



Oregon Recycling System Advisory Council

Responsible End Market Subcommittee

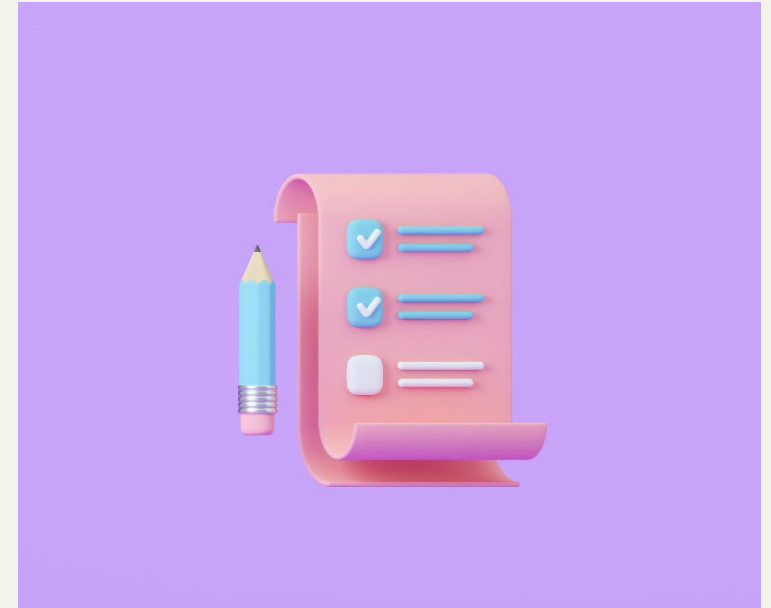
Meeting 1: March 3, 2026, 2:30 p.m. to 4 p.m.

Meeting 2: March 11, 2026, 1 p.m. to 2:30 p.m.

