Materials Management in Oregon
DEQ Program highlights 2013-2019

2050 Vision
Oregonians in 2050 produce and use materials responsibly, conserving resources, protecting the environment and living well
Getting to 2050

In Oregon, our way of life is deeply connected to the environment and natural resources. And for 50 years, the Department of Environmental Quality has worked to protect this identity. In 2012, with support from the Environmental Quality Commission, DEQ went a step further to lay the groundwork to protect Oregon's air, land, water and natural bounty for future generations to come by adopting **Oregon's 2050 Vision for Materials Management**.

Along with the 2050 Vision, DEQ developed **The Framework for Action** to provide a roadmap to achieving the Vision. It charts a course of action to create an Oregon where producers make products sustainably, Oregonians live within their share of the world’s natural resources, and materials have the most useful life possible. It recognizes that materials, environment, and quality of life are linked.

A lot has happened since the Vision was adopted in 2012. This report highlights some of our achievements – many made possible through the strength of partnerships – and helps us reflect on what we’ve done, and where we’re going.

Why materials matter

DEQ estimates that the consumption of materials contributes to approximately **41 percent** of all greenhouse gas emission in Oregon. Materials matter because they are central to our economy, our environment and our communities. The extraction, manufacturing, transport, use, and disposal of materials has profound impacts on the air we breathe, the water we drink, the productivity of our soils and the health of numerous ecosystems.

DEQ uses a holistic, lifecycle approach called “materials management” that seeks to reduce environmental impact by managing materials throughout all stages of their lifecycle.

![2015 Oregon Consumption-based greenhouse gas emissions by category](image)

<table>
<thead>
<tr>
<th>Emissions by category</th>
<th>2015 Oregon Consumption-based greenhouse gas emissions by category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>41%</td>
</tr>
<tr>
<td>Services</td>
<td>26%</td>
</tr>
<tr>
<td>Fuels</td>
<td>22%</td>
</tr>
<tr>
<td>Electricity</td>
<td>11%</td>
</tr>
</tbody>
</table>

**Desired Outcomes for 2050**

- Producers make products sustainably. Every option is a sustainable option.
- People live well and consume sustainably.
- Materials have the most useful life possible before and after discards.

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.
Program highlights since 2013

Color boxes represent where each item fits into the material life cycle.

- **Upstream**: Resource extraction, design, production, transportation
- **Consumption**: Materials use
- **Full life cycle**: All impacts
- **End of life**: Disposal and recovery

### Foundational
- Strategic Plan: Reuse/repair/product life extension
- Strategic Plan: Preventing the Wasting of Food
- Strategic Plan: Measurement
- Recycling Steering Committee
- Materials Impact Calculator App
- External presentations
  - Newsletters
  - Staffing up
- Material Recovery Survey
- Consumption-based GHG emissions inventory

### Policy and Regulation
- Paint EPR law
- SB 263
- SB 245
- Multi-tenant recycling (SB 263)
- Pacific Coast Collaborative food initiative
- EO 17-20 - consider embodied carbon in state buildings
- Bottle Bill update (increased deposit)
- E-cycles enforcement action against Total Reclaim, Inc.
- Guidance on controlling lead paint dust in demolitions
- Response to National Sword
- Supported City of Portland Concrete Policy
- Compost industry Statement
- Landfill redevelopment
- Pharmaceutical EPR
- Updated Clean Fill Guidance
- Monitoring solid waste permitted facilities
- EPR programs: Paint Care, Oregon E-Cycles
- State procurement: MRO/Janitorial price agreements

### Research
- Product Environmental Footprinting Survey and report
- LCA study of food waste treatment
- Low carbon purchasing toolkit (West Coast Climate Forum)
- ADU owner survey in Portland, Eugene and Ashland
- Plastics recovery assessment report
- Food footprinting LCA reports
- Portland State University wasted food research
- Material Attributes report
- Embodied Carbon of building materials research
- LCA of beer keg options
- Sustainability Frameworks report
- Food Rescue LCA
- Deconstruction vs. Demolition policy report
- Lifecycle Impacts of Solid Waste Stream report

### Implementation through collaboration
- Recycling
  - Contamination Plan template
  - Workforce development grants
- Refillable water bottle pilot
  - Waste prevention campaigns for food and clothes
- Commercial food waste workshops
- Build Small research, education and publications
  - School lab cleanouts
    - Toxics Reduction: Research/trainings/tools
      - Grants program
      - OTR implementation
      - HHW collection events
    - Green Building Rating system updates
- Concrete EPD program
- OASE intern program

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By the numbers

1st
State to: complete consumption-based emissions inventory; run a voluntary EPD program; support City of Portland’s 1st in the nation policies around deconstruction and concrete purchasing.

$3.1 M
Awarded through 74 grants supporting projects that promote prevention, reuse, repair and recycling in Oregon.

830
Accessory Dwelling Unit (ADU) owners surveyed in Portland, Eugene, and Ashland as part of the first national survey of how ADUs are being used.

158
Schools DEQ visited to remove dangerous chemicals from science classrooms and train teachers on proper disposal.

340
Solid waste disposal sites DEQ monitors and inspects for environmental protection.

700+
Environmental Product Declarations (EPD) for concrete published.

155 M
Pounds of electronic devices collected through the Oregon E-Cycles program.

100
Stakeholders engaged in 22 meetings over 14 months to help pass SB 263, 245.

20
Paid interns hired to reduce pollution at 20 Oregon businesses (funded through the OASE intern program).

43
Restaurants that participated in DEQ’s food waste prevention workshops in 2019.

Thank you.

DEQ relied heavily on stakeholders to create the 2050 Vision for Materials Management in Oregon and to pass Senate Bills 245 and 263 through the 2015 legislature. These bills expanded DEQ’s authority to work across the life cycle of materials, provided improvements to the opportunity-to-recycle laws, and created a more stable funding structure for DEQ’s Materials Management program. This involved an enormous investment of time and energy from our stakeholders – for that, we thank you.

The 2050 Vision is intended to be a vision for Oregon, and we cannot achieve the vision alone. We will continue to partner with others to create a more sustainable future – a future where producers make products sustainably, Oregonians live within their sustainable share of the world’s natural resources, and materials have the most useful life possible.

To learn more about DEQ’s Materials Management program, visit https://www.oregon.gov/deq/mm.

Haystack Rock, Clatsop County