



Consumption in Oregon's Greenhouse Gas Inventories and Action Plans

Materials Management through Sustainable Consumption Webinar Series

David Allaway

Oregon Department of Environmental Quality

April 9, 2013



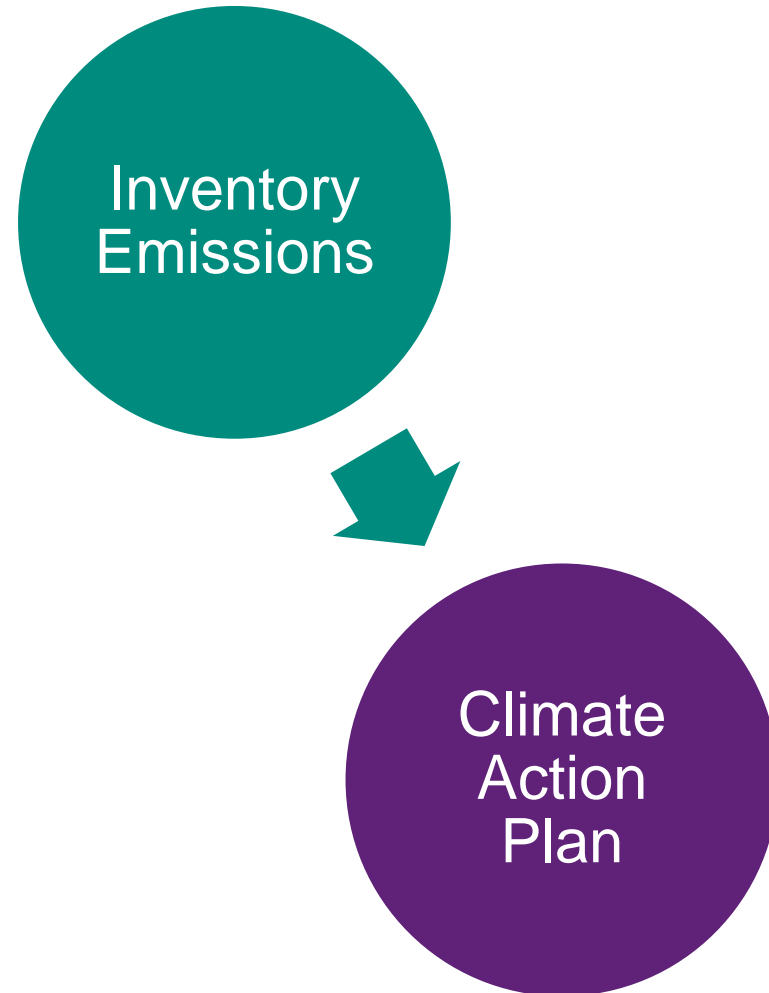
Study – Plan – Implement – Repeat



Inventory
Emissions

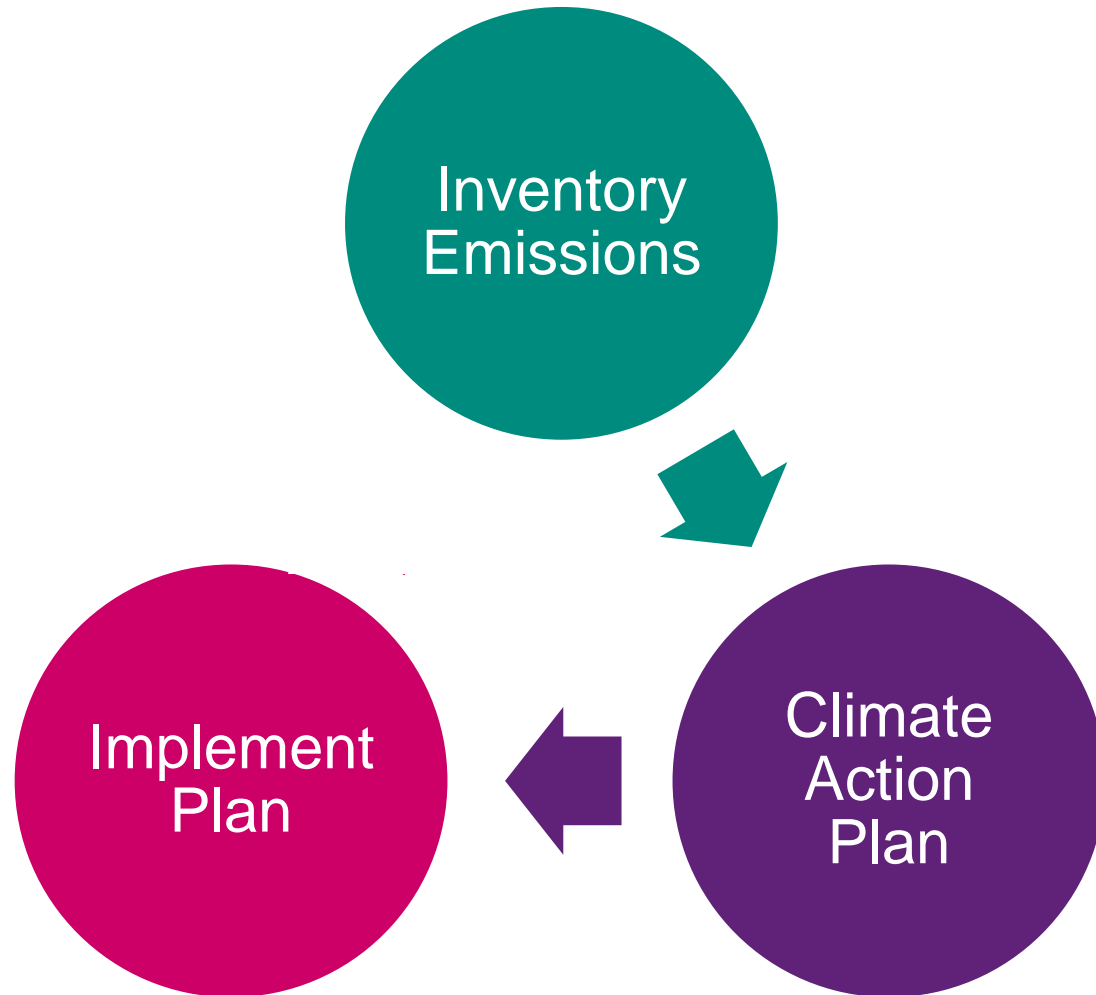


Study – Plan – Implement – Repeat



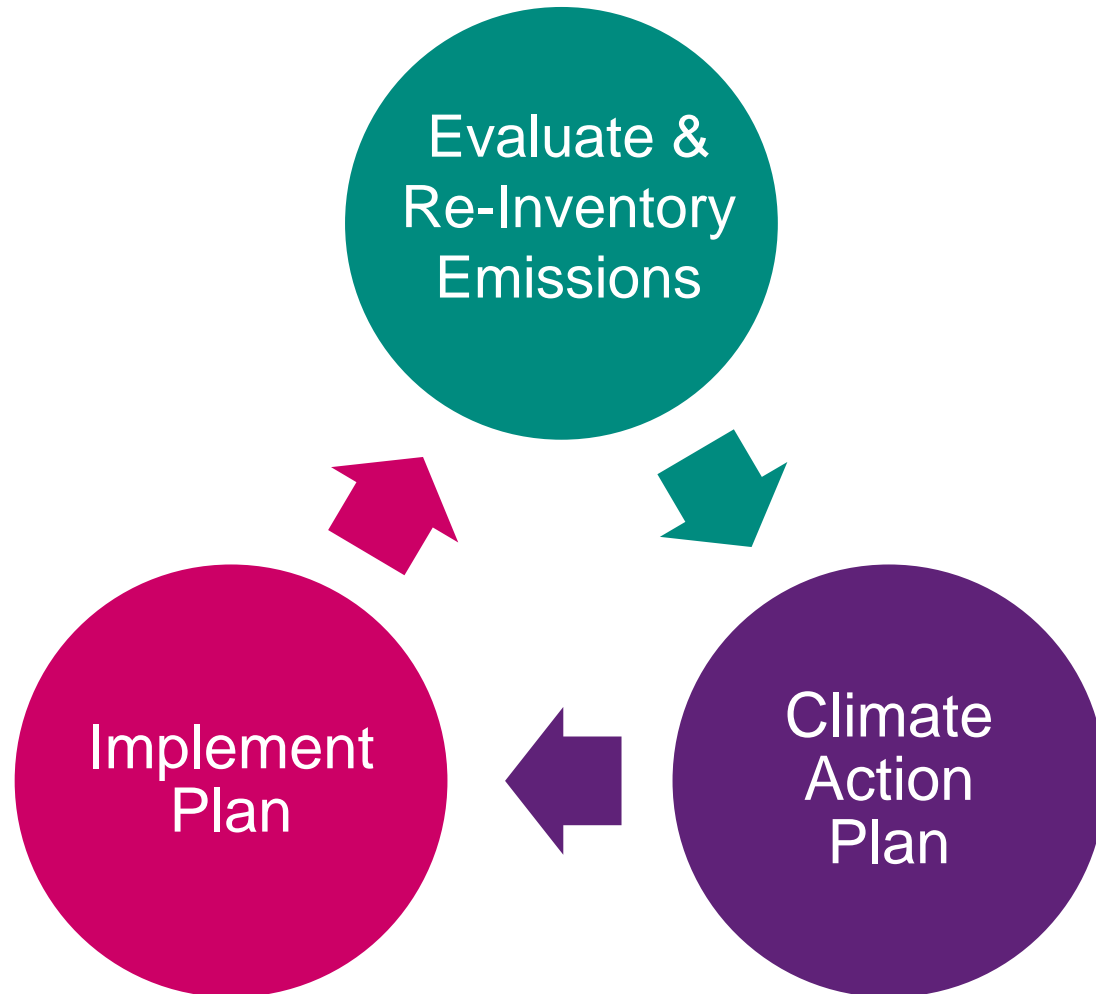


