cycle that will be a mix of on-site and desk top audits. The desk top audit and on-site audits will assess the same criteria. When a desk top audit is performed rather than an on-site audit, documentation via photos, promotional efforts, and compliance documentation will be requested. All the same documentation will be gathered by the CAA staff when conducting an on-site audit. In the event of a non-compliant finding, CAA will send a notification to DEQ after certain internal compliance processes and timelines have passed.

Designated CAA personnel will be assigned to providers to cultivate relationships with providers and foster on-going communication, trust, and transparency to identify and address issues as soon as possible.

### Preventive Measures

CAA is undertaking several producer education activities prior to the start of the program plan designed to educate producers of their obligations under the RMA in Oregon. This includes direct outreach to producers, informational webinars, and engagement with relevant trade associations to disseminate broad awareness of the new program requirements. CAA will also develop additional outreach materials to facilitate producer packaging reports required by the program as the RMA moves closer to implementation.

These preventative measures are intended to support the processes outlined below for notifying DEQ, ORSAC, and producers of potential non-compliance.



## Membership Rules

CAA will develop a Membership Rules Schedule related to fee payments and reporting requirements. Membership rules will specify producer reporting and fee payment obligations, and may address such issues such as membership reporting obligations, voluntary reporter agreements, reporting timelines and categories, errors in reports, membership-initiated adjustment requests, billing process, timing of fee payments, penalties and interest associated with late payments, verifications audits process, and compliance process along with a timeline by which a non-compliant member would be referred to the DEQ for potential disciplinary action and/or dispute settlement.

## Compliance Process

Below are components of a compliance process that could be incorporated into the Membership Rules:

- Duty to Pay Required Fees - CAA may impose financial penalties and interest on members for failure to pay invoices in accordance with membership rules
- Retention of Records - CAA members will be required to retain records to substantiate and verify the accuracy of the information submitted in their reports for a to-be-determined period of time following the submission, and such records will be subject to inspection by CAA
- Duty to Comply with Requests for Documentation - Upon written request from CAA, members shall provide documentation in support of their reports to CAA. This may include specific data, calculation methodologies, and/or audit reports, among other items.
- Duty to Provide Access - Members will be required to grant access during business hours to CAA or its authorized representatives to inspect and review records relevant to information submitted in their reports as maintained in accordance with the Retention of Records policy
- Duty to Cooperate with a Verification Audit - At the request of CAA, members must cooperate with CAA's verification process, described in the "Responsible End Markets" of this plan. This may include providing requested documentation, data, records, and reports within a reasonable timeline of such requests, providing confirmation from a senior officer with authority to confirm and oversee reporting, and providing access to the member's business premises.

## Notification of Non-Compliance

For non-compliance related to a producer who is or was a member of CAA in accordance with RMA requirements, but which failed to comply with membership reporting and/or fee payment requirements, CAA Membership Rules would include notification to DEQ after certain internal compliance processes and timelines had passed.

CAA would notify the DEQ of any members that are not in good standing (this may include a membership suspension and process), subject to a time frame outlined in the Membership Rules. For example, members who had failed to report and/or pay fees within the specified time frame could be:

- Suspended by CAA and considered members not in good standing, following requisite due process of the reasons for the suspension and the steps necessary to remove the suspension or become in good standing
- Reported to DEQ to take such corrective action as DEQ deems necessary or appropriate



CAA would also propose that in a multiple PRO situation, a searchable online database be maintained where PROs could confirm whether producers were members of an approved PRO and in compliance with RMA requirements.

### **Obligated Producers under the RMA**

CAA membership reporting review and assessments may identify situations where there is a dispute between producers about which entity is an obligated producer with respect to a particular material application. In such circumstances, CAA may consult with DEQ regarding the interpretation of RMA “obligated producer” provisions to ensure that the application of the RMA to producers is consistent with DEQ’s intentions.

CAA may also become aware of producers that are not CAA members but that appear to be obligated producers under the RMA. CAA will conduct outreach to encourage such producers to register with a PRO to fulfill their obligations under the RMA. In such situations, however, CAA may not necessarily have access to information that would confirm whether a nonmember producer is actually obligated under the RMA. If such producers fail to take action, CAA would refer these producers to DEQ, along with the information that led it to believe the producer was obligated under the RMA, for DEQ to take such action as it may deem necessary

### **Non-Compliance with LCA Requirements**

Failure of a CAA member to conduct and report on required LCA requirements in the case of the 25 largest producers in the state is also a potential RMA compliance issue. Given the unique nature of LCA process and related rules, CAA would propose to develop specific compliance reporting processes and protocols related to this issue that would likely be different than processes and protocols in place to address violations of CAA producer reporting and fee payment requirements. CAA would propose to develop a specific membership compliance process and policy related to producer LCA requirements and would consult with DEQ regarding timelines and steps that would be taken to regain compliance.



## e. Dispute Resolution (Local Governments, Service Providers, and Processors CRPFs)

While hopefully minimal, disagreements could arise between CAA service providers, and processors, as there will be direct contractual relationships. ORRA would like CAA to include service providers and processors in the dispute resolution process. The title of this section includes CRPFs although they are not referenced throughout. We suggest the term “processors” because in some cases a processing facility may not be a CRPF, it could be a reload or limited sort facility. If this section is intended to be narrow to the ORSOP, processors would not have a direct role.

A number of areas under the RMA will require dispute settlement processes to address potential disagreements between CAA, ~~and~~ local governments, service providers, processors, and other stakeholders that are receiving funding from CAA under various RMA programs.

In many cases, standard commercial dispute settlement mechanisms, such as an agreement by the parties to refer a dispute to a third-party arbitrator, can be utilized to resolve such disputes. As noted in other program plan sections, CAA is proposing to finalize the details of various funding programs through further consultation with relevant stakeholders. This would include a review of proposed dispute settlement procedures for each program funding area. Based on the results of stakeholder consultation and input, CAA will provide a more detailed description of the dispute settlement procedures for individual funding programs as part of its anticipated program plan revisions to be submitted in September 2024.

As also noted earlier, program funding in relation to local government service expansion requests may involve more difficult dispute resolution issues than those normally associated with typical commercial contracts as there may be different interpretations about what qualifies as costs associated with the expansion and provision of recycling collection service for covered products. CAA is proposing that one of the objectives of the Oregon Recycling System Optimization Project (ORSOP) will be to identify possible areas of disagreement between local governments, service providers, and CAA regarding eligible funding requests. Once more clarity on individual local government ~~and~~ service provider funding requests is received, CAA is proposing to create a working group consisting of representatives from CAA, local governments, service providers, and DEQ to attempt to mediate disagreements over service funding requests between the approval of the second program plan and the start of the program plan on July 1, 2025. This process would be intended to minimize potential disagreements between CAA, ~~and~~ local governments, ~~and~~ service providers prior to the processing of individual local government service expansion requests once the program begins as of July 1, 2025.

Given that some funding request eligibility issues may require a resolution of the interpretation of the RMA and its implementing rules, parties would retain the right to address issues through legal mechanisms in the event that CAA, ~~and~~ local governments, service providers, processors, and the DEQ cannot align on the same understanding of what the RMA requires.





## **f. General Policies, Procedures, and Practices**

CAA will regularly monitor the state of operations for the entirety of the program. CAA recognizes that defined and consistently executed policies, procedures, and practices are critical for ensuring the well-being of its personnel and the integrity of data provided to various stakeholders.

CAA has developed national and state specific (where applicable) policies, procedures, and practices to enable consistent handling of activities while providing services required to operate key aspects of the program. The policies, procedures, and practices are defined to address specific tasks and to ensure the below concepts are addressed where applicable.

Consistent with best practices, CAA anticipates that it will periodically review and update its policies, procedures, and practices as determined to be necessary or appropriate.

### **i. Management of Contracts**

CAA will maintain appropriate records of contracts that have been entered into in writing pertaining to the Oregon Recycling Modernization Act. Prior to execution, written contractual agreements between CAA and relevant parties will undergo appropriate internal review in accordance with CAA's business practices and policies.

### **ii. Workplace Safety and Conduct**

CAA is committed to maintaining a safe work environment. In order to provide a safe and healthy work environment, personnel will be required to take appropriate and reasonable precautions by complying with established safety and workplace conduct standards. CAA is committed to providing proper equipment, procedures, and training in safe practices to aid in awareness and prevention of potential individual and community safety issues. Employees will be encouraged to familiarize themselves with their safety and conduct responsibilities, to follow safety and conduct practices at all times, and to make every effort to prevent accidents and injuries. Failure to adhere to safety and conduct rules could result in disciplinary action, up to and including termination of employment.

CAA will promptly and thoroughly investigate all reports of suspected nonconformance by personnel with safety or conduct requirements.

CAA will comply with all applicable laws pertaining to workplace safety.

### **iii. Protection of Confidential Information**

CAA will adopt an information security plan that outlines appropriate technical, physical, and organizational measures designed to protect against unauthorized or accidental access, destruction, loss, alteration, or disclosure of nonpublic information subject to confidentiality undertakings.

The information security program will address native encryption of all data, event monitoring, audit trails, and other relevant topics. When information is no longer needed or required to be maintained by organizational policy or applicable



law, CAA will securely dispose of all data and records in accordance with its records retention policy and information security program requirements.

All personnel will be required to periodically undergo appropriate training on their responsibilities for protecting confidential information.

#### **iv. Successful and Timely Delivery**

CAA will establish contractual agreements with service providers that outline the requirements and expectations designed to foster the successful and punctual achievement of project objectives by contractors.

Communication will be maintained with all contractors, with verbal and written notifications issued if timelines are not met or project outcomes are delayed. Additionally, contractors will be asked to submit status reports as deemed necessary by CAA.

CAA will request the contractual capability to inspect contractors and conduct quality checks to ensure that projects meet the standards of the program. Furthermore, CAA will offer comprehensive training and support to all contractors to ensure they understand and meet CAA's expectations.

#### **v. Retention of Information**

Per ORS 459A.962, CAA will retain records related to the implementation and administration of its producer responsibility program plan for at least five years and have them available for inspection by DEQ upon request. CAA will designate a records custodian who will be responsible for the administration of the records retention policies. These documents will facilitate the creation of the annual report elements specified in ORS 459A.878 and addressed in the "Reporting" section of this plan. The annual report will be submitted to DEQ on July 1 of each year.

## g. Closure Plan

ORRA recommends that a minimum of six months notice be required if CAA intends to cease operations as a PRO in Oregon, and consideration should be given to whether six months is adequate.

CAA financing proposals include the development of program reserve targets equivalent to at least six months of variable operating expenses. Reserves ensure that CAA has the necessary resources for a transition period in the event CAA ceases operations as a PRO in Oregon.

Potential closure scenarios related to CAA operations in Oregon involve several potential scenarios, which may include but are not limited to:

1. A decision by the CAA Board of Directors to cease operations in Oregon
2. Failure to maintain membership representing 10% market share or other qualifying criteria of a PRO as is required by the RMA
3. Changes in relevant laws, regulations, or other RMA program requirements

With respect to Scenario 3 above, CAA assumes that a change to the statutory and/or regulatory framework requiring CAA to cease operations in Oregon would likely be accompanied by conditions that provide notification and timing of required program termination dates. As such, this closure plan will focus on the other two possible closure scenarios.

In the case of an internal CAA decision to cease operations in Oregon (Scenario 1 above), CAA will endeavor to give its producers, service providers, DEQ, the ORSAC, local governments and other RMA stakeholders a minimum of six months notice that it intends to cease operations as a PRO in Oregon. CAA would also endeavor to align such a decision, if suitable under the circumstances, with the renewal dates associated with RMA Producer Plans.

In the case of Scenario 2 above, where CAA closure is due to a failure to maintain membership representing the required 10% market share or other qualifying criteria, CAA would implement a closure plan that aligns with timelines related to closure of operations associated with OAR 340-090-0730.

A notice of closure would include the intention for the termination of CAA's Oregon program, the anticipated CAA program termination date, and an outline of the steps CAA would take to wind up its operations in Oregon in an orderly fashion.

The CAA closure plan will include the following information:

- Key steps and activities CAA will undertake before and after the termination date to ensure:
  - That RMA obligations have been maintained during the wind up of activities
  - That service providers, local governments, and other stakeholders are given adequate notice of the wind up of individual CAA programs and contractual arrangements
- Implementation timelines, key steps and cut off dates for various program operations (final day to submit transportation compensation claims, for example)
- Communications plan and stakeholder notifications
- A closure financial plan and budget, including the process to ensure resolution of any liabilities and resolution of tax and other financial issues
- A plan to disburse any remaining assets and reserves once all financial and operational obligations have been addressed



Please note that in order to cease operations, CAA will have to conduct a number of activities after the termination date for the CAA RMA program. This would include final payments required under the RMA for activities that took place prior to the termination date.

Once CAA completes the steps required under the closure plan, it will provide notice to DEQ of the completion of the closure plan.



# Certification and Attestation

## a. Contents

### i. Contact Information

<b>Authorized Representative:</b>	Charles Schwarze
<b>Title:</b>	Chair
<b>Address:</b>	20 F Street NW, Suite 700, Washington, D.C. 20001
<b>Phone Number:</b>	336-840-9860
<b>Email Address:</b>	info@circularaction.org

### ii. The Prospective PRO's Employer Identification Number

The Employer Identification Number for Circular Action Alliance is **92-3197259**.

### iii. Proof of the Prospective PRO's Status as a Nonprofit

Documents showing proof of Circular Action Alliance's status as a nonprofit, 501(c)3 organization able to operate in Oregon are located in the [Appendices](#) as follows:

- Circular Action Alliance's bylaws of incorporation as a nonprofit corporation: [Appendix H](#)
- Circular Action Alliance's 501(c)3 determination letter from the Internal Revenue Service: [Appendix I](#)
- Circular Action Alliance's proof of status in Oregon (proof of registration as a charitable organization with the Oregon Department of Justice): [Appendix J](#)
- Circular Action Alliance's proof of registration as a foreign corporation with Oregon's Secretary of State: [Appendix K](#)
- Circular Action Alliance's revised bylaws: [Appendix L](#)



#### iv. Certifying Statement

*I hereby declare under penalty of false swearing (Oregon Revised Statute 162.075<sup>i</sup> and ORS 162.085<sup>ii</sup>) that the above information and all of the statements, documents and attachments submitted with this plan are true and correct.*

*Charles Schwarze – Circular Action Alliance Chair*

*Date: March 31, 2024*

*Signed* 



## Appendices

The following appendices are available in separate documents:

- Appendix A: Definitions
  - Appendix B: List of Member Producers and Market Share Calculation
  - Appendix C: CAA Organizational Structure
  - Appendix D: Stakeholder Engagement
  - Appendix E: Itemized Budgets by Program Year
  - Appendix F: PRO Depot Lists and Coverage
  - Appendix G: Detailed Fee-Setting Methodology (confidential)
  - Appendix H: CAA Articles of Incorporation
  - Appendix I: 501(c)3 Letter of Determination
  - Appendix J: Proof of Registration as a Charitable Organization
  - Appendix K: Proof of Registration – Foreign Corporation
  - Appendix L: CAA Revised Bylaws
  - Appendix M: Preliminary Program Implementation Timelines
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# Oregon Program Plan Appendices

(2025 – 2027)



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# Oregon Program Plan Appendices

(2025 – 2027)

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## Appendix A: Definitions

Below are the definitions used in ORS 459A.863, along with additional terms that have been used in this program plan.

- (1) **“Brand”** means any mark, word, name, symbol, design, device or graphical element, or a combination thereof, including a registered or unregistered trademark, that identifies a product and distinguishes the product from other products.
- (2) **“Collection rate”** means the percentage of a specific material that is collected for recycling calculated by dividing the tonnage collected into the tonnage generated on an annual basis.
- (3) **“Commingled recycling”** means the recycling or recovery of two or more materials that are mixed together and that generally would be separated into individual materials at a commingled recycling processing facility in order to be marketed.
- (4a) **“Commingled recycling processing facility” means a facility that:**
  - (A) Receives source separated commingled recyclable materials that are collected commingled from a collection program providing the opportunity to recycle; and
  - (B) Separates the recyclable materials described in subparagraph (A) of this paragraph into marketable commodities or streams of materials that are intended for use or further processing by others.
- (4b) **“Commingled recycling processing facility” does not include:**
  - (A) Scrap metal recycling facilities;
  - (B) Scrap automotive or appliance recycling facilities;
  - (C) Full-service redemption centers or dealer redemption centers, as those terms are defined in ORS 459A.700, and recycling facilities owned and operated by a distributor cooperative established under ORS 459A.718;
  - (D) Recycling facilities handling covered electronic devices, as defined in ORS 459A.305;
  - (E) Recycling processing facilities that process only noncommingled, source separated recyclable material from commercial entities;
  - (F) Recycling processing facilities that recover commingled recyclable material primarily from the construction and demolition debris waste stream;
  - (G) Recycling depots;
  - (H) Recycling reload facilities; or
  - (I) Limited sort facilities, as defined by rule by the Environmental Quality Commission.



- (5) **“Community Based Organization”** means a public or private nonprofit organization that has demonstrated capability in representing or meeting the needs of a specific community or a significant segment of a community.
- (6) **“Contaminant” means:**
- (a) A material set out for recycling collection that is not properly prepared and on the list of materials accepted for recycling collection by a recycling collection program; or
  - (b) A material shipped to a recycling end market that is not accepted or desired by that end market.
- (7) **“Contamination”** means the presence of one or more contaminants in a recycling collection or commodity stream in an amount or concentration that negatively impacts the value of the material or negatively impacts a processor’s ability to sort that material.
- (8a) **“Covered product” means:**
- (A) Packaging;
  - (B) Printing and writing paper; and (C) Food service ware.
- (8b) **“Covered product” does not include:**
- (A) A beverage container, as defined in ORS 459A.700.
  - (B) Bound books.
  - (C) Napkins, paper towels or other paper intended to be used for cleaning or the absorption of liquids.
  - (D) Rigid pallets used as the structural foundation for transporting goods lifted by a forklift, pallet jack or similar device.
  - (E) Specialty packaging items that are used exclusively in industrial or manufacturing processes, including but not limited to:
    - (i) Cores and wraps for rolls of packaging sold by a mill to a packaging converter or food processor; and
    - (ii) Trays, whether designed for a single use or multiple uses, used for the transport of component parts from a parts supplier to a manufacturer that assembles those parts.
  - (F) Liquefied petroleum gas containers that are designed to be refilled.
  - (G) A material that the producer demonstrates is exempt under section ORS 459A.869.
  - (H) Pallet wrap or similar packaging used to secure a palletized load if added by a person that is not the producer of the palletized covered products.

- (I) Packaging related to containers for architectural paint, as defined in ORS 459A.822, that has been collected by a producer responsibility organization under the program established under ORS 459A.820 to 459A.855.
- (J) Any item that is not ultimately discarded inside this state, whether for purposes of recovery or disposal.
- (K) Items sold on a farm or used on a farm, including items used for farm use, as defined in ORS 215.203, or for processing on a farm, provided that an item used on a farm is not subsequently sold at a retail establishment that is not located on a farm.
- (L) Items used by a nursery licensed under ORS 571.055 that generates the majority of the nursery's revenue through the sale of nursery stock, as defined in ORS 571.005, provided that the items are not sold through retail sales.
- (M) Packaging and paper products sold or supplied in connection with:
  - (i) Prescription drugs as defined in ORS 689.005;
  - (ii) Nonprescription drugs as defined in ORS 689.005;
  - (iii) Drugs marketed under a brand name as defined in ORS 689.515; or
  - (iv) Drugs marketed under a generic name as defined in ORS 689.515.
- (N) Packaging and paper products sold or supplied in connection with drugs that are used for animal medicines, including but not limited to parasiticide drugs for animals.
- (O) Packaging and paper products sold or supplied in connection with:
  - (i) Infant formula as defined in 21 U.S.C. 321(z);
  - (ii) Medical food as defined in 21 U.S.C. 360ee(b)(3); or
  - (iii) Fortified oral nutritional supplements used for individuals who require supplemental or sole source nutrition to meet nutritional needs due to special dietary needs directly related to cancer, chronic kidney disease, diabetes, malnutrition, or failure to thrive, as those terms are defined as by the International Classification of Diseases, Tenth Revision, or other medical conditions as determined by the commission.
- (P) Wine and spirit containers for which a refund value is established under Oregon law.
- (Q) Packaging for products:
  - (i) That are required under 40 C.F.R. 156.140, or other federal regulation pertaining to toxic or hazardous materials, to state on the label or container that the packaging should not be recycled or should be disposed of in a manner other than recycling; or
  - (ii) Identified by the commission by rule as product that is required by law to state on the label or container that the packaging should not be recycled or should be disposed of in a manner other than recycling.



(R) Any other material, as determined by the commission by rule, after consultation with the Oregon Recycling System Advisory Council.

- (9) **“Desk audit”** means an analytical process that is conducted using data or information readily available on the computer that does not entail additional on-site or field-based research or analysis.
- (10) **“Ecomodulate/Ecomodulation”** means the utilization of positive and negative incentives (bonuses and maluses) in producer responsibility packaging fees designed to encourage or achieve specific environmental outcomes, such as reducing overall material usage, enhancing recyclability, reducing package to product ratios, or increasing recycled content.
- (11) **“Food service ware”** means paper or plastic plates, wraps, cups, bowls, pizza boxes, cutlery, straws, lids, bags, aluminum foil or clamshells or similar containers:
- (a) That are generally intended for single-use; and
  - (b) That are sold to a retailer or a dine-in food establishment or a take-out food establishment, regardless of whether the item is used to prepackage food for resale, is filled on site for food ordered by a customer or is resold as is.
- (12) **“Generator”** means a household, business, or other entity that utilizes and then discards packaging or printed materials to be managed as waste or as reusable, refillable or recyclable material.
- (13) **“Large producer”** means a producer that is among the 25 largest producers of covered products based on market share.
- (14) **“Licensee”** means a person that is licensed by a brand and manufactures a covered product or a packaged item under that brand.
- (15) **“Litter”** means waste that is improperly placed so as to be a nuisance or aesthetic, health or environmental concern.
- (16) **“Local government”** means:
- (a) A city;
  - (b) A county; or
  - (c) A metropolitan service district.
- (17) **“Local government’s service provider”** means:
- (a) A collection service franchise holder under ORS 459A.085;
  - (b) Any person authorized by a city or county to provide recycling collection services described in subsection (25)(a) to (d) of this section; or
  - (c) Any person authorized by a metropolitan service district to provide recycling collection services described in subsection (25)(d) of this section.

- (18) **“Market share”** means a producer’s percentage of all covered products sold in or into this state during a specified time period, as calculated in accordance with methods established by the commission by rule.
- (19) **“Mechanical recycling”** means a form of recycling that does not change the basic molecular structure of the material being recycled.
- (20) **“Metropolitan service district”** means a metropolitan service district established under ORS chapter 268.
- (21) **“Nonprofit organization”** means an organization or group of organizations described in section 501(c)(3) of the Internal Revenue Code that is exempt from income tax under section 501(a) of the Internal Revenue Code.
- (22) **“Opportunity to recycle”** has the meaning given that term in ORS 459A.005.
- (23a) **“Packaging” means:**
- (A) Materials used for the containment or protection of products, including but not limited to paper, plastic, glass or metal or a mixture thereof;
  - (B) Single-use bags, including but not limited to shopping bags; and
  - (C) Nondurable materials used in storage, shipping or moving, including but not limited to packing materials, moving boxes, file boxes and folders.
- (23b) **“Packaging” does not include:**
- (A) Food service ware; or
  - (B) Sharps, as defined in ORS 459.386.
- (24) **“Parent facility”** means a preexisting permitted or other larger facility that may also host a potential PRO depot.
- (25) **“Person”** has the meaning given that term in ORS 459.005.
- (26) **“Printing and writing paper”** includes, but is not limited to, newspaper, magazines, flyers, brochures, booklets, catalogs, telephone directories and paper used for copying, writing or other general use.
- (27) **“Processor”** means a person that owns or operates a commingled recycling processing facility.
- (28) **“Producer”** means a person that is determined to be the producer of a covered product under ORS 459A.866.
- (29) **“Producer responsibility organization”** means a nonprofit organization established by a producer or group of producers to administer a producer responsibility program.
- (30) **“Producer responsibility program”** means a statewide program for the responsible management of covered products that is administered by a producer responsibility organization pursuant to a plan approved by the Department of Environmental Quality under ORS 459A.878.
- (31) **“Recyclate”** means recycled material that is used in the manufacturing of new packaging or other products.
- (32) **“Recycling collection”** means the act or process of gathering recyclable materials by:



- (a) On-route residential collection from the generator at the place of generation;
  - (b) On-site nonresidential collection from the generator at the place of generation;
  - (c) Multifamily on-route residential collection from each multifamily dwelling that has five or more units;
  - (d) Recycling depots at a disposal site or another designated location that is more convenient to the population being served and expanded depots as described in ORS 459A.007; or
  - (e) Other collection methods included in an approved producer responsibility program plan.
- (33) **“Recycling depot”** means a location where recyclable materials are accepted from the public or commercial businesses and transported to a location for processing or to an end market.
- (34) **“Recycling rate”** means the percentage or ratio of a material or set of materials that is collected and processed for recycling divided into the amount of that material or set of materials that is generated.
- (35) **“Recycling reload facility”** means a facility other than a recycling depot where recyclable materials are received, consolidated and made ready for transport to another location for processing or to a responsible end market.
- (36) **“Recycling system”** means all aspects of the programs and participants that have a role in Oregon’s statewide recycling structure, including producers of products sold in or into Oregon, generators of recyclable materials, governments that regulate materials management programs, businesses that collect and process recyclable materials and persons that receive recyclable materials to convert to new feedstock or products.
- (37) **“Responsible end market”** means a materials market in which the recycling or recovery of materials or the disposal of contaminants is conducted in a way that benefits the environment and minimizes risks to public health and worker health and safety.
- (38) **“Responsible management”** means the handling, tracking and disposition of covered products from the point of collection through the final destination of the collected material in a way that benefits the environment and minimizes risks to public health and worker health and safety.
- (39) **“Responsible recycling”** means the handling of covered products for recycling and removal of contaminants by a certified or permitted processor and disposition to a responsible end market.
- (40) **“Reverse logistics”** means the process of returning discarded materials that were distributed to generators back through a supply chain to reuse, refillable or manufacturing end uses.
- (41) **“rPET”** designates PET (polyethylene terephthalate) resin derived from discarded PET that has been collected, sorted, and processed into feedstock for the purpose of manufacturing new packaging or other products.
- (42) **“Small producer”** means a producer that:
- (a) Is a nonprofit organization;
  - (b) Is a public body, as defined in ORS 174.109;
  - (c) Has a gross revenue of less than \$5 million for the organization’s most recent fiscal year;

- (d) Sold in or into Oregon less than one metric ton of covered products for use in this state in the most recent calendar year;
- (e) Is a manufacturer of a beverage sold in a beverage container, as those terms are defined in ORS 459A.700, that sold in or into Oregon less than five metric tons of covered products, including but not limited to secondary and tertiary packaging for beverage containers, for use in this state in the most recent calendar year;
- (fA) Is a restaurant, food cart or similar business establishment that primarily sells to members of the public food that is generally intended to be consumed immediately and without the need for further preparation, either on or off the premises; and
- (fB) Is not a producer of food service ware as described in ORS 459A.866; or
- (g) Operates a single retail sales establishment, has no online sales and is not supplied or operated as part of a franchise or a chain.
- (43) **“Specifically identified material”** means a material or covered product identified by the department under ORS 459A.917.
- (44) **“Transcreation”** means text that is made coherent and understandable in another language, not simply translated word for word.
- (45) **“Uniform statewide collection list”** means the list of materials established in accordance with the requirements of ORS 459A.914 (4).
- (46) **“Wasteshed”** means a designated area where material is physically generated and managed for disposal, reuse, refilling or recycling.