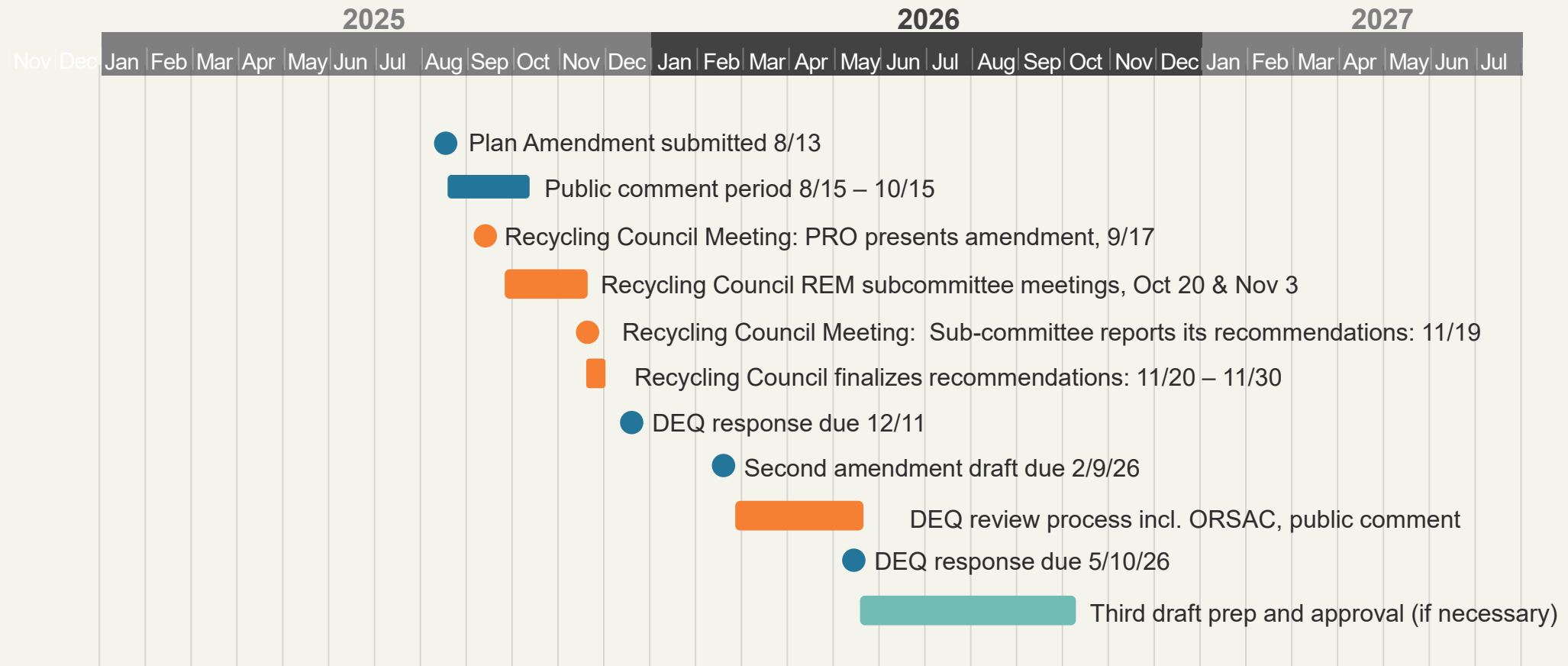
Teams meetings

Agenda: REM Subcommittee

- Protocol
- Review Process
- Background Info
- Gut-check subcommittee approach
- Element-by-element Discussion
- Carry-over any elements not addressed to next meeting on 3/11 at 1pm



Review process



■ Recycling Council activities ● Statutory requirement

Requirements

Statute establishes

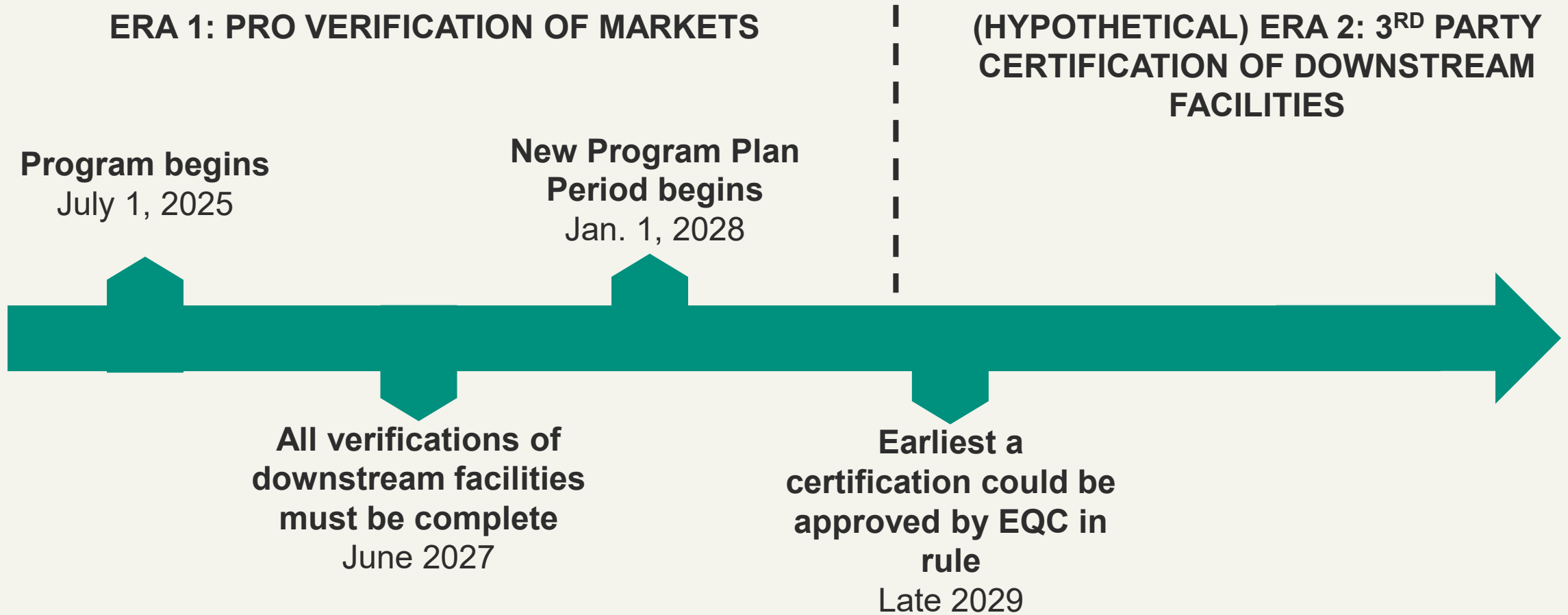
- joint REM responsibility
- disposition reporting obligations

Rule establishes

- facilities subject to “responsible” standard (defines “end market”)
- definition of “responsible” at a high level
- steps for ensuring facilities meet “responsible” standard & timelines
- requirement to audit across facilities; details of disposition reporting

