



Plastic Pollution and Recycling Modernization Act

A presentation from Oregon DEQ to the NIST virtual workshop

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Oregon's Plastic Pollution and Recycling Modernization Act (Senate Bill 582, 2021)

- Shared responsibility
- New responsibilities on local governments, processing facilities, producers
- Comprehensive reform and modernization



Recycling

Challenges

Public confusion over what can be recycled.

Unstable markets and unfavorable economic signals

Inequities throughout the recycling system

No assurance of responsible recycling

More waste and less recycling over time

Solutions



STATEWIDE COLLECTION LIST



COMMODITY RISK FEE PROTECTS RATEPAYERS



SOCIAL EQUITY ELEMENTS



RESPONSIBLE END MARKETS



PROCESSOR PERMITTING

Recycling increases as it becomes easier and more accessible

Plastic pollution

Challenges

Increasing production and consumption of single-use plastic

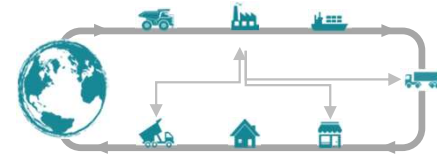
Increasing plastic pollution and waste

Lack of reduction goals, accountability

Solutions



WASTE PREVENTION PROGRAMS



REDUCING LIFECYCLE IMPACTS



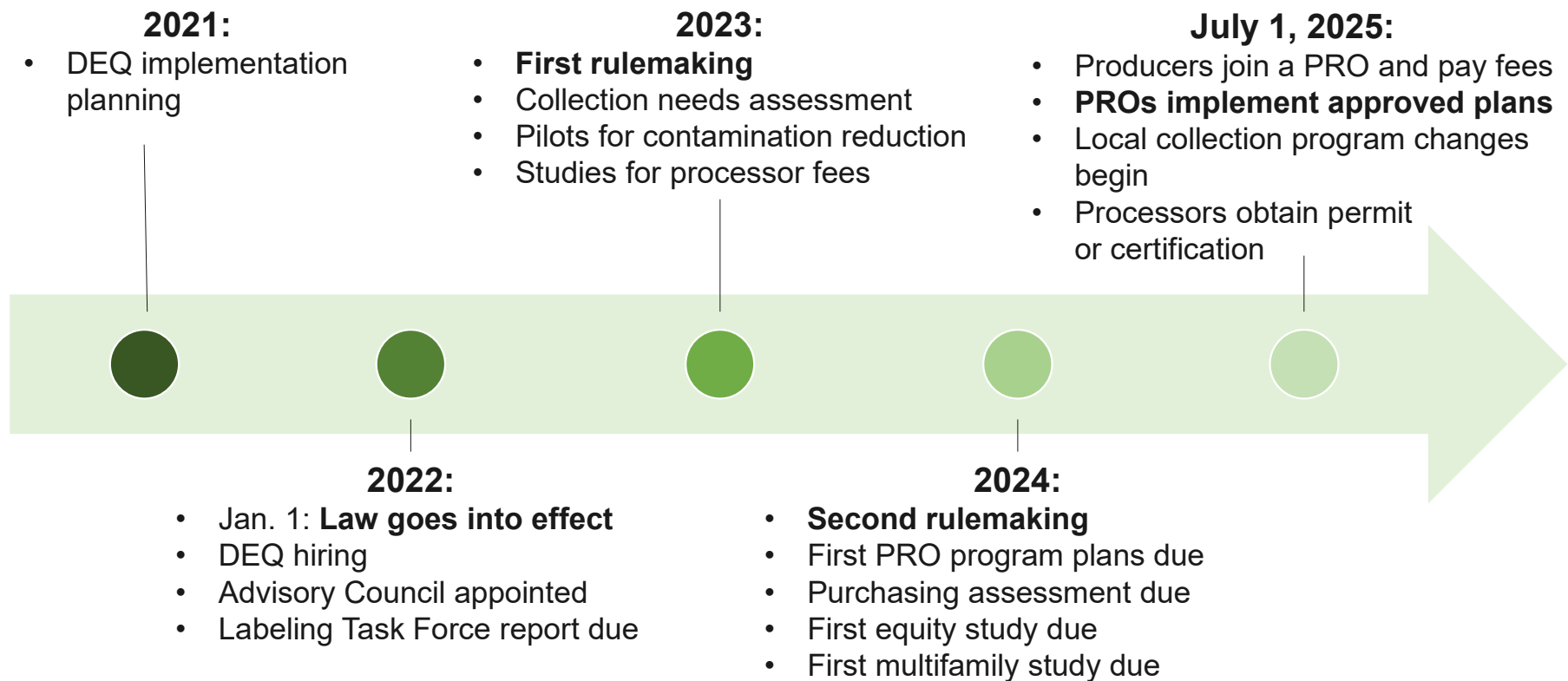
PLASTIC PACKAGING RECYCLING GOALS

How it will work

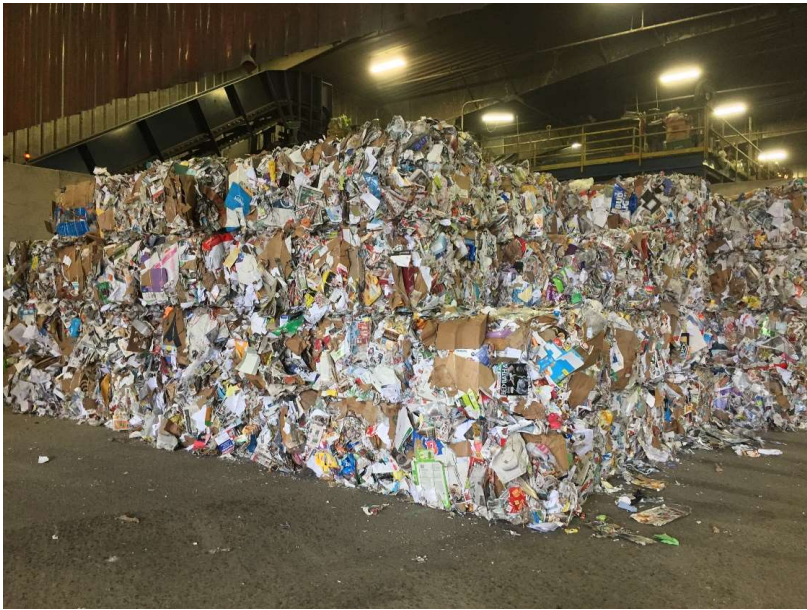


Start-up timeline

Stakeholder engagement, project planning and research extend throughout implementation.



MRF permitting



Pic courtesy of Justin Gast

