

Oregon's Recycling Modernization Act



May 18, 2022

Q&A Webinar

Request for Information – Evaluation of Life Cycle
Impacts

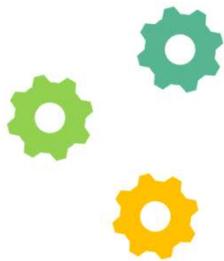
Agenda

- Presentation from DEQ (30 Minutes)
 - Introduction to Materials Management Program
 - The Recycling Modernization Act
 - Rulemaking for Life Cycle Impact Evaluation
 - Request for Information (RFI)
- General Question and Answer (30 Minutes)
- *As needed* – substantive/content discussion (30 Minutes)

Webinar Basics

- Questions?
 - Enter them into the “Q&A” control panel, or
 - Raise your hand if you would like to speak and we will unmute you
- Chat will be disabled
- Remain muted unless asking a question

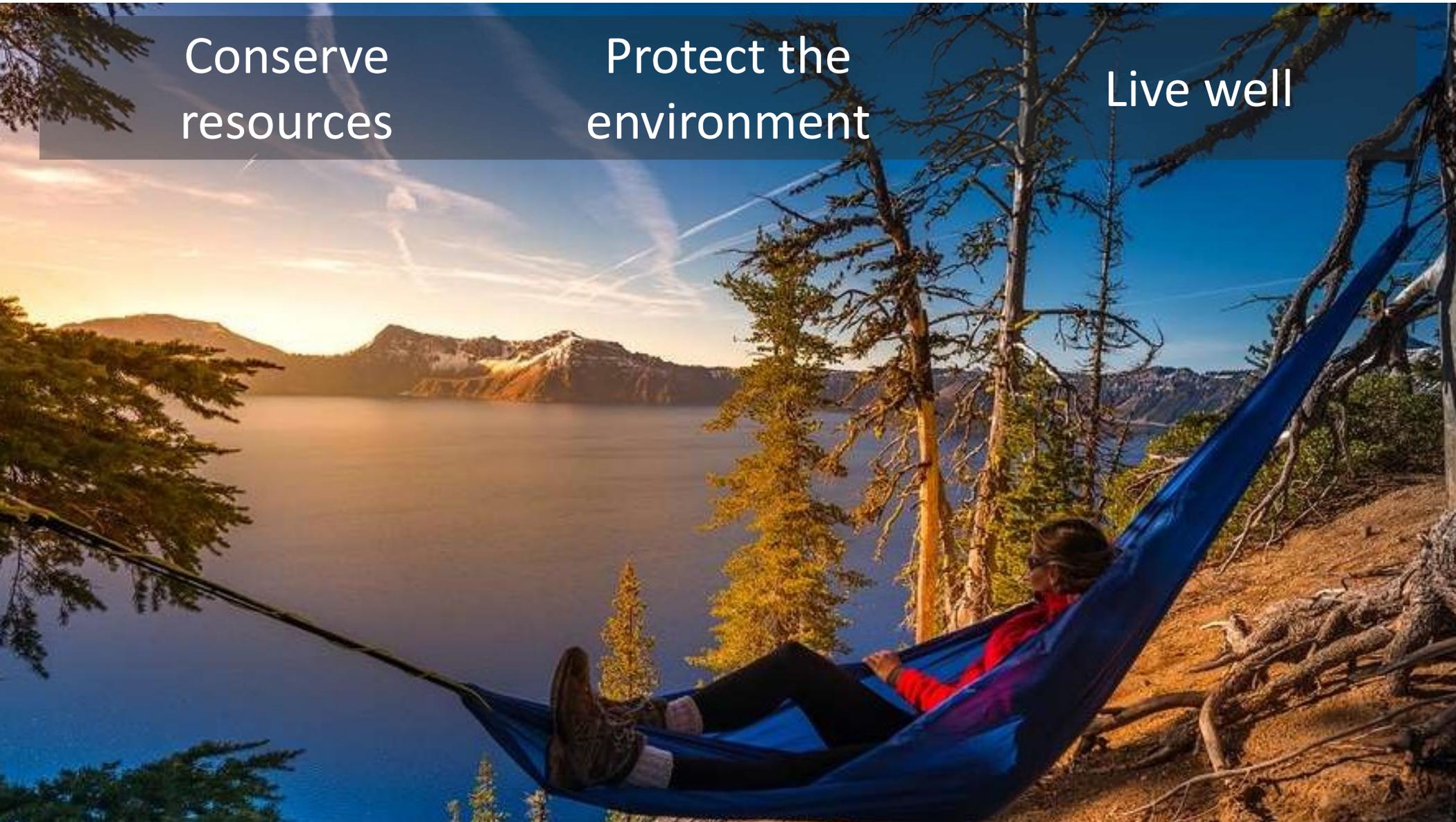
Introduction to Materials Management



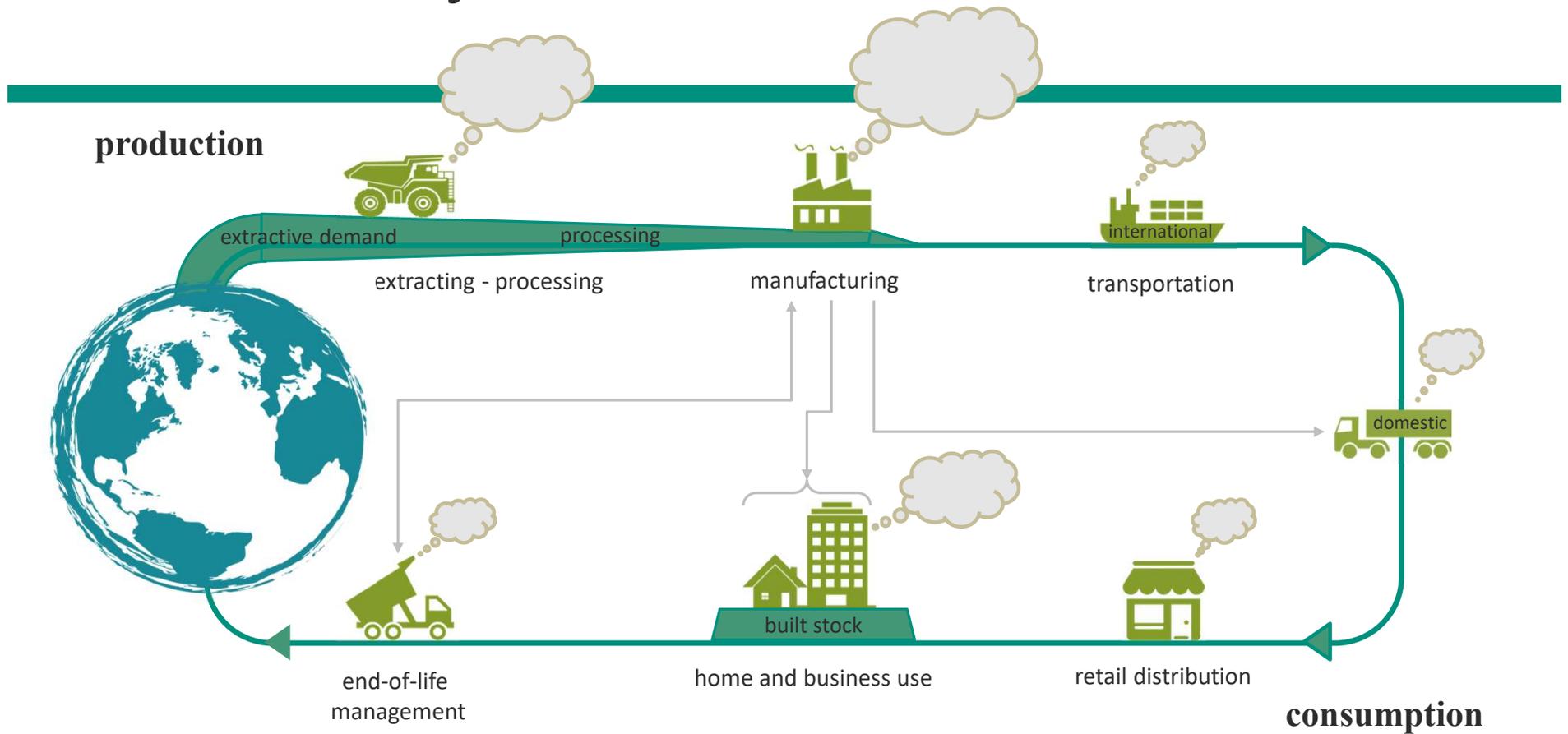
Conserve
resources