## Appendix B:

# List of Member Producers and Market Share Calculation

### List of Member Producers

CAA's 20 Founding Members are:

1. Amazon
2. Clorox
3. Colgate-Palmolive
4. Danone
5. Ferrero US
6. General Mills
7. Keurig Dr Pepper
8. Kraft Heinz
9. L'Oréal
10. Mars, Incorporated
11. Mondelez
12. Nestlé USA
13. Niagara Bottling, LLC
14. PepsiCo
15. Procter & Gamble
16. SC Johnson
17. Target
18. The Coca-Cola Company
19. Unilever United States
20. Walmart

## CAA Oregon Market Share Calculation Methodology

CAA took the following steps to calculate an estimate of CAA's member companies supply to the Oregon Market.

### Estimate of CAA Producer Member Supply (Numerator)

To estimate the numerator, CAA reached out to our 20 member companies and asked them to provide the total tons of packaging they supplied into Oregon in 2022. The 20 member companies, named in the "PRO Description" section of the plan, represent an array of consumer-packaged goods firms that hold significant market share nationally across an array of consumer products that are under the scope of Oregon's Recycling Modernization Act.

CAA provided instructions to these companies on the types of packaging to include and exclude (e.g., exclude packaging covered under Oregon's Bottle Bill). Once this data was received, CAA made minor adjustments to ensure all data was in the same unit (pounds). Some member companies were only able to provide national data. For the companies that provided national data, we used U.S. Census Data to calculate the percentage of the U.S. population living in Oregon and applied that percentage to the companies' national data to extrapolate a supply estimate for Oregon.

Based on data received from its current member companies, CAA estimates that these companies supplied at least 102,000 to 122,000 tons of covered product packaging to the Oregon market in 2022.

*Please note: CAA anticipates that the scope of obligated covered product packaging for purposes of producer supply reports will become clearer for producers once related RMA rulemaking processes are completed and CAA develops more detailed educational and resource materials. As such, these initial tonnage reports may be underestimating actual member supply tonnage.*

### Estimate of Total Print and Packaging Generation in Oregon (Denominator)

Oregon DEQ provided access to data developed for DEQ by the consulting firm Cascadia Consulting Group, Inc. that was used to estimate impacts of infrastructure improvements and various material collection scenarios. CAA used this data to produce an estimate of the overall covered paper product and packaging supply to Oregon for the purpose of calculating a market share denominator.

*Please Note: Although this data represents the best available diversion data at this time for the purposes of estimating total covered product supply, more accurate information will become available when all producers generate supply reports as the Program Plan begins operations. Total state covered product supply based on producer supply reports may be significantly lower than this initial estimate.*

Utilization of this dataset required a set of "reduction" elements to account for materials which are not covered products under the RMA, including Bottle Bill materials, some industrial or other non-consumer facing materials, and materials produced by "small producers." These factors were deployed against the denominator estimate to reduce the overall number.

The Cascadia dataset includes the material volumes generated from residential and commercial sources in 2017 and projected for 2026, for a total of 50 materials. Forty of those materials are considered to be print and packaging related. Note that the data suggests that ~35% of materials are generated from residential routes while ~54% are generated from commercial routes. See table below.

Total Print and Packaging Tonnage	2017	2026 (Projected)	Change
		1,476,000	1,630,000
Share of Total Percent			
Single-family Residential (on route)	29%	27%	-2%
Multifamily Residential (on-route)	7%	6%	0%*
Commercial (on-route)	31%	31%	0%
Other Commercial	22%	24%	2%
Self-Haul (excl. Bottle Bill)	7%	7%	0%
Bottle Bill	5%	5%	0%
TOTAL	100%	100%	0%

Table i

Between 2017 and 2026, volumes are projected to increase by 154,000 tons or 10.4%. Cardboard, PE film and HDPE tubs are expected to increase the most during this period (on a percentage basis) while newspaper, printing and writing paper are expected to decrease the most.

The average year-over-year percent change in volumes for each material over the 10-year period was applied to the 2017 baseline and escalated to the 2022 year, which is the year for which producer supply data is being requested. This results in total generated tons of 1,561,000 tons.

In accordance with the scope of the Oregon program, further analysis was undertaken to reduce the total estimated tons to account for exemptions and exclusions.<sup>8</sup> The following reductions were estimated from the Cascadia dataset and applied to the estimated tonnage in 2022:

<sup>8</sup> Based on definitions under ORS 459A.863(6).

Exclusions	Reduced Tonnage	Reason and Assumptions
Non-Recoverable Material <sup>9</sup>	121,973	
Beverage Containers on Deposit <sup>3</sup>	141,965	Tonnage of PET, HDPE, AL, steel, glass beverage containers on deposit were reduced
Out-of-Scope (Non-Consumer Facing Packaging) <sup>10</sup>	207,053	Tonnage associated with industrial/office paper, shipment packaging materials (OCC, film), industrial OCC and specialty packaging used in manufacturing was reduced. Assumed 10% of print paper, 25% of paper packaging and 20% of flexible plastics (film). It is unclear to what extent the Cascadia dataset had excluded for commercial material recovery.
Small Producers' Materials <sup>11</sup>	150,473	Tonnage associated with packaging materials generated by small producers and free riders. The de minimis thresholds are <\$5m in gross revenues or up to one ton of packaging supplied. Assumed 15% reduction to overall net tons based on Ontario experience.
Contamination/Moisture Adjustment to Collected Materials	85,268	Tonnage associated contamination and moisture in the collected materials will not be reported by producers as supply. Assumed 10% reduction to overall net tons.
<b>TOTAL</b>	<b>727,143</b>	

Table ii

The net tons of generated total printing and writing paper, packaging and food service ware materials in the scope of the program is approximately 834,000 tons. This estimate suggests a per capita generation rate of 357 pounds per capita. A reasonable range would be between **792,000 to 876,000 tons**.

For validation purposes, The Recycling Partnership (TRP) applied this methodology on three other data sources arrived at directionally similar results:

1. combining published DEQ 2016 waste composition data with statewide recycling data
2. extrapolating from single-family data in a 2019 Portland Metro capture study, and
3. extrapolating from TRP's capture study database of household material

<sup>9</sup> Cascadia defines 'non recoverable material' as material which is not covered under the RMA. <sup>3</sup>

Based on beverage container definition, under ORS 459A.700.

<sup>10</sup> Based on product exclusions under ORS 459A.863(6)(b). Note the volume of ICI commercial packaging that will be out of scope under the program may be significantly higher than these initial estimates.

<sup>11</sup> Based on ORS 459A.863(32) Volume of material associated with small producers will be difficult to accurately assess until all producers are reporting supply into the Oregon market.

## Resulting Market Share Estimate

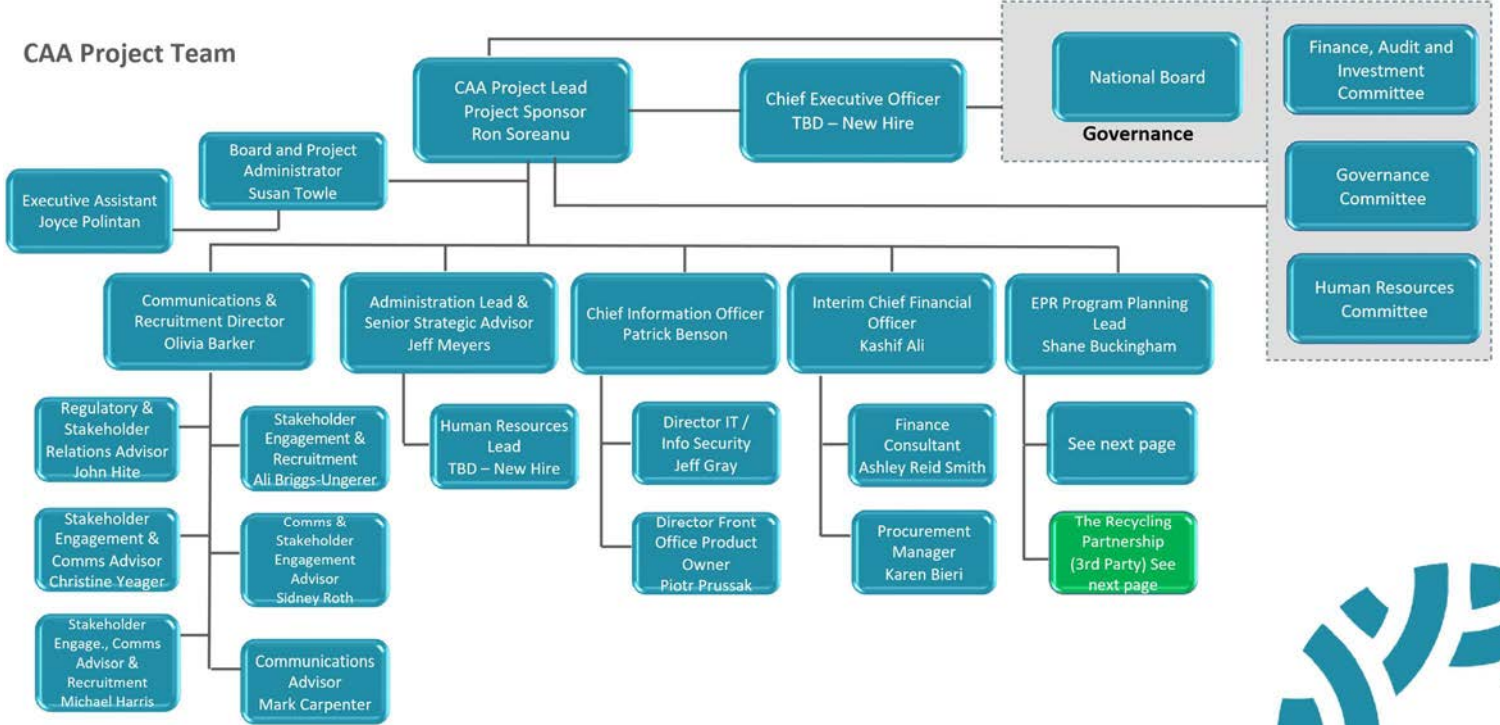
Dividing the range of numerator estimates by the range of denominator estimates results in an estimate of current CAA member companies covered product market share supply by weight in Oregon of between 12% and 15%. CAA anticipates a significant increase in membership that will add to the total CAA market share prior to program plan implementation.

## Appendix C:

# CAA Organizational Structure

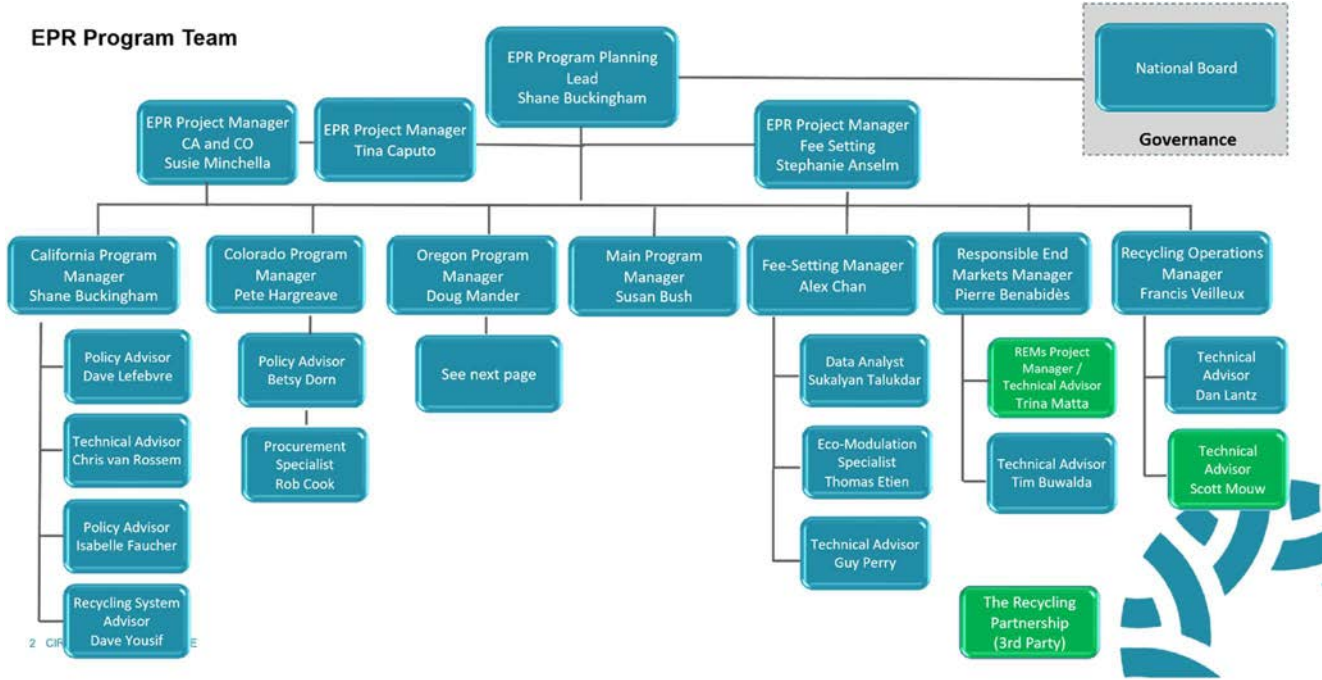
As noted in the program plan, Circular Action Alliance (CAA) is a nonprofit organization established to fulfill producer obligations related to EPR statutes in a number of states, including Oregon. CAA has utilized the services of The Recycling Partnership (TRP) to support the development of the Oregon program plan. An organizational chart is included on the following pages.

# CAA Overall Organizational Structure



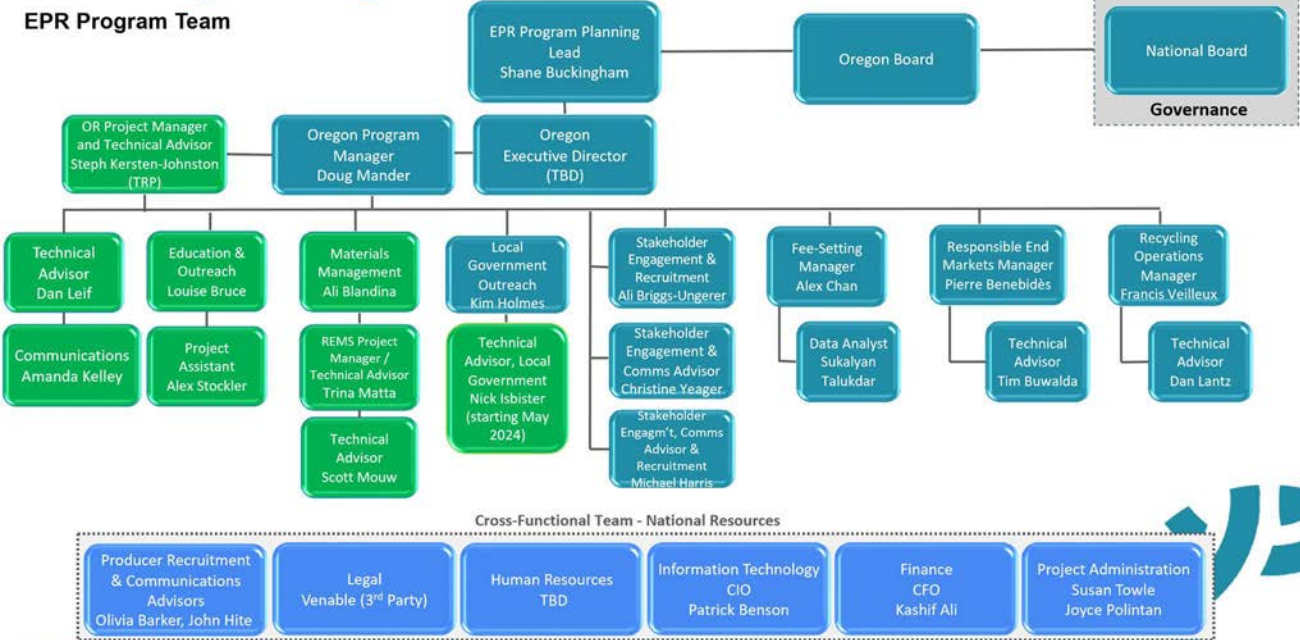
# CAA EPR Program Planning Structure

## EPR Program Team





# CAA Oregon Program Planning Structure



3 CIRCULARACTION ALLIANCE

## Appendix D: Stakeholder Engagement

Note the corrections below to service provider references. Also, if there is more specificity available for the general references to cities and service providers, that would be helpful to include. It appears that the same entity is listed multiple times because they were separate consultations?

During the development of this program plan, CAA and its partners have engaged and consulted with a large number of relevant stakeholders. While insights from some have been included within the narrative of the plan, others preferred their perspective to remain unofficial at this stage.

### Local Governments, Service Providers (select groups and existing depot operators)

Metro Regional Governments (group) – multiple engagements across different topic areas	Waste Connections
City of Salem and service providers	Republic Services
Columbia County Government	Dahl Disposal Services
Deschutes County Government with Cities and service providers	North Lincoln Sanitary Service
Lane County Government with Cities and service providers	Thompson's Sanitation-Sanitary Service
Marion County Government with Cities and service providers	Southern Oregon Sanitation
Lincoln County Government with Cities and service providers	Brandt's Sanitary Service
Milton-Freewater and DEQ regional rep	Royal Refuse
City of Corvallis	Loren's Sanitation Services
Rogue Disposal ( <del>dba Waste Connections</del> ), Thompson's Sanitary Service, Dahl Disposal Service, Pendleton Sanitary Service	<del>Dahl &amp; Dahl, Inc</del>
Tillamook County Government with Cities and service providers	Valley Recycling and Disposal
Washington County and all cities in the IGA Waste Management	Nestucca Valley Recycling-Garbage Service
Recology <del>of Oregon</del>	Sutherlin Sanitary
	Humbert Refuse
	Roseburg Disposal Company
	Pacific Sanitation
	Suburban Garbage Service
	Pride Disposal and Recycling Company
	Apex Recycling and Disposal
	D&O Garbage Service, Inc



City Sanitary Service  
Cascade Disposal Co.

South Umpqua Disposal Company  
Valley Recycling and Disposal

## Potential Additional Depot Material Partners

Habitat ReStore  
St. Vincent de Paul  
BRING  
Mattress Recycling Council  
PaintCare  
Metro HHW program  
Ridwell  
OBRC  
James Recycling  
Ground Score  
The Arc of Portland

## End Markets and Other Material-Related Stakeholders

D6	NORPAC
DirectPack	Carton Council of North America
Denton Plastics	Sonoco
Merlin Plastics	Cascade
ORPET	Nucor
Indorama	PakTech
Royal Interpack	Association of Plastics Recyclers (APR)
Reynolds Foil	Indorama
Gottlieb	RRS
Household and Commercial Products Association (HCPA)	CMI
Recycle Aerosol	The Recycling Partnership

## CRPFs

EFI Recycling

Far West Recycling

Garten Services

Eco Sort

Pioneer Recycling Services

Walla Walla Recycling

## Other

Oregon Refuse & Recycling Association (ORRA)

Trash for Peace

## Appendix E:

# Itemized Budgets by Program Year

### Preliminary Program Cost Estimate Ranges over Three Years of Operations

CAA developed a range of preliminary program cost estimates to be published in the Program Plan. Presenting a range of anticipated program costs is reasonable given the absence of program data and uncertainty with estimates at this early stage.

To inform these estimates, the CAA project team relied on best available data on covered material volumes, current understanding of future system needs and costs in advance of completing the Oregon Recycling System Optimization Project. Insights were also drawn from EPR programs in other jurisdictions. Given the high degree of uncertainty associated with these estimates, a conservative base case and high case scenario were developed.

	Base Case		
	Pre-Program + 2025	FY2026	FY2027
<b>Local Government Collection Services Expansion</b>	\$ 53,900,000	\$ 143,100,000	\$ 158,900,000
<b>Contamination Reduction Programming</b>	\$ 13,100,000	\$ 13,100,000	\$ 13,100,000
<b>Transportation Reimbursement</b>	\$ 4,800,000	\$ 12,600,000	\$ 9,500,000
<b>Others</b>	\$ 1,100,000	\$ 1,200,000	\$ 1,200,000
<b>Payments to CRPFs</b>	\$ 25,300,000	\$ 50,400,000	\$ 76,600,000
<b>PRO Materials Management (Depots)</b>	\$ 33,900,000	\$ 54,100,000	\$ 56,800,000
<b>REM Development and Verification</b>	\$ 2,900,000	\$ 3,200,000	\$ 3,200,000
<b>Special Material Investments incl. SIMs</b>	\$ 7,750,000	\$ 2,000,000	\$ 2,000,000
<b>Education and Outreach</b>	\$ 10,400,000	\$ 7,500,000	\$ 7,600,000
<b>Regulatory</b>	\$ 8,150,000	\$ 9,417,000	\$ 15,600,000
<b>PRO Management and Administration</b>	\$ 11,800,000	\$ 10,300,000	\$ 11,050,000
<b>Program Reserves</b>	\$ 45,500,000	\$ 27,300,000	\$ 18,200,000
<b>Total Budget</b>	<b>\$ 219,000,000</b>	<b>\$ 335,000,000</b>	<b>\$ 374,000,000</b>

Table iii. Preliminary program plan cost estimates – base range.

				High Case		
				Pre-Program + 2025	FY2026	FY2027
	<b>Local Government Collection Services Expansion</b>			\$ 70,070,000	\$ 186,030,000	\$ 206,570,000
	<b>Contamination Reduction Programming</b>			\$ 13,100,000	\$ 13,100,000	\$ 13,100,000
	<b>Transportation Reimbursement</b>			\$ 6,240,000	\$ 16,380,000	\$ 12,350,000
	<b>Others</b>			\$ 1,430,000	\$ 1,560,000	\$ 1,560,000
	<b>Payments to CRPFs</b>			\$ 32,890,000	\$ 65,520,000	\$ 99,580,000
	<b>PRO Materials Management (Depots)</b>			\$ 44,070,000	\$ 70,330,000	\$ 73,840,000
	<b>REM Development and Verification</b>			\$ 3,770,000	\$ 4,160,000	\$ 4,160,000
	<b>Special Material Investments incl. SIMs</b>			\$ 10,000,000	\$ 2,600,000	\$ 2,600,000
	<b>Education and Outreach</b>			\$ 12,800,000	\$ 9,750,000	\$ 9,880,000
	<b>Regulatory</b>			\$ 8,150,000	\$ 10,871,000	\$ 16,500,000
	<b>PRO Management and Administration</b>			\$ 14,200,000	\$ 13,390,000	\$ 14,430,000
	<b>Program Reserves</b>			\$ 70,000,000	\$ 42,000,000	\$ 28,000,000
	<b>Total Budget</b>			<b>\$ 287,000,000</b>	<b>\$ 436,000,000</b>	<b>\$ 483,000,000</b>

Table iv. Preliminary program plan cost estimates – upper range.

## Description of Budget Category Estimate Methodology

### Local Government Collection Services Expansion

Local government collection services expansion covers the anticipated costs of funding local government recycling service expansions and improvements. This includes capital requirements for on-route service, depot and reload facility upgrades and expansions. It also includes eligible operating costs relating to existing local government depot operations and reload facilities.

Data included in the 2023 Needs Assessment was not detailed enough to support accurate estimates of local government service expansion requests. For example, the number of new trucks associated with local government information in the Assessment could be interpreted to be as high as 1,500. Based on assumptions regarding an increase in material volumes in many jurisdictions and the anticipated expansion of on-route services in select jurisdictions, CAA assumed a requirement

for approximately 200 trucks with a price of \$400,000 per vehicle. With respect to depots and recycle reload facilities, CAA assumed both an expansion of existing facilities and the sourcing of approximately 30 new facilities over the course of the first Program Plan. CAA capital asset costs have not been amortized in these estimates.

Some estimates are fixed because they depend on known parameters with known allocations. In other cases, the calculations are based on assumptions subject to significant variability based on interpretation or unknown parameters. The base case reflects a preliminary estimate of costs based on current information while the high estimate represents the margin of error that exists given the lack of information available. Based on existing information, there is a high level of uncertainty regarding these estimates, the eligibility of various local government funding requests and the timing of expenditures. CAA will be in a substantially improved position to estimate these costs once the Oregon Recycling System Optimization Project is complete.

### **Contamination Reduction Programming**

CAA has assumed a funding requirement equivalent to the \$3 per capita cap created under the RMA. This includes contamination measurement such as periodic assessments and evaluations.

### **Transportation Reimbursement**

Based on preliminary information, CAA has assumed that local governments and their service providers will transport approximately 128,000 tons of material that is eligible for transportation subsidies on an annual basis. Transportation cost estimates were based on industry hauling rates published by the American Transportation Research Institute (ATRI) for the year 2023. These rates were applied to distances between wastesheds and the closest commingled recycling processing facility available for processing (where transportation distances were greater than 50 miles). CAA also factored some facility handling costs into this estimate.

### **Others**

Others represents an initial estimate of the program to cover the price premium to ensure post-consumer content in roll carts.

### **Payments to CRPFs**

These costs relate to anticipated CAA payments to CRPFs (that are reflective of commodity revenues), compensate them for receiving and sorting covered materials, disposing of contaminants and residue, managing material cost fluctuations and implementing facility improvements required to meet CRPF RMA requirements.

Estimates of CAA payments to CRPFs were largely based on volume estimates and fee rates for the Processor Commodity Risk Fee (PCRF) and the Contamination Management Fee included in *Study Results Processor Commodity Risk Fee Contamination Management Fee: March 7, 2024 Final Report* by Crowe. These estimates will be revised once RMA rules related to the calculation of these amounts are finalized.

## PRO Materials Management

These costs relate to CAA's obligation to establish a depot system to manage PRO materials from collection to recycling. These costs reflect the estimated funding requirements based on Oregon system needs to operate PRO depots, set up collection events and activate curbside collection of certain PRO materials. The exact number of collection points required to meet the RMA convenience standards will be determined through the program development process. This may result in additional required collection points to meet DEQ standards.

In developing this preliminary estimate, CAA assumed that approximately 85% of existing depot locations would be interested in operating as a collection partner for PRO Recycling Acceptance List materials. CAA also assumed that certain PRO Recycling Acceptance List materials would continue to be collected through curbside collection programs. Depot cost estimates were based on CAA cost modeling informed by the costs of managing similar materials through depots in other jurisdictions and cross-referenced with material volume and cost estimate information from [\*Overview of Scenario Modeling: Oregon Plastic Pollution and Recycling Modernization Act\*](#).

There is high level of uncertainty with respect to these cost estimates and the number of existing depots that will actually choose to partner with CAA in collecting PRO acceptance list materials. CAA will be in a significantly improved position to estimate these costs once the Oregon Recycling System Optimization Project is completed.

## REM Development and Verification

REM development and verification costs were budgeted based on an estimate of the number of audits to be conducted during the course of the program (~200-250) along with required REM infrastructure and potential costs associated with CAA actions taken to address REM compliance. Individual audits were estimated at \$10,000 per audit, confirmed by two standard developers using a third-party verification body to undertake audits. The estimated number of audits was determined by listing all potential buyers of different commodities. REM development and verification costs were estimated separately for USCL and PRO Recycling Acceptance List materials.

## Special Materials Investments including SIMs

These costs relate to CAA estimates of investments (research, trials, studies, etc.) earmarked to improve the recycling of SIMs and other materials. CAA has identified 11 materials that are candidates for investments and their associated costs of initial studies and field trials. PET thermoforms and glass are two high focus materials at present. This preliminary estimate may be adjusted as further outreach with producers and other stakeholders focuses on potential recycling changes for additional covered product materials.

## Education and Outreach

These costs represent CAA's estimates of the cost to deliver the RMA mandated statewide education and outreach program to support local government communications activity related to the collection of USCL materials as well as driving awareness among residents about the acceptance of PRO materials at PRO depots. The budget was developed with The Recycling Partnership (TRP) which has extensive experience in the design and delivery of recycling communications.



Estimates include research, creative development and distribution of materials as well as multilingual translations. On average, the proposal costs close to \$2 per capita.

## **Regulatory**

Regulatory costs include the Program Plan review fee, annual administrative fees payable to DEQ and potential CAA contributions to the Waste Prevention and Reuse Fund. As per ORS 459A.941, CAA's initial estimate has assumed annual contributions equivalent to 10% of its annual expenditures based on a rolling three-year average, starting in 2026. These estimates will be revised once RMA rules related to the calculation of these amounts are finalized.