Study – Plan – Implement – Repeat



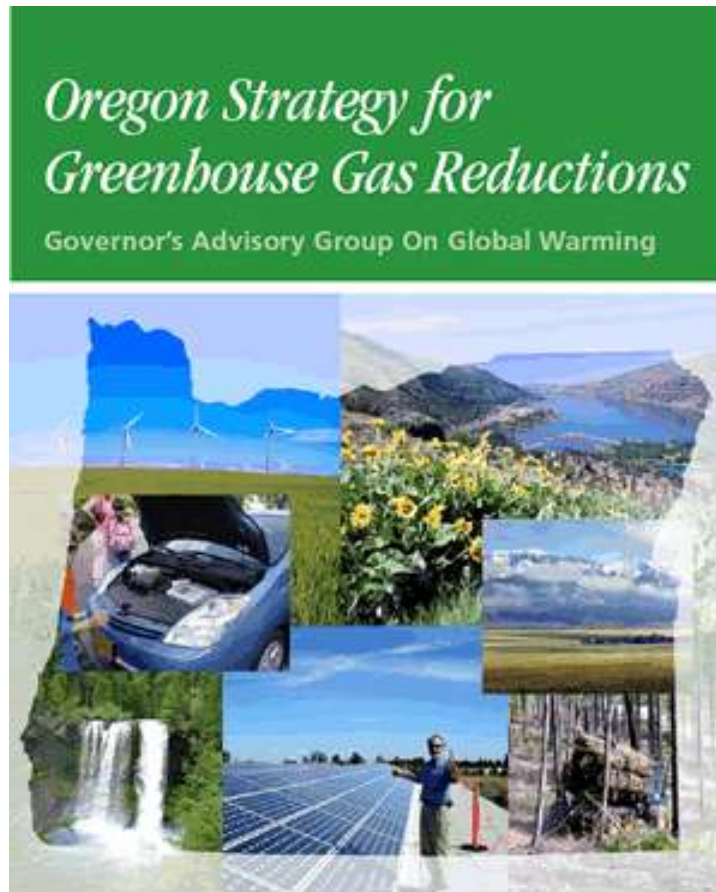


Study – Plan – Implement – Repeat





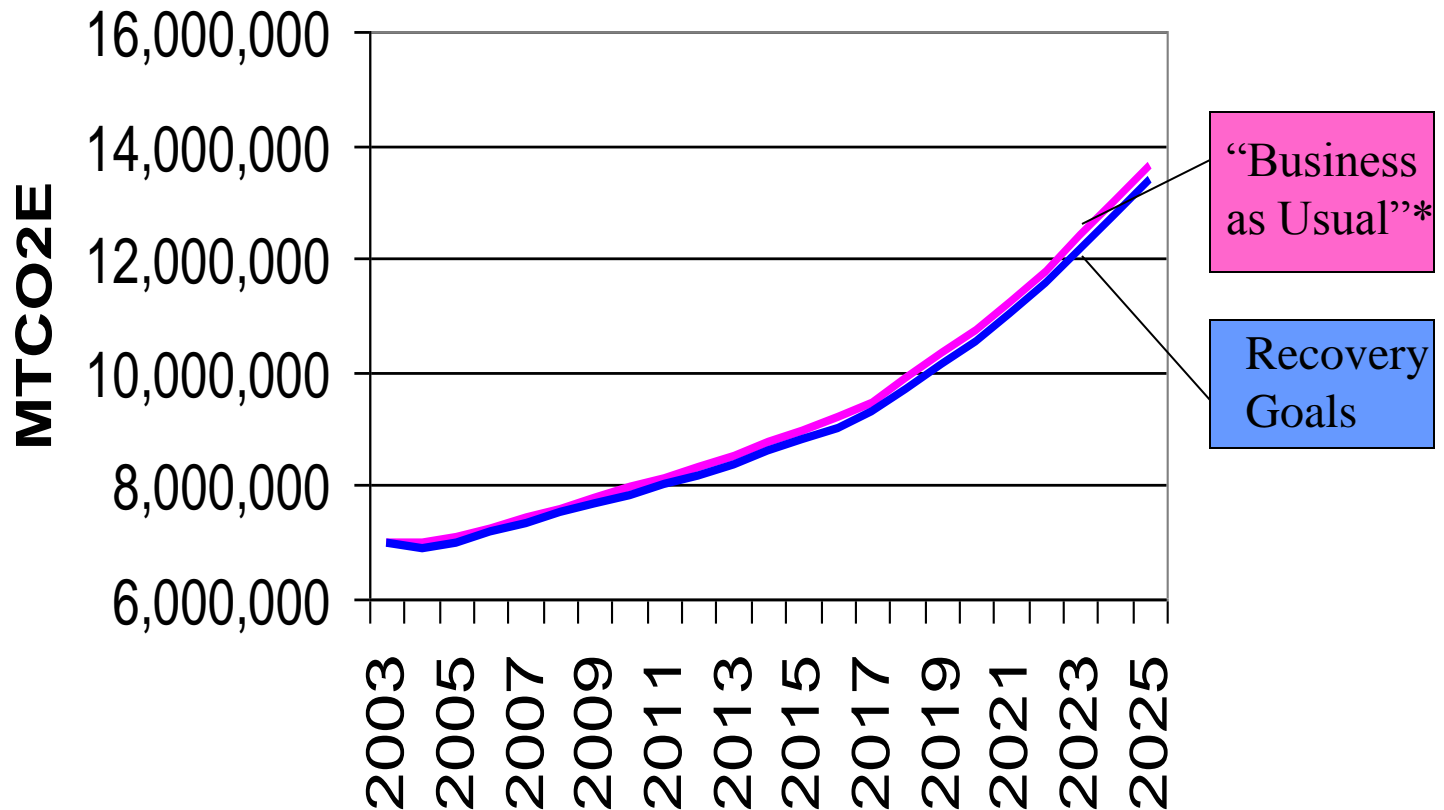
Governor's Advisory Group on Global Warming (2004)



