

Senate Bill 263

Materials Management Rulemaking: Recycling 2016

Advisory Committee Meeting #1 – Monday, April 11, 2016

Rule Concepts for Advisory Committee



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Rule Concepts

I. Recovery Goals & Measures

1) Material-Specific Recovery Goals

SB 263 establishes material-specific recovery goals for food waste, plastic waste, and carpet waste. The concepts below would define each material and specify how each recovery rate would be calculated. [ORS 459A.010(1)(c) & (d)].

- a) **Food waste.** SB 263 states that the recovery rate for food waste shall be at least 25% for 2020 and later years. SB 263 does not define “food waste” or specify how the recovery rate is to be calculated.
 - o DEQ expects to conduct a statewide survey of recovery rates for food waste in 2020.

Proposal:

- o **“Food waste” definition** – Includes edible food and inedible parts associated with food – such as husks, pits, shells, thick peels, and bones from residential, commercial, and institutional sources. Does not include food processor waste or crop residue.
 - Excluding inedible parts from annual material recovery survey would be impractical.
 - Food processor waste and crop residue are manufacturing and agricultural wastes that, per statute, are not included in the annual material recovery survey.
- o **Food waste recovery rate** – Calculated based on the tons of food waste recovered each year per the annual material recovery survey, divided by the total tons of food waste generated.
 - **“Food waste generated”** means the tons disposed plus the tons recovered.
 - **“Food waste disposed”** is based on the combined results of waste composition studies and the tons of Oregon waste disposed of, as reported by landfills, exporters, and other disposal facilities.
- b) **Plastic waste.** SB 263 states that the recovery rate for plastic waste shall be at least 25% for 2020 and later years. SB 263 does not define “plastic waste” or specify how the recovery rate is to be calculated.
 - o DEQ expects to conduct a statewide survey of recovery rates for plastic waste in 2020.

Proposal:

- o **“Plastic waste” definition** – Includes only items that are completely or almost completely made of plastic, such as rigid plastic containers, film plastic, and “other plastic.” Does not include plastic in multi-material items, such as electronics, automobiles, appliances, mixed-material toys, or household goods.
 - DEQ lacks data to determine plastic amounts in those multi-material items.

- **Plastic waste recovery rate** – Calculated using the same methodology as the food waste recovery rate.
- c) **Carpet waste.** SB 263 states that the recovery rate for carpet waste shall be at least 25% for 2025 and later years. SB 263 does not define “carpet waste” or specify how the recovery rate is to be calculated.
 - DEQ expects to conduct a statewide survey of recovery rates for carpet waste in 2025.

Proposal:

- **“Carpet” definition** – Similar to that used by the California carpet stewardship program. Includes carpet with both artificial and natural fibers and indoor/outdoor carpet. Excludes rugs, carpet padding, and artificial turf.
- **Carpet waste recovery rate** – Two main methods exist for estimating carpet generation. DEQ is considering calculating recovery rates using both methods:
 - i. **Industry standard method** – Take carpet sales data, multiply by an estimated percentage of how much is sold to replace existing carpet, then add an estimated tonnage for carpet that comes from building demolition and an adjustment for the market share of carpeted versus hard surface flooring.
 - This method has produced significantly lower estimates than waste composition study results.
 - Accuracy of sales data is unknown.
 - ii. **Same as DEQ-proposed methods for food waste and plastic waste** – Add recovery from the material recovery survey to disposal from waste composition and disposal total tonnage results.
 - Due to the sporadic nature of carpet disposal, estimates made with this method would be imprecise.

2) Eliminate 2% Credit Programs

- SB 263 eliminates 2% credit programs, replacing them with Waste Prevention and Reuse program elements. [formerly ORS 459A.010(4)].

Proposal:

Remove references to 2% credit programs.

3) New Wasteshed Recovery Goals

- SB 263 changes recovery rates for several wastesheds and makes rates voluntary. [ORS 459A.010(2)].

Proposal:

Restate SB 263's revised rate goals in rules and remove compliance language from rules.