## **PRO Management and Administration**

These estimates reflect CAA's initial estimate of PRO administration and operational costs in Oregon necessary to administer various RMA programs. This includes Oregon PRO office expenses, staffing, overhead, and services support received from National CAA. This includes pre-program start-up and program development costs. These costs were reviewed by a third-party public accounting firm.

## **Program Reserves**

[See comment on pg. 132 regarding recommended minimum six month notice requirement.](#)

Program reserves estimates were established based on working capital and risk mitigation needs of the program, guided by CAA finance policy. The proposed program reserves targets reflect six months of "variable" operating expenses under steady-state program operations (assume 2027).

A portion of fees collected will contribute to build up to the reserves target.

## Appendix F:

# PRO Depot Lists and Coverage

How were the existing depots identified, what is the data source? Is the list of back-up depot locations available?

The separate appendix list of existing depots (Tab 1 of Appendix F Excel) was used to inform the mapping and convenience standards efforts to inform the PRO Recycling Acceptance List section of this Plan.

This list makes no assumptions about facilities' willingness to partner with CAA as no formal negotiations have taken place. However, initial discussions with some existing depot operators have generally been encouraging. CAA has also been maintaining a list of "back-up" locations which it plans to use as necessary to supplement provision in areas where convenience standards may otherwise not be met, including suitably-sized hauler yards and facilities run by other organizations CAA has informally approached, such as Habitat for Humanity Restore.

Tab 2 and 3 of Appendix F Excel represents the distribution of the collection points modeled for the Program Plan (by state and county, and by city). It includes all collection points, including special events and the provision of curbside collection in certain areas. The site locations and quantity are subject to change based on negotiations with local governments.

ID	Region	County	Pmt #	Facility Name	Address	City	Zip
P50	Eastern	BAKER	152	Baker Sanitary Landfill	SE OF BAKER CITY	BAKER CITY	97907
D73	Western	BENTON	306	Coffin Butte Landfill	29175 COFFIN BUTTE RD	CORVALLIS	97330
D74	Western	BENTON	N/A	Corvallis Disposal	110 NE Walnut Blvd	Corvallis	97330
ED28	Western	BENTON		EVENT/DOORSTEP		PHILOMATH	
D75	Western	BENTON	N/A	First Alternative Coop	2855 NW Grant Ave	Corvallis	97330
D51	Northwest	CLACKAMAS	480	KB Recycling Inc. Materials Recovery Facility	9602 SE CLACKAMAS RD	CLACKAMAS	97015-9731
D52	Northwest	CLACKAMAS	443	Canby Transfer & Recycling Center	1600 SE 4TH AVE	CANBY	97013
D53	Northwest	CLACKAMAS	121	Clackamas County Garbage & Recycling Transfer Station aka Sandy Transfer Station	19600 SE CANYON VALLEY ROAD	SANDY	97055
D54	Northwest	CLACKAMAS	350	Metro South Transfer Station	2001 WASHINGTON ST	OREGON CITY	97045
H4	Northwest	CLACKAMAS		Northwest Polymers	291 Commercial Pkwy.	MOLALLA	97038
ED2	Northwest	CLACKAMAS		EVENT/DOORSTEP		GLADSTONE	
PP2	Northwest	CLACKAMAS		Red White and Blue	19239 SE McLoughlin Blvd.	GLADSTONE	97027
PP3	Northwest	CLACKAMAS		Goodwill Distribution Center	1740 SE Ochoco St.	MILWAUKIE	9722
ED3	Northwest	CLACKAMAS		EVENT/DOORSTEP		WESTLINN	
DB6	Northwest	CLACKAMAS		GOODWILL - HAPPY VALLEY	17366 SE SUNNYSIDE ROAD	HAPPY VALLEY	97089
DB8	Northwest	CLACKAMAS		GOODWILL - LOWER BOONES FERRY	17150 BOONES FERRY RD LOWR	LAKE OSWEGO (OSWEGO)	97035-5214
DB12	Northwest	CLACKAMAS		GOODWILL - SANDY	37201 HIGHWAY 26	SANDY	97055
D55	Northwest	CLATSOP	382	Astoria Transfer Station	1790 Williamsport Road	ASTORIA	97103
H5	Northwest	CLATSOP		Recology yard	2320 SE 12th Pl.	WARRENTON	97146
D56	Northwest	CLATSOP	N/A	Seaside Recycle Depot	855 Avenue S	Seaside	97138
D57	Northwest	COLUMBIA	1323	Columbia County HHW & Transfer Station	1601 RAILROAD AVENUE	ST. HELENS	97051
ED4	Northwest	COLUMBIA		EVENT/DOORSTEP		SCAPPOOSE	
D76	Western	COOS	1519	Beaver Hill Solid Waste Facility	55722 HWY 101	COOS BAY(will cover Coquille)	97420
D77	Western	COOS	401	West Coast Recycling And Transfer Inc. dba Public Disposal & Recycling	1210 S. BROADWAY ST.	COOS BAY	97420
H6	Western	COOS		Les Sanitary	3432 Cedar St.	NORTH BEND	97459
DA13	Western	COOS		Coquille Recycling Center	SEC02,T28S,R13W	COQUILLE	97423
D5	Eastern	CROOK	74	Crook County Landfill	5601 SW HOUSTON LAKE RD	PRINEVILLE	97754
D6	Eastern	CROOK	482	Prineville Disposal Reload Station	1751 N MAIN ST	PRINEVILLE	97754-9136
D78	Western	CURRY	414	Brookings Transfer Station	17498 CARPENTERVILLE RD	BROOKINGS	97415
D8	Eastern	DESCHUTES	1315	Deschutes County Transfer Station and Household Hazardous Waste Facility	61050 SE 27TH ST	BEND	97702
H1	Eastern	DESCHUTES		Bend Garbage and Recycling (Republic)	20835 Montana Way, Bend, OR 97701	BEND	97701
H2	Eastern	DESCHUTES		Cascade Disposal (WCN)	1300 SE Wilson Ave.	BEND	97702
PP1	Eastern	DESCHUTES		Central Oregon Community College	2600 NW College Way, Bend, OR 97703	BEND	97703
D9	Eastern	DESCHUTES	430	Negus Transfer Station	2400 NE Maple Ave	REDMOND	97756
H3	Eastern	DESCHUTES		High desert Disposal (Republic)	1090 NE Hemlock Ave.	REDMOND	97756
D10	Eastern	DESCHUTES	418	Northwest (Fryrear) Transfer Station	68200 Fryrear Rd	SISTERS	97759
D11	Eastern	DESCHUTES	408	Southwest Transfer Station	54580 Hwy 97	LA PINE	97739
D7	Eastern	DESCHUTES	417	Alfalfa Transfer Station	WALKER ROAD	BEND	97702
DB25	Eastern	DESCHUTES		GOODWILL - REDMOND	3399 S. HIGHWAY 97	REDMOND	97756
PP15	Western	DOUGLAS		Sunrise Enterprises	126 W Douglas Blvd, Winston, OR 97496	WINSTON	97496
H7	Western	DOUGLAS		Southerland Sanitary Service	1050 S Calapooia St.	SUTHERLIN	97479
D89	Western	DOUGLAS	464	Reedsport Transfer Station	300 REEDSPORT TRANSFER STATION ROAD	REEDSPORT	97467
D90	Western	DOUGLAS	477	Roseburg Transfer Station	165 MCCLAIN WEST AVE.	ROSEBURG	97470
D3	Eastern	GILLIAM	415	Condon Transfer Station	BROWN LANE	CONDON	97823
D12	Eastern	GRANT	471	Hendrix (Clark's) Transfer Station	LUCE CREEK RD	JOHN DAY	97845
D13	Eastern	HARNEY	1496	Burns-Hines Disposal Site (C&B Disposal)	53206 Monroe Ln.	BURNS	97720
D14	Eastern	HOOD RIVER	347	Hood River Recycling & Transfer Station + Tri-County HHHW Collection Facility	3440 GUIGNARD DR	HOOD RIVER	97031
D93	Western	JACKSON	483	Rogue Transfer Station & Mrf	8001 TABLE ROCK RD	WHITE CITY	97503-1021
ED2	Western	JACKSON		EVENT/DOORSTEP		MEDFORD	
ED30	Western	JACKSON		EVENT/DOORSTEP		MEDFORD	
ED31	Western	JACKSON		EVENT/DOORSTEP		MEDFORD	
ED32	Western	JACKSON		EVENT/DOORSTEP		PHOENIX	

ED33	Western	JACKSON		EVENT/DOORSTEP		TALENT		New
D94	Western	JACKSON	475	Valley View Transfer Station	3000 N. VALLEY VIEW RD.	ASHLAND	97520	New
H13	Western	JACKSON		Recology Depot	220 Water St, Ashland.	ASHLAND	97520	New

New

New

ED31	Western	JACKSON		EVENT/DOORSTEP		CENTRAL POINT	
D95	Western	JACKSON	N/A	Southern Oregon Sanitation - Eagle Point	42 BALL RD.	EAGLE POINT	97524
DB28	Western	JACKSON		GOODWILL - SOUTHERN OREGON	2077 LARS WAY	MEDFORD	97501
D18	Eastern	JEFFERSON	N/A	Madras Sanitary Recycle Depot	1778 NW Mill St.	MADRAS	97741
D98	Western	JOSEPHINE	492	Redwood Transfer Station (Souther	1381 REDWOOD AVE	GRANTS PASS	97527-5519
D99	Western	JOSEPHINE	N/A	Republic Depot	1920 NW Washington Blvd	GRANTS PASS	97526
D96	Western	JOSEPHINE		491 ne Recycling And Transfer Station (Republic	1749 MERLIN ROAD	GRANTS PASS	97526
D4	Eastern	KLAMATH	1712	Klamath Falls Landfill Transfer Station	801 OLD FORT RD.	KLAMATH FALLS	97601
D20	Eastern	KLAMATH	47	Chemult Landfill	400 Chemult Dump Road	CHEMULT	97731
D29	Eastern	KLAMATH	497	Rogue Klamath Transfer Station	4005 TINGLEY LN	KLAMATH FALLS	97603
D31	Eastern	LAKE	1596	Thomas Creek Road Transfer Station	23980 THOMAS CREEK ROAD	LAKEVIEW	97630
D108	Western	LANE	363	McKenzie Bridge Transfer Station	55805 MCKENZIE HWY	BLUE RIVER	97413
D101	Western	LANE	383	Cottage Grove Transfer Station	78760 SEARS RD.	COTTAGE GROVE	97424
D102	Western	LANE	384	Creswell Transfer Station	34293 E CLOVERDALE RD	CRESWELL	97426-9417
D104	Western	LANE	289	Glenwood Central Receiving Station	3100 E. 17TH AVE.	EUGENE	97403
	Western	LANE		Bring Recycling	4446 Franklin Blvd	EUGENE	97403
D117	Western	LANE	458	Ecosort Material Recovery Facility	3425 E 17TH AVE	EUGENE	97403-3200
PP16	Western	LANE		Saint Vincent Depaul	888 Garfield St.	EUGENE	97402
PP17	Western	LANE		Saint Vincent Depaul	2890 Chad Dr.	EUGENE	97408
PP18	Western	LANE		Bottle Drop Redeption Center	2105 W Broadway,	EUGENE	97402
D103	Western	LANE	416	Florence Transfer Station	2820 RHODODENDRON DR	FLORENCE	97439
PP20	Western	LANE		Saint Vincent Depaul	333 Pacific Hwy W.	JUNCTION CITY	97448
D115	Western	LANE	229	Vida-Leaburg Transfer Station	44041 CANAL LN (OFF HWY. 126)	LEABURG	97489
D107	Western	LANE	253	Marcola Transfer Station	38935 SHOTGUN CREEK ROAD	MARCOLA	97454
D109	Western	LANE	411	Oakridge Transfer Station	48977 KITSON SPRINGS	OAKRIDGE	97463
H8	Western	LANE		International Paper Springfield Recycling	800 48th St,	SPRINGFIELD	97478
PP19	Western	LANE		Saint Vincent Depaul	4555 Main St, Springfield, OR 97478	SPRINGFIELD	97478
D114	Western	LANE	274	Veneta Transfer Station	24444 BOLTON HILL RD	VENETA	97487
D116	Western	LANE	225	Walton Transfer Station	18585 TRANSFORMER RD.	WALTON	97490
D119	Western	LINCOLN	N/A	North Lincoln Sanitary Service	1726 SE Hwy 101	Lincoln City	97367
H9	Western	LINCOLN		Dahl Disposal	235 SW Dahl Ave.	WALDPORT	97394
D121	Western	LINCOLN	377	Thompson's Transfer and Disposal Inc. ("Agate Beach Transfer Station")	8096 NE AVERY ST.	NEWPORT	97365
D123	Western	LINCOLN	425	Toledo Transfer Station	5441 US-20.	TOLEDO	97391
D124	Western	LINN	N/A	Albany-Lebanon Recycling Depot	1454 Industrial Way SW	ALBANY	97322
H10	Western	LINN		Republic Albany Source Reduction Center	840 30th Ave SW, Albany, OR 97321	ALBANY	97321
D125	Western	LINN	365	Sweet Home Sanitation Transfer Station	1325 18TH AVE.	SWEET HOME	97386
ED34	Western	LINN		EVENT/DOORSTEP		LEBANON	
	Western	LINN		EVENT/DOORSTEP		*	
D34	Eastern	MALHEUR	436	Ontario Sanitary Service Transfer Station	540 SE 9th Avenue	ONTARIO	97914
	Eastern	MALHEUR		EVENT/DOORSTEP		*	
<b>ID</b>	<b>Region</b>	<b>County</b>	<b>Pmt #</b>	<b>Facility Name</b>	<b>Address</b>	<b>City</b>	<b>Zip</b>
D126	Western	MARION	400	Marion Resource Recovery Fac	3680 BROOKLAKE RD NE	SALEM	97303-9750
D127	Western	MARION	388	Gaffin Road Transfer Station	3250 DEER PARK RD SE	SALEM	97301
D131	Western	MARION	N/A	Pacific Sanitation	3475 Blossom Dr NE	Salem	97305
D133	Western	MARION	N/A	Suburban Garbage	6075 State St	Salem	97317
D134	Western	MARION	N/A	Garten Recycling Center	3334 Industrial Way NE	Salem	97303
D128	Western	MARION	1348	North Marion County Recycling & Transfer Station	17827 WHITNEY LN NE	WOODBURN	97071-9580
D130	Western	MARION	N/A	Loren's Sanitation	1141 Chemawa Rd N	Keizer	97303
ED35	Western	MARION		EVENT/DOORSTEP		KEIZER	
D132	Western	MARION	N/A	Republic Services of Marion County - Silverton	830 McClaine Street	Silverton	97381
DB57	Western	MARION		Compost Oregon	8712 Aumsville Hwy	AUMSVILLE	97325
D136	Western	MARION	N/A	D&O Garbage	1140 Boone Rd SE	Salem	97306
P47	Western	MARION	502	Marion County Hshld HW Coll Fac	3230 DEER PARK DRIVE, SE	SALEM	97301
D135	Western	MARION	N/A	Clayton Ward	3500 Mainline Drive NE	Salem	97301
DB58	Western	MARION		Regis High School	550 W Regis St.	STAYTON	97383
D129	Western	MARION	381	Woodburn Recycle Center & TS	2215 N FRONT ST	WOODBURN	97071-9732
D35	Eastern	MORROW	1261	North Morrow County Transfer Station	69900 FRONTAGE LANE	BOARDMAN	97818
D37	Eastern	MORROW	406	South Morrow Transfer Station	Lexington/Heppler Hwy 74	LEXINGTON	97839

New

New

New

29

P19	Eastern	MORROW	394	Finley Buttes Regional Landfill	73221 Bombing Range Road	Boardman	97818
D59	Northwest	MULTNOMAH	387	Environmentally Conscious Recycling-ECR	12409 NE SAN RAFAEL	PORTLAND	97230
D60	Northwest	MULTNOMAH	501	Suttle Road Recovery Facility	4044 N SUTTLE RD	PORTLAND	97217-7732
D62	Northwest	MULTNOMAH	1717	Far West Recycling	12820 NE MARX ST	PORTLAND	97230-1067
D63	Northwest	MULTNOMAH	409	Metro Central Transfer Station	6161 NW 61ST AVE	PORTLAND	97210-3675
ED14	Northwest	MULTNOMAH		EVENT/DOORSTEP		PORTLAND	
ED15	Northwest	MULTNOMAH		EVENT/DOORSTEP		PORTLAND	
ED16	Northwest	MULTNOMAH		EVENT/DOORSTEP		PORTLAND	
ED17	Northwest	MULTNOMAH		EVENT/DOORSTEP		PORTLAND	
PP4	Northwest	MULTNOMAH		The Arc of Portland		PORTLAND	
PP5	Northwest	MULTNOMAH		Ground Score		PORTLAND	
PP6	Northwest	MULTNOMAH		James Recycling		PORTLAND	
PP7	Northwest	MULTNOMAH		Bottle Drop Redemption Center	1176 N Hayden Meadows Dr.	PORTLAND	97217
PP8	Northwest	MULTNOMAH		Bottle Drop Redemption Center	555 NE 122nd Ave.	PORTLAND	97230
D61	Northwest	MULTNOMAH	1392	Gresham Sanitary Service	2131 NW BIRSDALE AVE	GRESHAM	97030
PP10	Northwest	MULTNOMAH		Gresham Habitat Restore	610 NE 181st Ave.	GRESHAM	97230
PP11	Northwest	MULTNOMAH		Mount Hood Community College	26000 SE Stark St.	GRESHAM	97030
PP12	Northwest	MULTNOMAH		Bottle Drop Redemption Center	1313 Powell Blvd	GRESHAM	97030
ED18	Northwest	MULTNOMAH		EVENT/DOORSTEP		FAIRVIEW	
PP13	Northwest	MULTNOMAH		Bottle Drop	23345 NE Halsey St.	WOOD VILLAGE	97060
H12	Northwest	MULTNOMAH		Twelve Mile Disposal	2430 NW Marine Dr.	TROUTDALE	97060
D137	Western	POLK	N/A	Republic Services - Dallas	1030 W. Ellendale Ave	Dallas	97338
D138	Western	POLK	N/A	Brandt's Sanitary Service	158 Pacific Ave S	Monmouth	97361
ED36	Western	POLK		EVENT/DOORSTEP		INDEPENDENCE	
D139	Western	POLK	N/A	Valley Recycling & Disposal	2515 Salem/Dallas Hwy	Salem	97304
P53	Eastern	SHERMAN	440	Sherman County Transfer Station	OFF WELK RD, NEAR BIGGS JUNCTION	BIGGS	97823
D66	Northwest	TILLAMOOK	395	Tillamook Transfer Station	1315 ECKLOFF RD	TILLAMOOK	97141-9576
D67	Northwest	TILLAMOOK	N/A	City Sanitary Recycling Depot	2303 11st St.	Tillamook	97141
D38	Eastern	UMATILLA	N/A	Milton-Freewater Recycling Depot	13 SE 9th	MILTON-	97862
D39	Eastern	UMATILLA	444	Pendleton Transfer Station	REITH ROAD	PENDLETON	97801
D41	Eastern	UMATILLA	429	Sanitary Disposal Transfer Station	TAX LOTS 101 AND 107	HERMISTON	97838
D43	Eastern	UMATILLA	N/A	Umatilla Recycling Depot	No specific address: Yerxa	Umatilla	97882
D42	Eastern	UMATILLA	N/A	Hemiston Recycling Depot (Sanitary)	220 W. Harper Rd	Hermiston	97838
D44	Eastern	UNION	442	Waste Pro Recovery Transfer Station	HIGHWAY 30	LA GRANDE	97850
D46	Eastern	WALLOWA	N/A	Recycling Center	304 Fish Hatchery Lane	Enterprise	97828
D47	Eastern	WASCO	462	The Dalles Transfer Station + Tri-County	1317 W 1ST ST	THE DALLES	97058-3591
<b>ID</b>	<b>Region</b>	<b>County</b>	<b>Pmt #</b>	<b>Facility Name</b>	<b>Address</b>	<b>City</b>	<b>Zip</b>
D72	Northwest	WASHINGTON	435	WRI Willamette Resources Inc TS/MRF	10295 SW RIDDER RD	WILSONVILLE	97070
D68	Northwest	WASHINGTON	1280	Tualatin Valley Waste Recovery	3215 SE MINTER BRIDGE	HILLSBORO	97123
D70	Northwest	WASHINGTON	1718	Far West Recycling	6440 SE ALEXANDER ST	HILLSBORO	97123
ED19	Northwest	WASHINGTON		EVENT/DOORSTEP		HILLSBORO	
ED20	Northwest	WASHINGTON		EVENT/DOORSTEP		BEAVERTON	
ED21	Northwest	WASHINGTON		EVENT/DOORSTEP		BEAVERTON	
D69	Northwest	WASHINGTON	368	Forest Grove Transfer Station	1525 B ST	FOREST GROVE	97116-2752
ED22	Northwest	WASHINGTON		EVENT/DOORSTEP		CORNELIUS	
D71	Northwest	WASHINGTON	422	Pride Recycling Company	13910 SW TUALATIN	SHERWOOD	97140-9726
ED23	Northwest	WASHINGTON		EVENT/DOORSTEP		TIGARD	
ED24	Northwest	WASHINGTON		EVENT/DOORSTEP		TUALATIN	
ED25	Northwest	WASHINGTON		EVENT/DOORSTEP		ex	
ED26	Northwest	WASHINGTON		EVENT/DOORSTEP		ex	
ED27	Northwest	WASHINGTON		EVENT/DOORSTEP		ex	
DA61	Northwest	WASHINGTON		Aloha Garbage & Recycling	20525 SW Blanton st.	Beaverton	97007
P37	Northwest	WASHINGTON	403	Hillsboro Garbage and Disposal	4945 SW Minter Bridge	HILLSBORO	97045
DB91	Northwest	WASHINGTON		GOODWILL - TIGARD	13920 SW PACIFIC HWY	TIGARD	97223-4839
D48	Eastern	WHEELER	472	Fossil Solid Waste Transfer Station And	17487 BLACK BUTTE,	FOSSIL	97830
D140	Western	YAMHILL	366	Newberg Transfer And Recycling Center	2904 WYNOOSKI RD.	NEWBERG	97132
ED37	Western	YAMHILL		EVENT/DOORSTEP		LAFAYETTE	
ED38	Western	YAMHILL		EVENT/DOORSTEP		SHERIDAN	

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H14	Western	YAMHILL		Riverbend Landfill	13469 SW HIGHWAY 18	MCMINNVILLE	97128	New
D141	Western	YAMHILL	1258	Valley Recovery Zone	2200 NE ORCHARD AVE	MCMINNVILLE	97128	New
DB95	Western	YAMHILL		GOODWILL - MCMINNVILLE STORE	1371 N 99W	MCMINNVILLE	97128	
DB96	Western	YAMHILL		GOODWILL - NEWBERG	2310 PORTLAND RD	NEWBERG	97132-1367	

New  
New

Sites	142
Events	31
Total	173
New	12

County Name	Certified July 1st, 2023 Population Estimates (PRC)	Population Covered by Existing Sites (Based on 2020 Census)	Collection Points Required (Base Convenience Standard)
<b>State of Oregon</b>	<b>4,291,525</b>	<b>97.5%</b>	<b>113</b>
Baker	16,927	73.6%	1
Benton	99,355	98.9%	3
Clackamas	424,043	99.8%	8
Clatsop	42,095	95.6%	2
Columbia	53,143	72.4%	2
Coos	66,945	97.9%	2
Crook	26,583	97.9%	1
Curry	24,439	70.3%	1
Deschutes	212,141	99.9%	6
Douglas	113,748	91.4%	3
Gilliam	2,062	50.3%	1
Grant	7,418	64.3%	1
Harney	7,600	80.6%	1
Hood River	24,406	93.9%	1
Jackson	222,762	98.9%	6
Jefferson	25,878	98.0%	1
Josephine	88,814	88.1%	3
Klamath	71,919	80.8%	2
Lake	8,562	63.1%	1
Lane	384,374	100.0%	10
Lincoln	51,930	99.3%	2
Linn	131,984	98.1%	4
Malheur	32,981	85.0%	1
Marion	352,249	99.5%	9
Morrow	13,010	97.3%	1
Multnomah	801,306	100.0%	14
Polk	90,553	98.3%	3
Sherman	1,917	50.0%	1
Tillamook	28,000	80.4%	1
Umatilla	81,842	98.6%	3
Union	26,335	84.7%	1
Wallowa	7,631	79.1%	1
Wasco	27,052	88.9%	1
Washington	610,245	99.9%	11
Wheeler	1,533	44.2%	1
Yamhill	109,743	99.4%	3

Notes:

@ Supported by events

© Supported by curbside collection and/or events



Collection Points Required (Enhanced Convenience Standard)	Meets Base	Meets Enhanced	Proposed Optimized Collection Points
<b>140</b>	Passes	Passes	<b>173</b>
1	Passes	Passes	1
4	Passes	Passes	4
10	Passes	Passes	12
2	Passes	Passes	3
2	Passes	Passes	2
3	Passes	Passes	4
1	Passes	Passes	2
1	Passes	Passes	1
8	Passes	Passes	10
4	Passes	Passes	4
1	Passes	Passes	1
1	Passes	Passes	1
1	Passes	Passes	1
1	Passes	Passes	1
8	Passes	Passes	11
1	Passes	Passes	1
3	Passes	Passes	3
3	Passes	Passes	3
1	Passes	Passes	1
13	Passes	Passes	18
2	Passes	Passes	4
5	Passes	Passes	5
2	Passes	Passes	2
12	Passes	Passes	15
1	Passes	Passes	3
18	Passes	Passes	20
4	Passes	Passes	4
1	Passes	Passes	1
1	Passes	Passes	2
3	Passes	Passes	5
1	Passes	Passes	1
1	Passes	Passes	1
1	Passes	Passes	1
14	Passes	Passes	17
1	Passes	Passes	1
4	Passes	Passes	7