- Under **ORS 459A.955**, a person may not establish or operate a commingled recycling processing facility in this state unless the person obtains a disposal site permit issued by DEQ under ORS 459.205.

MRF permitting and reporting requirements

Likely permit requirements

- Sort materials / manage contaminants
- Market materials to responsible end markets
- No public nuisance or health hazards
- Limit pollution
- Meet outbound performance standards (purity, contamination, and capture rate targets)

Likely reporting requirements

- Inbound material quality and contamination
- Capture rates
- Outbound contamination levels
- Final end markets of materials
 - may be fulfilled through third-party certification



Pic courtesy of Justin Gast

Responsible end markets

Definition (ORS 459A.863(29)):

“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.”



Material-specific definitions for “end market”



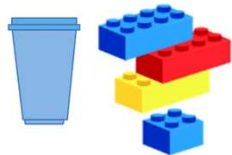
- Glass: user of the recyclate to make a new product



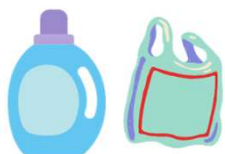
- Metal: producer of the recyclate, e.g. of ingots, sheet, coil etc. by smelting



- Paper: facilities that re-pulp recycled material



- Plastic for food and beverage packaging and children's toys: user of the recyclate to make a new product



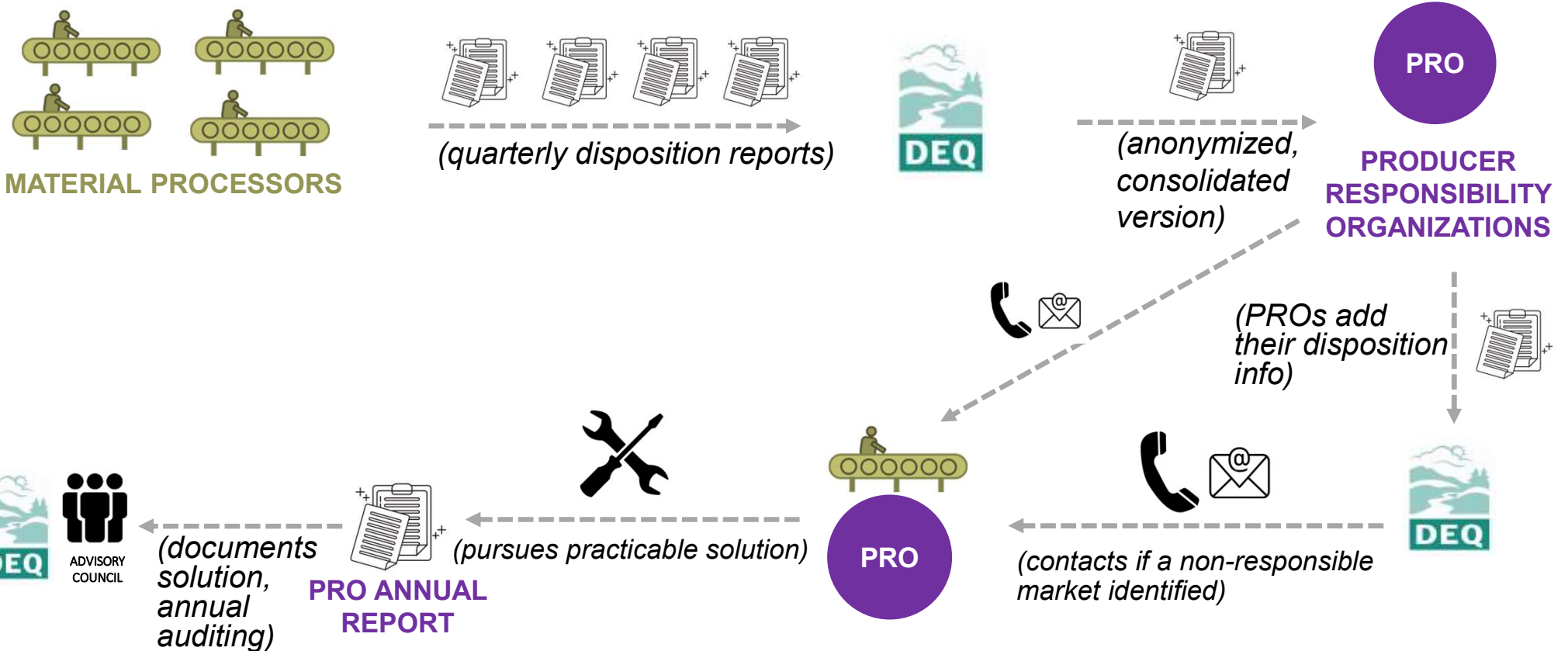
- Plastic for all other applications: last handler of the recyclate (typically flakes or pellets) before sold to a producer.