State of Oregon, December 2004



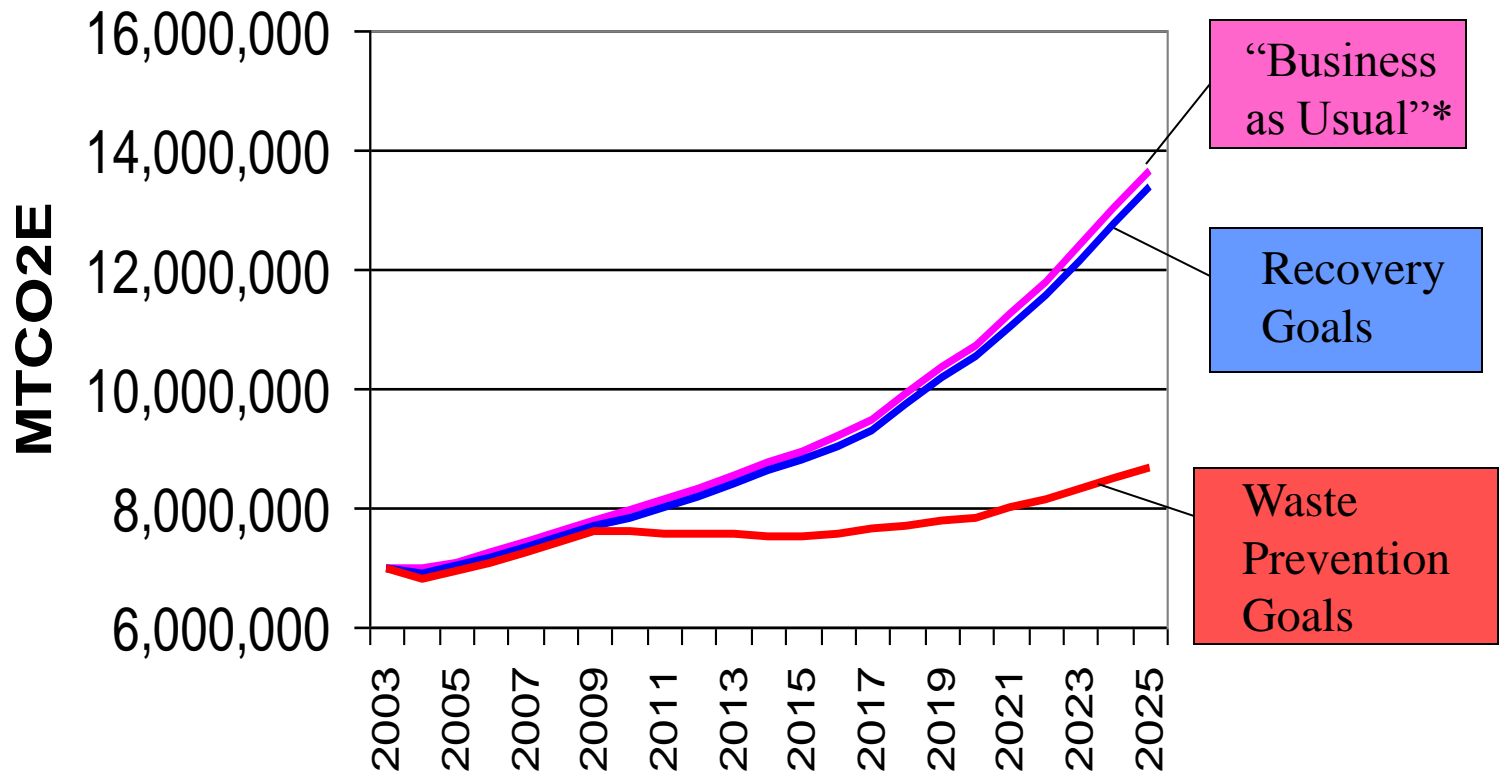
Year 2004 Forecast of Oregon's Materials-Related GHG Emissions



*Per-capita waste generation continues to grow, recovery rate stays at 47%



Year 2004 Forecast of Oregon's Materials-Related GHG Emissions



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**“ . . . So, waste prevention is important.
What do we do?” (2004)**

- Grants and DEQ-led pilot projects (2001 – 2009)
- [Waste Prevention Strategy](#) (completed 2006)
 - New green building program
 - Limited new consumer-facing information
 - Drinking water LCA
 - Assistance to retail and consumer products businesses
- Consumption-based emissions inventory started 2008.



2010: Time to do another plan!

The Oregon Global Warming Commission

Interim Roadmap to 2020



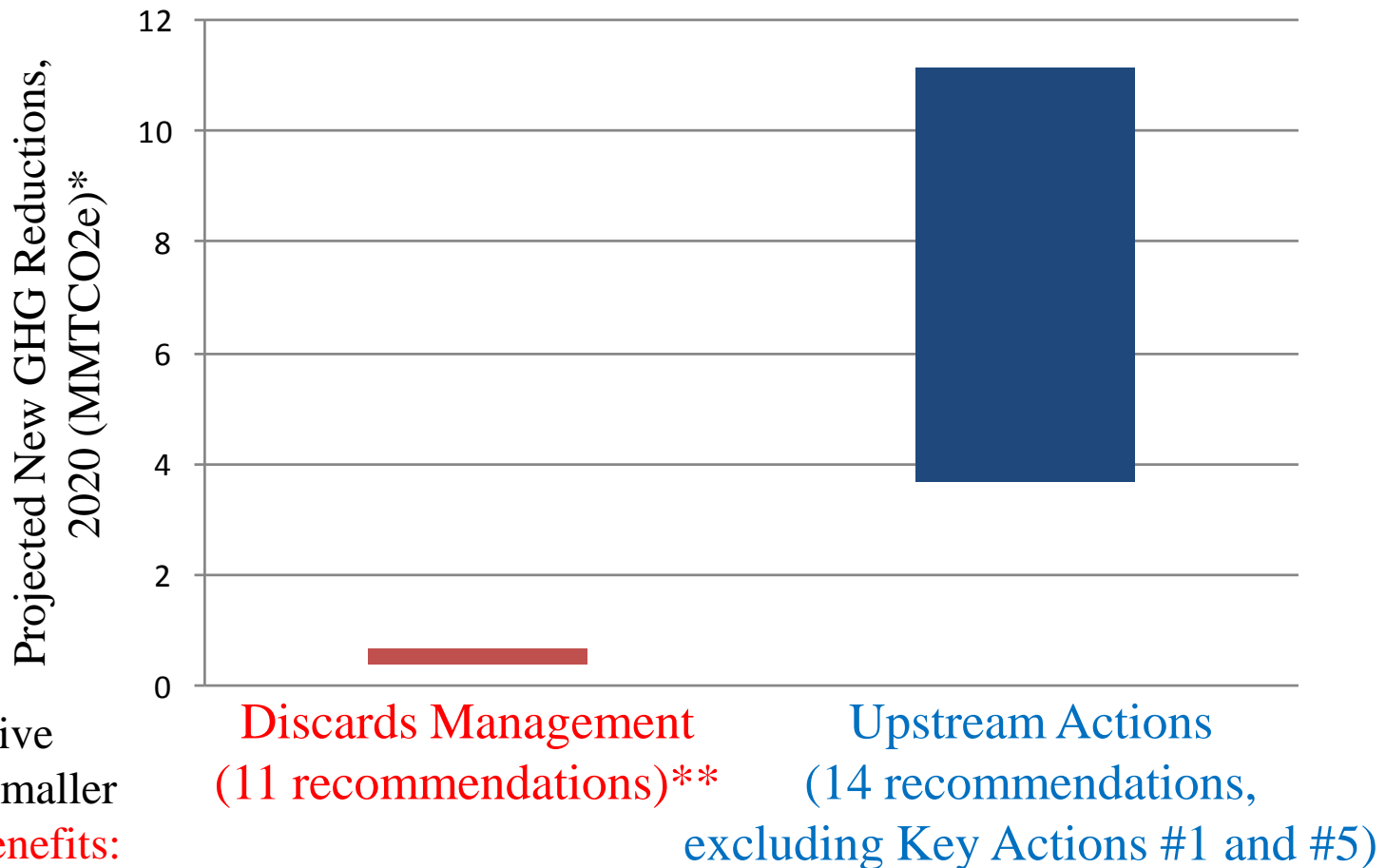
Roadmap Elements as Adopted by the Oregon Global Warming
Commission on October 28, 2010