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County Name (primary if multiple)	City Name	Certified July 1st, 2023 Population Estimates (PRC)	Population Covered by Existing Sites (Based on 2020 Census)	Collection Points Required (Base Convenience Standard)	Collection Points Required (Enhanced Convenience Standard)	Meets Base	Meets Enhanced	Proposed Optimized Collection Points
Baker	Baker City	10,102	100.0%	1	1	Passes	Passes	1
Baker	Greenhorn	3	0.0%	0	0	Passes	Passes	0
Baker	Haines	382	0.0%	0	0	Passes	Passes	0
Baker	Halfway	358	0.0%	0	0	Passes	Passes	0
Baker	Huntington	508	0.0%	0	0	Passes	Passes	0
Baker	Richland	166	0.0%	0	0	Passes	Passes	0
Baker	Sumpter	207	0.0%	0	0	Passes	Passes	0
Baker	Unity	40	0.0%	0	0	Passes	Passes	0
Benton	Adair Village	1,496	100.0%	0	0	Passes	Passes	0
Benton	Corvallis	61,669	100.0%	2	3	Passes	Passes	3
Benton	Monroe	763	100.0%	0	0	Passes	Passes	0
Benton	Philomath	5,823	100.0%	0	1	Passes	Passes	1
Clackamas	Barlow	140	100.0%	0	0	Passes	Passes	0
Clackamas	Canby	19,045	100.0%	1	1	Passes	Passes	1
Clackamas	Estacada	5,750	100.0%	0	0	Passes	Passes	0
Clackamas	Gladstone	12,140	100.0%	0	1	Passes	Passes	1
Clackamas	Happy Valley	26,799	100.0%	1	1	Passes	Passes	1
Clackamas	Johnson City	510	100.0%	0	0	Passes	Passes	0
Clackamas	Lake Oswego	41,396	100.0%	1	1	Passes	Passes	1
Clackamas	Milwaukie	21,341	100.0%	1	1	Passes	Passes	1
Clackamas	Molalla	10,335	100.0%	0	1	Passes	Passes	1
Clackamas	Oregon City	38,049	100.0%	1	1	Passes	Passes	1
Clackamas	Rivergrove	559	100.0%	0	0	Passes	Passes	0
Clackamas	Sandy	13,159	100.0%	0	1	Passes	Passes	1
Clackamas	West Linn	27,360	100.0%	1	1	Passes	Passes	1
Clackamas	Wilsonville	27,634	100.0%	1	1	Passes	Passes	1
Clatsop	Astoria	10,167	100.0%	1	1	Passes	Passes	1
Clatsop	Cannon Beach	1,555	100.0%	0	0	Passes	Passes	0
Clatsop	Gearhart	1,933	100.0%	0	0	Passes	Passes	0
Clatsop	Seaside	7,393	100.0%	1	1	Passes	Passes	1
Clatsop	Warrenton	6,462	100.0%	0	1	Passes	Passes	1
Columbia	Clatskanie	1,767	0.0%	0	0	Passes	Passes	0
Columbia	Columbia City	1,935	100.0%	0	0	Passes	Passes	0
Columbia	Prescott	82	100.0%	0	0	Passes	Passes	0
Columbia	Rainier	1,933	0.0%	0	0	Passes	Passes	0
Columbia	Scappoose	8,254	100.0%	1	1	Passes	Passes	1
Columbia	St. Helens	15,009	100.0%	1	1	Passes	Passes	1
Columbia	Vernonia	2,426	0.0%	0	0	Passes	Passes	0
Coos	Bandon	3,866	100.0%	0	0	Passes	Passes	0
Coos	Coos Bay	16,533	100.0%	1	1	Passes	Passes	1
Coos	Coquille	4,052	100.0%	0	1	Passes	Passes	1
Coos	Lakeside	1,952	100.0%	0	0	Passes	Passes	0
Coos	Myrtle Point	2,508	100.0%	0	0	Passes	Passes	0
Coos	North Bend	10,769	100.0%	1	1	Passes	Passes	1
Coos	Powers	759	0.0%	0	0	Passes	Passes	0
Crook	Prineville	11,598	100.0%	1	1	Passes	Passes	1
Curry	Brookings	7,161	100.0%	1	1	Passes	Passes	1
Curry	Gold Beach	2,450	53.2%	0	0	Passes	Passes	0
Curry	Port Orford	1,181	0.0%	0	0	Passes	Passes	0
Deschutes	Bend	106,275	100.0%	4	4	Passes	Passes	4
Deschutes	La Pine	3,126	100.0%	0	0	Passes	Passes	0
Deschutes	Redmond	38,208	100.0%	2	2	Passes	Passes	2
Deschutes	Sisters	3,823	100.0%	0	0	Passes	Passes	0
Douglas	Canyonville	1,703	49.7%	0	0	Passes	Passes	0
Douglas	Drain	1,195	97.0%	0	0	Passes	Passes	0
Douglas	Elkton	193	0.0%	0	0	Passes	Passes	0
Douglas	Glendale	871	0.0%	0	0	Passes	Passes	0
Douglas	Myrtle Creek	3,626	100.0%	0	0	Passes	Passes	0
Douglas	Oakland	968	100.0%	0	0	Passes	Passes	0
Douglas	Reedsport	4,395	100.0%	0	1	Passes	Passes	1
Douglas	Riddle	1,248	100.0%	0	0	Passes	Passes	0
Douglas	Roseburg	24,258	100.0%	1	1	Passes	Passes	1
Douglas	Sutherlin	9,001	100.0%	1	1	Passes	Passes	1
Douglas	Winston	5,771	100.0%	0	1	Passes	Passes	1
Douglas	Yoncalla	1,078	0.0%	0	0	Passes	Passes	0
Gilliam	Arlington	670	0.0%	0	0	Passes	Passes	0
Gilliam	Condon	726	100.0%	0	0	Passes	Passes	0
Gilliam	Lonerock	25	0.0%	0	0	Passes	Passes	0
Grant	Canyon City town	687	100.0%	0	0	Passes	Passes	0
Grant	Dayville town	142	0.0%	0	0	Passes	Passes	0
Grant	Granite	33	0.0%	0	0	Passes	Passes	0
Grant	John Day	1,704	100.0%	0	0	Passes	Passes	0
Grant	Long Creek	179	0.0%	0	0	Passes	Passes	0
Grant	Monument	118	0.0%	0	0	Passes	Passes	0
Grant	Mount Vernon	563	100.0%	0	0	Passes	Passes	0
Grant	Prairie City	861	0.0%	0	0	Passes	Passes	0
Grant	Seneca	175	0.0%	0	0	Passes	Passes	0
Harney	Burns	2,730	100.0%	0	0	Passes	Passes	0
Harney	Hines	1,705	100.0%	0	0	Passes	Passes	0
Hood River	Cascade Locks	1,400	0.0%	0	0	Passes	Passes	0
Hood River	Hood River	8,577	100.0%	1	1	Passes	Passes	1
County Name (primary if multiple)	City Name	Certified July 1st, 2023 Population Estimates (PRC)	Population Covered by Existing Sites (Based on 2020 Census)	Collection Points Required (Base Convenience Standard)	Collection Points Required (Enhanced Convenience Standard)	Meets Base	Meets Enhanced	Proposed Optimized Collection Points
Jackson	Ashland	21,457	100.0%	1	1	Passes	Passes	1
Jackson	Butte Falls town	440	100.0%	0	0	Passes	Passes	0
Jackson	Central Point	19,666	100.0%	1	1	Passes	Passes	1
Jackson	Eagle Point	9,955	100.0%	1	1	Passes	Passes	1
Jackson	Gold Hill	1,338	100.0%	0	0	Passes	Passes	0
Jackson	Jacksonville	3,197	100.0%	0	0	Passes	Passes	0
Jackson	Medford	90,887	100.0%	3	4	Passes	Passes	4

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Jackson	Phoenix	3,773	100.0%	0	0	Passes	Passes	1
Jackson	Rogue River	2,472	100.0%	0	0	Passes	Passes	0
Jackson	Shady Cove	3,097	100.0%	0	0	Passes	Passes	0

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Jackson	Talent	5,228	100.0%	0	1	Passes	Passes	1
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Jefferson	Culver	1,666	100.0%	0	0	Passes	Passes	0
Jefferson	Madras	8,099	100.0%	1	1	Passes	Passes	1
Jefferson	Metolius	1,005	100.0%	0	0	Passes	Passes	0
Josephine	Cave Junction	2,163	0.0%	0	0	Passes	Passes	0
Josephine	Grants Pass	40,102	100.0%	2	2	Passes	Passes	2
Klamath	Bonanza town	401	0.0%	0	0	Passes	Passes	0
Klamath	Chiloquin	775	0.0%	0	0	Passes	Passes	0
Klamath	Klamath Falls	22,966	100.0%	1	1	Passes	Passes	1
Klamath	Malin	745	0.0%	0	0	Passes	Passes	0
Klamath	Merrill	867	0.0%	0	0	Passes	Passes	0
Lake	Lakeview town	2,476	100.0%	0	0	Passes	Passes	0
Lake	Paisley	248	0.0%	0	0	Passes	Passes	0
Lane	Coburg	1,475	100.0%	0	0	Passes	Passes	0
Lane	Cottage Grove	11,095	100.0%	1	1	Passes	Passes	1
Lane	Creswell	5,823	100.0%	0	1	Passes	Passes	1
Lane	Dunes City	1,454	100.0%	0	0	Passes	Passes	0
Lane	Eugene	177,339	100.0%	6	6	Passes	Passes	6
Lane	Florence	9,832	100.0%	1	1	Passes	Passes	1
Lane	Junction City	7,427	100.0%	1	1	Passes	Passes	1
Lane	Lowell	1,261	100.0%	0	0	Passes	Passes	0
Lane	Oakridge	3,235	100.0%	0	0	Passes	Passes	0
Lane	Springfield	63,078	100.0%	2	3	Passes	Passes	4
Lane	Veneta	5,261	100.0%	0	1	Passes	Passes	1
Lane	Westfir	261	100.0%	0	0	Passes	Passes	0
Lincoln	Depoe Bay	1,569	100.0%	0	0	Passes	Passes	0
Lincoln	Lincoln City	10,372	100.0%	1	1	Passes	Passes	1
Lincoln	Newport	11,083	100.0%	1	1	Passes	Passes	1
Lincoln	Siletz	1,242	100.0%	0	0	Passes	Passes	0
Lincoln	Toledo	3,622	100.0%	0	0	Passes	Passes	1
Lincoln	Waldport	2,350	100.0%	0	0	Passes	Passes	1
Lincoln	Yachats	1,006	100.0%	0	0	Passes	Passes	0
Linn	Albany	57,997	100.0%	2	2	Passes	Passes	2
Linn	Brownsville	1,846	100.0%	0	0	Passes	Passes	0
Linn	Halsey	952	100.0%	0	0	Passes	Passes	0
Linn	Harrisburg	3,660	100.0%	0	0	Passes	Passes	0
Linn	Lebanon	20,329	100.0%	1	1	Passes	Passes	1
Linn	Lyons	1,203	100.0%	0	0	Passes	Passes	0
Linn	Mill City	2,066	0.0%	0	0	Passes	Passes	0
Linn	Millersburg	3,206	100.0%	0	0	Passes	Passes	0
Linn	Scio	949	100.0%	0	0	Passes	Passes	0
Linn	Sodaville	357	100.0%	0	0	Passes	Passes	0
Linn	Sweet Home	10,028	100.0%	1	1	Passes	Passes	1
Linn	Tangent	1,218	100.0%	0	0	Passes	Passes	0
Linn	Waterloo town	216	100.0%	0	0	Passes	Passes	0
Malheur	Adrian	159	0.0%	0	0	Passes	Passes	0
Malheur	Jordan Valley	133	0.0%	0	0	Passes	Passes	0
Malheur	Nyssa	3,363	100.0%	0	0	Passes	Passes	0
Malheur	Ontario	12,206	100.0%	1	1	Passes	Passes	1
Malheur	Vale	1,947	97.8%	0	0	Passes	Passes	0
Marion	Aumsville	4,227	100.0%	0	1	Passes	Passes	1
Marion	Aurora	1,119	100.0%	0	0	Passes	Passes	0
Marion	Detroit	134	0.0%	0	0	Passes	Passes	0
Marion	Donald	1,003	100.0%	0	0	Passes	Passes	0
Marion	Gates	552	0.0%	0	0	Passes	Passes	0
Marion	Gervais	2,789	100.0%	0	0	Passes	Passes	0
Marion	Hubbard	3,491	100.0%	0	0	Passes	Passes	0
Marion	Idanha	154	0.0%	0	0	Passes	Passes	0
Marion	Jefferson	3,425	100.0%	0	0	Passes	Passes	0
Marion	Keizer	39,169	100.0%	2	2	Passes	Passes	2
Marion	Mount Angel	3,538	100.0%	0	0	Passes	Passes	0
Marion	Salem	182,726	100.0%	6	7	Passes	Passes	7
Marion	Scotts Mills	442	100.0%	0	0	Passes	Passes	0
Marion	Silverton	10,660	100.0%	1	1	Passes	Passes	1
Marion	St. Paul	435	100.0%	0	0	Passes	Passes	0
Marion	Stayton	8,295	100.0%	1	1	Passes	Passes	1
Marion	Sublimity	3,233	100.0%	0	0	Passes	Passes	0
Marion	Turner	2,882	100.0%	0	0	Passes	Passes	0
Marion	Woodburn	27,044	100.0%	1	1	Passes	Passes	1
Morrow	Boardman	4,437	100.0%	0	1	Passes	Passes	1
Morrow	Heppner	1,211	100.0%	0	0	Passes	Passes	0
Morrow	Ione	337	100.0%	0	0	Passes	Passes	0
Morrow	Irrigon	2,133	100.0%	0	0	Passes	Passes	0
Morrow	Lexington town	243	100.0%	0	0	Passes	Passes	0
Multnomah	Fairview	10,671	100.0%	0	1	Passes	Passes	1
Multnomah	Gresham	117,107	100.0%	2	3	Passes	Passes	4
Multnomah	Maywood Park	793	100.0%	0	0	Passes	Passes	0
Multnomah	Portland	648,097	100.0%	9	13	Passes	Passes	13
Multnomah	Troutdale	17,005	100.0%	1	1	Passes	Passes	1
Multnomah	Wood Village	5,038	100.0%	0	0	Passes	Passes	1
County Name (primary if multiple)	City Name	Certified July 1st, 2023 Population Estimates (PRC)	Population Covered by Existing Sites (Based on 2020 Census)	Collection Points Required (Base Convenience Standard)	Collection Points Required (Enhanced Convenience Standard)	Meets Base	Meets Enhanced	Proposed Optimized Collection Points
Polk	Dallas	17,989	100.0%	1	1	Passes	Passes	1
Polk	Falls City	1,066	100.0%	0	0	Passes	Passes	0
Polk	Independence	10,274	100.0%	1	1	Passes	Passes	1
Polk	Monmouth	11,019	100.0%	1	1	Passes	Passes	1
Sherman	Grass Valley	155	0.0%	0	0	Passes	Passes	0
Sherman	Moro	369	0.0%	0	0	Passes	Passes	0
Sherman	Rufus	272	0.0%	0	0	Passes	Passes	0
Sherman	Wasco	417	0.0%	0	0	Passes	Passes	0
Tillamook	Bay City	1,646	100.0%	0	0	Passes	Passes	0
Tillamook	Garibaldi	837	100.0%	0	0	Passes	Passes	0
Tillamook	Manzanita	646	0.0%	0	0	Passes	Passes	0
Tillamook	Nehalem	290	0.0%	0	0	Passes	Passes	0
Tillamook	Rockaway Beach	1,538	100.0%	0	0	Passes	Passes	0

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Tillamook	Tillamook	5,277	100.0%	0	1	Passes	Passes	1
Tillamook	Wheeler	428	0.0%	0	0	Passes	Passes	0
Umatilla	Adams	404	100.0%	0	0	Passes	Passes	0
Umatilla	Athena	1,200	100.0%	0	0	Passes	Passes	0
Umatilla	Echo	638	100.0%	0	0	Passes	Passes	0

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Umatilla	Helix	193	100.0%	34	0	0	Passes	Passes	0
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Umatilla	Hermiston	20,322	100.0%	1	1	Passes	Passes	1
Umatilla	Milton-Freewater	7,490	100.0%	1	1	Passes	Passes	1
Umatilla	Pendleton	17,006	100.0%	1	1	Passes	Passes	1
Umatilla	Pilot Rock	1,332	100.0%	0	0	Passes	Passes	0
Umatilla	Stanfield	2,313	100.0%	0	0	Passes	Passes	0
Umatilla	Ukiah	219	0.0%	0	0	Passes	Passes	0
Umatilla	Umatilla	7,810	100.0%	1	1	Passes	Passes	1
Umatilla	Weston	696	100.0%	0	0	Passes	Passes	0
Union	Cove	662	100.0%	0	0	Passes	Passes	0
Union	Elgin	1,911	0.0%	0	0	Passes	Passes	0
Union	Imbier	247	100.0%	0	0	Passes	Passes	0
Union	Island City	1,166	100.0%	0	0	Passes	Passes	0
Union	La Grande	13,558	100.0%	1	1	Passes	Passes	1
Union	North Powder	498	0.0%	0	0	Passes	Passes	0
Union	Summerville town	114	100.0%	0	0	Passes	Passes	0
Union	Union	2,182	100.0%	0	0	Passes	Passes	0
Wallowa	Enterprise	2,147	100.0%	0	0	Passes	Passes	1
Wallowa	Joseph	1,179	100.0%	0	0	Passes	Passes	0
Wallowa	Lostine	246	100.0%	0	0	Passes	Passes	0
Wallowa	Wallowa	812	0.0%	0	0	Passes	Passes	0
Wasco	Antelope	35	0.0%	0	0	Passes	Passes	0
Wasco	Dufur	635	100.0%	0	0	Passes	Passes	0
Wasco	Maupin	435	0.0%	0	0	Passes	Passes	0
Wasco	Mosier	481	100.0%	0	0	Passes	Passes	0
Wasco	Shaniko	30	0.0%	0	0	Passes	Passes	0
Wasco	The Dalles	16,417	100.0%	1	1	Passes	Passes	1
Washington	Banks	1,910	100.0%	0	0	Passes	Passes	0
Washington	Beaverton	101,165	100.0%	2	3	Passes	Passes	3
Washington	Cornelius	14,387	100.0%	1	1	Passes	Passes	1
Washington	Durham	1,938	100.0%	0	0	Passes	Passes	0
Washington	Forest Grove	27,551	100.0%	1	1	Passes	Passes	1
Washington	Gaston	674	100.0%	0	0	Passes	Passes	0
Washington	Hillsboro	110,874	100.0%	2	3	Passes	Passes	3
Washington	King City	5,177	100.0%	0	0	Passes	Passes	0
Washington	North Plains	3,663	100.0%	0	0	Passes	Passes	0
Washington	Sherwood	20,868	100.0%	1	1	Passes	Passes	1
Washington	Tigard	55,868	100.0%	1	2	Passes	Passes	2
Washington	Tualatin	27,910	100.0%	1	1	Passes	Passes	1
Wheeler	Fossil	455	100.0%	0	0	Passes	Passes	0
Wheeler	Mitchell	137	0.0%	0	0	Passes	Passes	0
Wheeler	Spray town	201	0.0%	0	0	Passes	Passes	0
Yamhill	Amity	1,826	100.0%	0	0	Passes	Passes	0
Yamhill	Carlton	2,425	100.0%	0	0	Passes	Passes	0
Yamhill	Dayton	2,704	100.0%	0	0	Passes	Passes	0
Yamhill	Dundee	3,265	100.0%	0	0	Passes	Passes	0
Yamhill	Lafayette	4,714	100.0%	0	1	Passes	Passes	1
Yamhill	McMinnville	34,612	100.0%	1	2	Passes	Passes	2
Yamhill	Newberg	26,728	100.0%	1	1	Passes	Passes	1
Yamhill	Sheridan	5,987	100.0%	0	1	Passes	Passes	1
Yamhill	Willamina	2,301	100.0%	0	0	Passes	Passes	0
Yamhill	Yamhill	1,165	100.0%	0	0	Passes	Passes	0

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Notes:

\* Site adjacent to city boundary

@ Supported by events

## **Appendix G:**

# **Detailed Fee-Setting Methodology**

*(confidential)*

Appendix G is confidential and has been shared with DEQ separately.

## Appendix H:

# CAA Articles of Incorporation



**VENABLE** LLP

800 MASSACHUSETTS AVE., NW WASHINGTON, DC 20001  
T 202.344.4000 F 202.344.8300 www.Venable.com

March 28, 2023

T 202.344.4202  
F 202.344.8300  
ALSteinberg@Venable.com

***SENT VIA COURIER***

Department of Licensing and Consumer Protection  
Corporations Division  
1100 4<sup>th</sup> St. SW  
Washington, DC 20024

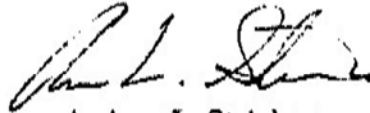
***Re: Restated Articles of Incorporation of Circularity Alliance, File No.: N00007528311***

To Whom It May Concern,

On behalf of Circularity Alliance, a District of Columbia nonprofit corporation with file number N00007528311, enclosed please find Restated Articles of Incorporation for filing with the Corporations Division, along with a check in the amount of \$180.00 for the applicable filing and in-person processing fees. Please file the Restated Articles of Incorporation and then return evidence of the Certificate of Restated Articles of Incorporation via email to me at [ALSteinberg@Venable.com](mailto:ALSteinberg@Venable.com).

Should you have any questions, please do not hesitate to contact me at (202) 344-4202. Thank you for your assistance.

Sincerely,



Andrew L. Steinberg

Enclosures

**GOVERNMENT OF THE DISTRICT OF COLUMBIA**  
DEPARTMENT OF LICENSING AND CONSUMER PROTECTION  
CORPORATIONS DIVISION



**CERTIFICATE**

**THIS IS TO CERTIFY** that all applicable provisions of the District of Columbia Business Organizations Code have been complied with and accordingly, this **CERTIFICATE OF RESTATED ARTICLES** is hereby issued to:

Circular Action Alliance

**Effective Date:** 3/28/2023

**IN WITNESS WHEREOF** I have hereunto set my hand and caused the seal of this office to be affixed as of 3/28/2023 4:35 PM

Business and Professional Licensing Administration



*Rebecca Janovich*

REBECCA JANOVICH  
Deputy Superintendent of Corporations,  
Corporations Division

Muriel Bowser  
Mayor

Tracking #: RxDbdloy

MAR 28 2023

*Mchipman*

**RESTATED ARTICLES OF INCORPORATION  
OF  
CIRCULARITY ALLIANCE**

Pursuant to the provisions of the District of Columbia Nonprofit Corporation Act (the "Act"), the domestic filing entity listed below hereby applies for a Certificate of Restated Articles of Incorporation and for that purpose submits the statements below.

1. The name of the corporation (hereinafter referred to as the "Corporation") is: Circularity Alliance.
2. The Articles of Incorporation of the Corporation are hereby amended as follows:
  - A. Article FIRST is hereby amended by replacing the existing provision with the following:

**ARTICLE I. NAME**

The name of the corporation (hereinafter referred to as the "Corporation") is: Circular Action Alliance.

- B. Article SECOND is hereby amended by replacing the existing provision with the following:

**ARTICLE II. DURATION**

The duration of the Corporation shall be perpetual.

- C. Article THIRD is hereby amended by replacing the existing provision with the following:

**ARTICLE III. PURPOSES**

- a. The Corporation is incorporated as a nonprofit corporation under the Act and is organized and shall be operated exclusively for charitable, scientific, literary, and educational purposes as defined under Section 501(c)(3) of the Internal Revenue Code of 1986 and the Regulations thereunder, as they now exist or as they may hereafter be amended, or the corresponding provision of any subsequent federal tax laws (hereinafter collectively referred to as the "Code"). Specifically, and without limitation, the Corporation shall:
      - i. Develop, implement, and operate community level, post-consumer paper, packaging, and packaging-like items stewardship programs, in compliance with and as mandated by local and state legislation (as well as where not mandated by law), which may include, but is not limited to:

MAR 2 8 2023

- (1) Public outreach and education to businesses, consumers, the public, and other relevant stakeholders on reducing waste, how to recycle, and how to increase the recycling of packaging material;
- (2) The collection and recycling of post-consumer paper, packaging, and packaging-like items;
- (3) Program administration related to and required by (1) and (2) above; and
- ii. Undertake other activities consistent with purposes permissible for organizations described in Section 501(c)(3) of the Code.
- b. The Corporation shall have and may exercise, to the extent that they are not inconsistent with the purposes of the Corporation, any and all powers conferred upon nonprofit corporations organized pursuant to the Act; provided, however that:
- i. No part of the net earnings of the Corporation shall inure to the benefit of, or be distributed to, any director, or officer of the Corporation, or any private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services actually rendered to the Corporation and to make payments and distributions in furtherance of Code Section 501(c)(3) purposes;
- ii. Except as provided and permitted under Sections 501(h) and 4911 of the Code, no substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the Corporation shall not participate in or intervene in (including the publication or distribution of statements) any political campaign on behalf of or in opposition to any candidates for public office;
- iii. Notwithstanding any other provisions of these Articles, the Corporation is organized and at all times shall be operated exclusively as a corporation not organized for profit, and the Corporation shall not conduct or carry on any activities not permitted to be conducted or carried on by an organization described in Section 501(c)(3) of the Code, and exempt from taxation under Section 501(a) of the Code;
- iv. During any period that the Corporation is deemed to be a private foundation as described in Code Section 509(a), the Corporation:
- (1) shall distribute its income for each taxable year at such time and in such manner as not to become subject to the tax on undistributed income imposed by Code Section 4942;
- (2) shall not engage in any act of self-dealing as defined in Code Section 4941(d);
- (3) shall not retain any excess business holdings as defined in Code Section 4943(c);

- (4) shall not make any investments in such manner as to subject it to tax under Code Section 4944; and
- (5) shall not make any taxable expenditures as defined in Code Section 4945(d).

- v. The Corporation shall not have authority to issue capital stock in the Corporation.

- D. Article FOURTH is hereby amended by replacing the existing provision with the following:**

#### ARTICLE IV. MEMBERS

The Corporation shall have members, whose qualifications, rights and obligations shall be as prescribed in the Bylaws of the Corporation.

- E. Article FIFTH is hereby amended by replacing the existing provision with the following:**

#### ARTICLE V. BOARD OF DIRECTORS

Provisions for the regulations of the internal affairs of the Corporation shall be set forth in the Bylaws, which may contain any provision that is not inconsistent with law or these Articles. The business and affairs of the Corporation shall be managed under the direction of its Board of Directors. The number of directors and the method of election or appointment of the directors of this Corporation shall be as provided in the Bylaws of this Corporation.

- F. Article SIXTH is hereby amended by omitting the names of the initial directors as permitted by Section 29-409.03(b)(2) of the Act and replacing the existing provision with the following:**

#### ARTICLE VI. REGISTERED AGENT AND ADDRESS

The principal office of the Corporation shall be located within or without the District of Columbia as determined by the Board of Directors. The name and address of the registered agent of this Corporation in the District of Columbia is:

Corporation Service Company  
1090 Vermont Ave. NW  
Washington, District of Columbia 20005

- G. Article SEVENTH is hereby amended by replacing the existing provision with the following:**

#### ARTICLE VII. INCORPORATORS AND INITIAL DIRECTORS



The name and address of each incorporator of the Corporation, who also served as the initial directors of the Corporation, are:

DLOP CORP. 2023  
MAR 2 3 2023

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<u>Name</u>	<u>Address</u>
Stephanie Potter	Nestlé USA 1812 N. Moore Street, Suite 3500 Arlington, VA 22209
Kirsten Witt	The Coca-Cola Company 1 Coca-Cola Plaza NW Atlanta, GA 30313
Anke Boykin	PepsiCo 700 Anderson Hill Road Purchase, NY 10577
John Breedlove	Niagara Bottling 1440 Bridgegate Drive Diamond Bar, CA 91765
Rachel Goldstein	Mars 6885 Elm Street McLean, VA 22101
Neil Menezes	General Mills 1 General Mills Boulevard Minneapolis, MN 55426
Charles Schwarze	Keurig Dr Pepper 53 South Avenue Burlington, MA 01803

H. Article EIGHTH is hereby amended by replacing the existing provision with the following:

#### ARTICLE VIII. MISCELLANEOUS

Other lawful provisions for the conduct and regulation of the business and affairs of the Corporation, for its voluntary dissolution, or for limiting, defining or regulating the powers of the Corporation or its directors are as follows:

- a. In the event of the termination, liquidation, dissolution, or winding up of the Corporation in any manner or for any reason whatsoever, and after paying or making provision for the payment of all of the liabilities of the Corporation, all assets of the Corporation shall be distributed for one or more of the Corporation's exempt purposes within the meaning of Code Section 501(c)(3), or shall be distributed to the federal

government, or to a state or local government, for a public purpose, in such manner as the Board of Directors may determine, and, to the extent required by the Act and the Bylaws, by the members.

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MAR 23 2023  
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- b. The personal liability of the officers and directors of the Corporation is hereby eliminated to the fullest extent permitted by law and by the provisions of the Act. Specifically, and without limitation, a director or officer of the Corporation shall not be liable to the Corporation or its members for money damages for any action taken, or failure to take action, as a director or officer, except for liability for (i) the amount of financial benefit received by the director or officer to which the director or officer was not entitled; (ii) an intentional infliction of harm; (iii) an unlawful distribution authorized by the officer or director in a manner outside the standards of conduct mandated for the officer or director by the Act; or (iv) an intentional violation of criminal law.
- c. To the fullest extent permitted by the Act, the Corporation shall indemnify and hold harmless each officer and director of the Corporation against any and all liabilities, costs and expenses (including attorneys' fees and expenses) reasonably incurred by him or her or on his or her behalf in connection with any proceeding to which he or she may be a party by reason of his or her being or having been an officer or director of the Corporation. Such indemnity shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any Bylaw, agreement or otherwise. Such indemnity shall inure to the benefit of the heirs, executors or administrators of each officer and director.
- d. The Corporation may purchase liability insurance for the indemnity specified above to the fullest extent as determined from time to time by the Board of Directors of the Corporation. If so purchased, as required by the Act, such liability insurance shall provide a minimum limit of coverage of not less than \$200,000 per individual claim and \$500,000 per total claims that arise from the same occurrence, or such other amount as provided by the Act.