Program plan contains detailed “responsible” standard, approach to verification

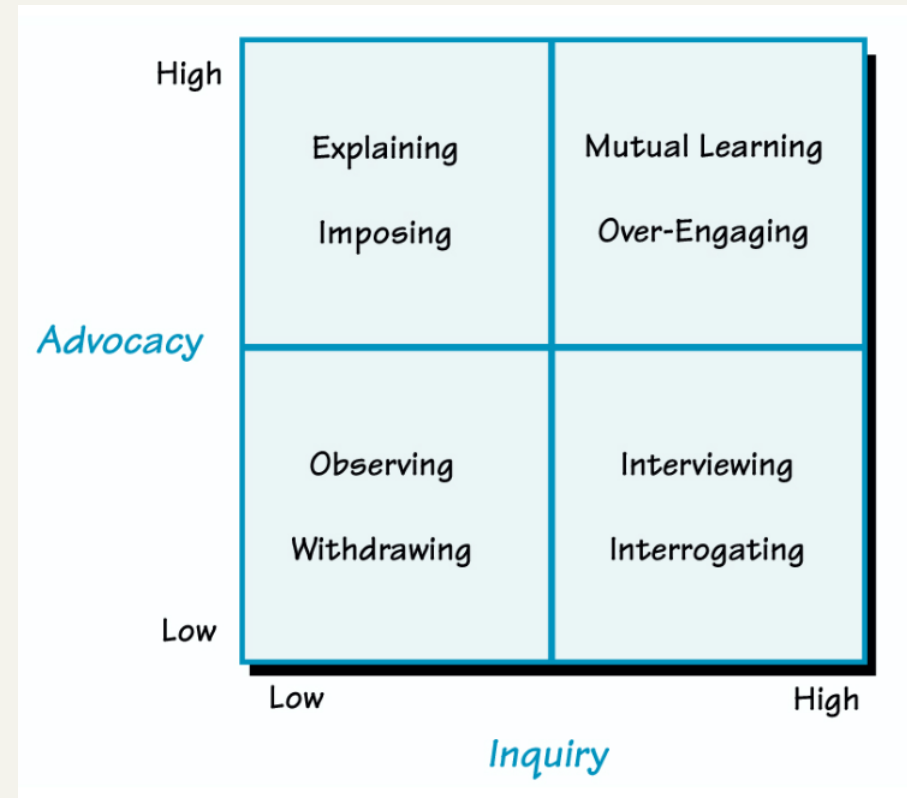
“Eras” of REM Implementation



Requirements Checklist

Required or Guidance Plan Component	Statute or Rule Citation	Plan Section(s)	Section(s) approved ?	DEQ rationale/recommendation
Criteria for review and approval of verification bodies and verifiers, such as accreditation requirements, professional liability insurance requirements for prevention of conflict of interest, etc.		REM Disclosure Steps, pg 149-150		“Willingness to allow CAA or certification scheme representative to shadow on-site audits as needed” has been removed from the criteria for selection of VBs indicated in the program plan – does this mean that CAA does not intend to shadow any on-site audits?
The approach for verifying that downstream entities meet the “responsible” standard, including		REM Disclosure Steps, pg 149-150	No	<p>DEQ has a number of substantial concerns with the approach to verification laid out in this section of the plan. One concern pertains to the statement on pg 153 that “until a REM [certification] standard is developed by an independent Standards Development Organization, accredited by ANSI, the disclosure process will not be used as a method of determining REM compliance status of any end market.” A similar statement is found in Cover Letter Appendix C: “CAA will not determine compliance results of REM verification until a national standard is developed.” These statements seem to run directly contrary to the requirement under OAR 340-090-0670(3)(g)(D) that verification reports document all instances of downstream facility noncompliance with the “responsible” standard. The amendment does include several reference to verifications noting “misalignment with REM disclosure guidelines,” but there is little information provided as to the granularity and type of information regarding such misalignment that CAA will communicate to DEQ in quarterly verification requests. DEQ needs actionable information from the verifications in order to maintain a meaningful responsible end market list.</p> <p>Another concern is that the word “voluntary” is used in multiple sections describing the verification process and could be misconstrued to mean that it is voluntary for CAA to verify downstream facilities. That is not the case; CAA must verify downstream facilities, remove the term “voluntary” from the sections pertaining to verification. Should CAA prefer to instead replace “voluntary” with</p>