The Interim Roadmap As Adopted Will Be Incorporated into the
Commission's 2011 *Report to the Legislature*.

October 29, 2010



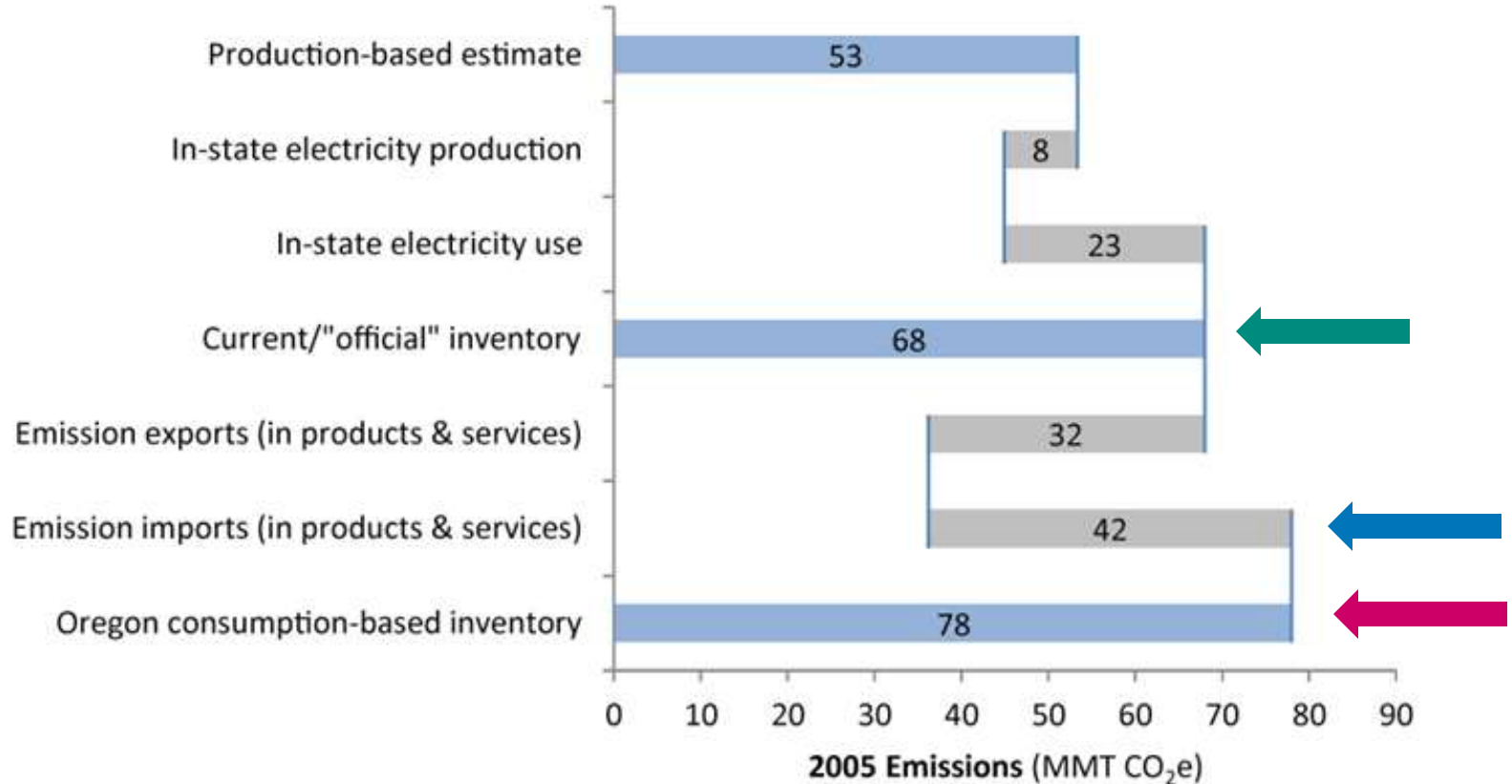
Roadmap to 2020: “Discards Management” and “Upstream Actions”



*Additive; cumulative reductions will be smaller
**2009 recovery benefits: 2.8 MMTCO₂e