Protect the
environment

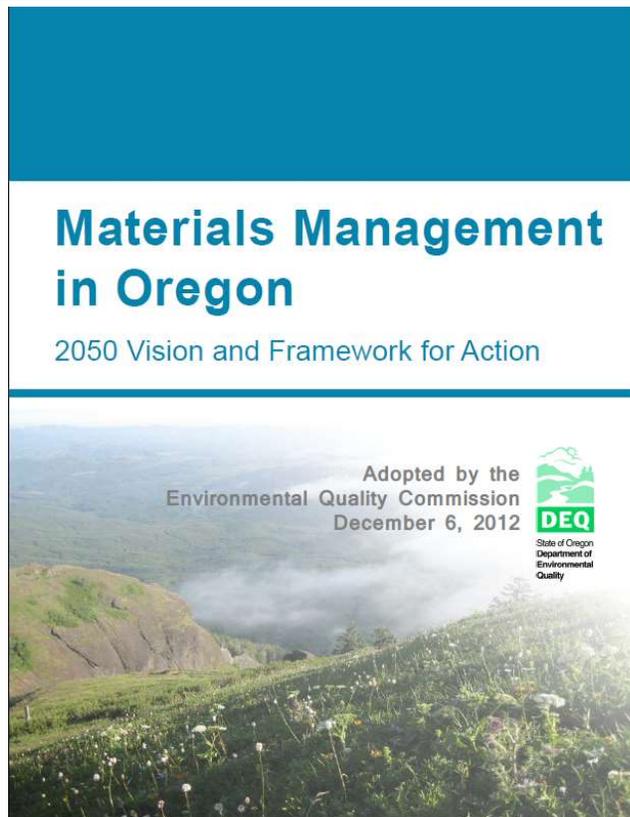
Live well



material life cycle



materials matter



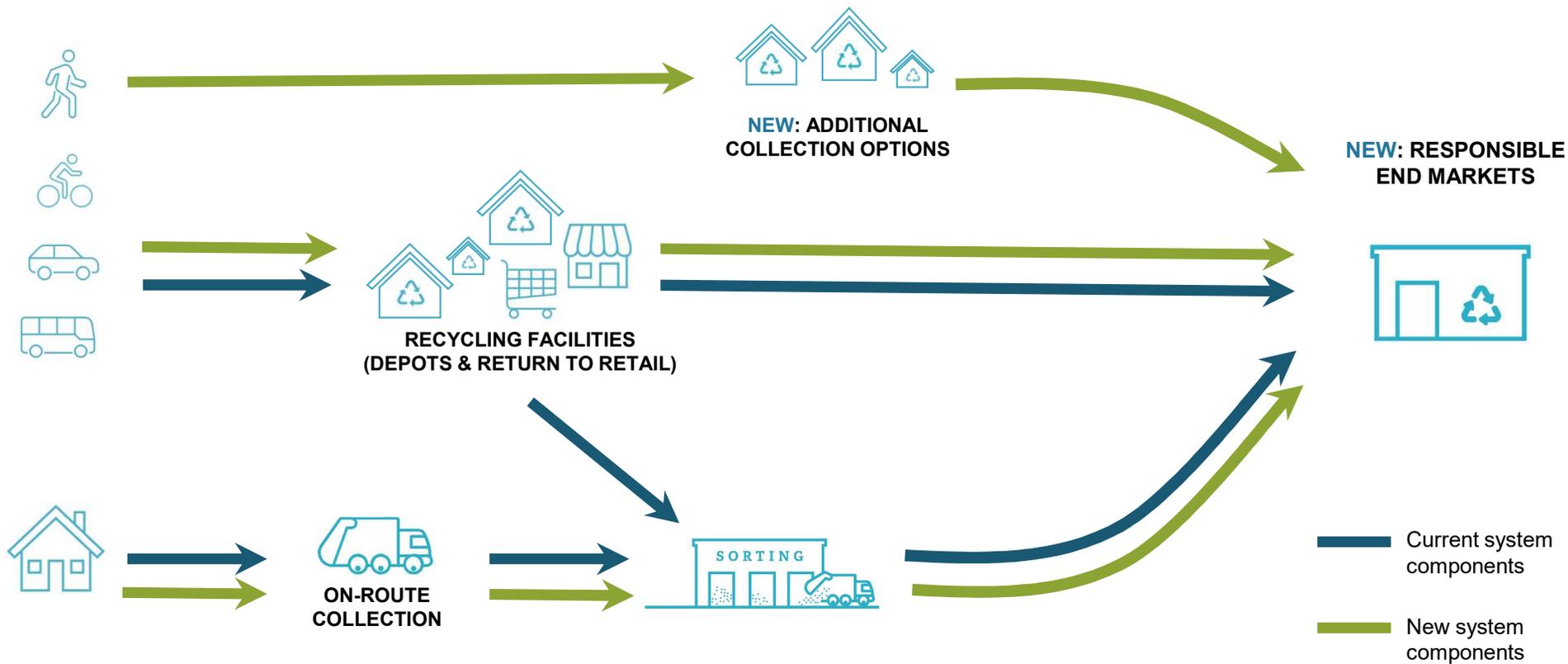
Three major shifts:

1. From **end of life** → **full life cycle**
2. From reducing **impacts of solid waste** → reducing **all environmental impacts** (air, water, resources, etc.)
3. From a primary focus on **regulatory tools** → a **broader suite of tools**