4) 6-Year Interval Between Waste Composition Studies

- SB 263 changes the interval between waste composition studies from at least once every two years to once every six. SB 263 also changes from four years to six years the frequency in which waste composition studies must be done to count certain materials in the wasteshed recovery rate when these materials are burned in an energy recovery facility. [ORS 459A.035 & 459A.010(4)(b)].

Proposal:

Make conforming rule changes.

No rule revisions necessary to implement these SB 263 requirements:

5) New Statewide Recovery & Waste Generation Goals

- New statewide goal for recovery of solid waste is 52% by 2020 and 55% by 2025.
- Oregon retains existing statewide goal of no increase in total waste generation (waste disposal plus waste recovery).
- For 2025 through 2049, total solid waste generated shall be 15% below the 2012 level.
- Beginning in 2050, total solid waste generated shall be 40% below the 2012 level.

[ORS 459A.010(1)].

6) Notification of Proposals to Modify Wasteshed Goals

Before the Environmental Quality Commission (EQC) or DEQ propose legislation to revise wasteshed recovery goals, SB 263 requires that DEQ provide written notice and an opportunity to comment to local governments. [ORS 459A.010(2)(e)].

7) Possible Temporary Reduction in Wasteshed Goals

SB 263 lets the EQC temporarily lower a wasteshed recovery goal if the EQC determines reasonably available markets do not exist for one or more high-volume recycled materials. [ORS 459A.010(2)(c)].

For future rulemaking:

8) Alternative Outcome-Based Goals

SB 263 allows for outcome-based ways of achieving wasteshed goals using metrics besides the calculated recovery tonnage. [ORS 459A.012].

II. Recycling Program Elements

Current law requires each local government to implement a certain number of recycling program elements based on population size. SB 263 changed the Expanded Education and Promotion program element. SB 263 also added four new recycling programs to the list of recycling program elements. Local governments now have thirteen recycling program elements to choose from.

Changed Program Element

1) Expanded Education and Promotion

This element was changed to add the requirement of developing a “program to determine levels of contamination of materials set out for collection and to take action to reduce contamination in collected recyclables.” [ORS 459A.008(2)(e)].

- SB 263 does not define contamination or explain how “to determine levels” or list actions to take to reduce contamination in collected recyclables.

Proposal:

- a) **Require local governments to determine contamination levels at a minimum of two of these points and with reasonable frequency:**
 - i. **At the curb** – Provider or surveyor could check for contamination at the curb by:
(a) looking directly into roll carts or bins; or (b) remotely by using hopper cameras and watching the monitor as the cart tips.
 - ii. **At a transfer point** – Transfer station or other aggregation point where a load of recyclables is tipped. Once on the tipping floor, the load could be checked for contamination and contaminants could be isolated.
 - iii. **At the processor (or Material Recovery Facility)** – Similar to a transfer point assessment.
- b) **Require local governments to “take action to reduce contamination” at a minimum of two of these points:**
 - i. **At the curb** – After visual confirmation, tag container or send notice to the generator. For automated systems with cameras, feedback to the generator could include images.
 - ii. **At a transfer point** – After load contamination is documented, feedback could go to the collection service provider, which could follow up with generators along collection routes. Feedback could also include warnings, charging for contamination, or rejecting loads.
 - iii. **At the processor** – Similar to a transfer point assessment.

New Program Elements

1) Mandatory Commercial Recycling

This element requires commercial generators of large amounts of recyclable materials to source separate these materials for collection. [ORS 459A.007(1)(j)].

- SB 263 does not describe mechanisms local governments could use to ensure commercial generators' compliance.
- SB 263 does not define "large amounts of recyclable materials."

Proposal:

a) **Require local governments to use one or more of two options:**

- i. A local ordinance codifying this program element.
- ii. A local ordinance banning disposal of recyclable materials.

b) **Clarify types of generators to which this program element must minimally apply using certain criteria:**

- i. Type of business based on NAICS code.
- ii. Size of business based on: number of fulltime equivalent (FTE) employees; annual sales; annual revenue; and/or square footage.
- iii. Amounts of solid waste generated based on: waste audits; waste sampling; interviews with individual businesses; and/or known frequency of container service and size.