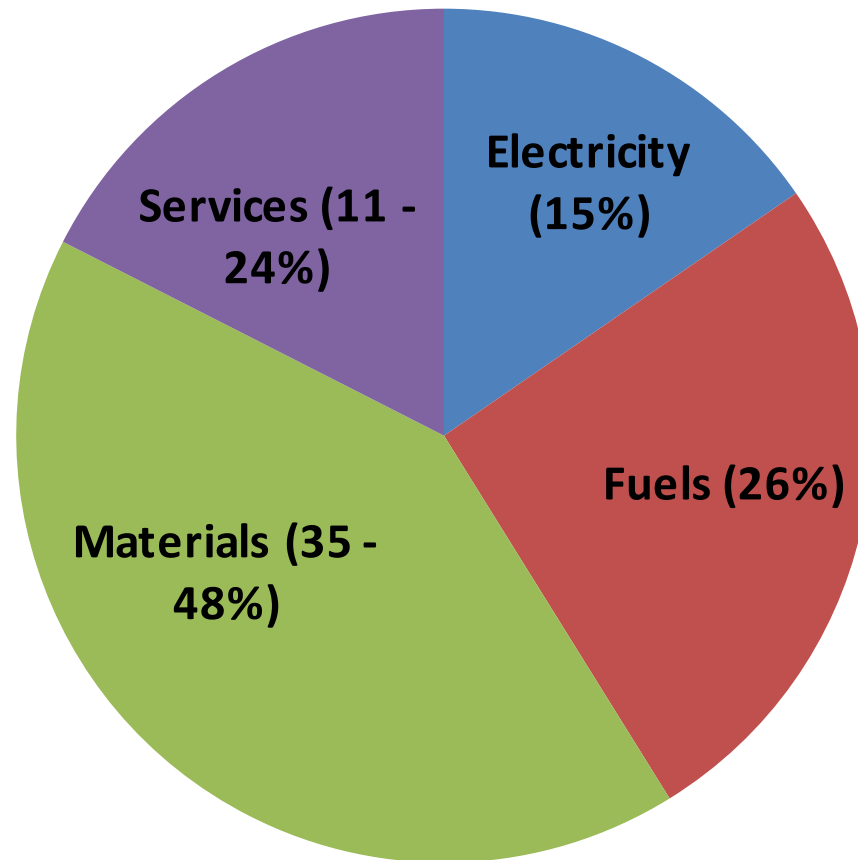


Oregon Consumption-Based Emissions Inventory (for 2005) Published in 2011



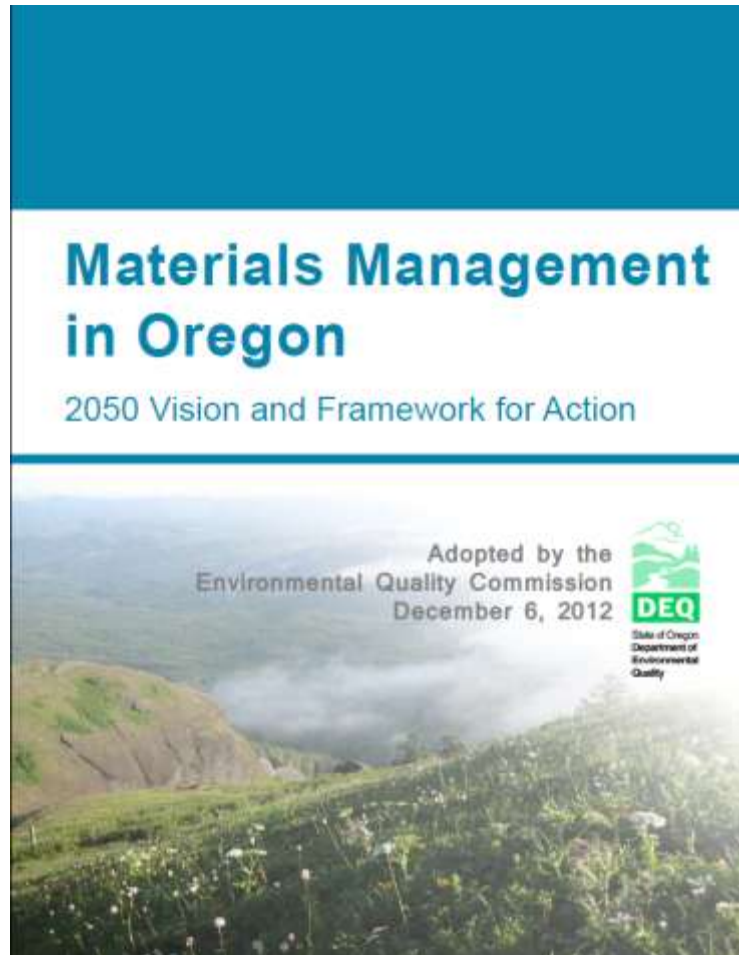


Oregon 2005 Consumption-Based Emissions by Major Category of Consumption (“Final Demand”)





2011 – 2012: Another Plan!