Gut-Check on Subcommittee Process



REM Amendment Comparison – Process and Criteria

Amendment Item	Amendment v1 Aug. 2025	Amendment v2 Dec. 2025
REM Certification Standard	Included as future state of REM verification	Remains unchanged – mid 2027 delivery
Interim REM Evaluation	Voluntary REM Disclosure	REM Verification via third party w/ detailed guidance – Not Voluntary
“Responsible” confirmation	No confirmation from CAA until a REM standard is developed (liability reason)	Addition of confirmation recommendation from Verification Body (VB), to be approved by DEQ. Process for providing additional report details to DEQ
On-site Audit Provisions	On-site audit provision based on VB recommendation only	Added risk assessment tool to determine need for on-site audit
Verification Criteria		
Chemicals of Concern	Voluntary disclosure	Disclose chemicals as required by permit. If none, compare against <i>Toxics in Packaging Clearing House</i> list
Plastic Resin Loss	Voluntary Disclosure	Follow Operation Clean Sweep or achieve results from principles
Microplastics	Voluntary Disclosure	Review Suspended Solid testing as required by permit



ORSAC recommendations highlighted

REM Amendment Comparison - Variances

Amendment Item	Amendment v1 Aug. 2025	Amendment v2 Dec. 2025
Acceptance of other PRO evaluation and third-party certifications	Allow other PROs and benchmarked certifications	Remains unchanged. More thorough review of external certifications being conducted w/ DEQ.
End Market Definition	Change food-contact & children's plastic converters to reclaimer	Maintain change food-contact & children's plastic converters to reclaimer
	Change glass to beneficiation plant	Leave glass as written in regulation
Evaluation of Disposal Sites	Temporary delay in verification	Evaluate against Risk Assessment criteria
Yield	Do not evaluate yield until standard complete	Verification body reviews – pass/fail communicated to DEQ
		Additional review for target items: <ul style="list-style-type: none"> • PET Thermoforms • Flexible Films • Cartons