G. A new Article NINTH is hereby added as follows:

#### ARTICLE IX. AMENDMENT

These Articles of Incorporation may be amended from time to time in any and as many respects as may be desired; provided: (i) that the Articles of Incorporation as amended may contain only such provisions as might be lawfully contained in original Articles of Incorporation; (ii) an amendment to the Articles of Incorporation may be proposed without approval of the Board of Directors if proposed by 25% or more of the members entitled to vote on the amendment, and any such proposed amendment must be adopted by the affirmative vote of two-thirds of the voting membership of the Corporation; and (iii) that

otherwise any such amendments are made in the manner and pursuant to the procedures and requirements prescribed by the Act, provided, however that approval of the Board to an amendment to the Articles of Incorporation requires an affirmative vote of a majority of the total number of members of the Board of Directors then in office.

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3. The text of the Restated Articles of Incorporation, which consolidates the foregoing amendments and all previous amendments to the Articles of Incorporation in a single document, is as follows:

*[Remainder of page intentionally blank]*



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MAR 29 2023  
FILE COPY

4. The foregoing amendments and Restated Articles of Incorporation were duly adopted by the Board of Directors in accordance with the requirements of the Act at a meeting of the Board of Directors held on March 22, 2023, at which a quorum was present, and was approved by the members in the manner required by the Act and by the Corporation's Articles of Incorporation and Bylaws.

IN WITNESS WHEREOF, the undersigned have signed and attested to these Restated Articles of Incorporation as of the dates written below. These Restated Articles of Incorporation may be executed in separate counterparts.

By:   
Charles Schwarze, Chair

Date: 3-24-23

Attest: \_\_\_\_\_  
John Breedlove, Secretary

Date: \_\_\_\_\_

District of Columbia Government  
 DEPARTMENT OF LICENSING AND  
 CONSUMER PROTECTION  
 Corporation Division  
 1100 4th Street, SW  
 Washington, DC 20024

OFFICE OF CYBERSEC AND TELECOM  
 Date: 3/28/2023 1:22 PM  
 Office: DCP 608 Term: 06000 LITL  
 Batch: 79975 Batch date: 3/28/2023  
 Cashier: 0F175  
 Term: 11 7  
 DEPARTMENT OF LICENSING & REG. (DCR) 1  
 Contract/Document: Circularity Alliance  
 Payment Total: \$180.00  
 Payment Distribution:  
 0100 000 (2975) 10000-00480 \$100.00  
 0116 000 (2222) 10000-00480 \$80.00  
 CR Loaded: \$180.00

**Billing Voucher**

Charge To: Circularity Alliance - Initial File Number:  
 N00007528311

**Office Use Only**

Charge For	QTY	Price	Fund	Source Code
1 Day Expedite Services	1	\$100.00	Fund	1060283 Acc 6211071
Restated Articles NonProfit Dom. Backoffice	1	\$80.00	Fund	1010001 Acc 6211039
<b>Date: 3/28/2023</b> <i>mch</i>		<b>\$180.00</b>	<b>Total</b>	

**PAY THIS AMOUNT PAYABLE  
 TO THE D.C. TREASURER**

Government of the District of Columbia - Office of the Chief Financial Officer

Returned Check Fee - \$65.00 - DCMR § 1-108

All checks returned are subject to electronic representment along with a \$65.00 fee.

## Appendix I: 501(c)3 Letter of Determination

**Appendix I:**  
**CAA - Determination Letter**



**Department of the Treasury**  
**Internal Revenue Service**  
**Tax Exempt and Government Entities**  
P.O. Box 2508  
Cincinnati, OH 45201

CIRCULAR ACTION ALLIANCE  
c/o THE RECYCLING PARTNERSHIP  
20 F STREET NW 7TH FLOOR  
WASHINGTON, DC 20001

**Date:**  
05/08/2023  
**Employer ID number:**  
92-3197259  
**Person to contact:**  
Name: Gary McCorkle  
ID number: 32231  
Telephone: 877-829-550  
**Accounting period ending:**  
December 31  
**Public charity status:**  
509(a)(2)  
**Form 990 / 990-EZ / 990-N required:**  
Yes  
**Effective date of exemption:**  
December 21, 2022  
**Contribution deductibility:**  
Yes  
**Addendum applies:**  
No  
**DLN:**  
26053514005433

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to [www.irs.gov/charities](http://www.irs.gov/charities). Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

We sent a copy of this letter to your representative as indicated in your power of attorney.

Sincerely,

*Stephen A. Martin*

Stephen A. Martin  
Director, Exempt Organizations  
Rulings and Agreements

## Appendix J:

# Proof of Registration as a Charitable Organization

ELLEN F. ROSENBLUM 100 SW Market Street  
Attorney General Portland, Oregon 97201

LISA M. UDLAND Telephone: (971) 673-1880  
Deputy Attorney General TTY (800) 735-2900



FAX: (971) 673-1882

charitable@doj.state.or.us  
www.doj.state.or.us

DEPARTMENT OF JUSTICE  
PORTLAND OFFICE November  
29, 2023

**Appendix J:**  
**CAA - Proof of Charitable**  
**Organization in Oregon**

Circular Action Alliance  
20 F Street NW, 7th Floor  
Washington, DC 20001

Re: Registration under the Charitable Trust and Corporation Act and  
Required Annual Reports

**Registration #64847**

Dear Officers/Directors:

This will acknowledge registration of your organization under the Charitable Trust and Corporation Act. Your registration number with this office is **64847**.

According to the above mentioned Act, annual reports (form CT-12, CT-12F or CT-12S) will be due no later than four months and 15 days after the close of your accounting period. Our records indicate that your accounting period ends on December 31st. Your annual reports will be due by May 15th of each year. Reporting forms will automatically be sent to you. If you do not receive forms within 60 days prior to the due date for filing your report, you can contact this office to obtain the prescribed forms or find them at [www.doj.state.or.us/charitable-activities/annual-reporting-for-charities/file-your-annual-report](http://www.doj.state.or.us/charitable-activities/annual-reporting-for-charities/file-your-annual-report). Depending on the date of your organization's registration, the due date for its initial annual report may be different than the usual due date described above.

Questions about annual reports should be directed to the Annual Report Specialist at (971) 673-1880. Please note that our annual reports are in addition to and different from the annual reports that nonprofit corporations must file with the Oregon Corporation Division, Office of the Secretary of State.

**Please keep this letter with your permanent records as it contains your registration number.**

Sincerely,

*Wendy Lambo*

Wendy Lambo  
Charities Registrar  
Charitable Activities Section

## Appendix K: Proof of Registration – Foreign Corporation



AppendixK:

CAA - Proof of Registration Foreign Corporation in Oregon



Application for Authority to Transact Business - Nonprofit

Secretary of State - Corporation Division - 255 Capitol St. NE, Suite 151 - Salem, OR 97310-1327 - sos.oregon.gov/business - Phone: (503) 986-2200

REGISTRY NUMBER: 220134597
For office use only

FILED: DEC 18, 2023
OREGON SECRETARY OF STATE
Barcode
220134597-25592306

CIRCULAR ACTION ALLIANCE NEWAUT

In accordance with Oregon Revised Statute 192.410-192.490, the information on this application is public record. We must release this information to all parties upon request and it will be posted on our website.

Please Type or Print Legibly in Black Ink. Attach Additional Sheet if Necessary.

1) NAME OF CORPORATION: Circular Action Alliance

NOTE: Must be identical to the name of record in home jurisdiction.

2) REGISTRY NUMBER IN HOME JURISDICTION N00007528311

OR: CERTIFICATE OF EXISTENCE (ATTACHED)

(Please provide a web-verifiable registry number from the entity's home jurisdiction. Certain states, such as Delaware and New Jersey, do not provide status information online. Entities from such places must instead attach an official certificate of existence, current within 60 days of delivery to this office.)

3) DATE OF INCORPORATION: 12/21/2022 DURATION, IF NOT PERPETUAL: Perpetual

4) STATE OR COUNTRY OF INCORPORATION: District of Columbia

5) TYPE OF CORPORATION: PUBLIC BENEFIT MUTUAL BENEFIT RELIGIOUS

6) WILL THE CORPORATION HAVE MEMBERS? Yes No

ORS 65.001(28)
(a) "Member" means any person or persons entitled, pursuant to a domestic or foreign corporation's articles or bylaws, without regard to what a person is called in the articles or bylaws, to vote on more than one occasion for the election of a director or directors.
(b) A person is not a member by virtue of any of the following rights the person has:
(A) As a delegate;
(B) To designate or appoint a director or directors;
(C) As a director; or
(D) As a holder of an evidence of indebtedness issued or to be issued by the corporation.
(c) Notwithstanding the provisions of paragraph (a) of this subsection, a person is not a member if the person's membership rights have been eliminated as provided in ORS 65.164 or 65.167.

7) ADDRESS OF PRINCIPAL OFFICE OF THE BUSINESS: (Address, city, state, zip)

20 F Street NW, 7th Floor
Washington, DC 20001

8) NAME OF OREGON REGISTERED AGENT: Corporation Service Company

9) REGISTERED AGENT'S PUBLICLY AVAILABLE ADDRESS: (Must be an Oregon Street Address which is identical to the registered agent's business office.)
1127 Broadway Street NE, Suite 310
Salem, OR 97301

10) ADDRESS FOR MAILING NOTICES:
20 F Street NW, 7th Floor
Washington, DC 20001

11) NAME AND ADDRESS OF PRESIDENT AND SECRETARY:

President: Charles Schwarze (Chair)
Address: 20 F Street NW, 7th Floor
Washington, DC 20001

Secretary: John Breedlove
Address: 20 F Street NW, 7th Floor
Washington, DC 20001

12) EXECUTION: (Must be signed by at least one officer or director.)

I declare as an authorized signer, under penalty of perjury, that this document does not fraudulently conceal, obscure, alter, or otherwise misrepresent the identity of any person including officers, directors, employees, members, managers or agents. This filing has been examined by me and is, to the best of my knowledge and belief, true, correct and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

Signature: Charles Schwarze

Printed Name: Charles Schwarze

Title: Chair

CONTACT NAME: (To resolve questions with this filing.)

Andrew Steinberg

PHONE NUMBER: (Include area code.)

202-344-4202

FEES
Required Processing Fee \$50
Processing Fees are nonrefundable. Please make check payable to "Corporation Division."
Free copies are available at sos.oregon.gov/business using the Business Name Search program.

## Appendix L: CAA Revised Bylaws

## Appendix L: CAA Bylaws

**BYLAWS**  
**of**  
**CIRCULAR ACTION ALLIANCE**

**ARTICLE I**

**Name, Registered Agent, and Offices**

**Section 1.01. Name.** The name of this corporation (hereinafter referred to as the “Corporation”) shall be Circular Action Alliance.

**Section 1.02. Registered Agent and Offices.** The Corporation shall maintain in the District of Columbia a registered agent. The Corporation may have offices inside or outside of the District of Columbia as the Board of Directors of the Corporation (the “Board”) may designate or as the business of the Corporation may require from time to time.

**ARTICLE II**

**Purposes and Limitations**

**Section 2.01 Purposes and Limitations.** The Corporation is organized as a nonprofit corporation under the District of Columbia Nonprofit Corporation Act of 2010, as amended from time to time (the “Act”), for the purposes as set forth in the Corporation’s Articles of Incorporation.

**ARTICLE III**

**Members**

**Section 3.01 Membership Classes.** The Corporation shall have one class of members known as Founding Members. The Founding Members of the Corporation are those companies who have been approved by the Board to be a Founding Member, agreed to support the purposes of the Corporation and entered into a Membership Agreement with the Corporation. Founding Members shall each be eligible to appoint one Director to serve on the Board and shall have no other governance rights.

**Section 3.02 Resignation and Termination of Membership.** Membership in the Corporation may be terminated by the member’s submission of written notice of membership resignation or non-renewal to the Corporation, or by the Board for cause by the affirmative vote of a majority of the Directors present at a meeting of the Board called for the purpose of considering termination of the member and at which a quorum is present. Circumstances constituting “cause” shall be solely determined by the Board, and includes but is not limited to (i) failure to timely pay fees, membership dues, or assessments, (ii) failure or refusal to comply with the Membership Agreement, or (iii) engaging in conduct that is detrimental to the reputation, mission, or operations of the Corporation. Prior to terminating or expelling a member for cause,

the member shall be provided prior notice of the proposed termination or expulsion and the reasons therefor, and be provided an opportunity to be heard, orally or in writing as determined by the Board using such reasonable procedures for hearing as determined by the Board, before the effective date of the termination or expulsion.

**Section 3.03 Effect and Timing of Termination and Resignation.** The termination, nonrenewal, or resignation of membership shall not extinguish or relieve such member's financial obligations then accrued pursuant to Section 8.02, including unpaid dues, fees, assessments, or other charges previously accrued, if any. The termination of membership shall take effect immediately or as of a later date determined by the Board. The resignation of membership shall take effect at the time specified in the notice of resignation, or, if no time is specified, at the time such resignation is tendered. The non-renewal of membership will take effect as of the expiration of the then-current term of membership at the time the notice of nonrenewal is provided.

## ARTICLE IV

### Board of Directors

**Section 4.01. General Powers.** The affairs of the Corporation shall be managed by its Board. It shall be the Board's duty to carry out the objectives and purposes of the Corporation, and to this end the Board may exercise all powers of the Corporation, except such powers reserved to the Members as provided in the Act, the Articles of Incorporation, or these Bylaws.

**Section 4.02. Election, Number, and Term of Office.** The Board shall consist of the number of Founding Members of the Corporation. Each Founding Member shall appoint one person to serve as a Director, and such person shall serve as a Director until the member appoints a different person to serve as the Director. Founding Member Directors shall serve oneyear terms of office and until their successors take office. Founding Member Directors may serve consecutive terms of office.

**Section 4.03. Board Meeting.** The Board shall hold an annual meeting at a time and place determined by the Board for the purpose of transacting such business as may properly come before the meeting. The Board may also hold other regular Board meetings at such times and places as may be determined by the Chair or the Board. Special meetings of the Board may be called by or at the request of the Chair or at least 20% of the Directors of the Corporation and shall be held at such time and place as set by the Directors calling the meeting.

**Section 4.04. Notice.** Notice of the place, if any, date, and time of each regular meeting of the Board shall be given to each Director by mail, overnight courier, e-mail, other mode of written communication or over the telephone not less than 24 hours before the time set for such a meeting. Notice of the place, if any, date, and time of each special meeting of the Board shall be given to each Director by mail at least two days before the special meeting, or by telephone or electronic transmission (including e-mail) or delivery in person not later than the day before the day of the meeting. Notice shall be deemed effective if given in person or by telephone, mail addressed to such Director at such Director's physical or e-mail address as it appears on the records of the Corporation, or by other means of electronic transmission.

Notice may be waived in writing, prior to or after the meeting, by those Directors not present. Attendance at a meeting in person shall constitute a waiver of notice of such meeting, except where the Director attends such meeting for the express purpose of objecting, at the commencement of the meeting, to the transaction of any business because the meeting was not lawfully called or convened.

**Section 4.05. Quorum and Manner of Acting.** A majority of the Directors in office shall constitute a quorum for the transaction of business at any meeting of the Board, provided, that if less than a majority of the Directors are present at any meeting, a majority of the Directors present may adjourn the meeting from time to time without further notice. The act of a majority of the Directors then in office at a meeting at which a quorum is present shall be the act of the Board except when a greater vote is required by the Act or by these Bylaws. Directors shall not be permitted to vote by proxy.

**Section 4.06. Teleconferencing.** Any person participating in a meeting of the Board may participate by means of telephone or video conference or by any means of communication by which all persons participating in the meeting are able to hear one another, and otherwise fully participate in the meeting. Such participation shall constitute presence in person at the meeting.

**Section 4.07. Action by Unanimous Written Consent.** Board action may be taken without a meeting if all the voting Directors consent thereto in writing (including by electronic transmission).

**Section 4.08. Removal or Resignation of Directors.** Any Director may be removed from office with or without cause by the Board provided advance written notice of the intent to remove is provided to the Founding Member whose Director is being removed. Any Director may resign at any time by giving written notice to the Chair or the Secretary of the Corporation. Such resignation shall take effect at the time specified in such notice, or, if no time is specified, at the time such resignation is tendered.

**Section 4.09. Vacancies.** Any vacancy occurring in the Board, or any Directorship to be filled by reason of an increase in the number of Directors, may be filled at any time in the same manner in which regular appointments are made. A Director selected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office.

**Section 4.10. Compensation.** Directors and Officers shall not receive any compensation for their services as such; provided, however, that Officers and Directors are not precluded from serving the Corporation in any other capacity and receiving reasonable compensation for such service with the approval of the Board.

## ARTICLE V

### Officers

**Section 5.01. Officers.** The Officers of the Corporation shall be a Chair, Vice Chair, Treasurer, Secretary, and President, and such other Officers as may be determined by the Board, each to have such duties and authority as may be specified in these Bylaws or as shall be prescribed by the Board. The offices of President (or if there is no President, then Chair) and Treasurer may

not be held by the same person; otherwise, the same individual may simultaneously hold more than one office.

**Section 5.02. Election and Term.** The Officers of the Corporation shall be elected by the Board at any meeting of the Board. Each Officer other than the President shall hold office for a one-year term; provided, however, that Officers shall serve until their successors are duly elected and qualified. The President shall serve at the pleasure of the Board. There shall be no limit on the number of terms, consecutive or otherwise, that an Officer may serve.

**Section 5.03. Removal or Resignation of Officers.** Any Officer may be removed from office at any time by the Board whenever in the Board's sole judgment the best interests of the Corporation would be served thereby. Any officer may resign at any time by giving written notice to the Secretary of the Corporation. Such resignation shall take effect at the time specified in such notice, or, if no time is specified, at the time such resignation is tendered.

**Section 5.04. Vacancies.** A vacancy in any officership, because of death, resignation, removal, disqualification, or otherwise, may be filled at any time by the Board for the unexpired portion of the term. Vacancies may be filled or new offices created and filled at any meeting of the Board.

**Section 5.05. Chair.** The Chair shall preside at all meetings of the Board. If the Corporation does not have a President, then the Chair shall also have the powers otherwise given to the President of the Corporation and, subject to the control and direction of the Board, shall supervise and control all the affairs of the Corporation until such time as a President is appointed. The Chair in general shall perform all duties incident to the office of Chair and such other duties as may be prescribed by the Board from time to time.

**Section 5.06 Vice Chair.** The Vice Chair shall assume the duties of the Chair in the Chair's absence or incapacity and perform such other duties as from time to time may be assigned by the Chair or by the Board.

**Section 5.07. Treasurer.** The Treasurer shall have charge and custody of and be responsible for, all funds and securities of the Corporation; receive and give receipts for monies due and payable to the Corporation from any sources whatsoever; and deposit all such monies in the name of the Corporation in such banks, trust companies, or other depositories as shall be selected in accordance with the provisions of these Bylaws. The Treasurer shall keep or cause to be kept complete and accurate financial records of the Corporation and in general shall perform all of the duties incident to the office of Treasurer and such other duties as from time to time may be assigned by the Chair or by the Board.

**Section 5.08. Secretary.** The Secretary shall record or cause to be recorded the minutes of all meetings of the Board; maintain such minutes in the Corporation's permanent records as required under the Act; see that all notices are duly given in accordance with the provisions of these Bylaws or as required by law; be the custodian of the corporate records, and in general perform all of the duties incident to the office of Secretary and such other duties as from time to time may be assigned by the Chair or by the Board.

**Section 5.09. President.** The Board shall select and employ a President (who may have the title of President or President and Chief Executive Officer) who shall be a corporate officer and responsible for the administration and management of the Corporation's business and operations. Subject to the oversight of the Board, the President shall: supervise, coordinate and manage the Corporation's day-to-day business and activities; formulate plans and advise on policies for the accomplishment of the Corporation's objectives; prepare an annual budget for approval by the Board; have charge of the Corporation's funds, discharge its obligations, and maintain its accounts; carry into effect all directions and resolutions of the Board; and perform such other duties and have such other powers as may be prescribed by the Board or these Bylaws. The President shall report to the Board and keep the Board apprised of his or her activities in carrying out his or her duties hereunder. The President shall serve at the pleasure of the Board of Directors. Any removal of the President will be without prejudice to his or her rights under a contract of employment, and the appointment of such person shall not itself create contract rights.

## ARTICLE VI

### Committees

**Section 6.01.** Committees of the Board. The Board may, by resolution adopted by a majority of all the Directors then in office, create one or more committees, each consisting solely of three or more Directors, to serve at the discretion of the Board (each a "Board Committee"). Board Committees shall have and exercise the authority of the Board in the management of the Corporation, to the extent provided in the respective Board resolution. Notwithstanding the foregoing, a Board Committee may not (i) authorize distributions; (ii) approve or propose to the Founding Members action required by the Act to be approved by the Founding Members; (iii) fill vacancies on the Board or any Board Committee; or (iv) adopt, amend, or repeal these Bylaws. The designation and delegation of authority to a Board Committee shall not operate to relieve the Board, or any individual Director, of any responsibility imposed upon them by law.

**Section 6.02. Advisory Committees.** Advisory committees not having and exercising the authority of the Board in the management of the Corporation may be designated by the Board at any meeting of the Board. Except as otherwise provided in such resolutions, the Board or anyone designated by the Board shall appoint the members of such committees. Individuals who are not Directors may serve as members of any such committee.

**Section 6.03. Term.** Each member of a committee shall continue as such until his or her successor is appointed, unless the committee shall be sooner terminated, or unless such member shall cease to qualify or shall be removed or shall resign as a member thereof.

**Section 6.04. Removal; Resignation; Vacancies.** Any member of a Board Committee may be removed from office at any time by the Board, and any member of an advisory committee may be removed from office at any time by the Board, except as otherwise provided by the Board. Any committee member may resign at any time by giving written notice to the Chair or to the Secretary of the Corporation. Such resignation shall take effect at the time specified in such notice, or, if no time is specified, at the time such resignation is tendered. Vacancies in the membership of any committee may be filled at any time by appointments made in the same manner as provided in the case of the original appointments.

**Section 6.05. Committee Meetings.** Meetings of any Board Committee shall conform to the same standards for notice, quorum, voting, manner and method of acting, and other procedures applicable to meetings of the Board as are set forth in Article IV of these Bylaws, except as otherwise provided by these Bylaws, committee charter, or resolution of the Board. Meetings of any advisory committee shall conform to the standards for notice, quorum, voting, and manner and method of acting as may be established by the committee chair, with the approval of the committee members, except as otherwise provided in these Bylaws, committee charter, or resolution of the Board.

## ARTICLE VII

### Sundry Provisions

**Section 7.01 Contracts.** The Board may authorize any Officer or Officers of the Corporation, or agent or agents of the Corporation, in addition to the Officers so authorized by these Bylaws, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

**Section 7.02 Checks, Drafts, Etc.** All checks, drafts or orders for the payment of money, notes or other evidences of indebtedness issued in the name of the Corporation shall be signed by the Chair, the Treasurer, the Vice Chair, or such Officer or Officers of the Corporation, or agent or agents of the Corporation, and in such manner as shall from time to time be determined by resolution of the Board.

**Section 7.03 Deposits.** All funds of the Corporation shall be deposited from time to time to the credit of the Corporation in such banks or other depositories as the Board may select.

**Section 7.04 Gifts.** The Board may accept on behalf of the Corporation any contribution, gift, bequest or devise for the general purposes of the Corporation or for any special purpose approved by the Board if all such purposes are within the scope of the purposes of the Corporation as set forth in the Articles of Incorporation as amended from time to time.

**Section 7.05 Books and Records.** The Board may engage the services of a recognized auditing firm which shall review the Corporation's books and statements, and which shall prepare annually, or more frequently if required, an operating statement, balance sheet and tax returns. The Corporation shall keep correct and complete books and records of account and shall also keep: (i) minutes of all meetings of the Board; (ii) records of all actions taken without a meeting by the Board; and (iii) records of all actions taken by a Board Committee on behalf of the Corporation. The Corporation also shall keep at its principal office (i) the Corporation's Articles of Incorporation, (ii) the Corporation's Bylaws, (iii) minutes and other required records described above for the last three (3) years; (iv) a list of the names and business address of the Corporation's current Directors and officers; and (v) the most recent biennial report filed by the Corporation with the District of Columbia.

**Section 7.06 Limitation of Liability; Indemnification; and Insurance.** To the fullest extent permitted by the Act and the Internal Revenue Code of 1986, as amended, or the corresponding provisions of any future internal revenue laws of the United States (i) the personal liability of each Director, Officer, employee of the Corporation is hereby eliminated, and (ii) the



Corporation shall indemnify and advance expenses to any individual who was, is, or is threatened to be made, a party to a proceeding because he or she is or was a Director, Officer, employee, and/or agent of the Corporation. The Corporation may purchase liability insurance for the indemnity specified above, as determined from time to time by the Board

## **ARTICLE VIII Fiscal Year and Budget**

**Section 8.01 Fiscal Year.** Except as from time to time otherwise provided by the Board, the fiscal year of the Corporation shall be the calendar year.

**Section 8.02 Budget, Fees, Dues, and Assessments.** The Board shall adopt a budget for each fiscal year, setting forth categories of expenses and totals, as well as expected revenue and sources. The Board shall set fees, dues, and other assessments (collectively, “Dues”) on an annual basis, and no Member shall be obligated to pay Dues in a subsequent year if it terminates membership pursuant to Section 3.02. If the Board increases Dues during a year, a Member may terminate membership and will not be subject to the increased Dues, but will be subject to Dues established for that year.

## **ARTICLE IX State Program Boards**

**Section 9.01 Establishment of State Program Boards.** The Corporation may establish governing bodies for one or more state producer responsibility programs in which the Corporation or its subsidiaries participates as the designated producer responsibility organization, as authorized by the Board (each, a “State Board”). Each State Board shall function as a designated body of the Corporation as defined in D.C. Code section 29-406.12. Each State Board shall have responsibility to approve the program plan and budget for that state and provide strategic oversight and guidance to the Corporation regarding that state’s program, subject to final approval and oversight by the Board.

**Section 9.02 State Board Meetings.** Each State Board shall have a governing charter approved by the Board. The charter shall operate as internal operating rules for the State Board and shall address the composition, selection process, and term of members of the State Board, as well as the procedures for meetings, notice, quorum, and manner of acting of the State Board. Unless such rules provide otherwise or in the absence of such rules, each State Board shall be subject to the requirements for meetings, notice, and manner of acting applicable to the Board of the Corporation.

**Section 9.03 Minutes.** Minutes of each meeting of a State Board and records of each action taken without a meeting by a State Board shall be recorded and maintained permanently among the records of the Corporation, as required by law.