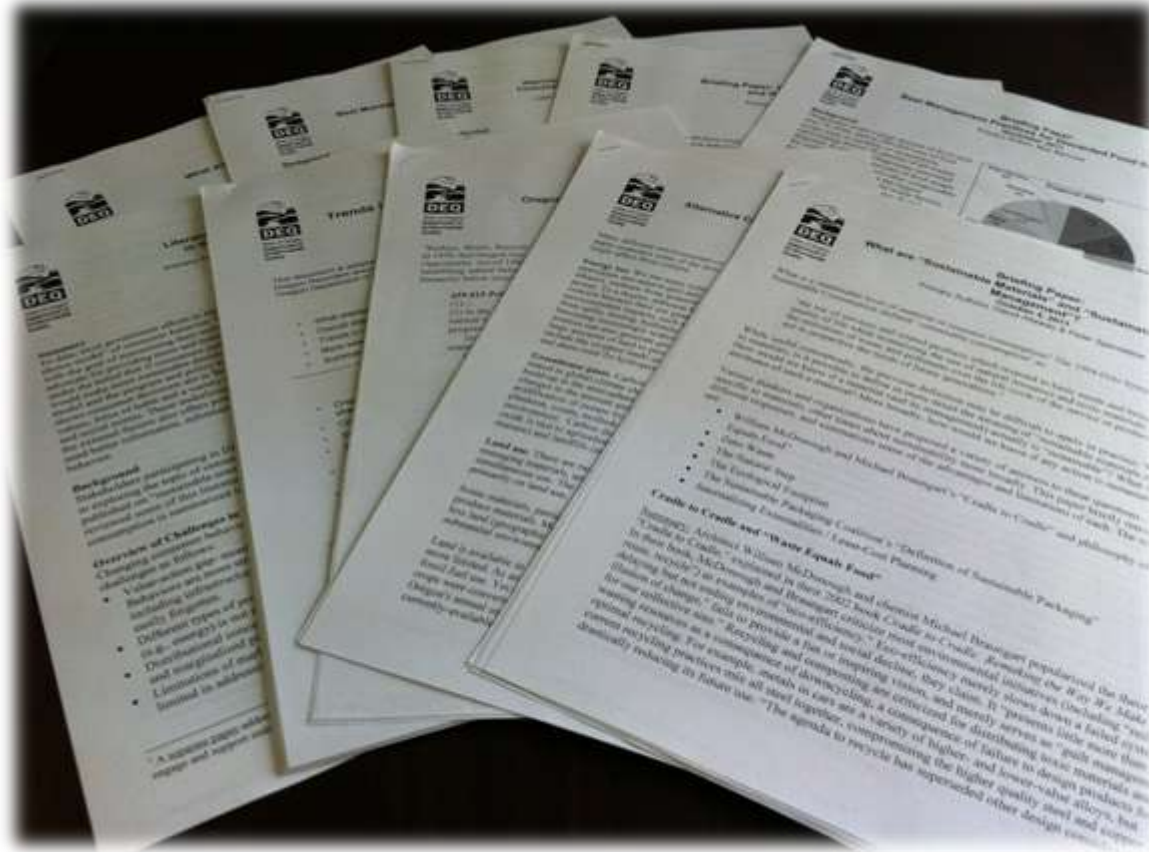


Materials Management: A “Life Cycle” View





Background Papers

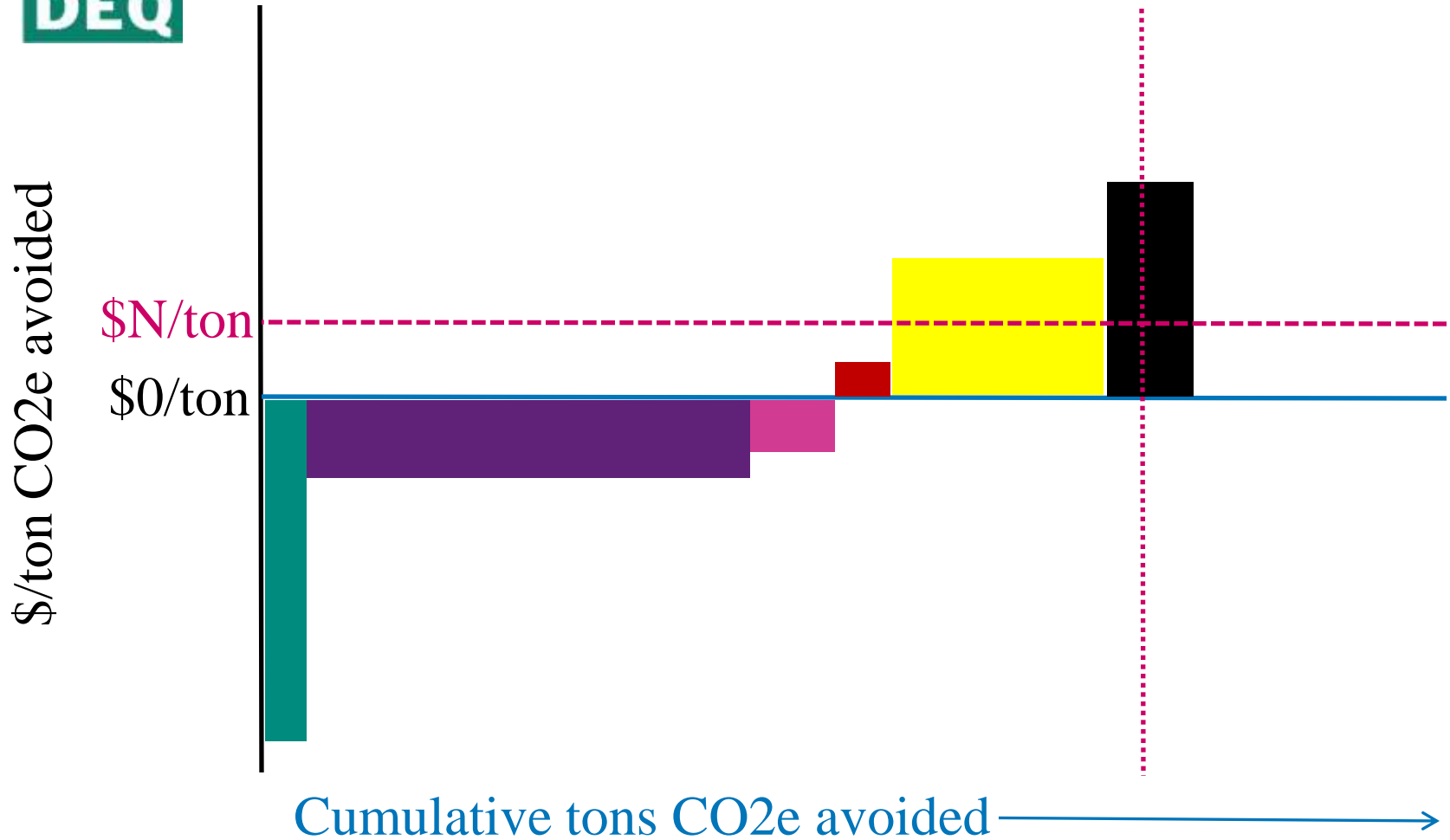


Documents available:

www.deq.state.or.us/lq/sw/materialsmgmtplan/bkgrddocs.htm



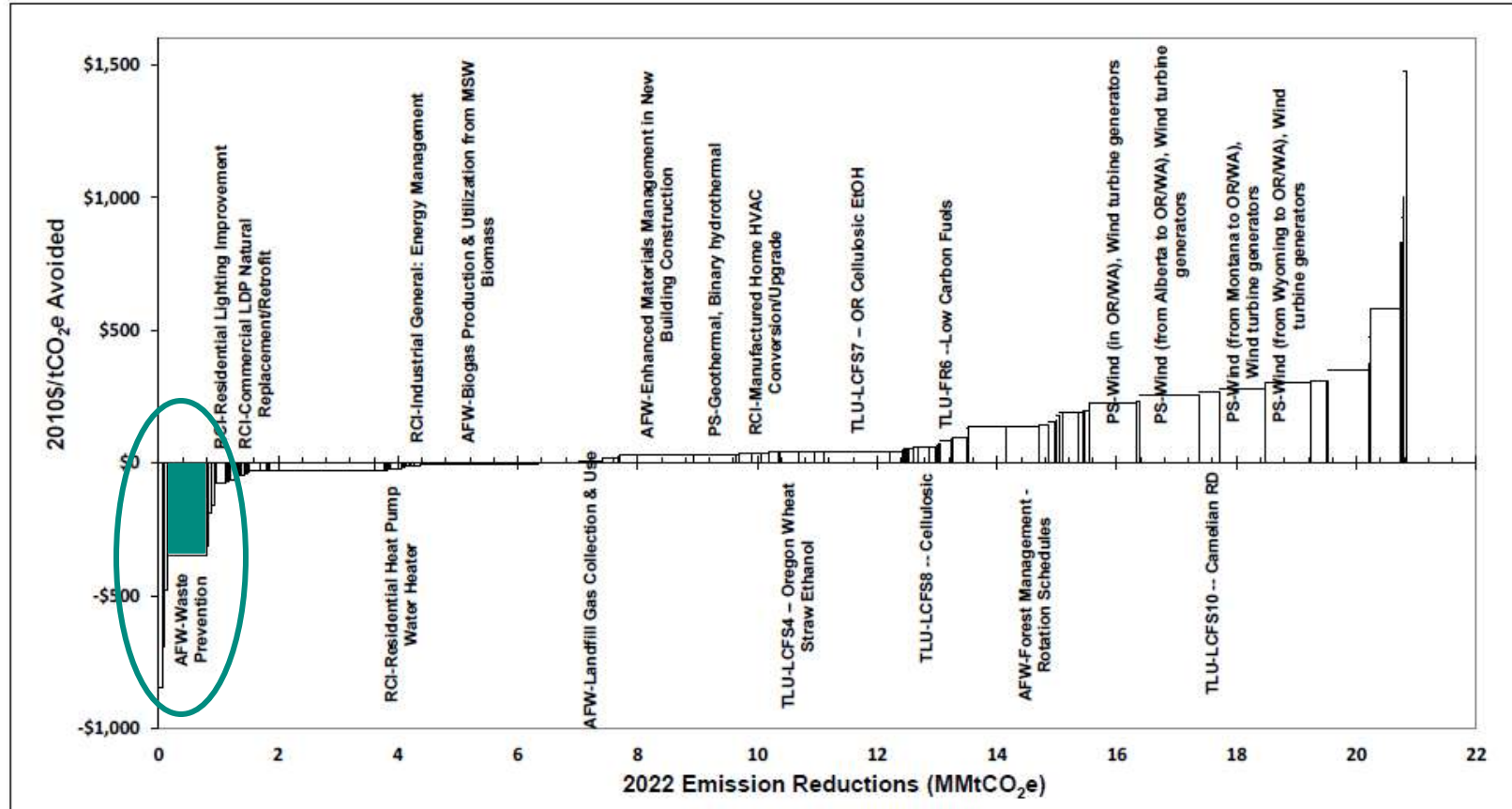
Marginal Abatement Cost Curve





Oregon Marginal Abatement Cost Curve Project

Figure 2. Marginal Abatement Cost Curve for Scenario 1, Year 2022





Consumption-Based Emissions Inventory – 2010 Update (forthcoming)

- Preliminary results generally consistent with 2005; some change:
 - Real consumption up 3% (2005 to 2010); consumption-based emissions flat
 - Emissions increases (2005 to 2010):
 - Healthcare and other services (especially education)
 - Food and beverages (esp. beverages, grains/cereals/baked goods, and pet food)

Preliminary, unpublished results –
Please do not cite or reference



Consumption-Based Emissions Inventory – 2010 Update (forthcoming)

- Preliminary results, continued:
 - Emissions decreases (2005 to 2010):
 - Purchase of vehicles (cars/light trucks and heavy-duty trucks)
 - Household vehicle use
 - Shift in electronics from consumption of hardware to software
 - Use of lighting
 - Post-consumer disposal
- New analysis of household emissions by income category
- Methodological improvements
- Publication in a multi-agency, “3 lens” inventory report

Preliminary, unpublished results –
Please do not cite or reference



Next Steps for DEQ

- Short-term (2013 – 2015):
 - Complete and publish 2010 consumption-based emissions inventory
 - Continue green building work with focus on “space efficient housing”
 - Research project: accelerate environmental footprinting of products?
 - Evaluate potential new goals and measures
 - Solid waste program and policy reorientation
- Medium-term (2015 – 2020):
 - TBD, with prioritized implementation of 2050 Materials Management Vision and continued shift “upstream” (production and consumption)



Concluding Thoughts

- Value of consumption-based accounting:
 - Identifies new, cost-effective methods to reduce emissions
 - Legitimizes policy/program discussions around materials, products, and consumption
 - Can also be used to identify priorities (e.g., purchasing) and to answer specific research questions
- Rationale for including consumption-based emissions in GHG inventories is robust and can be well-accepted
 - Though still unfamiliar to many
- Uncharted territory; lots of room for creativity and new partnerships



Thank You!

David Allaway

allaway.david@deq.state.or.us

(503) 229-5479 (Portland)

Toll free in Oregon: (800) 452-4011