ORSAC recommendations highlighted

Site visit vs desktop assessment: risk assessment

Relevant requirement: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

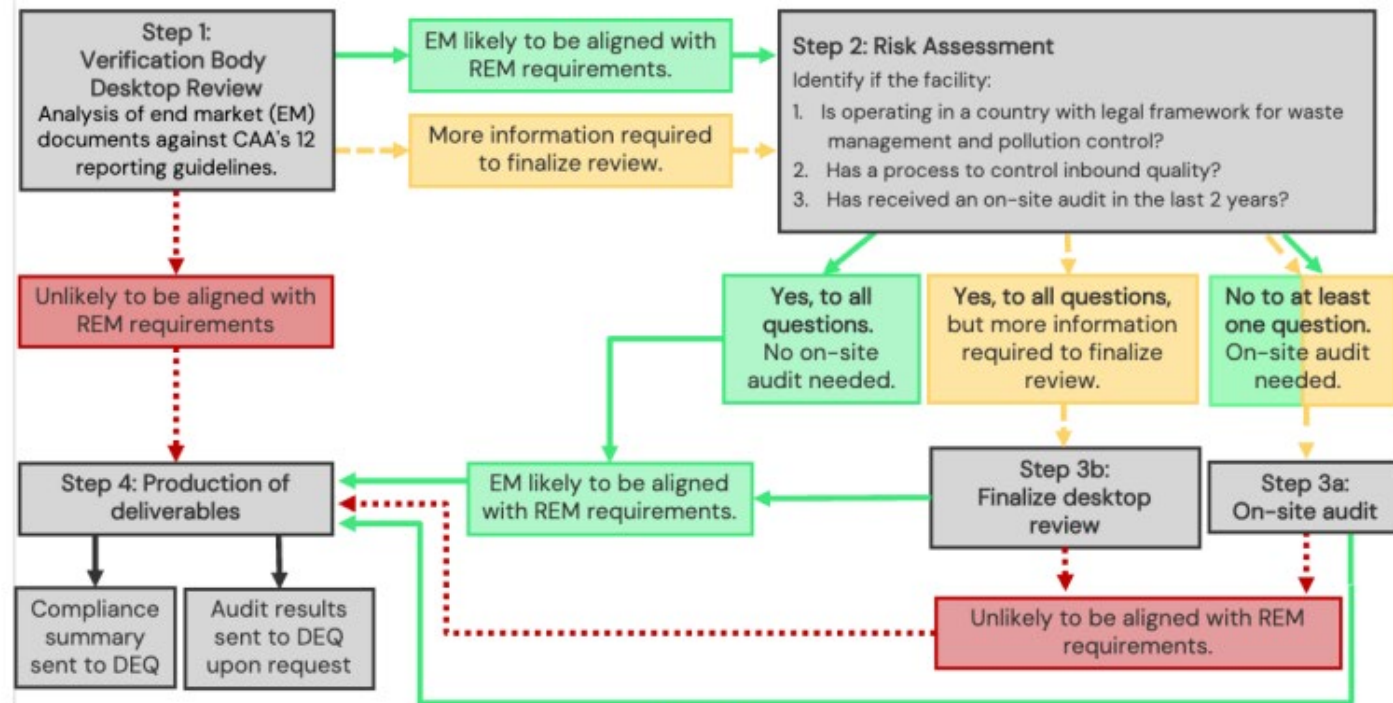


Figure 5

REM standard: chemicals of concern, part one

Relevant requirement: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

Relevant requirement: OAR 340-090-0670(2)(b)(C): Entities.....must meet the following standards:
(C) Environmentally-sound. Meaning the entity is willing to be audited and monitored for outdoor air, water and land emissions and disposal; stores and manages waste and recyclables in a way that avoids release into the environment; and **manages inputs sustainably**.

REM standard: chemicals of concern, part two

<p>Environmentally Sound</p>	<p>Environmental Impact Measurement</p>	<p>The entity should work to minimize impacts to air, water, and land from its operations. At a minimum and where applicable to facility processes, it should quantify and disclose relevant indicators related to the below environmental impact areas, as requested by its permit or laws and regulations obligations.</p> <ul style="list-style-type: none"> a) Emissions to air: Any material emissions to air, including regulated air pollutants or pollutants of concern. b) Discharges to water: Material discharges to water, including suspended solid waste that encompasses microplastic and including direct discharge to water bodies, capture and treatment of runoff, indirect discharge via land application, e.g., private or public treatment systems. (applicable to end market entities using a water treatment process) <ul style="list-style-type: none"> • Plastic end market entity using a washing process should avoid using, or indicate a strategy to phase out, detergent with nonylpenols c) Water management: water use and related water management indicators. d) Waste management: the total amount of hazardous and non-hazardous waste generated from its facilities, and the disposal method used. e) Chemicals of concern: the intentional addition of chemicals identified in its permits or, in absence of such obligation, by the Toxics in Packaging Clearinghouse (TPCH)
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Subcommittee request for info on TCP vs LCE

DEQ compared TCP and LCE lists as requested by the subcommittee in its 3/6 meeting:

- TCP list has 19 entries, LCE has 89.
 - LCE is missing hexavalent chromium and does not list phthalates as a class, but rather lists 11 individual chemicals. Otherwise LCE covers all entries included on TCP.
- 44 of the 70 entries on LCE but not TCP are known to occur in packaging
- Listings of classes of chemicals:
 - TCP and LCE: PFAS
 - TCP: phthalates
 - LCE: ortho-phosphates and chlorinated paraffins

REM standard: plastic resin and microplastics, part one

Relevant requirement: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

Relevant requirement: OAR 340-090-0670(2)(b)(C): Entities.....must meet the following standards:
(C) Environmentally-sound. Meaning the entity is willing to be audited and monitored for outdoor air, water and land emissions and disposal; stores and manages waste and recyclables in a way that **avoids release into the environment**; and manages inputs sustainably.

REM standard: plastic resin and microplastics, part two

Environmentally Sound	Environmental Impact Measurement	<p>The entity should work to minimize impacts to air, water, and land from its operations. At a minimum and where applicable to facility processes, it should quantify and disclose relevant indicators related to the below environmental impact areas, as requested by its permit or laws and regulations obligations.</p> <p>a) Emissions to air: Any material emissions to air, including regulated air pollutants or pollutants of concern.</p> <p>b) Discharges to water: Material discharges to water including suspended solid waste that encompasses microplastic and including direct discharge to water treatment system. (applicable to end market entities using a water treatment process)</p> <ul style="list-style-type: none"> Plastic end market entity using a washing process should avoid using, or indicate a strategy to phase out, detergent with nonylphenols
Environmentally Sound	Containment of Waste	<p>The entity should demonstrate that there is no activity that causes obvious contamination to the local environment, with a special attention given to plastic waste and losses.</p> <p>Plastic end market entities should demonstrate that they have implemented an Operation Clean Sweep management system or are achieving results aligned with, the principles of Operation Clean Sweep.</p>

REM standard: yield, part one

Relevant requirement: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

Relevant requirement: OAR 340-090-0670(2)(b)(D): Entities.....must meet the following standards:
Achieving adequate recycling yields. Meaning the recycling supply chain recycles or causes to be recycled at least 60 percent of each material.....even if multiple materials are mixed together.