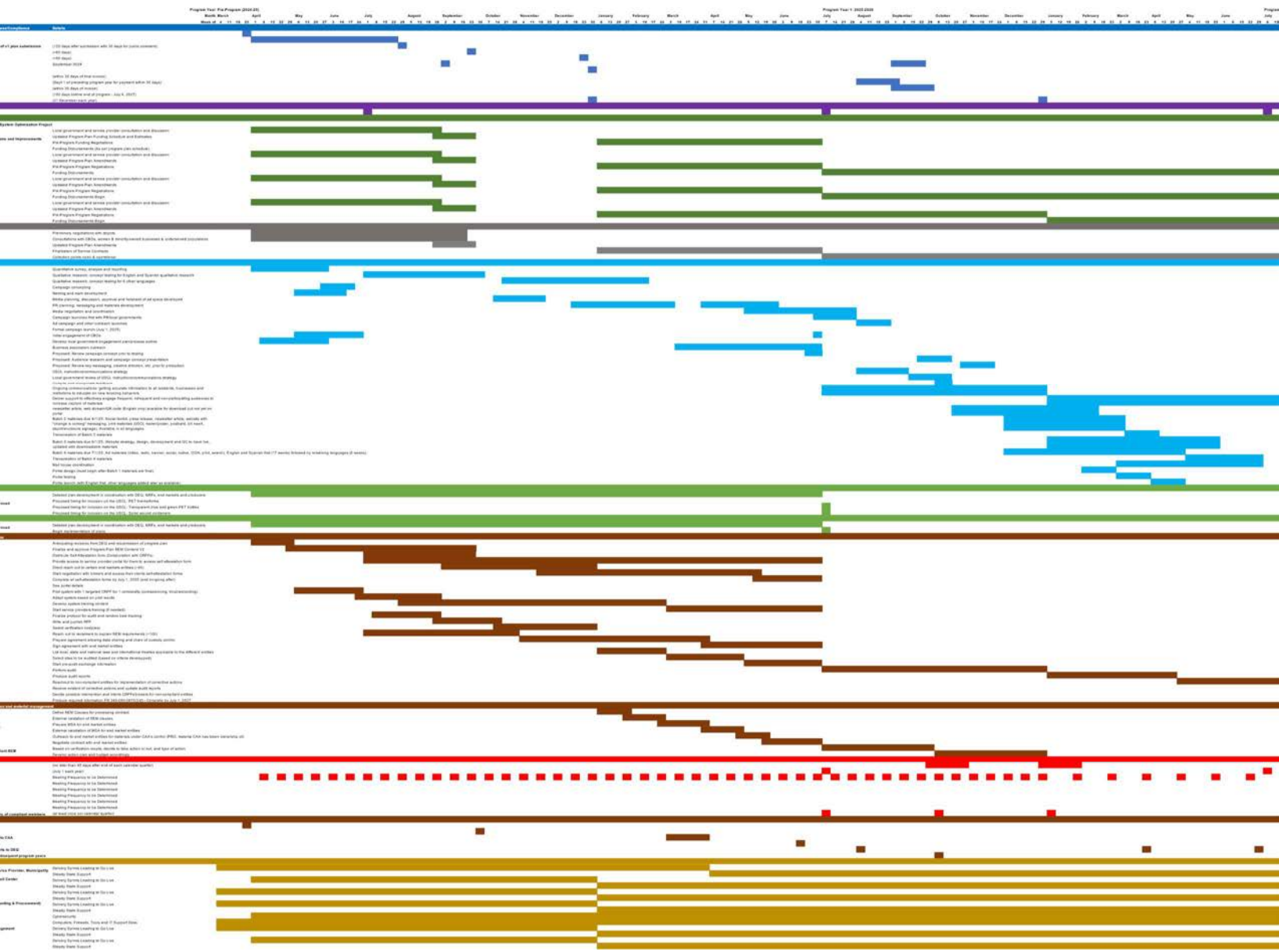
## **ARTICLE X**

### **Amendments**

**Section 10.01 By the Board.** At any meeting these Bylaws may be altered, amended or repealed in whole or in part upon approval of a majority of the Directors then in office.

Adopted by the Board of Directors on March 1, 2023, as amended by the Board of Directors on March 15, 2023.

## Appendix M: Preliminary Program Implementation Timelines



**RE: Circular Action Alliance  
Oregon Program Plan (2025 – 2027), Letter of Support and Comment**

Submitted by:

PakTech  
Jonathan Levy  
Manager, Public Policy and Sustainability  
[Jonathan.Levy@paktech-opi.com](mailto:Jonathan.Levy@paktech-opi.com)



April 30, 2024

Mr. Doug Mander  
Circular Action Alliance  
Oregon Program Manager

**RE: Circular Action Alliance Oregon Program Plan - 2025 – 2027  
Letter of Support and Comment**

**INTRODUCTION:**

PakTech would like to thank the Circular Action Alliance (CAA) for giving us an opportunity to share our thoughts related to the recently submitted Oregon Program Plan - 2025-2027, (OPP).

Founded in 1991, Paktech is a manufacturer of HDPE plastic handles that utilize recycled resin as a feedstock. With facilities located in Eugene, Oregon, PakTech’s products are made from post-consumer HDPE resin (PCR HDPE) sourced from curbside collection programs. Using PCR HDPE feedstock is part of our commitment to sustainability and ensuring this material remains in the circular economy. PakTech’s commitment to sustainability doesn’t end in its use of recycled resin in the manufacture of its product. In fact, we use over 170,000 pounds of recycled fiber per month<sup>1</sup> and operate energy efficient equipment to support sustainable power and water use. All of these practices show our commitment to utilizing sustainable business practices throughout the manufacturing process. Our commitment to sustainability and good manufacturing practices demonstrates our belief a manufacturing facility can provide a quality product while still being environmentally conscious. It is this commitment to environmental sustainability that has led us to be advocates for Extended Producer Responsibility as a public policy choice.

**DISCUSSION:**

We would like to commend CAA for their hard work in putting together the OPP in such short order. We realize the difficulty CAA had in developing their program plan in light of the fact the Department of Environmental Quality has not yet finalized their rulemaking. Regardless, CAA has done well in providing as much information as possible and giving stakeholders an insight as to how extended producer responsibility may work in Oregon under the state’s Recycling Modernization Act.

The goals of the program as outlined in the plan are laudable and if successful may help to “move the needle” in ensuring more material is recycled and handled properly in the state. We will be commenting on several aspects of these goals, and while we believe CAA is on the right track, we hope our comments are taken in the spirit of comity and our desire to improve the RMA.

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<sup>1</sup> Through the use of purchasing shipping containers made with recycled fiber content. As such, we are a significant market for recycled fiber products and are proud to support the recycled fiber industry.

- *Paktech's HDPE Carrier Handles Should Be on the USCL, NOT On the PRO Acceptance List*

Although we believe we meet every designation and criteria Section 459A.914 of the Recycling Modernization Act has set out regarding items that can be placed on the USCL, our product has somehow been designated to be collected through the PRO Recycling Acceptance List. **We believe CAA has the power to rectify this mistake and wholeheartedly endorse its desire to move HDPE carrier handles off the PRO list and on to the USCL.**

*“CAA believes this material, inclusive of HDPE package handles, should eventually be introduced into the USCL...with a view to making the case for their inclusion on to the USCL”<sup>2</sup>*

**As a product manufactured from PCR HDPE, PakTech's handles are a sought-after commodity and not a contaminant.** In fact, if one were to ask any recycler across the country, most if not all would suggest that due to the high value of PCR HDPE, such materials are extremely valuable<sup>3</sup>. The low numbers of our product that may, due to an incorrect MRF configuration, be found in a fiber bale are not only easily sorted out during a presort process at the paper mill, but those handles can be recovered, and sold at a premium for the mill. This helps the mill recover some of the costs incurred for the recovery process and provides an additional revenue stream.

It is ironic, then, that due to incorrect assumptions made by OR DEQ and misinformation they may have acquired about the recycling process, our product is included on the PRO acceptance list only. Although rules have not yet been formalized related to the Contamination Management Fee, we believe that if found in the curbside bin our handles would be considered a contaminant. If viewed as a contaminant, the millions<sup>4</sup> of PakTech handles that are annually placed in the curbside bin by the public will provide a windfall of compensation to the MRFs through the Contamination Management Fee. This would be a perverse application of a fee meant to compensate MRFs for items that can truly be considered contaminants such as baby diapers, bowling balls, multi-laminated pouches and other items that cannot be recycled.

Unfortunately, this decision will require others to foot the bill, **most notably the PRO and its members** who are continually demanding more and more amounts of PCR HDPE.

<sup>2</sup> CAA, Oregon Program Plan, April 2024, 54.

<sup>3</sup> Merlin Plastics, *Letter to Minister of Environment for British Columbia*, July 2022.

<sup>4</sup> In 2021, Paktech sold over 30 million handles into Oregon, which equaled over 400 tons of PCR HDPE.



According to ORS 459A.920:

*“The Environmental Quality Commission shall by rule adopt and periodically revise a contamination management fee to **be paid by producer responsibility organizations** <sup>5</sup>to commingled recycling processing facilities to compensate the facilities for the costs of removing and disposing covered products that are contaminants.”*

Once compensated for handling material designated as a contaminant, a MRF would be prohibited from selling that material on the open market and would be forced to landfill it. Sending materials that are recyclable to a landfill is counter to the entire purpose of the RMA and is literally throwing money away.

One can only imagine the harm this will bring to the program should the public find out that a program meant to recover more recyclable material is forcing MRFs to landfill a viable source of material. It will confirm in the public’s mind that recycling is a “sham” and “doesn’t work”. Such actions will harm the overall effectiveness of recycling in Oregon and may cause more individuals to not participate.

Conversely, some MRFs may choose to refuse the Contamination Management Fee and market our handles directly. A MRF that chooses this option further strengthens our contention that Paktech’s carrier handles are a valuable and sought after commodity and are easily recoverable. If MRFs have the ability to recover and market our carrier handles, then DEQ’s contention they are a contaminant is clearly erroneous and there is no possible ground to suggest otherwise. **The bottom line is our handles are recoverable, recyclable and belong on the USCL.**

Not only is OR DEQ’s current designation baffling and harming the program by inflating costs but it is also harming recycling statewide. ORS 459A.926 sets out an ambitious set of recycling rates and dates for plastic reaching a recycling rate of at least 25 percent by 2028. We question how the state will achieve that level if high quality PCR HDPE such as the product we manufacture will be forced to be landfilled. The state will never reach the goals set out in statute as long as items such as ours are not allowed to be collected curbside.

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<sup>5</sup> Bolded text for emphasis





Additionally, a study we commissioned to look at the flow of our handles through a MRF put it succinctly:

*...even if some handles do advance to fiber lines, existing optical and manual sortation systems in Oregon will successfully identify and divert such material accordingly. The risk of contaminating other recycling streams is negligible, if a risk exists at all<sup>6</sup>.*

*- We Agree With CAA That Many Materials On the PRO Acceptance List Should Be Moved To the USCL*

**We believe the PRO has the power and ability to reverse this situation before it gets out of hand.** In fact, we are encouraged by CAA's intention to move some materials, such as our PCR HDPE Handles, from depot collection to curbside collection to help meet convenience standards.

Specifically, as stated in the plan:

*CAA will explore the potential of enhanced curbside collection of PRO materials for both single family and multifamily residents<sup>7</sup>*

We are encouraged by this and other statements CAA makes in the plan to move PRO materials to curbside collection. As such, we are interested in continuing our conversations to develop the processes necessary to ensure our PCR HDPE carrier handles are one of those materials moved to curbside collection.

As we have stated elsewhere, PakTech consumes close to 1.4 million pounds, or 700 tons of PCR HDPE each month. In the Program Plan, it is estimated that a 10% collection rate, or 290 tons, of PE and PP lids and HDPE package handles will be collected through the PRO depot system. By keeping our handles on the PRO list, the state is allowing a vast amount of material to not be collected. Our experience shows that after consuming the product our handle is attached to the public will be inclined to place the package and our product in the recycling bin. It would be a stretch of the imagination to expect the public to save their handles and drive to a depot, regardless of how close that depot may be situated<sup>8</sup> to a population center to ensure they are recycled as CAA has currently designated.

It is our contention the public is not invested in recycling as an activity they view as important and as such, if forced to choose either to place items in the trash or drive to a depot, they will choose the more convenient option and place the item in the trash. In fact, according to the Recycling Partnership only 43% of households participate in

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<sup>6</sup> PakTech, *Sortability of PakTech Handles at Pioneer Recycling*, November 2022, 3.

<sup>7</sup> CAA, Oregon Program Plan, April 2024, 38.

<sup>8</sup> CAA expects the closest depots to be within a 15 mile radius of a heavily populated area. We do not believe that 15 miles is close enough to encourage recycling of many of the materials on the PRO list.

recycling<sup>9</sup>. This demonstrates the critical importance of making recycling easy and convenient to the public if we want them to participate.

Limiting the consumer's option to recycle covered materials is counter to the purpose of Oregon's EPR law. Encouraging the recycling of our handles by including it in the curbside bin improves the circular economy by ensuring our fully recyclable PCR HDPE handles can be recovered, and the material can go to being applied to the overall HDPE recycling rate which helps the state meet its recycling rate goals.

#### *- Supporting Responsible End Markets*

We disagree with current rulemakings that designate responsible end markets as those entities that recycle materials and not the actual entities that transform that material into a usable product. Regardless of how they are designated, we believe that plastic reclaimers in the state need support from every link in the recycling supply chain to remain competitive. At PakTech, we serve as a major outlet for PCR HDPE as we consume 1.4 million pounds of PCR HDPE every month. Due to our position in the market, we are interested in supporting the state's reclaimers and ensuring they have the ability to produce high quality PCR HDPE resins.

We are concerned, however, about CAA's intention to "*facilitate the sale of collected materials to responsible end markets*"<sup>10</sup>. We believe that in order for recycling to work properly the forces of supply and demand must be allowed to set commodity prices without interference from outside influences. As such, we are concerned with any action CAA, DEQ, or any other entity might take that would disrupt our, or any other private businesses', ability to enter into private business-to-business financial transactions. We are engaged with many reclaimers located not only in Oregon, but in other jurisdictions as well and typically set long term contracts to provide stability and predictability in our purchasing decisions. Should CAA take actions to "purchase and resell materials" or engage in "brokerage services" we would be concerned with how that would disrupt the long-term contracts we have in force. We would hope, and expect, CAA, DEQ or any other entity outside of the actual reclaimer we have a contractual obligation with to respect any contract we may have in force at the time the RMA goes into effect. Disrupting our ability to procure PCR resin feedstocks on the open market will have severe repercussions to our business model and if such actions do disrupt our ability to procure such material from within the state, we may be forced to look outside the state for such material. This in turn may have a major impact on the aggressive recycling rates the RMA has set for HDPE.

Accordingly, we hope to see much more information regarding CAA's efforts to "support" responsible end markets. We hope they engage with the buyers of PCR feedstocks in an open two-way dialogue to understand how any action CAA may take can upend long held conventional wisdoms that buyers and sellers of PCR feedstocks operate under.

<sup>9</sup> <https://recyclingpartnership.org/residential-recycling-report/>, Recycling Partnership, *State of Recycling The Present and Future of Residential Recycling in the U.S.*, 2024, 18.

<sup>10</sup> CAA, Oregon Program Plan, April 2024, 81



*- Information In the Plan Regarding Life Cycle Analysis Is Limited*

We understand that ORS459A.944 requires producers of covered materials to conduct a life cycle analysis on the types of materials they use and the impacts those materials may have on the environment. As DEQ has not yet finalized those rules it is understandable that CAA is unable to provide information regarding how an LCA analysis may be utilized to comply with ORS 459A.944. Regardless, we are very interested in helping CAA understand the impact material substitutions and alternative material selections to PCR HDPE can have on the environment and even how such substitutions can lead to egregious examples of “greenwashing”.

At PakTech, we have commissioned a comprehensive LCA that compares our mono-material, PCR HDPE carrier handle to various alternatives that exist in the marketplace. Our LCA shows, conclusively, that switching to a fiber-based carrier handle is not only worse for the environment but also does not perform nearly as well as our PCR HDPE carrier handle. In almost every category, our product provides both economic and environmental advantages over the alternative.

*Paktech rHDPE handles have the lowest potential environmental impacts as this design has the lowest material mass and consists of 100% Recycled Content. The PakTech rHDPE handle, has the overall lightest weight packaging option, and is associated with the lowest climate change impact.*

*The results show that if beverage manufacturers were to switch from paperboard carton or carriers to PakTech recycled rHDPE handles, they would reduce the potential environmental impacts of beverage can packaging. The paperboard products measured are generally associated with the highest potential environmental impacts.<sup>11</sup>*

Further, we ask that before a producer switch from plastic to an alternative material to be eligible for eco-modulation fee adjustments, they be required to perform a life cycle analysis and send a copy of the results not only to CAA but to DEQ and make such life cycle analysis open to public review. We believe that often times producers will make a switch away from PCR plastic resins to other alternatives because it “feels” or “seems” like such a switch would be better for the environment when in actuality, the switch can be much worse. We believe the public has a right to know how such material substitutions can amount to nothing more than greenwashing. As such, we ask CAA to include the following language in their program plan:

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<sup>11</sup> Sphera, *Comparative Life Cycle Assessment of Beverage Packaging*, May 2023, 3.

- 1) A producer shall conduct a life cycle analysis before performing a plastic source reduction or substituting an alternative material for an existing plastic being utilized in a product and shall utilize the following factors:
  - a) The life cycle analysis shall conform to ISO 14044 LCA and a critical review of no less than three (3) qualified reviewers be conducted.
  - b) Such life cycle analysis shall take into account the following criteria:
    - i) Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle (Cradle to Grave)
    - ii) Acidification [mol H+eq]
    - iii) Eutrophication, freshwater [kg P eq]
    - iv) Eutrophication, terrestrial [mol N eq]
    - v) Respiratory inorganics [disease incidences]
    - vi) Photochemical ozone formation, human health [kg NMVOC eq]
    - vii) Resource use, fossils [MJ]
- 2) Any life cycle analysis that is conducted by a producer shall be filed with both Circular Action Alliance and the Department of Environmental Quality along with a justification that the material substitution will provide significant benefits to the environment, not harm any responsible end market, and will provide significant reductions in virgin plastic production.

- CAA Should Provide a Tiered Level of Benefit When Developing the Fee Structure.

We believe that in formulating a graduated fee structure, CAA needs to dig deeper than just looking at PCR content or an LCA analysis. They should look at the manufacturer from a holistic point of view and develop criteria that looks at the company's manufacturing process, the steps they are taking to ensure their product is recyclable, and other factors such as those CAA has included in the "Equity" section of the program plan.

We have been using PCR HDPE resin in the manufacture of our product since 2012. We use PCR feedstocks not for an economic benefit, often times PCR is more expensive than virgin feedstocks, but because we believe in sustainability and that it is the right thing to do. We believe that our customers should benefit from this and receive a higher benefit than those manufacturers who will switch to PCR only after the RMA goes into effect. We have borne the brunt of supporting the recycling industry not only during the good times, but during significant market downturns. Our loyal customers that have supported us, while we supported the recycling industry, should receive a higher level of benefit in



the form of eco-modulated fees. Therefore, we believe CAA should not only use the fact of PCR being used, but the how long the manufacturer has been using PCR in formulating the level of benefit.

In addition to using PCR content, we have done everything possible to ensure our PCR HDPE handles are considered recyclable. We have used APR's design guide and the How2Recycle Label as touchstones to ensure our product can be recycled. Additionally, we manufacture our handles out of a mono-material PCR HDPE to ensure it can be included in several ISRI scrap specifications. And, most recently, we have perfected a formulation for our inks and dyes to ensure they are IR-detectable and can be picked up by optical scanners used by MRFs. All this is to say we are doing everything possible to ensure our product can be considered recyclable. We believe that CAA should use such factors when developing their graduated fee schedule and reward those manufacturers that have had a history of "doing the right thing" over those manufacturers that are only now being forced to be recyclable not because they want to, but because the RMA is forcing them to do so.

#### **CONCLUSION:**

While we understand there are certain gaps in the CAA Program Plan due to DEQ not releasing its second round of rulemaking, we believe the plan submitted is a good one and has shown how the RMA can work.

We support CAA and its plan and hope that with a little revision the plan will prove to be a model for the other states that have passed extended producer responsibility legislation. We look forward to working with CAA and DEQ in the future and stand ready to provide additional feedback and input as this process moves forward.



## Appendix

### Referenced Documentation





July 11, 2022

To: the Minister of Environment for Canada

And to: the Minister of Environment for British Columbia

**Re: Recyclability Statement in Support of PakTech Carriers**

We write this letter in support of PakTech Carriers and their efforts to validate their design for recyclability and effectiveness through our recycling facility.

The Merlin Plastics Group of companies is Canada's largest plastics recycler with our head office located in Delta, BC. We have been in business for over 30 years and employ more than 120 full time staff in Canada.

PakTech Carriers are made from Conventional Rigid Plastic, namely 100% rHDPE #2 (Post-Consumer Recycled High Density Polyethylene). They are also 100% recyclable using today's recycling technology. We also note the following in regard to such Carriers:

- There is no Multi-Layering of material types
- There are no toxic chemical additives
- There are no bio/oxy-degradable additives
- There are no barriers to increasing recycling rate or disruption of recycling process
- They have the same rigid plastics material construction as HDPE Bottles (e.g. Milk Jugs, Pails, Containers, etc.)

Merlin Plastics has been accepting and recycling PakTech Carrier's for over 10 years and can attest to the recyclability of their products through our recycling systems. Due to being made from 100% HDPE #2, they are considered a high value material for recovery due to having the proper design construction. This ensures they are easily separated and reprocessed using current recycling technology for use with HDPE material.

PakTech products are currently being recovered from the following waste stream(s):

- Provincial or municipal recycling systems
- PakTech Recycling Partners

**Merlin Plastics Supply Inc.** 109 – 917 Cliveden Avenue, Delta BC V3M 5R6 CANADA  
[www.merlinplastics.com](http://www.merlinplastics.com) ; phone: 604-522-6799

If you have any questions, please do not hesitate to contact us.

Yours truly,

**Merlin Plastic Supply Inc.**

Per: Tony Moucachen, President

c.c. PakTech





# Sortability Analysis Report

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## PakTech Handle Sortability Testing

Analysis conducted to monitor the flow of PakTech handles through a Material Reclamation Facility (MRF) sorting line with the objective to determine the sort-ability of PakTech products collected through curbside collections through the comingled material stream.

Results of the testing demonstrate that PakTech products collected curbside in the commingle recycle material stream will be properly sorted, identified and designated for the HDPE recycled material stream.

### Summary of Results:

- 65% of the handles were initially diverted to the container line for resin identification and recycling.
- 35% ended up into the residual stream where they are sorted again from other residual materials and diverted accordingly.
- There were no indications of handles remaining in other material streams after final sortation.

# Sortability of PakTech Handles at Pioneer Recycling

**Testing conducted:** 11/07/2022

**In attendance:**

Gary Panknin (Sustainability Officer)

Greg Ryan (Chief Operating Officer)

**Purpose:**

Analysis conducted to monitor the flow of PakTech handles through a Material Reclamation Facility (MRF) sorting line located in Oregon.

The facility (Pioneer Recycling) located in Portland, Oregon was chosen to test the handles collected through commingled curbside collections and monitor how they flow through the sortation process.

The objective was to determine whether the shape and size of PakTech handles create problems through the sorting lines, where they end up through the process, and potential of contaminating the fiber line.

**Concerns / Questions by DEQ (Justin Gast):**

If a MRF is operating an optical sortation unit and it's programmed to recognize HDPE, that unit should have no problem recognizing the carrier on the container line. Additionally, if the carrier made it past the sortation unit, but the facility was operating a robotics unit for QC purposes, then, once again, that carrier should be successfully captured by the robotics unit, because if you program the unit to recognize and pick HDPE can carriers, that's exactly what it will do.

I'm not as worried about whether or not technology will detect the carriers once on the container line. The bigger question we have concerns movement of the material at the front end of the system.

1. If PakTech handles were to be presented on any given pre-sort line at any one of Oregon's current MRFs, where would those handles end up?
2. What percentage would actually end up on the container line, where they could be captured successfully by an optical or robotics unit?
3. What percentage would end up in the fiber stream?
4. What percentage would end up in the residual stream?

**Methodology Used:**

Introduce handles at the front end mixed with commingled material (on the tipping floor), to simulate products being received in the comingle collection stream. Monitor the handles as they travel through the sortation process and identify which lines they progress through.

**NOTE:** Although they were mixed with other materials, the volume being introduced would likely be less when actually collected during the collection routes.

**Handle Material:**

Recycled Thermoplastic Polyethylene from Milk, Water, Juice and Other Un-pigmented Household Containers

Base Resin: 100% HDPE #2 – Bottle Grade High Density Polyethylene

MELT INDEX: 0.60-0.85 g/10min

DENSITY: 0.958 - 0.965 g/cc

**Test Results:**

- 65% of the handles went to the container line and were successfully diverted away from the fiber stream altogether.
- 35% ended up on the fiber line, which were then detected and diverted to the residual stream.
- The 35% diverted from the fiber stream, would then be sorted from the residual stream.
- There were no indications of handles remaining in the fiber stream after sortation.

This demonstrates that even if some handles do advance to fiber lines, existing optical and manual sortation systems in Oregon will successfully identify and divert such material accordingly. The risk of contaminating other recycling streams is negligible, if a risk exists at all.

Based on this analysis, the currently established sorting system at Pioneer Recycling supports the satisfactory movement of PakTech handles through the system, ensuring PakTech handles move to the container stream and do not contaminate the fiber stream.

**Observation:**

Although, it was observed that the PakTech handles were properly identified and successfully removed from the fiber line, an MRF such as Pioneer, would benefit from having a mechanism in place at the front end of the system (such as optical sortation) to add an additional layer in the initial separation process. This would aid in the prevention of materials entering the wrong material streams.



On behalf of PakTech

# Beverage Packaging

# Comparative LCA Report

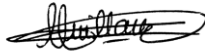
**Client:** PakTech  
**Title:** Comparative Life Cycle Assessment of Beverage Packaging  
**Report version:** v1.0  
**Report date:** 05/10/2023

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On behalf of Sphera Solutions, Inc. and its subsidiaries

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05/10/2023

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05/11/2023

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# Life Cycle Analysis (LCA)

The life cycle assessment (LCA) study has been conducted according to the requirements of ISO 14044 (ISO, 2006) and compares the environmental performance of PakTech’s beverage packaging handle designs to two competing paperboard designs.

This study considers the full life cycle of the beverage packaging product, from cradle-to-grave. This includes recycled HDPE pellet procurement, plastic handle production, forestry management and logging, paperboard production and conversion into finished beverage packaging, distribution packaging, filling, end of life, and transport at all stages in the life cycle.

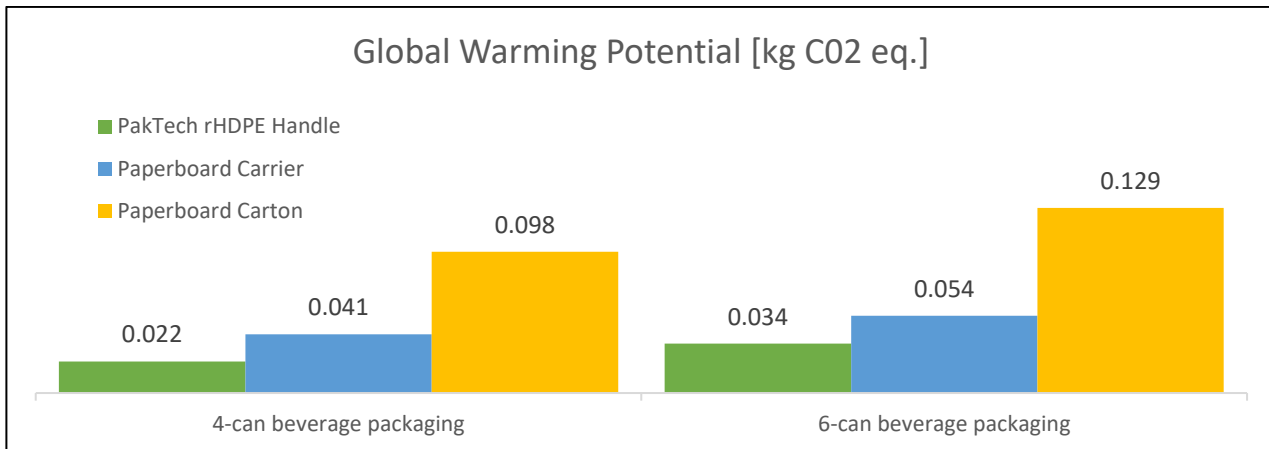
Overall, the PakTech rHDPE handles have the lowest potential environmental impacts as this design has the lowest material mass and consists of 100% Recycled Content. The PakTech rHDPE handle, has the overall lightest weight packaging option, and is associated with the lowest climate change impact.