Recycling Modernization and Plastic Pollution Act



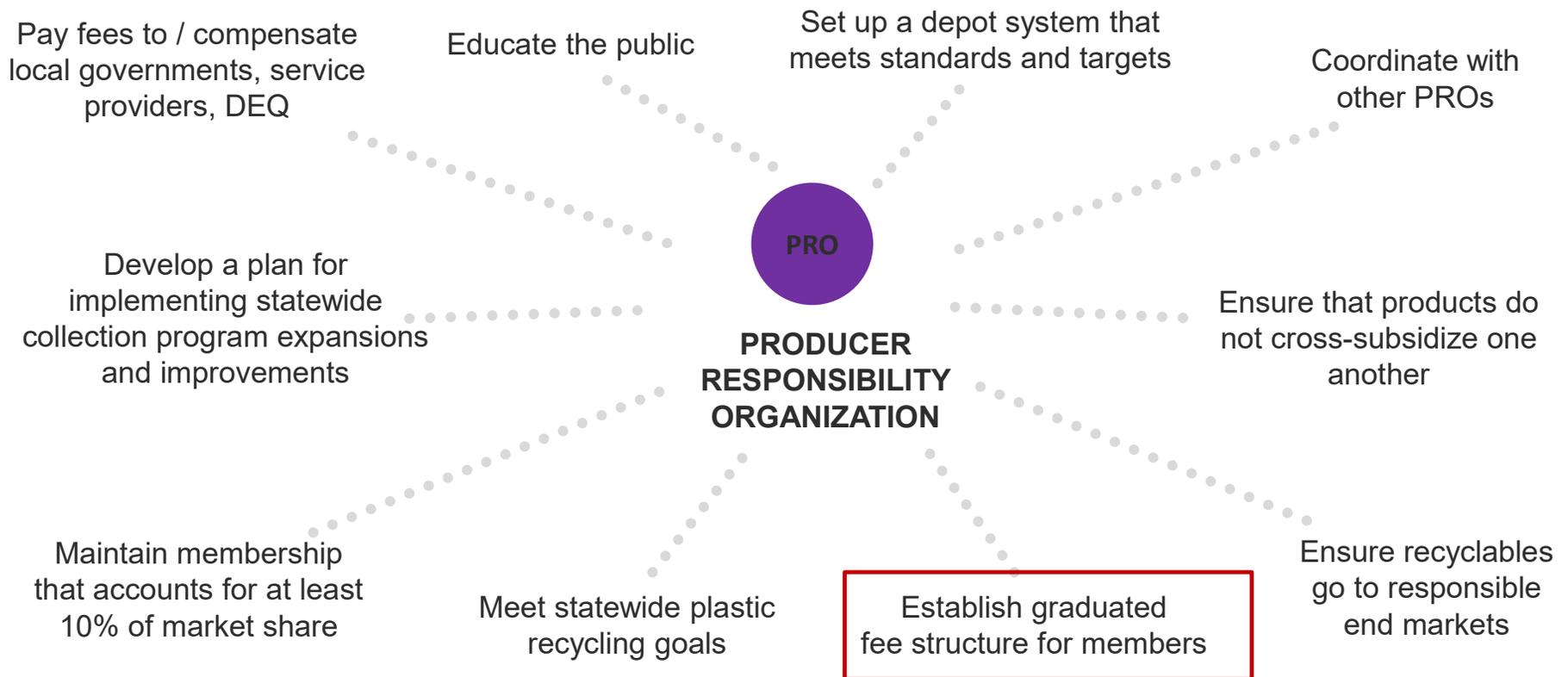
An Improved Recycling System



Joint Responsibility



Key obligations of the PROs



Key obligations of producers



- Join a PRO
- Report amount of covered products
- Pay fees to PRO
- (large producers only) Disclose environmental impacts of 1% of products on a biennial basis

RMA Major Milestones

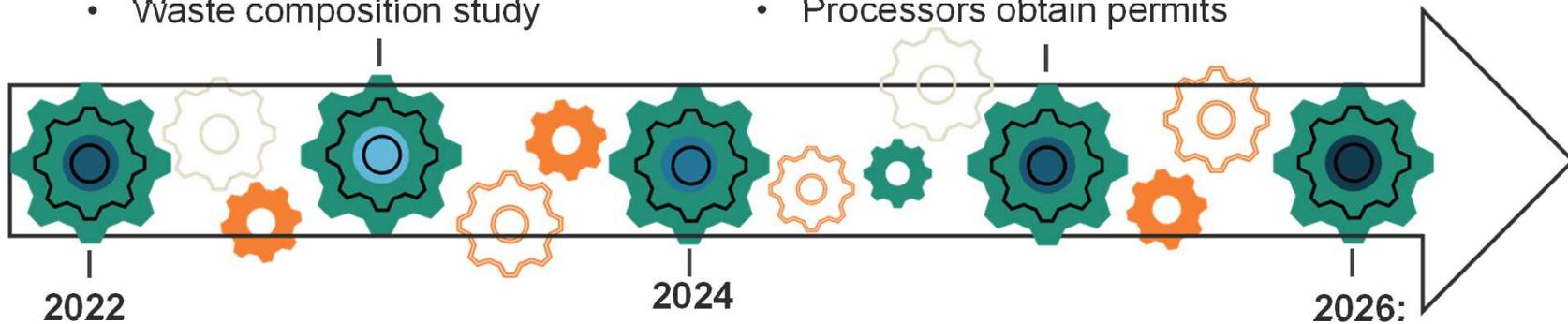
2022-2026

2023

- **First rulemaking**
- First collection needs assessment
- Contamination reduction research
- Studies for processor fees
- Waste composition study