REM standard: yield, part two

		Agency, Producer Responsibility Organization, and/ or Department of Environmental Quality
Yield	Yield Documentation	<p>All end market entities must disclose to the verification body their estimated, self-attested yield for all materials for which the disclosure is mandated by rule.</p> <p>End market entities accepting the following materials, must also provide additional documentation, including Standard Operating Procedures and equipment used on site, to ascertain whether recycling of materials is occurring to meet the 60% yield requirement:</p> <ul style="list-style-type: none">• Cartons• PET Thermoforms• Films and Flexible

Table 20

Other variances, part one

Relevant requirement: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

OAR 340-090-0670(1) Definition of end market. [...]end markets are defined by material as follows:

(a) For glass the end market is the entity that first uses the glass in lieu of a virgin material downstream of the beneficiation plant, if any, where bottles are crushed, for example a bottle manufacturer.....

(e) For plastic that is recycled to produce packaging for food and beverage applications or for production of children's products, the end market is the entity that places it into a mold for the manufacturer of such packaging or product.

OAR 340-090-0670(3)(f) DEQ may approve temporary variance to the [verification] timelines].....in a producer responsibility program plan.

Other variances, part two

Material	End Market in Rule	Variance sought by CAA
Glass	Bottle manufacturer	
Plastic used in food and beverage and children's applications	Converter	Variance from need to verify converters

Variance for disposal sites, part one

Relevant requirements: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

OAR 340-090-0670(2)(a)(C):(a) For an end market to be a responsible end market, all entities that receive material collected for recycling in Oregon downstream of the commingled recycling processing facility or producer responsibility organization collection point (or post-collection in a supply chain without either facility) must meet the responsible standard, including:

(C) Other locations where material disposition occurs (including landfills and incineration facilities).

OAR 340-090-0670(3)(f) DEQ may approve temporary variance to the [verification] timelines].....in a producer responsibility program plan.

Variance for disposal sites, part two

Risk Assessment Question	Yes/ No
<p>1. Is the disposal site operating in a country with a legal framework for waste management and pollution control?</p>	
<p>2. Has the disposal site provided any permit(s) or license(s) delivered by the relevant authorized authority? <i>Non-permitted, illegally permitted, or falsified facilities will not receive a verification, as they are not considered a legal disposition site for a REM.</i></p>	
<p>3. Is the disposal site in full compliance with all applicable permit obligations?</p>	
<p>4. Are there <u>no</u> inconsistencies in potential site activity from satellite image data based on facility site address provided by entity? <i>If cross checks on facility address show an inconsistency, CAA will follow-up to confirm facility location is accurate prior to commencement of verification.</i></p>	

If the answer is “yes” to all questions, the variance for verification will apply.

Certifications benchmarking

Relevant requirements: ORS 459A.875(2)(a)(H): A producer responsibility program plan must.....describe how the producer responsibility organization will.... ensure that covered products collected for recycling will be transferred to responsible end markets.

OAR 340-090-0670(3)(i) DEQ may approve temporary variance to the required components of the detailed verifications [...]

Aspects covered in certification schemes	SMETA	ASI	SFI	FSC	ISCC+	APR	RiOS	RMS
Laws and regulations	No	Yes	No	No	Yes	Yes	Partial	Yes
Health and safety	Yes	Yes	Yes	Yes	Partial	Partial	Partial	Partial
Environmental impacts	No	Partial	No	No	Yes	Partial	Partial	Partial

Budget Estimate Methodology

ORS 459A.875(2)(q) Include any other information required by the department to determine that a producer responsibility organization is capable of meeting its obligations and ensuring the outcomes required under [ORS 459A.860 \(Legislative findings\)](#) to [459A.975 \(Rules\)](#).

Summary of Relevant Plan Contents

Amount Budgeted	For What	Rationale Provided
\$500,000	Development of both the interim verification process and the REM Certification Standard creation.	Each audit costs \$5000-20,000. 90 desktop audits and 15 on-site audits envisioned.
\$2 million	End market technical assistance, support and development, if necessary.	3-5% of expected commodity values (based on experience in other jurisdictions that have implemented EPR), with the exact amount defined annually.

Title VI and alternate formats

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