Standard for “responsible”

- Compliant
- Transparent
- Environmentally-sound
- Achieves adequate yields



Responsible end market reporting



Oregon's "materials management" hierarchy

Pre-RMA

"Solid waste management"

- Reduce amount of waste generated, then
- Reuse materials, then
- Recycle material, then
- . . . and etc.

Post-RMA

"Materials management"

Minimize the net negative impacts of materials across their full life cycle . . .

Reduce the amount of materials used . . .

If information on impacts is unavailable or highly uncertain, then:

- Reduce amount of waste generated, then
- Reuse materials, then
- Recycle materials, with preference given to pathways that result in the greatest reduction of negative impacts on well-being and environmental health. Where impacts are not known, preference is given to:
 - Displacement of more impactful materials, and
 - Processes that best preserve value and molecular structure

Extra reporting for non-mechanical recycling

ORS 459A.875(2)(I)(iv)

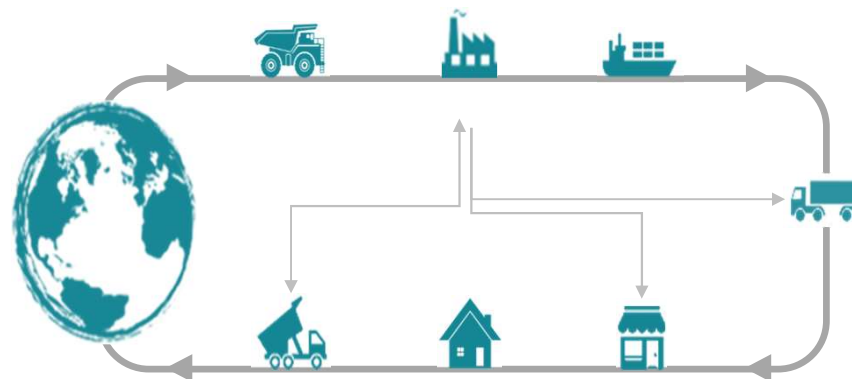
In association with a requirement that materials are managed in accordance with Oregon's hierarchy of materials management, when intending to send materials to non-mechanical recycling, the PRO must first submit a comparative evaluation of the environmental impacts for DEQ review/approval.

Evaluation and disclosure of life cycle impacts

ORS 459A.944

To obtain eco-modulation incentives (reduced fees), producers must evaluate products' life cycle impacts using standards and methods approved by the Environmental Quality Commission.

- The top 25 producers in the state must make evaluations for at least 1% of their products available to the public.



Formulating material acceptance lists

ORS 459A.914(3)

“In determining whether a material should be included on [the Uniform Statewide Collection List or the PRO depot list].....the commission shall consider:

- h) economic factors
- i) environmental factors from a life cycle perspective”

Modeling Parameters



USCL
commingled collected
on-route and at depots



OTS
glass collected on-the-side
(on-route)



Glass-only PRO depots
producer-funded depots
collecting only glass



PRO depots
producer-funded depots
collecting several materials
(may also collect glass)



High density



Medium density



Low density

More information



Rulemaking webpage - oregon.gov/deq/rulemaking/Pages/Recycling2023.aspx