July 1, 2025

- Producers join a PRO and pay fees
- **PROs implement approved plans**
- Local collection program changes begin
- Contamination reduction programming
- Processors obtain permits



2022

- **Law went into effect**
- Recycling Council convened
- Truth in Labeling report completed

2024

- **Second rulemaking**
- First PRO program plans due
- Purchasing assessment due
- First equity study due
- First multifamily needs assessment due

2026:

- Multi-tenant recycling requirement effective
- Litter and marine debris needs assessment due
- Compostability study due

www.RecyclingAct.Oregon.gov

The screenshot shows the Oregon Department of Environmental Quality (DEQ) website page for the Recycling Act. The page features a dark green header with navigation links for Air Quality, Land Quality, Water Quality, Recycling and Waste Prevention, Action on Climate Change, Resources, and About DEQ. Below the header is a green banner with the DEQ logo and the text "Recycling DEQ's mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water." The main content area is titled "Plastic Pollution and Recycling Modernization Act" and includes a sidebar with navigation options: "Recycle Right!", "Reciclar Correctamente", "RECYCLING IN OREGON", "LOCAL GOVERNMENT RESOURCES", and "MODERNIZING OREGON'S RECYCLING SYSTEM". The main text describes the act's purpose and provides a link to sign up for updates. A "Related pages for more information" section lists links to "Truth in Labeling Task Force", "Local Government Compensation", and "Oregon System Recycling Advisory Council". An "Informational material" pop-up window is visible at the bottom, listing links for "Frequently Asked Questions", "Fact sheet", "Implementation Timeline", and "Producer Obligations Summary".

OREGON.GOV Air Quality Land Quality Water Quality Recycling and Waste Prevention Action on Climate Change Resources About DEQ

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

Recycling Modernizing Oregon's Recycling System Plastic Pollution and Recycling Modernization Act

Plastic Pollution and Recycling Modernization Act

Recycle Right!
Reciclar Correctamente

RECYCLING IN OREGON

LOCAL GOVERNMENT RESOURCES

MODERNIZING OREGON'S RECYCLING SYSTEM

The Plastic Pollution and Recycling Modernization Act will update Oregon's outdated recycling system by building on local community programs and leveraging the resources of producers to create an innovative system that works for everyone. The Oregon legislature passed the Recycling Modernization Act (Senate Bill 582) during the 2021 legislative session. It was signed by Governor Brown on Aug. 6, 2021. The new law becomes effective Jan. 1, 2022 and recycling program changes will start in July 2025.

About the new law

This system-wide update will make recycling easier for the public to use, expand access to recycling services, upgrade the facilities that sort recyclables, and create environmental benefits while reducing social and environmental harms, such as plastic pollution. Producers and manufacturers of packaged items, paper products and food serviceware will pay for many of these necessary improvements and help ensure recycling is successful in Oregon.

Sign up for text or email updates via GovDelivery.

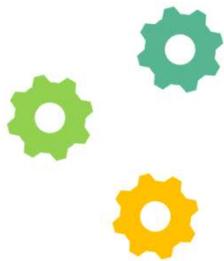
Related pages for more information

- Truth in Labeling Task Force
- Local Government Compensation
- Oregon System Recycling Advisory Council

Informational material

- Frequently Asked Questions | Preguntas y respuestas frecuentes
- Fact sheet | Hoja informativa
- Implementation Timeline | Cronograma de implementación
- Producer Obligations Summary | Resumen de Condiciones y Definiciones

Rulemaking – Evaluation of Life Cycle Impacts



Evaluation of Life Cycle Impacts: Relevant Statute

459A.944 Life cycle evaluation; rules. The Environmental Quality Commission shall establish by rule standards for the evaluation and disclosure of the environmental impacts of covered products through the life cycle of the products. Rules adopted under this section must:

(1) Establish procedures and requirements to be used by producers when evaluating the life cycle impacts of covered products to obtain an incentive under ORS 459A.884 or when required to do so under subsection (2) of this section.

(2) Require large producers to:

(a) Once every two years, perform an evaluation of the life cycle impacts of at least one percent of covered products that the large producer sells or distributes in or into this state;

(b) Provide the results of the evaluation to the Department of Environmental Quality; and

(c) Make the evaluation available on the website of the producer responsibility organization of which the large producer is a member. [2021 c.681 §33]

Relevant Statute (cont.)

