Rethinking Reduce, Reuse and Recycle

David Allaway
Oregon Department of Environmental Quality
Environmental and Energy Study Institute
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Today’s presentation

• The environmental impacts of waste . . . and materials
• An abbreviated history of waste and recycling in the US
• Modernizing recycling in Oregon
Waste . . . or materials?
Oregon’s consumption-based greenhouse gas emissions (2015)

- Materials: 41%
- Services: 26%
- Fuels: 22%
- Electricity: 11%
Oregon’s consumption-based greenhouse gas emissions (2015) – materials only

- Production: 99%
- Disposal: 1%
Recycling’s benefits are largely upstream
Done poorly, recycling can harm people and the environment

Photos: Megan Ponder
Oregon’s consumption-based greenhouse gas emissions (2015) with 90% recycling/composting

- Materials: 38%
- Services: 26%
- Fuels: 22%
- Electricity: 11%

Reduction of Emissions: 3%
Drinking water options: dispose, recycle, or reduce?

- Plastic bottle, no recycling
- Plastic bottle, 80% recycling

Source: Oregon DEQ
Drinking water options: dispose, recycle, or reduce?

<table>
<thead>
<tr>
<th>Relative Impact</th>
<th>Energy Use</th>
<th>Climate Change</th>
<th>Acidification</th>
<th>Ecotoxicity</th>
<th>Human Respiratory Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Plastic bottle, no recycling = 100)</td>
<td>100</td>
<td>90</td>
<td>90</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

- **Plastic bottle, no recycling**
- **Plastic bottle, 80% recycling**
- **Tap water**

Source: Oregon DEQ
An abbreviated history of waste collection

An early image of the sanitation department collecting trash, circa late 1890s. Photo courtesy DSNY.

Volunteers help sort recycling at the Arcata Community Recycling Center (ACRC) in the 1970s. Photo from the ACRC Facebook page.
In Oregon, public recycling is primarily paid for by ratepayers


- Ratepayer Funded (Net) Expenses ~84%
- Revenues from Sale of Recyclables ~16%

Source: Cascadia Consulting Group/Oregon DEQ
Is recycling promoted to distract the public and policymakers from other solutions?
Key challenges

• Public confusion and contamination
• Volatile and increasing costs
• Inconsistent collection opportunities
• Inadequate processing
• Social inequities in both benefits and burdens
• Loss of public trust and concerns over environmental damage

Photos: Megan Ponder
Root causes

• Market prices don’t reflect environmental benefits
• Oregon’s laws are outdated
• Current producer actions are inadequate
A proposed policy update for Oregon

Oregon’s Plastic Pollution and Recycling Modernization Act (SB 582A):

A unique, “shared responsibility” proposal
Thank you

Contact: David Allaway
david.allaway@deq.state.or.us