The results show that if beverage manufacturers were to switch from paperboard carton or carriers to PakTech recycled rHDPE handles, they would reduce the potential environmental impacts of beverage can packaging. The paperboard products measured are generally associated with the highest potential environmental impacts.

- PakTech products have the lowest potential environmental impacts.
- PakTech products have the lowest Carbon Footprint at .022 to .034 kg CO2 eq.
- The Global Warming Potential is ~2-5 times lower than the paperboard alternatives.

Climate change results per functional unit [kg CO2 eq]

	4-can beverage packaging			6-can beverage packaging		
	PakTech rHDPE handle	Paperboard carrier	Paperboard carton	PakTech rHDPE handle	Paperboard carrier	Paperboard carton
Production	0.0159	0.0201	0.0482	0.0249	0.0264	0.0634
Packaging	0.0021	0.0108	0.0259	0.0033	0.0142	0.0341
Filling	0.0002	0.0006	0.0015	0.0004	0.0008	0.0019
Transportation	0.0005	0.0009	0.0023	0.0008	0.0012	0.0030
End-of-life	0.0032	0.0085	0.0205	0.0050	0.0112	0.0270
<b>Total</b>	<b>0.0220</b>	<b>0.0410</b>	<b>0.0983</b>	<b>0.0344</b>	<b>0.0538</b>	<b>0.1290</b>



## LCA Executive Summary

The life cycle assessment (LCA) study has been conducted according to the requirements of ISO 14044 (ISO, 2006) and compares the environmental performance of PakTech’s beverage packaging handle designs to two competing paperboard designs.

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- **PAKTECH PRODUCTS HAVE THE LOWEST POTENTIAL ENVIRONMENTAL IMPACTS.**
- **PAKTECH PRODUCTS HAVE THE LOWEST CARBON FOOTPRINT AT .022 TO .034 KG CO2 EQ.**
- **THE GLOBAL WARMING POTENTIAL IS ~2-5 TIMES LOWER THAN THE PAPERBOARD ALTERNATIVES**

### CLIMATE CHANGE RESULTS PER FUNCTIONAL UNIT [KG CO2 EQ]

	4-can beverage packaging			6-can beverage packaging		
	PakTech rHDPE handle	Paperboard carrier	Paperboard carton	PakTech rHDPE handle	Paperboard carrier	Paperboard carton
<b>Production</b>	0.0159	0.0201	0.0482	0.0249	0.0264	0.0634
<b>Packaging</b>	0.0021	0.0108	0.0259	0.0033	0.0142	0.0341
<b>Filling</b>	0.0002	0.0006	0.0015	0.0004	0.0008	0.0019
<b>Transportation</b>	0.0005	0.0009	0.0023	0.0008	0.0012	0.0030
<b>End-of-life</b>	0.0032	0.0085	0.0205	0.0050	0.0112	0.0270
<b>Total Carbon Footprint</b>	<b>0.0220</b>	<b>0.0410</b>	<b>0.0983</b>	<b>0.0344</b>	<b>0.0538</b>	<b>0.1290</b>





# Life Cycle Analysis (LCA)



## COMPARATIVE ANALYSIS



PakTech 100% Recycled HDPE



Generic Paperboard Carrier



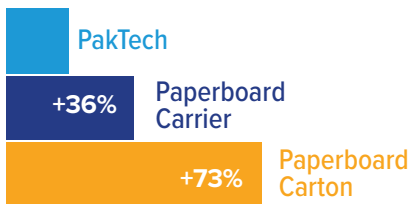
Generic Paperboard Carton

## Cradle-to-Grave LCIA Results - 6 Pack - Normalized to the rHDPE handle

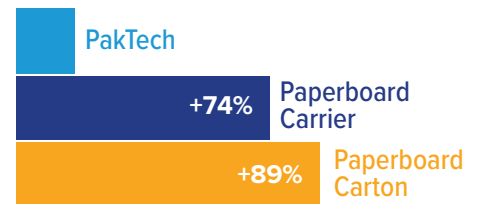
The charts below reflect the environmental impact % increase of paperboard vs. PakTech



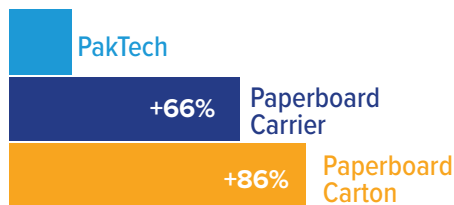
CLIMATE CHANGE



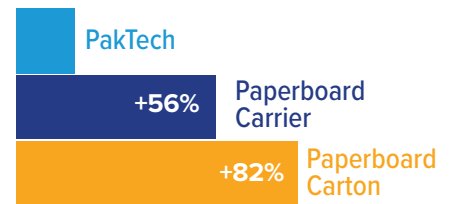
HEALTH IMPACTS



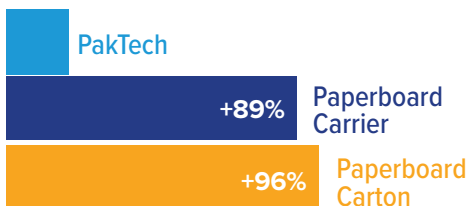
ACIDIFICATION



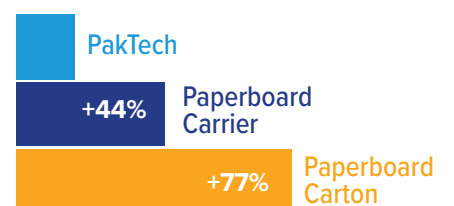
SMOG AIR



EUTROPHICATION



ENERGY DEMAND



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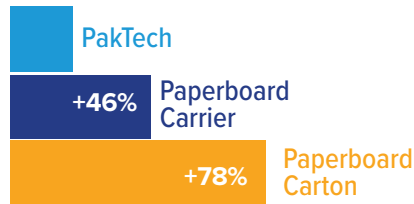


## Cradle-to-Grave LCIA Results - 4 Pack - Normalized to the rHDPE handle

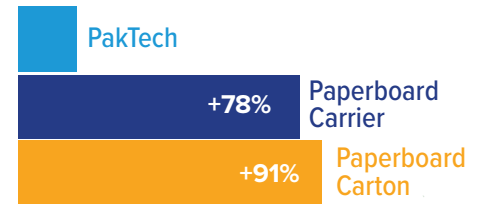
The charts below reflect the environmental impact % increase of paperboard vs. PakTech



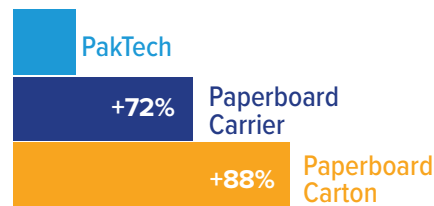
CLIMATE CHANGE



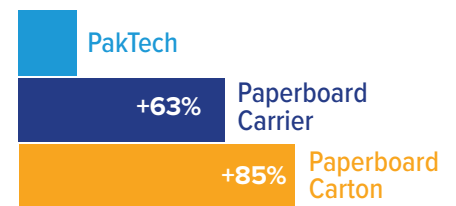
HEALTH IMPACTS



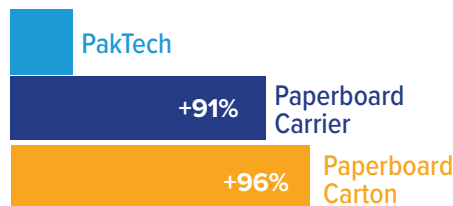
ACIDIFICATION



SMOG AIR



EUTROPHICATION

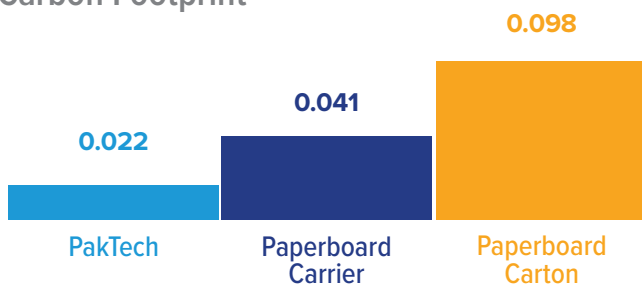


ENERGY DEMAND

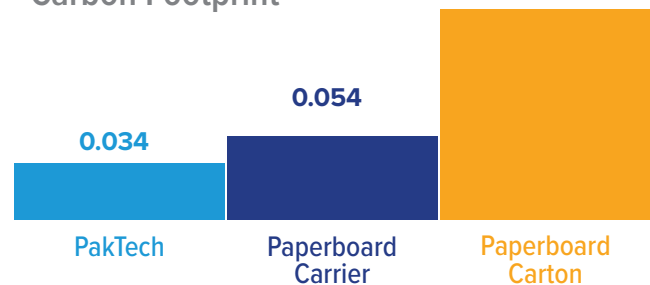


## Global Warming Potential - {kg CO2 eq.}

4 Can Beverage Packaging Carbon Footprint



6 Can Beverage Packaging Carbon Footprint



### Results:

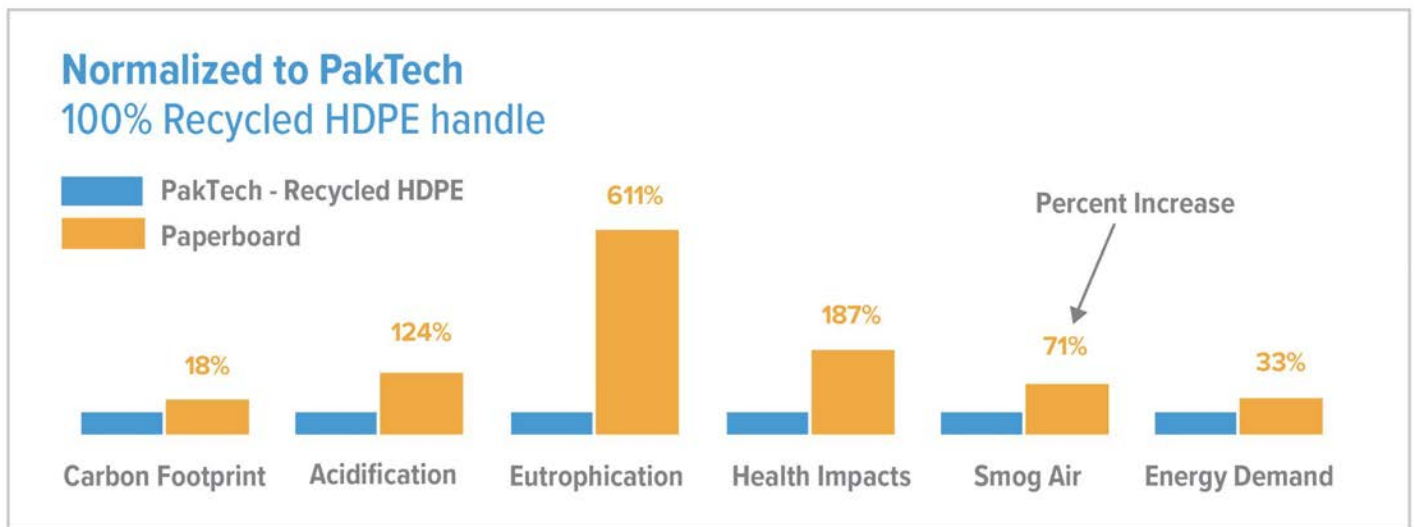
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- PakTech products have the lowest Carbon Footprint at .022 to .034 kg CO2 eq.
- The Global Warming Potential is ~2-5 times lower than the paperboard alternatives.

## Gram for Gram Comparison Results

Environmental Impact Category	PAKTECH - 100% RECYCLED HDPE	PAPERBOARD ALTERNATIVE
Climate change, excl. bio. CO2 [kg CO2 eq.]	0.00176	0.00207
Acidification [kg SO2 eq.]	0.0000044	0.0000098
Eutrophication [kg N eq.]	0.0000003	0.0000024
Human Health Impacts from Exposure to PM [kg PM2.5 eq.]	0.0000003	0.0000009
Photochemical Smog Formation [kg O3 eq.]	0.0000800	0.0001369
Primary energy demand, non-renewable [MJ]	0.017	0.023





THE BUREAU OF  
**PLANNING &  
SUSTAINABILITY**

May 31, 2024

Oregon DEQ, Nicole Portley  
700 NE Multnomah Street, Suite 600  
Portland, Oregon 97232-4100  
[rethinkrecycling@deq.oregon.gov](mailto:rethinkrecycling@deq.oregon.gov)

Re: CAA Pro Plan Public Comment

Dear Nicole,

Thank you for the opportunity to submit comment on the Circular Action Alliance (CAA) draft Producer Responsibility Organization (PRO) Plan related to implementation of the Plastic Pollution and Recycling Modernization Act (PPRMA). We are grateful to DEQ staff and Recycling Council members for their tireless work in moving PPRMA through its implementation phase.

Portland's Bureau of Planning and Sustainability (BPS) staff have reviewed the CAA plan and have attended PRO plan subcommittee meetings. Our commitment and priorities are grounded in equity, including opportunity to access recycling, protection of workers in the recycling system and communities that are home to processing and recycling facilities. Our commitment is also based in protection of our natural resources and reduction in materials impacts at all stages of the lifecycle, in particular greenhouse gas emissions and toxics.

Portland is home to 652,000 Oregonians--15% of the state population--and provides jobs for an even greater percentage of the population. Portland is also home to a racially and socio-economically diverse community with the densest urban spaces in the state.

For several reasons, BPS advocates that CAA and DEQ prioritize retention of items on the Uniform Statewide Comingled List (USCL) and expansion of the USCL. Therefore, we support components of the



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Traducción e Interpretación | Biên Dịch và Thông Dịch | अनुवादन तथा व्याख्या | 口笔译服务 | Устный и письменный перевод | Turjumaad iyo Fasiraad | Письмовий і усний переклад | Traducere și interpretariat | Chiaku me Awewen Kapas | 翻訳または通訳 | ການແປພາສາ ຫຼື ການອະທິບາຍ | الترجمة التحريرية أو الشفهية | [Portland.gov/bps/accommodation](http://Portland.gov/bps/accommodation)

PRO plan and PPRMA rules that would allow us to maintain more, if not all, our community's recycling acceptance list and bring new materials to the USCL by July 1, 2025.

One set of reasons for this stems from our goal that residents of multitenant properties experience recycling to be as convenient and accessible as residents of single-family homes. Like many cities, Portland has a growing population living in multitenant settings, where there are often space constraints on site and where tenants may not have convenient transportation to collection points or depots proposed for PRO materials. This shift is supported by city policies to allow and encourage infill housing, which is also a goal of the state.

One complement to USCL expansion, depots, presents challenges with siting and will be perceived by residents and businesses as significantly *less* convenient, particularly for materials on our current acceptance list. For some residents, relying on transit to move bags of PRO materials is not an attractive option for them or other transit users.

Another alternative, new on route containers to capture materials not yet proposed for the USCL, may be an option but could also come with greater complexity in sorting, and logistical and space challenges—not only at multitenant properties but also in 'middle' housing and dense single-family neighborhoods. Deploying new collection for PRO materials that are also prospective USCL materials raises questions about the timeline for a transition and the lifespan of investment. BPS is committed to exploring this option with CAA, our collection providers, and our partners in the Metro region, while noting that these solutions need to work for multitenant residents.

A second reason to retain materials on the USCL that are currently accepted for recycling in our community is that some of these materials have significant value and collecting these materials via on route collection is feasible, markets exist, and the sorting capability exists and will improve. For example, BPS recommends that aluminum pressed products and non-hazardous aerosols be included in the USCL. The removal of these materials from our co-mingled containers will be confusing and potentially short-lived. Instead, for these materials, let's focus on improved sorting at CPRFs.

A final reason to retain materials on the USCL that are currently accepted in our region is that we believe the currently proposed USCL does not adequately account for behavioral inertia and the cost to implement changes, particularly when they should be short-lived. Noting that CAA and we anticipate most if not all current materials being part of the USCL, pulling materials off the acceptance lists for almost half our state's population will incur significant outreach and technical assistance costs, undermine goodwill for recycling, and generate more confusion and 'contamination' than adherence. We understand the reasons that some materials we accept today are not currently proposed for the USCL but believe that for most of those materials, the reasons are not convincing over the alternative, to maintain them for acceptance via the USCL and improve the downstream systems.

Depending on the timeline for expansion of the USCL, Portland may seek to develop or participate in a pilot to maintain and add materials into our co-mingled containers that have been proven to have



responsible end markets and where sorting is expected to improve, and/or to test on route collection of PRO materials. A pilot could provide valuable continuity of customer access and provide a stream of materials to test and assess improved sorting outcomes towards statewide inclusion on the USCL.

We also continue to advocate that equity be infused throughout the implementation of the PPRMA and the PRO plan, including, but not limited to these outcomes:

- Rate payers should see decreases in rates due to investments in processing systems, and commodity risk and contamination funding; community members should not pay for PRO material collection.
- Education and outreach strategies that are culturally responsive and relevant, easy to understand, and accessible in multiple formats and languages.
- People living in multitenant buildings can access all aspects of the system.
- We address the needs of people of all ages and those with disabilities, in all residential formats.
- Facilities participating in the recycling system engage in efforts to support business development opportunities for local and COBID companies. Recycling investments are oriented towards opportunities for local economic and job development, particularly COBID companies.
- Transparency in the financial aspects of the system and responsible end markets protects both our ratepayers and communities that receive our materials for recycling.
- Substantial investments in upstream impacts and waste prevention and reuse opportunities to reduce the climate impacts of the recycling system.

We believe an ambitious approach is warranted to develop a recycling system that leads the country in delivering environmental benefits, equitable outcomes and earns the name of the legislation. We are grateful to DEQ for leading this process with short timelines and extraordinary effort. We've included a more comprehensive list of comments in the attached document. Thank you to CAA, DEQ and the Recycling Advisory Committee for all your work.

Sincerely,



Eben Polk  
Waste and Sustainable Materials Manager  
Bureau of Planning & Sustainability  
City of Portland



# Attachment to PRO Plan Comment Letter from BPS

May 31, 2024

These comments are organized into the categories used for the Recycling System Advisory Council subcommittees that have been organized for review of the PRO plan.

## Producer fees

1. Administration for contamination reduction funding to local governments needs to be simple and streamlined. This includes the process for accepting funding into local government budgets and reporting components of contamination reduction efforts. Let's strive for a process that automates this funding as much as possible while still meeting the need for alignment and reported outcomes. DEQ should consider directing CAA to place funds in accounts, or a simplified state-wide contract, that can be drawn down for contamination reduction activities pre-approved on a statewide basis.
2. PRO funding for upgrading equipment at CRPFs needs to be transparent. Information about how the funds are spent needs to be accessible to the public.
3. It is not clear how the existing Opportunity to Recycle planning and reporting process comes into play in delivering funding to local governments for system expansion or contamination reduction (page 31 of the draft). Let's design a simple and streamlined process before determining its fit with other existing processes.

## System Expansion

4. The PRO plan refers to use of the wastesheds as an organizing principle for needs assessment and system expansion. While we do not oppose the idea that wasteshed-scale analysis can help organize this work (for example in siting depots that can serve multiple jurisdictions), cities and counties in our wasteshed will need and benefit from distinct investments. The three-county Metro wasteshed includes communities that vary widely in size, infrastructure, and programs.
5. We support exploration of producer funding for the collection of PRO acceptance list materials including potential funding in support of continued on-route collection of select materials. (page 32 of the draft)

## USCL On-ramp

1. At a minimum, we desire to maintain the current commingled list in our community during the time period when the establishment of a meaningful PRO material collection system is underway.



2. We recommend that the USCL include non-hazardous steel and aluminum aerosol packaging effective July 1, 2025. We also propose that aluminum foil and pressed foil products be included as these materials have been successfully collected in our system for many years. It should be noted that some businesses generate meaningful quantities of these materials including pressed foil products which should be sortable, and their exclusion from the USCL will be disruptive, inconvenient, and result in more material in the commercial waste stream. We understand that foil has been found to incinerate at the temperatures to which other aluminum packaging is exposed, however we believe that the material should remain accepted with the goal of improving sorting over time.
3. We support CAA's proposal to include spiral wound containers and blue/green PET bottles effective July 1, 2025.
4. We advocate for the inclusion of single-use plastic cups and poly-coated cups in the USCL effective July 1, 2025.
5. Feedback loops for contamination should be set up to provide local governments with information about what types of contamination are occurring as close to the time CRPFs receive material as possible.
6. PET Thermoforms (clamshells) should be more prominently addressed in the plan and considered for addition to the USCL sooner. July 1, 2027, is the current proposed date for PET thermoforms.

## Education

1. Use of a consistent color to signify co-mingled recycling containers, and recycling activity on outreach materials, has the potential to support contamination reduction and education efforts. If CAA chooses to encourage consistency in this area, we recommend blue for recycling as an emerging national standard.
2. We advocate for dedicated staff and tools at the state level to help the public navigate where to recycle and return different materials, potentially including:
3. A searchable database hosted by DEQ of drop-off locations for all material types, so residents and businesses can easily find the most convenient locations for them—this should identify locations not only for RMA materials, but other materials collected at locations. For example, such a platform could comprehensively include E-cycles, mattresses, bottle drops, and data supplied by local organizations operating depots. Ideally, the database would be available in multiple languages, and in a format that other entities' applications or webpages can automatically import.
4. A public hotline answered by multilingual staff with recycling expertise, available 7 days a week and until 7pm or 8pm in the evenings.





5. Use photos of waste items in education materials, rather than illustrations. We ask that all photos be copyright-free so we can use them without concern of copyright infringement.
6. We strongly support the proposed Education and Outreach plan and advocate for it to be fully implemented. We support:
  - a. Application of behavioral science research
  - b. In-depth audience research
  - c. Using rigorous evaluation to test effectiveness
  - d. Co-creating messaging with underserved specific communities
  - e. Following ADA guidelines for accessible educational materials
  - f. Tailoring messages to meet the needs of different audiences, including Multifamily, Business, Residential, and urban and rural areas of the state.
  - g. Providing template images and messaging to support a unified look and messaging across the state, but also allowing for customization by individual area's needs.

### Responsible End Markets

1. As we seek to protect workers in the recycling system and the communities where related facilities are located, DEQ should have oversight over third party verification bodies that are selected by CAA. BPS recommends that DEQ select the verification bodies and manage that work. Inspections should include a regular schedule of physically visiting locations that process covered products.
2. GPS location trackers need to have transparent reporting and monitoring for local governments and the public.
3. We suggest clarifying that CAA will support end markets for targeted materials that meet responsible market requirements at the lowest overall cost. (See item 2. Link to targets in the "Responsible End Market Development Guiding Principles" section on page 82)
4. Using glass as an aggregate needs to take into consideration environmental impacts and benefits. Remanufacturing glass containers from recycled glass may in some cases have less environmental benefit than other alternative uses of glass aggregate because glass aggregate may be able to substitute for other products that have a very high carbon intensity. Reuse also would perform better than recycling glass.
5. We support the commitments identified in the section "Equity in Responsible End Markets", page 116, and encourage more detail. What services or opportunities are contemplated here? How will CAA identify existing or potentially new COBID companies can provide these services?





Are there any companies that might provide services if given additional opportunities to invest and grow?

### PRO Depots

1. We concur with statements by CAA and DEQ that any PRO material on route collection services, should they be appropriate, must be implemented at no additional cost to customers.
2. Timelines for PRO materials that are expected to eventually be in the USCL need to be identified. This will inform the potential value of on route collection of PRO materials and shifting materials to the USCL as soon as possible will provide greater access to people living in multitenant buildings.
3. The term “valet services” needs to be defined. Also, the term “handicapped individuals” is not the preferred term of this group, people/customers with disabilities is preferred.

### Equity

1. We encourage CAA, perhaps with support and involvement from DEQ, to refine and operationalize the understanding of equity as it should inform PPRMA implementation and then use this to mature and build on the equity elements of the PRO plan.
2. We suggest the creation of an engagement plan to notify COBID companies of RMA-related opportunities and clearly establish a pathway for entry for work/business opportunities. Where feasible, consider setting goals for the percentage of work or service to be provided by COBID companies.
3. Investments in collection access and contamination reduction by CAA and by local governments need to keep multifamily properties and businesses at the forefront during design and implementation to ensure that we do not continue to perpetuate the differential experience of recycling access that these community members have often faced. Local governments receiving funding in these areas should ensure that they have plans to address these historic inequities.
4. Equity-related implementation should be focused on the diverse needs of all Oregonians, not just in the Metro region.



**Comment by: Potential Industries**

*Comment submitted as text in email body – 5/29/24, 3:28 p.m.*

Hello DEQ staff – these comments are from Dan Domonoske at Potential Industries, a CA MRF with 30 years experience sorting and marketing post consumer materials. Although we are not domiciled in OR, we have and continue to participate in the evolution of PRO developments in CA, OR, and CO. Thank you for taking the time to review the following public comment:

**Program Plan**

p7 “graduated fee algorithm” – the introduction should be shared and evaluated by not only OR stakeholders, but also those in CA and CO as well. As the PRO for OR CA and CO, CAA will continue to harmonize and “nest” where possible. The algorithm itself needs to be established collaboratively so that it is both transparent and effective. This can be further refined from the CO needs assessment which had 4 criteria evaluated on a scale of 1-4. That scale can be improved and simplified so that, for the purpose of determining MRF Recyclability, it consists of two components: sortability and marketability. This aligns with the first objective of the program found on page 10

p11 adding materials to the USCL – materials and markets change, so it is appropriate to recognize that in addition to adding materials to the list, that there is an awareness of an opportunity to remove materials from the list

p24 No Cross Subsidization – please clarify that this concept also applies to material types, so that fees from items which are easily recycled in a MRF are not subsidizing items which are difficult, challenging, or not practical to recycle in a MRF

p52 PE Film Packaging – please refer to reports from the Recycling Partnership and the CA Statewide Commission, which clearly explain why this material is not appropriate for MRFs. There are plenty of opportunities for this material to be recycled, such as Depots or reverse logistics in a manner similar to cardboard.

p56 Materials Strategy – it is critical that there be a clearly defined objective criteria to measure the feasibility of adding materials to the USCL list, and that this be practical, reasonable, and financially viable

p58 practicalities of sorting – CA not only has vast experience with PET thermoform, but also with PE film and plastic bags as well. When CAA considers investments to pay for MRFs to do things they otherwise would not do, it is important to do so cautiously and carefully.

p61 Spiral Wound Containers – There are many types of containers, and their recyclability varies considerably depending on the % composition of paperboard, plastic, metal, and multi-material (example paperboard laminated with plastic or metal). Many spiral wound containers have a steel content of less than 50%, and as such are not practical for use in re-manufacturing steel.

p62 Polycoated Gable-Top Cartons and Aseptic Cartons – This material, when included in mixed paper, is not recoverable by paper mills in Asia. According to information from the DEQ, mixed paper is primarily destined for export to Asia.

p66 Polycoated Paper Packaging – Please ensure the proposed trials are done with sufficient advance notice so that interested stakeholders, both within OR and nearby states, can be engaged in the process. The solution to pollution is not dilution – in other words, high quality sorted commodities should not suffer, either in terms of viable markets or reduced price, by being forced to add undesirable materials to their pack.

### **Appendix A Definitions**

p2 Commingled recycling processing facility – it is clear that they perform two essential functions, sorting and marketing. All USCL a MRF should be evaluated by their by their sortability and marketability, and this evaluation can be used as a basis for determining ecomodulated fees.

p10 Ecomodulate/Ecomodulation – the financial incentives must be sufficient to force packaging designers/engineers to fundamentally improve the packaging, and only after those changes are made can MRFs be upgraded to improve sortability and marketability of materials. It is essential that the process start with changes in packaging itself, and not simply assume that existing packaging can simply be forced into the MRFs

\*\*\*\*\*



May 31, 2024

*Submitted via electronic submission to [RethinkRecycling@deq.oregon.gov](mailto:RethinkRecycling@deq.oregon.gov)*

The Department of Environmental Quality (DEQ)  
Oregon Recycling Modernization Act  
700 NE Multnomah St.  
Suite 600  
Portland, OR 97232

Re: Public Comment to CAA's Producer Responsibility Program Plan

To Whom It May Concern:

Thank you for the opportunity to provide comments on the draft Producer Responsibility Program Plan (the "Plan") submitted by the Circular Action Alliance ("CAA").