ORS 459A.884(4) In addition to the base fees described in subsections (2) and (3) of this section, a producer responsibility organization's membership fee schedule **must incentivize producers to continually reduce the environmental and human health impacts of covered products** by offering fee adjustments to producers that make or have made changes to the ways in which they produce, use and market covered products. Fee adjustments developed under this subsection **must include lower fees for covered products with a lower environmental impact and higher fees for covered products with a higher environmental impact.** In establishing the criteria for the graduated fee structure, a producer responsibility organization must consider factors that include, but are not limited to:

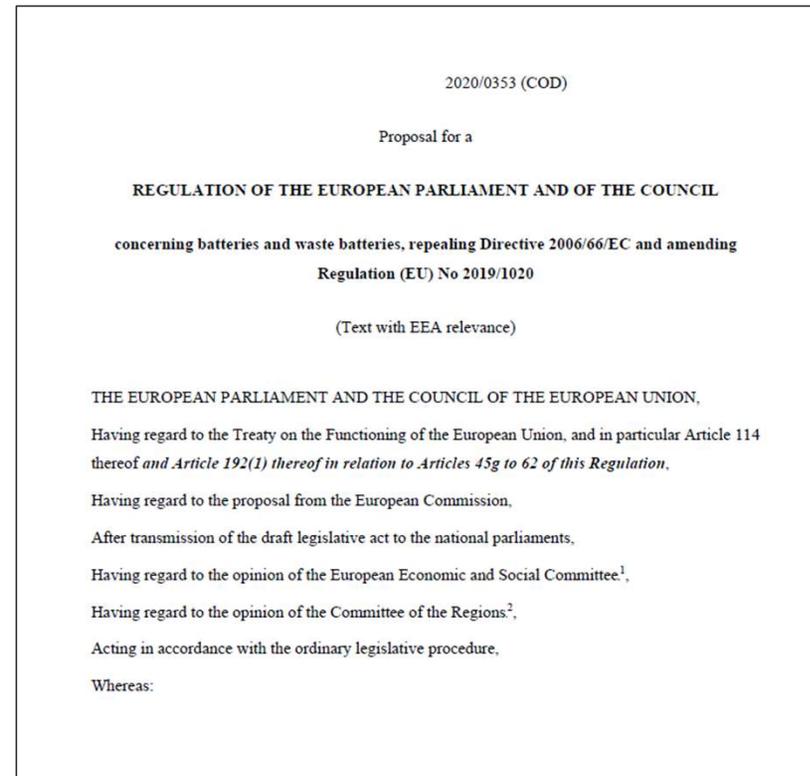
- (a) The post-consumer content of the material, if the use of post-consumer content in the covered product is not prohibited by federal law;
- (b) The product-to-package ratio;
- (c) The producer's choice of material;
- (d) **Life cycle environmental impacts, as demonstrated by an evaluation performed in accordance with ORS 459A.944;** and
- (e) The recycling rate of the material relative to the recycling rate of other covered products.

Proposed Approach: *Product Category* + Clarifying Rules

What is a product category rule? (PCR)

Some key components:

- Evaluation goal and scope specifications
- Product specific calculation rules
- Data requirements and sources
- Impact categories
- Report format
- Review procedures



What may require clarification in rule?