2) Residential Curbside Food Waste Collection

This element is a program for monthly or more frequent on-route collection and composting for food and other compostable waste from residential collection service customers. This element requires education and promotion to reduce contamination of the compost feedstock collected. [ORS 459A.007(1)(k)].

- Use of the words "composting" and "compostable" in the statute seem to limit waste recovery options strictly to composting.
 - Compost is "the controlled biological decomposition of organic material or the product resulting from such a process." [ORS 459.005(6)].
 - This definition includes anaerobic digestion but precludes use of food waste as animal feed or for land application.
- Residential food waste collection programs typically co-collect such waste with yard debris which, when mixed, cannot be easily separated.

Proposal:

a) **Clarify other allowed uses for recovered compostable food waste.**

b) **Clarify minimum education and promotion requirements.**

3) Recovery of Construction and Demolition Debris

This element requires construction and demolition debris to be source separated at the generation site or sent to a material recovery facility for processing and recovery. [ORS 459A007(1)(L)].

- SB 263 does not clarify which generators of C&D are subject to compliance with this element.
- SB 263 does not describe mechanisms local governments could use to require that such generators comply.
- SB 263 does not provide guidelines on choosing the most effective strategies for the education and promotion of this element.

Proposal:

a) Clarify types of generators to which this program element must minimally apply:

- i. Examples: for commercial and residential construction; professional contractors and DIY homeowners; and generators above a certain threshold amount of C&D.

b) Require local governments to use one or more of the following options:

- i. Local ordinance codifying the requirements of this program element (such as Metro's EDWRP or Portland's construction and demolition rules).
- ii. Revise local construction and demolition permitting programs to include these program element components as permit conditions.

c) Encourage building practices:

- i. That reduce waste; and
- ii. That consider the lifecycle impacts of a chosen building material.

4) Non-Residential Food Waste Collection

This element requires nonresidential generators of large amounts of food waste to source separate this waste for collection. [ORS 459A.007(1)(m)].

- SB 263 does not describe mechanisms local governments can use to ensure generator compliance.
- SB 263 does not define "large amounts of food waste."

Proposal:

a) Clarify types of generators to which this program element must minimally apply using certain criteria:

- i. Type of business based on NAICS code.
- ii. Characteristics of businesses and institutions, such as whether they have cafeterias or kitchens.

- iii. Amounts of food waste generated based on: waste audits; waste sampling; and/or interviews with individual businesses.

b) Require local governments to use one or more of two options:

- i. Local ordinance codifying the requirements of this program element (such as Portland's).
- ii. Revise local jurisdiction's code enforcement authority pertaining to certification of restaurants and other food preparation facilities.

III. Waste Prevention and Reuse Program

SB 263 makes changes to waste recovery program requirements. [ORS 459A.010(2)(a)-(g)].

- 1) **Eliminates two percent recovery rate credit programs used to meet wasteshed recovery goals.**

- 2) **Adds seven new waste prevention and reuse (WPR) program elements:**
 - a) **WPR education program** – A citywide or countywide education and promotion program about the environmental benefits of, and opportunities to reduce the generation of waste through, waste prevention and reuse.
 - b) **Residential campaign** – A waste prevention campaign targeting residential generators of waste and focused on one or more toxic or energy intensive materials or consumer purchasing practices.
 - c) **Commercial/institutional campaign** – A waste prevention campaign targeting commercial or institutional generators of waste and focused on one or more toxic or energy intensive materials or consumer purchasing practices.
 - d) **Schools education program** – A waste prevention and reuse education program in elementary and secondary schools.
 - e) **Infrastructure program** – A program for the provision of city or wasteshed funding or infrastructure support to promote and sustain reuse, repair, leasing or sharing efforts.
 - f) **TA program** – A program for the provision of city or wasteshed technical assistance to promote and sustain the reuse, repair, or leasing of materials or other sharing of efforts to reduce waste.
 - g) **Food rescue** – City or wasteshed support for a food rescue program that diverts to residents food that would otherwise be composted or disposed.