Ridwell greatly appreciates and supports the goals and regulations adopted in Oregon's Recycling Modernization Act (the "RMA"). The goals set by the legislature in the RMA are ambitious, and appropriately so, as the future of our planet depends on all of us working together to begin to meaningfully reduce the harm we do to the environment each and every day.

The RMA appropriately prioritizes using existing systems wherever possible. The RMA also encourages the PRO to use "other arrangements" to increase recycling of covered products beyond the reach of the existing systems as outlined in ORS 459A.896(1)(d). The PRO Plan details how existing and proposed depots will be used to collect PRO Recycling Acceptance list material, but does not yet address in detail how "other arrangements" might be leveraged, other than a few references in the Plan to entities that provide supplemental reuse and recycling services today. Below we offer a few suggestions on building out the role that "other arrangements" can play to support the PRO and help the state reach these goals.

To address this, we propose some additional language to build out this aspect of the PRO's program:

First - we propose adding a new subsection (v) in section (b) of the Operations Plan. This new subsection (v) will establish a framework for the PRO's potential use of "other arrangements" to increase recycling rates to meet and exceed Collection Targets and drive the development of Responsible End Markets. While not the primary mechanism to recover PRO Acceptance Recycling List material, leveraging these "other arrangements", through both free

and supplemental paid programs allowed under OAR 340-090-0650(1)(b), would expand the PRO's programs to reach residents who are unable or unwilling to use the depot network.

Second - we propose adding a definition in Appendix A that defines the service providers that would be able to support "other arrangements for the collection of the covered product" as "Supplemental Service Providers." Other jurisdictions that have adopted EPR programs have established similar defined terms for these supplemental services (e.g. alternative collection systems) in their legislation and rules. For consistency, we also plan to propose adding this defined term to the Proposed Rules recently released for public comment.

Finally- in the enclosed Attachment we propose line item edits to select sections and references in the draft plan that we think help clarify how the PRO can utilize these supplemental services to meet its goals.

### **Proposed Additions to the Draft Plan** (suggested additions are bold and italicized)

#### **1. Page 55: Operations Plan**

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b. The PRO Recycling Acceptance List

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#### ***v. Other Arrangements for the Collection of Covered Products***

***As outlined in ORS 459A.869(1)(d), CAA will pursue other arrangements for the collection of covered products on the PRO Acceptance Recycling list, to increase the recovery, recycling, and reuse of covered products, and to meet Collection Targets. CAA intends to explore arrangements with specialized or subscription-based recycling services, offered by franchise haulers and supplemental service providers for the collection of covered materials on the PRO Acceptance Recycling List. CAA will ensure that its arrangements with the supplemental service providers for the collection of these materials will be managed and collected for recycling in accordance with the goals, standards, and practices of the RMA including the transfer of covered materials to responsible end markets and all reporting obligations to help the PRO calculate and meet Collection Targets.***

#### **2. Page 3 - 9: Appendix A Definitions**

***(1) "Supplemental Service Provider" means a recycling and reuse service provider, either franchise or non-franchise, that provides recycling collection of covered materials on the PRO Recycling Acceptance List.***

Thank you again for the opportunity to submit public comments and support the development of the PRO plan and the Department's overall efforts to reduce waste and protect our environment.

Sincerely,

A handwritten signature in black ink that reads "Caleb Weaver". The signature is written in a cursive style with a long horizontal flourish at the end.

Caleb Weaver  
Vice President of Public Affairs  
Ridwell

**Attachment A - Proposed Line Item Edits** (suggested additions/edits are bold and italicized):

**[1] Page 11: Objective 2: Increase the diversion of recyclable materials from disposal**

Program Goal Outcomes/Indications of Success

Create new and expanded opportunities for more Oregon residents (waste generators) to recycle a wider array of generated materials, including supporting enhancement of local collection services, ~~and~~ establishing convenient depots for additional material collection, ***and the use of other arrangements for the collection of PRO Recycling Acceptance list materials.***

Outcomes/Indications of Success

- PRO-assigned depot system established, meeting convenience standards and providing recycling opportunities for materials assigned for depot collection and impact on material recycling rates.
- Local government service expansion requests evaluated and funded according to prioritization guidelines resulting in new collection opportunities created for waste generators.
- Uniform Statewide Collection List (USCL) applied across the state to expand what is collected in commingled recycling, and steps taken by CAA to successfully add materials to the USCL.
- ***Expanded use of other arrangements for recycling opportunities for PRO Recycling Acceptance list materials to increase recycling rates and meet collection targets.***
- SIMs collection issues successfully addressed.
- Progress toward 2028 plastic recycling goals at the end of each program year.

Key Metrics

- PRO material collection and recycling rates in relation to plan targets.
- Consumer awareness and use of PRO material depots ***and other arrangements for the collection of PRO Recycling Acceptance list materials***
- Diversion rates associated with USCL materials.
- Extent of new SIMs collection efforts established.
- Tons of plastic materials sent to responsible end markets divided into tons of covered plastic products generated.

**[2] Page 38 - 39: Closing Gaps to Meet Convenience Standards**

“In these locations, CAA will explore one of three main options to fill the gap:

1. ***Utilizing franchise haulers or supplemental service providers to add*** Adding PRO materials to a curbside container service ***or other household pickup program***, separate from USCL collections and available at no cost to single family and multifamily

properties to meet and exceed the convenience standards. Property density, service provider availability, and economic viability will guide this option.”

### **[3] Page 42: Underserved Populations**

“The CAA team has also considered mechanisms for collecting PRO materials from residents that might not be able to access depot points. CAA will explore the possibility of providing valet services through *franchise haulers and supplemental service providers* currently servicing the area, many of which offer a *supplemental* form of subscription collection service, such as Recycle+, in metropolitan areas. The ~~contracted hauler’s~~ ability to offer valet services *utilizing these service providers* across the state will be explored as part of the proposed ORSOP. CAA proposes to develop eligibility criteria for these valet services. Some of those criteria could include that a resident is a recipient of Meals on Wheels, receiving home care services, and/or set-out/set-back assistance.

CAA proposes to consult with organizations representing aging and disabled populations to develop the appropriate criteria for eligibility and means to educate these populations about collection services available to them.

Just as CAA has been exploring working with an on route collection model for areas lacking sufficient depots, these collection methods are also being explored for collecting PRO and USCL materials for handicapped individuals via the same method. In the Portland area for example, CAA is exploring contracting with Trash for Peace to use electric vehicles (cars/vans/bikes) to serve mobility-limited populations within the city in addition to exploring similar services that may be offered by *franchise haulers and supplemental service providers*. ~~haulers.”~~

### **[4] Page 81-82: Supporting End Markets**

“CAA will maintain active market development programs for commodities and materials listed above and will take reasonable and practicable steps to facilitate the sale of collected materials to responsible end markets. CAA’s ability to facilitate the flow of materials to responsible end markets is predicated by the voluntary agreement of those entities that control the flow of those materials. Actions to support REM development may include:

- Providing technical assistance, brokerage services, and/or information on responsible end markets to materials marketers
- Purchasing and reselling materials that otherwise are not being sold to responsible end markets (under certain conditions)
- Providing wherever possible a supply guarantee to reclaimers so they can secure investments. CAA will focus on taking ownership of commodities lacking end markets
- Working in close collaboration with existing investors, market development program managers, such as The Recycling Partnership and Closed Loop Partners



- *Working in close collaboration with supplemental service providers that focus on the source-separation of material and partnering with small innovative recycling processors to foster responsible end market development.*
- Working in close collaboration with public sector market development programs, such as those in California and Washington
- Assessing leverage to promote recycled content in products to pull market demand”



May 31, 2024

To: Oregon Department of Environmental Quality (DEQ)

**RE: Proposed Program Plan for the Plastic Pollution and Recycling Modernization Act**

To whom it may concern:

Thank you for the opportunity to submit comments on behalf of Upstream regarding the draft packaging Extended Producer Responsibility (EPR) program plan submitted by Circular Action Alliance (CAA). Upstream is a US-based non-profit and leading change agency for the reuse movement in the US and Canada. We accelerate the transition from our current throw-away economy to one that is regenerative, circular and equitable by normalizing reuse, growing and supporting the reuse industry, and creating an enabling policy environment for reuse. We were also honored to have been one of the organizations appointed to the second Rulemaking Advisory Committee for the Plastic Pollution and Recycling Modernization Act (RMA), and appreciate this chance to provide further comments on the program.

**Packaging EPR programs like Oregon's represent a vital opportunity to scale reuse systems.** While decades of experience across Canada, Europe and elsewhere have demonstrated that EPR improves collection and recycling, its application to waste prevention and reuse is both a new frontier and an absolute necessity. These programs must emphasize source reduction and reuse over recycling if we wish to address the significant carbon footprint of everyday packaged goods - one of the greatest contributors to US greenhouse gas emissions when analyzed through a consumption-based lens.<sup>1</sup> **According to DEQ's own estimates, even flawless recycling implemented nation-wide could only deliver roughly one third of the necessary greenhouse gas emissions reductions we desperately need within the packaging sector to live within our planetary boundaries.**<sup>2</sup> Reduction and reuse are crucial strategies for filling in the gaps.

Oregon's first program plan is an early milestone that will set the tone for years to come. We appreciate the significant efforts of CAA in compiling this initial plan - the first of its kind in the United States.

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<sup>1</sup> US EPA, "Resources, Waste and Climate Change." Updated January 10, 2024.

<https://www.epa.gov/smm/resources-waste-and-climate-change>

<sup>2</sup> Oregon Department of Environmental Quality, *Background Document: Guidance on Ecomodulated Fees*, Plastic Pollution and Recycling Modernization Act (SB 582, 2021) Rulemaking Advisory Committee Meeting 5, Rulemaking 2. February 1, 2024. <https://ormswd2.synergycs.com/HPRMWebDrawer/Record/6587046/File/document>

Upstream

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[www.upstreamolutions.org](http://www.upstreamolutions.org) | (813) 445-8981

However, we feel that this first draft falls short of a robust consideration and incorporation of reuse. We have outlined our comments in detail below.

### **Overarching Tone**

It is clear from the very first page of the draft program plan that CAA has not taken a holistic approach to its program planning. The plan is entirely focused on recycling. The four "Goals of the Program" make no mention of upstream waste prevention, source reduction, or reuse:

- "1. Reduce the negative environmental, social, and health impacts **from the end-of-life management** of products and packaging.*
- 2. Increase the **diversion of recyclable materials from disposal**.*
- 3. Improve public participation, understanding and equity **in the state's recycling system**.*
- 4. Create a system that fulfills the needs and regulatory requirements of the PRO, its members, and all other relevant stakeholders."*

A similar focus on recycling is evident throughout descriptions of the key program elements within the Executive Summary, which once again make no mention of waste prevention, packaging redesign, source reduction, or reuse.

In a section of the plan outlining its "Materials Strategy," CAA includes the following note: *"CAA will uphold Oregon's materials management hierarchy, **specifically with regard to the third principle: recycle material that cannot be reused**, with preference given to recycling pathways, methods and responsible end markets that result in the greatest reduction of net negative impacts on human well-being and environmental health."* Here CAA is explicitly acknowledging a focus only on the third rung of the materials management hierarchy while entirely ignoring reduction and reuse - two far more beneficial interventions.

Not only are the overall tone and overemphasis on recycling throughout the draft program plan inconsistent with the demands of our global and national climate crisis; they are inconsistent with the goals of the RMA, which states upfront that *"It is the State of Oregon's policy to prioritize practices that prevent and reduce the negative environmental, social, economic and health impacts of production, consumption and end-of-use management of products and packaging across their life cycle, and that it is the obligation of producers to share in the responsibility to reduce those impacts"* (ORS 459A.860).

ORS 459A.896(2) states that *"A producer responsibility organization shall, to the extent practicable, ensure that covered **products collected in this state for the purpose of recovery** and described in ORS 459A.869 (7) will be:*

- (a) Delivered to responsible end markets;*
  - (b) **Managed according to the hierarchy of materials management** options under ORS 459.015 (2);*
- and*
- (c) **Managed in an environmentally protective way** through to final disposition."*

Oregon's materials management hierarchy clearly and explicitly places waste reduction and reuse above recycling and other downstream interventions, and recovery is broader than recycling alone. **A**

**best-in-class PRO that understands the full scope of the RMA, the severity of our climate crisis, and the significant economic, social, and environmental co-benefits of reuse systems will plan to use a portion of its program funds to build and/or retrofit shared statewide infrastructure that can accommodate an increasing market share of returnable reusable packaging from its member producers.** Such a forward-thinking PRO will of course also plan to provide technical assistance and resources to its members as they transition to reusables, helping them take advantage of the new shared system and infrastructure built with their pooled funds. Such a shared system should be complementary to and perhaps even interoperable with Oregon's existing high-performing deposit-return scheme, existing and expanding recycling collection and sorting systems, and any future uses of the state-managed Waste Prevention and Reuse Fund established under ORS 459A.950 (further mentioned below).

### **Eco-Modulated Fees:**

It is a statutory requirement in Oregon that eco-modulated fees are incorporated into the producer fee structure from the start. This has been discussed at length by the second Rulemaking Advisory Committee and was also noted by DEQ in its checklist for the Recycling Council's review of program fees.<sup>3</sup> In its initial draft plan, CAA has instead stated an intention to establish interim base fees and *"introduce a graduated fee algorithm to provide producers with practical and measurable criteria upon which to qualify for fee incentives and disincentives in future program plan amendments."*

We understand that eco-modulated fees are a relatively new concept to EPR legislation around the world, but even two or three years of simplistic base fees will have an impact on packaging design. Eco-modulation must be incorporated from the very start, with an understanding that the fee structure will be updated as often as annually and that adjustments will almost certainly be needed as CAA and producers learn from their efforts.

Additionally, while we appreciate that the RMA requires the fee structure to ensure that reusable packaging will only pay once upon exiting the market in Oregon, we note that it is also important to ensure that any fee structure proposed by CAA (or any PRO) incentivizes reusable packaging in practice by counterbalancing any weight-based metrics with discounts for reusables in high-performing systems. Reusables are typically heavier than disposables and therefore - without a proper counterbalance to account for their outsized environmental benefits - may end up being charged more than their disposable counterparts in a weight-dominated system. Even if this charge is only applied once, it must not be set at such a high level as to effectively disincentivize reuse. Please ensure this regrettable potential outcome is avoided at all costs by requiring CAA to include clear discounts for reusables into its eco-modulated fee structure. The one-time fee for any type of reusable packaging must be low enough to incentivize producers to choose reusables over disposables in practice. In other words, it must be abundantly clear to individual producers that they will be rewarded for choosing reuse.

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<sup>3</sup> Oregon Department of Environmental Quality, *Producer Fees: Base and Graduated Fees Checklist for Recycling Council program plan review*. Revised April 23, 2024.  
<https://www.oregon.gov/deq/recycling/Documents/orsacProdFees2.pdf>

### **Building reuse systems:**

CAA makes mention of reuse in a short section on page 47 of its proposed plan, as follows: “CAA will explore opportunities for supporting reusable packaging *at depot locations and events*. As depot locations and events will be staffed there may be opportunities for collection of reusable packaging.

*“If member producers express interest in introducing reusable packaging formats, CAA will work [with] those producers and other stakeholders to assess the logistics and operational requirements required to facilitate collection through the PRO depot system. This will likely require additional reverse logistics arrangements specific to refillable packaging. Depending on the status of the material in question, incorporation of reusable packaging into the PRO acceptance collection system may also require material reporting category changes and program plan amendments. CAA will work with producers to assess the full financial and operational implications of managing reusable packaging. Where appropriate trials may be implemented to assess feasibility.”*

Simply put, this vision is insufficient for the role that CAA should be playing in supporting its members to transition to reusable packaging. As we noted above, it is more than appropriate for funding from obligated producers under packaging EPR schemes to be used in direct support of reuse systems. If we were truly to align program funding with the materials management hierarchy and the goals of the RMA, the majority of funds would be directed toward source reduction and reuse and the leftovers would go to recycling those packages that couldn't be source-reduced or reused. In reality, we continue to see the legacy of an overemphasis on recycling manifest in emerging packaging EPR policies in the US.

**The best way to spend EPR funds when it comes to reuse is to build a shared reuse infrastructure across the entire state that enables producers to sell their goods in reusable packaging, and to provide technical assistance and active encouragement to producers (if not explicit enforceable targets, which are absent from the RMA) to help them make this necessary transition.** Without an efficient, interoperable, shared infrastructure (including collection points, transportation mechanisms, sorting and processing facilities, and cleaning operations), reuse will not scale. Just as we have acknowledged the injustice of placing the burdens of recycling systems on taxpayers through the onset of EPR policies for packaging; so too we must acknowledge that taxpayers should not be responsible for building reuse systems that will ultimately serve producers by accommodating the packaging they put on the market. Producers lack incentives to share infrastructure with their competitors, which is why pooling funds under an EPR scheme is an ideal opportunity to scale and maintain reuse systems.

Similarly, without active encouragement and incentivization by CAA, many producers will be slow to adopt reusables. Additional program funds can and should be used for technical assistance to support producers in transitioning their packaging to reusable formats that take advantage of the new shared infrastructure. Waiting for producers to express an interest in reuse is a lackluster and unambitious approach that will not achieve the goals of the RMA in the timeframe needed to address the climate crisis. Rather, CAA should be providing information on existing and emerging reuse facilities and packaging formats, leading efforts to harmonize and standardize reusable packaging across its member brands within distinct product categories, making connections and “matchmaking” members with reuse service providers, and overall strongly encouraging its members to choose reuse. Organizations like the

Reuse Industry Service Alliance (RISA), which Upstream plans to co-launch with ReLoop in the coming year, will be able to facilitate some of these services for CAA.

Collecting reusables at depots and events will not be sufficiently convenient to allow reusables to operate at scale and reflects a lack of systems-thinking on the part of CAA. **Returnable reusable packaging must be collected everywhere that recyclables are collected if the system is to be convenient and accessible to all.** There are several active pilots in the US and Canada working to demonstrate that commingled curbside collection of reusable packaging is not only logistically but also economically viable. There are also existing reuse service providers, such as EarthWare in Calgary, Alberta, that have begun to leverage existing DRS infrastructure to collect non-beverage reusables. Given Oregon's famously high-performing DRS, this is a ripe area for CAA to explore. We encourage CAA to look to the existing coordination between Recycle BC and Encorps Pacific as a nearby example of how EPR and DRS programs can collaborate to ensure all materials are collected and delivered to appropriate end markets.

As CAA makes investments into the expansion of recycling services statewide in Oregon, it should be ensuring those investments and any new infrastructure can accommodate an increasing market share of reusable packaging from its members. The vision laid out in CAA's section titled "Closing Gaps to Meet Convenience Standards," which includes exploration of on-route/curbside collection services for various covered materials beyond the universal statewide collection list, is a perfect example of the type of creative thinking that could be applied to collection of returnable reusable packaging. A siloed approach to reuse will not result in the high return rates necessary to optimize reuse systems for environmental and economic benefits.

Finally, we note that in its short paragraph on reuse, CAA has interchanged the terms "refillable packaging" and "reusable packaging." This is not best practice and we strongly encourage both DEQ and CAA to align all mentions of reusable packaging with Upstream's recommended definitions. Upstream generally defines reusable packaging as follows:

- **Returnable Reusable Packaging:** Packaging **designed to be recirculated** multiple times for the same or similar purpose **in its original format** in a **system** for reuse, that is **owned by producers or a third party** and is **returned** to producers or a third party after each use.
- **Refillable Packaging:** Packaging designed to be **refilled by consumers** multiple times for the same or similar purpose **in its original format**, and that is **sold or provided to consumers once** for the duration of its usable life.

#### **Regulatory Costs (Appendix E):**

In Appendix E, CAA used the word "potential" when referring to payments into the Waste Prevention and Reuse Fund, as follows: "*Regulatory costs include the Program Plan review fee, annual administrative fees payable to DEQ and **potential** CAA contributions to the Waste Prevention and Reuse Fund. As per ORS 459A.941, CAA's initial estimate has assumed annual contributions equivalent to 10% of its annual expenditures based on a rolling three-year average, starting in 2026. These estimates will be revised once RMA rules related to the calculation of these amounts are finalized.*" These payments are a mandatory component of Oregon's program and CAA should be planning accordingly. We request that DEQ require the word "potential" to be struck from this paragraph, perhaps using "estimated" instead if the intent is to acknowledge that the exact payment amounts are as yet unknown.

We also note that the Waste Prevention and Reuse Fund - an important component of the RMA - is not mentioned anywhere else in CAA's initial draft program plan. While we understand that these funds will be managed by OR DEQ, it would be prudent for CAA to anticipate potential uses of the Funds in its program plan. As mentioned above, a best-in-class PRO will be planning to invest in reuse systems and technical assistance across the state for its member producers. CAA should prepare to harmonize its own efforts on reuse with future expenditures from the Fund to optimize outcomes for all Oregonians.

**Measures to Protect Ratepayers from Increased Costs:**

Within a section titled "Measures to Protect Ratepayers from Increased Costs," CAA notes that *"New sources of producer funding directed toward recycling system improvements that should provide rate payer protection include... Producer funding for waste prevention and reuse projects designed to lower the environmental impact of covered products."*

We will end our comments by noting that we agree that diverting materials out of the waste and recycling stream through reuse is an opportunity to reduce ratepayer costs for recycling. We would welcome further elaboration on this vision by CAA and we hope to see a future draft of this program plan that demonstrates greater ambition and a comprehensive systems approach to achieve this end.

Thank you again for the opportunity to comment on CAA's first draft program plan for packaging EPR in Oregon. For any questions, please feel free to contact me at [sydney@upstreamolutions.org](mailto:sydney@upstreamolutions.org). We are more than happy to work directly with any DEQ or CAA staff to support the incorporation of a strong reuse vision into Oregon's packaging EPR program.

Sincerely,

Sydney Harris  
Policy Director  
Upstream



May 31, 2024

Nicole Portley  
Program Plan Lead  
Oregon Department of Environmental Quality  
[RethinkRecycling@deq.oregon.gov](mailto:RethinkRecycling@deq.oregon.gov)

Re: Comments on Circular Action Alliance Program Plan

Dear Ms. Portley,

Thank you for the opportunity to submit input on the Producer Responsibility Organization (PRO) Program Plan submitted by Circular Action Alliance (CAA). These comments are submitted jointly by the Oregon Winegrowers Association, Oregon Wine Council and Wine Institute. Many of our member wineries are subject to the requirements of the Recycling Modernization Act (RMA), and we therefore have a vested interest in ensuring the Extended Producer Responsibility (EPR) program is developed in a way that mitigates costs and reporting obligations for producers while encouraging recycling and reuse.

Overall, we have concerns that only one PRO filing a program plan does not lead to a competitive marketplace that was envisioned by the legislature to most efficiently and effectively manage the EPR program. However, we do appreciate CAA's willingness to meet with the wine industry on several occasions to share more details about the Program Plan, including initial cost estimates for glass, cardboard and other packaging utilized by wineries.

We write to raise several concerns and areas where additional clarity is needed as CAA and DEQ work together on the revised program plan.

**Cost:** Initial estimates given to the legislature pegged the cost of the RMA at around \$100 million. However, costs have ballooned with estimates of overall costs through the next biennium of \$925 million to \$1.2 billion. This is an incredible amount of money that will be raised and spent without any legislative oversight. We believe the Legislature would have significant concerns given these figures and do not believe the costs are sustainable for producers. What steps can CAA take to mitigate costs for producers? We understand there are several variables that are out of CAA's control when determining pricing such as program parameters set in the RMA, and costs associated with state agencies, local governments, and other relevant outside party fees. Sharing these factors and costs are important so those impacted can best understand how CAA arrived at its pricing, find solutions to mitigate or eliminate fees, and discuss the program's scope with policymakers.

While not part of CAA's required reporting, it's important to note these figures do not include requirements for the top 25 producers in each category who will need to pay for their own life cycle analysis which is projected to cost more than \$100,000 per producer.





Glass is the heaviest packaging input for wineries. According to our calculations, glass costs will be significant for covered wineries who will be responsible for covering the cost for exempted entities:

***First year (2025) estimated cost range:***

\$.16 -.27/bottle

***Second year (2026 and beyond) is an estimated 153% increase:***

\$.39 -.68/bottle

For context, the wine privilege tax equates to \$.11/bottle. The RMA program could be 6-fold that cost. This does not include membership fees, consultant fees, other third-party fees, and general administrative compliance costs. These costs are prohibitively high for covered producers and will greatly impact business profitability. We are also concerned that these estimates appear to reflect the cost of processing the material presuming all the material collected comes from producers paying into the system. We have inquired about the percentage of material that comes from covered producers compared to non-covered producers but have yet to hear any determination about the degree to which this burden shift will impact the per pound costs. This means producers subject to covering costs of all material in their category could be paying a much higher rate to cover the costs of producers under the established thresholds they are directly competing against. Additionally, the lack of any identified approach to determining who will and who will not be required to pay fees to the PRO based on their global sales leaves serious questions about how DEQ and the PRO will ensure the burden falls only on those being good actors and that the burden will be significantly higher than anticipated.

**Eco-modulation:** Many wineries have already undertaken significant steps in reducing their carbon footprint such as light weighting container packaging to the greatest extent possible without sacrificing wine quality/integrity and incorporating recycled content. The EPR program should recognize past and future sustainability packaging efforts and not penalize producers with higher fees because of the focus on container weight. We ask CAA to work with our industry how to best determine how eco-modulation may provide some cost relief by recognizing past and future efforts to reduce the environmental footprint for glass and other packaging.

**Flat fee tiers:** The RMA requires the PRO to charge uniform flat fees to low volume producers with gross revenues of less than \$10 million or covered materials sold for use in Oregon of less than 5 metric tons. Producers with supply over 5 tons but sales under \$10 Million would also be eligible for a flat fee. The PRO could apply the 2.5 to 4.999 ton rate or propose to create additional tiers above 5 tons for producers that sell less than \$10 million annually. We believe the inclusion of additional flat fee tiers would more adequately account for the actual cost of those materials in the system.

**Bottle Bill considerations:** The legislature afforded the wine industry the unique opportunity to determine whether wine bottles should be part of the EPR program or the Bottle Bill. Therefore, the PRO needs to anticipate and plan for possible inclusion of wine bottles in the Bottle Bill, which our three organizations support. However, CAA is assuming it will be responsible for collecting wine glass through



its depot system as of July 1, 2025. Since moving wine glass to the Bottle Bill will have cost and operational implications for managing remaining glass in the EPR system, CAA should be factoring this into their plans. Requiring producers to pre-register and start supplying data to the PRO in March 2025 would mean wineries may need to register with the PRO and supply data under this proposed rule in March 2025 and then ultimately would not need to join the PRO if wine bottles are added to the Bottle Bill during the 2025 session.

Should wine bottles remain in the EPR program, the PRO must address how unredeemed Bottle Bill materials inadvertently collected through the EPR program will be handled. It is important to note the lack of effective end market recycling options for glass in the plan along with the fact that inclusion of wine bottles in EPR will destroy the Oregon wine industry's ability to shift to refillable bottles in the future. We are concerned these issues could have a negative impact on the recycling rate of glass.

**Privacy:** Since the PRO intends to post life-cycle analyses (LCAs) on their website, which it is specifically required to do under the RMA, it is crucial to protect proprietary data included in the LCAs as a part of that process. In other instances where proprietary data is required, it should be similarly protected.

**Future Engagement:** Given the uniqueness of our product in which material selection, design, performance and the environment are all critical factors when it comes to the packaging used, we would request a wine industry seat on the CAA Board.

We appreciate the opportunity to comment on the initial Program Plan submitted by CAA. We look forward to careful consideration of our comments and questions as the revised program plan is developed.

Jana McKamey  
Executive Director  
Oregon Winegrowers Association

Fawn Barrie  
Executive Director  
Oregon Wine Council

Sally Jefferson  
Vice President  
Wine Institute