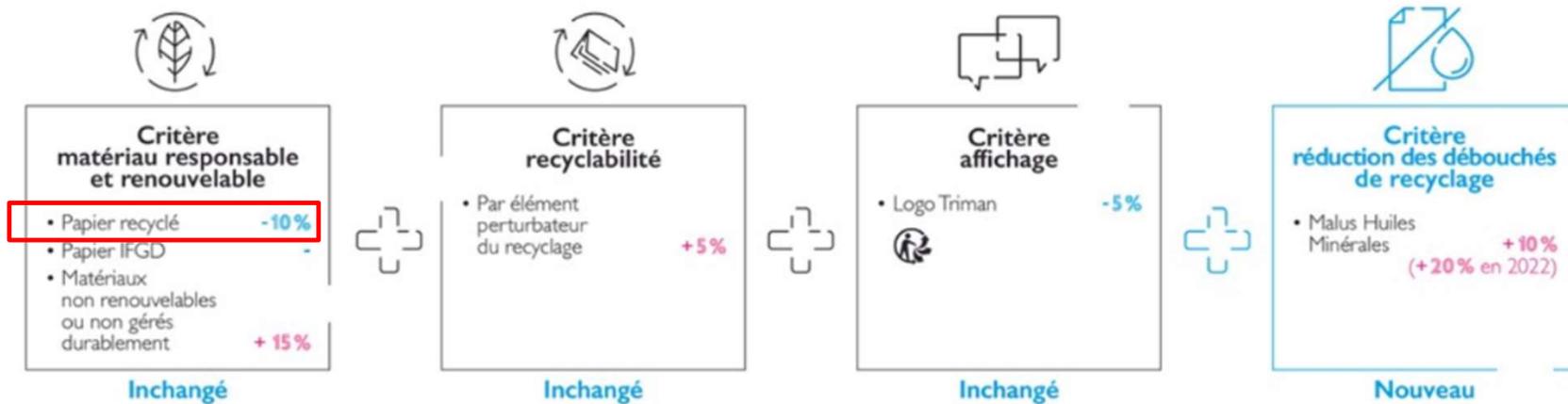
Large Producer Disclosure

- How is 1% of covered product calculated?
- “Large producer” definition
- When will the biennial disclosure requirement first apply?
- Must different products be evaluated every two years?

Eco-Modulated Fee Structure

- How will life cycle impact evaluations be factored into an eco-modulated fee structure alongside other factors?

Examples of eco-modulation algorithms



Examples of eco-modulation algorithms



Guiding companies on the right packaging choices

Ecodesign incentive bonus



DEQ attributes research



Production and Design

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

[Home](#) > [Materials Management](#) > [Production and Design](#) > [Packaging](#) > [Popular Packaging Attributes](#)

Popular Packaging Attributes

BUILT ENVIRONMENT



PACKAGING



LEARN MORE



When making purchasing choices we often make assumptions about the environmental-friendliness of a product based on the descriptions on the packaging. It is common to see characteristics, or "attributes," describing the material used such as made from recycled or bio-based material, and what we can do with the package after the product is removed (e.g. whether it is recyclable or compostable). Many people assume that these attributes convey reduced environmental impacts relative to other options without that same attribute. But, how well do these descriptors actually predict lower impacts across the entire packaging life cycle? That is what DEQ wanted to understand because a lot of time, energy and money is spent on developing packaging to be fully recyclable or compostable, or to be made from biobased and recycled materials.

Research question: How well do popular packaging attributes correlate with net environmental benefit across the full life cycle of packaging from resource extraction to manufacture, distribution, use, and discard?

Four attributes were examined:

- Recycled content
- biobased
- recyclable
- compostable

In 2017, DEQ's Materials Management engaged Franklin Associates, a division of Eastern Research Group, to do a literature review of existing research done worldwide during the past two decades on the topic to glean high-level findings for packaging and food service.



Examples of eco-modulation algorithms

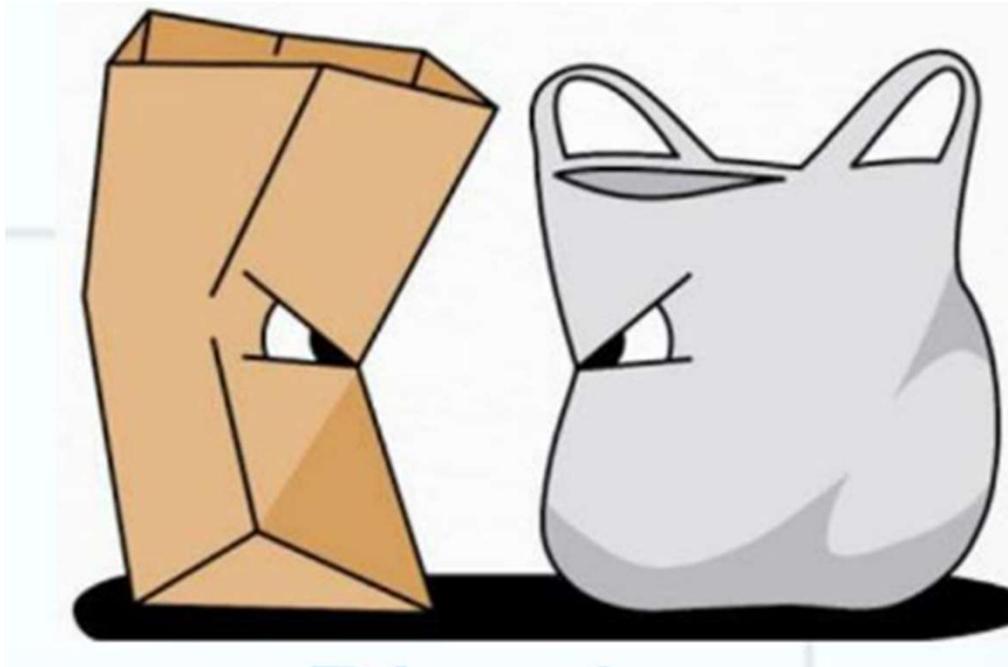
Table 1. 2019 CITEO Eco-Modulation Schedule

