WASTE PREVENTION, REDUCTION & REUSE
Reduce and Reuse Defined

• Defining terms
  • Reduce – minimize/prevent waste material
  • Reuse – continue to use material (for same function or new one)
  • Recycle – convert waste into reusable material

• It’s a hierarchy
Why the Hierarchy?

- Life Cycle Assessment: “An evaluation of the environmental burdens and impacts over the entire life cycle of a product or service.”

- Quantifies the various impacts of a product across all stages such as:
  - Raw material extraction
  - Production
  - Transportation
  - Use
  - Final end-of-life management

Image source: storyofstuff.org

Text source: Oregon DEQ
Figure 1.
Comparison of Disposal, Recycling and Prevention

![Bar chart showing comparison of disposal, recycling, and prevention across various categories.](chart_image)
How about waste prevention? (3rd Scenario)

• Drink tap water in a reusable bottle
• Bottle is washed every single day in a very inefficient dishwasher
• Bottle is used for 1 year before it’s disposed of
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- **Energy Consumption**
- **Acidification Potential**
- **Carcinogenic Potential**
- **Ecotoxicity Potential**
- **Eutrophication Potential**
- **Global Warming Potential**
- **Non-carcinogenic Potential**
- **Ozone Depletion Potential**
- **Respiratory Effects**
- **Smog Potential**

Legend:
- **Purchase + Disposal**
- **Purchase + Recycling**
- **Waste Prevention (tap water)**
The Bottom Line:

“Drinking tap water and recycling single-use bottles are equally effective ways of keeping waste out of landfills and incinerators, but DEQ’s study shows that most effects on the environment from bottled water occur from manufacturing and transportation, not disposal. Recycling single-use water bottles, at best, offers only moderate reductions in environmental impacts.”

“For consumers, the most important message is: reduce first, then recycle.”

- David Allaway, DEQ solid waste senior policy analyst

BONUS: “America has a recycling problem” video on our website