- 3) **Implementation of WPR elements is required within the urban growth boundary of cities of over 50,000 people, or cities of over 10,000 people in counties of over 100,000 people.**
 - Cities within a metropolitan service district or over 50,000 population must implement waste prevention and reuse element (a) and four others, or an alternative program.
 - Cities with populations between 10,000 and 50,000 must implement waste prevention and reuse element (a) and two others, or an alternative program.
 - A county may implement elements on behalf of cities within the county.
 - A metropolitan service districts may implement elements on behalf of the cities and counties within the metropolitan service district.

- 4) **A city or county that is not required to implement any waste prevention and reuse program elements may substitute WPR program element (a) and two other WPR elements for one recycling program element.**

- WPR programs are distinct from recycling programs. “Waste prevention” reduces “the amount of solid waste generated or resources used, without increasing toxicity, in the design, manufacture, purchase or use of products or packaging.” “Waste prevention does not include reuse, recycling or composting.” [ORS 459.005].
- “Reuse” means “the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity.” [ORS 459.005].

Rule concepts for WPR program elements (a) through (d):

- Concepts for the remaining three elements will be presented at the second Advisory Committee meeting.
- Proposed standards for “alternative programs” are discussed in a separate document.

Proposed definitions:

SB 263 does not define a number of terms related to the new WPR program elements.

Proposed definitions for key terms in elements (a) through (d):

- 1) **Environmental benefits:** a reduction in environmental impacts (i.e., adverse effects caused by a material at any point in the material’s life cycle), including reductions in impacts occurring upstream of product or material use during resource extraction and manufacturing.
- 2) **Citywide or countywide education and promotion program:** a program that provides information for the purpose of educating residents and promoting specific behaviors or practices, using one or more media that, in combination, are expected to be seen or heard by at least **X%** of the households in the city or county and is presented in the primary language spoken in the home.
- 3) **Waste prevention campaign:** an organized effort intended to change one or more specific and defined behaviors or practices so as to reduce the amount of solid waste generated or resource used, without increasing toxicity, in the design, manufacture, purchase, or use of products or packaging.
- 4) **Toxic materials:** Materials or products that contain chemicals or groups of chemicals identified by DEQ, other government agencies, or research institutions (e.g. universities) as of particular concern. Refer to DEQ’s website for links to lists of chemicals that would be appropriate as a focus for this program element.
- 5) **Energy intensive materials:** include (i) metals; (ii) paper; (iii) plastic; and (iv) food.
- 6) **Consumer purchasing practices:** the act of purchasing a toxic or energy intensive material, a product containing toxic materials, or a product consisting at least 50% by weight of energy intensive materials.
- 7) **Repair:** restoring an object or material to a condition that allows for its continued use as originally intended at manufacture.
- 8) **Leasing:** commercial programs, including rental programs, that convey equipment or materials for a specific term and for a specific rent, and which reduce the number of items produced and subsequently purchased for use in a community.

- 9) **Sharing:** non-profit programs that promote shared use of objects, either free of charge or for a nominal fee, that reduce the number of items produced and subsequently purchased for use in a community.

Proposed WPR program elements [ORS 459A.010(2)(a)-(d)].

- a) **A citywide or countywide education and promotion program about the environmental benefits of, and opportunities to reduce the generation of waste through, waste prevention and reuse.**
- Each local government with a WPR program would be required to develop and submit to DEQ a written program plan describing: (i) target audiences; (ii) key messages; (iii) proposed formats and materials; (iv) schedule for distribution of the material; and (v) program deliverers.
 - DEQ would provide a format for the written program plan. Alternatively, a city or county could use its own format.
 - Communities using the “expanded education and promotion” recycling program element to satisfy opportunity to recycle requirements could use the same outreach mechanisms (e.g., quarterly notification of all collection service customers) to satisfy this waste prevention and reuse program element, so long as: (i) the content also addresses the environmental benefits of, and opportunities to reduce the generation of waste through, waste prevention and reuse; and (ii) the outreach mechanisms reach at least enough of the households to meet the definition of “citywide or countywide education and promotion program.”
- b) **A waste prevention campaign targeting residential generators of waste and focused on one or more toxic or energy intensive materials or consumer purchasing practices.**
- Each local government with a WPR program would be required to develop and implement a campaign plan that: (i) identifies at least one specific waste generating behavior or practice targeted for change; (ii) describes the overall campaign strategy; and (iii) provides an implementation schedule (including a schedule to periodically refresh campaign material at least every two years) and performance measurement plan.
 - DEQ would provide or identify at least one campaign that could be used to implement this element. Alternatively, cities or counties could develop their own campaigns with approval from DEQ.
- c) **A waste prevention campaign targeting commercial or institutional generators of waste and focused on one or more toxic or energy intensive materials or consumer purchasing practices.**
- Local governments would be required to develop and implement a campaign plan that: (i) identifies at least one type of targeted commercial or institutional generators and at least one specific waste generating behavior or practice targeted for change; (ii) describes the overall campaign strategy; and (iii) provides an implementation schedule (including a schedule to periodically refresh campaign material at least every two years) and performance measurement plan.
 - DEQ would provide or identify at least one campaign that could be used to implement this element. Alternatively, cities or counties could develop their own campaigns with approval from DEQ.