Awareness-Raising	Incentive
Sorting info on or in package	8%
Sorting guidelines through QR code	4%
Triman logo (indicating recyclability)	5%
Media campaigns	4%
Eco-design	Incentive
Reduction in packaging weight	8%
Reduction in packaging volume	8%
Use of refills	8%
Elimination of a packaging unit	8%
Removal of a material from multi-material packaging	8%
Replacement of multiple resins with mono resin	8%
Addition of perforation on plastic sleeves	8%
Removal of carbon black dye	8%
Recyclable plastic	Incentive
Bottles and vials for which there is a recycling channel	12%
Rigid plastic that can join an existing recycling channel	8%
Recycled Content	Incentive
Polyethylene or Polypropylene with at least 50% recycled material ⁵	50%
Paper product with at least 50% recycled material	10%
Disruptor Fee	Penalty
Specifically defined disruptive packaging	50%
Opaque PET packaging	100%
Packaging without a recycling channel	100%
Dyed paper	5%
Untraced fiber	10%
Kraft paper	5%
UV offset ink	5%
Flexographic printing	5%
Inkjet printing	5%
Use of glue	5%
UV varnish	5%
Moisture resistant coatings	5%
Non-paper inserts	5%

Correlating factors to reduction of environmental impacts

- (a) Post-consumer recycled content → Meaningful correlation but only when comparing within the same material
- (b) Product-to-package ratio → Meaningful correlation, but ideally optimization rather than minimization is incentivized
- (c) Producer's choice of material → Meaningful correlation, but need to demonstrate impacts per material
- (d) Life cycle environmental impacts → Meaningful correlation if methods of measurement are comprehensive and standardized
- (e) Recycling rate → Unclear how recycling rate correlates when comparing across materials

Concerns about life cycle analysis (LCA)



Another consideration: how long will category rules take?

- Short and sweet (Phase 1)
 - Leverage existing standards and category rules
 - Single set of rules for all covered products
 - Augment beyond existing standards and rules minimally to address priorities
 - Lay a foundation for future expansion
- Bells and whistles (Phase 2)
 - Incorporate new scientific knowledge
 - Address gaps and limitations of existing standards & category rules
 - Integrate emergent impacts and environmental areas of concern as requirements
 - Expands to distinct product category specific rule sets
 - More...?



Rulemaking

- Advisory Committee advises on rule concepts
- Development of some rule concepts involves additional stakeholder feedback
- Rules adopted by the Environmental Quality Commission through formal process

Timeline for Phase I

May-June 2023

Request For Information to inform draft category rules

Sept-Oct 2023

Draft category rules published for second Request For Information, second webinar convened.

July-August 2023

Draft category rules

November 2023

Rule concept / key decision points presented to the Rulemaking Advisory Committee.

January 2024

Updated rule concept presented to the Rulemaking Advisory Committee.

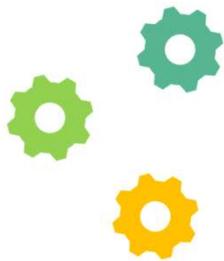
November 2024

Rules adopted by the Environmental Quality Commission.

June-July 2024

Draft rules published for public comment.

Request for Information



RFI - Logistics

- Available Online - <https://www.oregon.gov/deq/recycling/Pages/Life-Cycle-Impact-Evaluation.aspx>
- Responses Due in writing by June 30, 2023
- Responses and/or Questions can be sent to - RethinkRecycling@deq.state.or.us

RFI – Key Question (#1)

1. General Questions – How much should the results of life cycle impact evaluations generated under these standards influence the eco-modulation of EPR fees paid by producers under the Recycling Modernization Act? How should these results be weighted alongside other criteria for evaluating the environmental impacts of covered products (i.e., should ORS 459A.884(d) be valued less, more, or equally with items (a)-(c) and (e))?

RFI – Key Question (#5)

5. Evaluation tools -- Should these rules set standards limited to the evaluation tool commonly referred to as Life Cycle Assessment (LCA), or are there other tools that the Department should consider enabling the use of and/or setting standards for? If so, which additional tools should the Department take into consideration, and why?

RFI – Key Question (6a-6J)

- 6. Methodology (prioritization)
 - Biogenic Carbon
 - Scenario Analysis
 - Disparate product categories
 - Reuse
 - System Boundary

RFI – Key Question (#7)

7. Reporting/Formatting – what format should the results of the evaluation of life cycle impacts be reported in? Digitally? Print? Machine-readable? EPDs? Other? Should the underlying life cycle inventories be published? Are there any issues of confidentiality that should be considered? Should the resultant evaluation of life cycle impacts for covered products be made available through some sort of centralized repository?

Open Discussion



More information



[RecyclingAct.Oregon.gov](https://www.oregon.gov/deq/recycling/act/RecyclingAct.Oregon.gov)

This Rulemaking -
<https://www.oregon.gov/deq/recycling/Pages/Life-Cycle-Impact-Evaluation.aspx>

Thank you

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