d) A waste prevention and reuse education program in elementary and secondary schools.

- Each local government with a WPR program would be required to develop and implement a plan to deliver elementary and secondary school education and promotion programs. The plan must: (i) identify targeted students; (ii) describe how information will be delivered; (iii) identify targeted behavior change and barriers to change; and (iv) provide an implementation schedule and performance measurement plan.
- The education program must address students in both elementary and secondary schools. Eligible activities would include: (i) classroom presentations; (ii) school assemblies; (iii) classroom curricular activities including service learning projects; (iv) after school programs (for example, involving environmental clubs); and (v) student education implemented as part of in-school waste prevention and reuse programs, such as school cafeteria projects to measure and reduce the wasting of food.
- The program must provide education to at least **X%** of elementary and secondary students in each calendar year for which this element is used to comply with waste prevention and reuse program requirements.

IV. Alternative Programs

1) Define “similar communities”

For those cities that opt to achieve the recovery levels comparable to similar communities and not their watershed’s goals.

- **Background:** A watershed’s compliance with the Opportunity to Recycle Act can be achieved either by: (a) implementing the applicable number of recycling program elements; or (b) by seeking DEQ approval of an “alternative program.” [ORS 459A.007(3); OAR 340-90-0040].
- DEQ’s existing rules set a standard for evaluating alternative programs. [OAR 340-90-0080]. A portion of DEQ’s rules-based evaluation standard became statute with SB 263.
 - Under current DEQ rules, an alternative program must be designed to be as effective in recovering recyclable materials from solid waste as the requirements provided in statute and must meet the recovery goal for its watershed.
- **SB 263 statutory change:** SB 263 now requires a city to achieve at least the lesser of: (a) the watershed recovery rate specified in statute; or (b) recovery levels comparable to similar communities. [ORS 459A.010(2), 459A.007(3)(b)].

Proposal:

- **“Similar communities” criteria** – DEQ could determine a “similar community” for purposes of a city’s compliance based on these factors:
 - i. Communities’ populations.
 - ii. Geographical sizes.
 - iii. Socioeconomics.
 - iv. Distances to viable recycling markets.
- **“Recovery levels”** – Recovery levels would be determined primarily using collector survey data – from the material recovery survey – from each city.
 - This method does not provide a comprehensive picture of city-scale recycling. But it does address those recycling activities that are most closely associated with program elements.
 - Compared to private recycler survey data, collector survey data is also generally easier to evaluate at the scale of individual cities.

2) Waste Prevention and Reuse (WPR) alternative programs.

- **Background:** New Waste Prevention and Reuse (WPR) program elements are required for certain cities based on their populations. These requirements can be achieved either by implementing the applicable number of WPR program elements or by seeking DEQ approval of an “alternative program.” [ORS 459A.007(6)(b), (7)(b)].

- **SB 263's statutory change:** Certain cities must fulfill WPR program requirements. [ORS 459A.007(2)].

A local government could implement these WPR programs either through the list of available program elements or through a DEQ-approved alternative program. DEQ has no current criteria to evaluate a WPR alternative program.

Proposal:

- **Create new rule-based criteria for evaluating WPR alternative programs** – Criteria would be structured similar to existing rules for recycling alternative programs.