

Zero Waste

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Zero Waste

- **A Policy, Path, Direction**
- **A Target, Process, Way Of Thinking**
- **Recognizes 71 Tons “Upstream” For Every Ton MSW**
- **From Waste Management To Resource Management**
- **Redesigning Products and Processes for Clean Production**
- **New Vision For A New Century**

Definition of Zero Waste*

- Zero Waste is a goal that is both pragmatic and visionary, to guide people to emulate sustainable natural cycles, where all discarded materials are resources for others to use.
- Zero Waste means designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.
- Implementing Zero Waste will eliminate all discharges to land, water or air that may be a threat to planetary, human, animal or plant health.

* www.zwia.org/standards.html

ZERO WASTE BUSINESSES

www.grrn.org/zerowaste/articles/companies_zw.html

- Amdahl Corp.
- Battery Council International
- Brewers of Ontario
- Collins & Aikman
- Epson (OR)
- Fetzer Vineyards
- Hewlett-Packard (Roseville, CA)
- Interface
- Mad River Brewery
- Namibian Breweries (South Africa)
- Pillsbury
- Xerox Corp
- Zanker Road

More ZW Businesses

- Anheuser-Busch, Fairfield, CA
- Apple Computer, Elk Grove, CA
- Frankie's Bohemian Café, SF
- Greens Restaurant, SF
- Larry's Markets, Bellevue, WA
- NUMMI, Fremont, CA
- New Belgium Brewery, Fort Collins, CO
- Playa Vista, LA, CA
- Regale, Napa, CA
- San Diego Wild Animal Park
- Scoma's Restaurant, SF
- Vons-Safeway, So. CA
- Yost Printer, Monrovia, CA

Governments on their Way to Zero Waste

- **New Zealand 1st Nation to Adopt**
- **1/2 Of New Zealand Cities**
- **Winter Olympics 2002**
- **Seattle, WA**
- **Halifax, Nova Scotia**
- **Candon City, Philippines**
- **Canberra, Australia**
- **CA Adopted In CIWMB Strategic Plan**
- **San Francisco, CA**
- **Palo Alto, CA**
- **Berkeley, CA**
- **San Luis Obispo County, CA**
- **Del Norte County, CA**
- **Santa Cruz County, CA**
- **Burbank, CA**

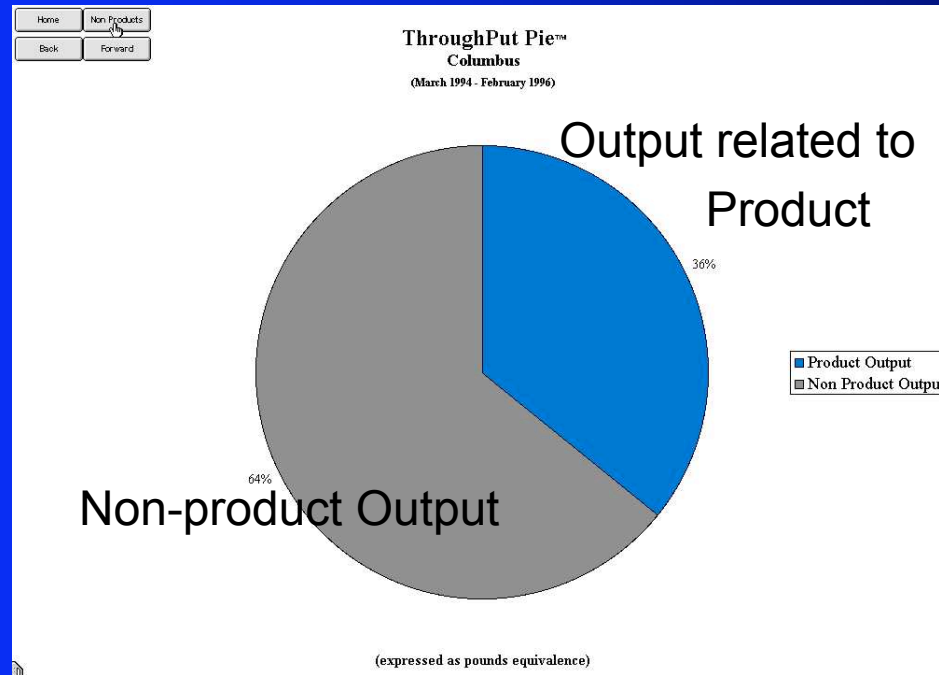
Is Zero Waste Attainable ?

- **Nature Is The Model**
- **Zero Waste, Or Darn Close**
- **Businesses Have Achieved >90% Waste Diversion**

Will ZW Cost More?

- **No**
- **Not A Centralized Public Works Project**
- **Businesses Save \$ Through Product & Process Improvements, Redesigns & More Recycling**

Typical Business Throughput Pie™



The inescapable logic of “zero emissions” for efficiency

Source: Gil Friend, Natural Logic, August 26, 2004 presentation to GRC Dialog, <http://www.crra.com/grc/international/index.html>

What if We *Don't* Design for Zero Waste ?

- **Mining & Manufacturing Impacts Continue**
- **Landfill Impacts and Liabilities Continue**
- **Need 3-6 More Planets For U.S. Lifestyle to be Replicated**

Type of Operation	Jobs That Could be Created by Recycling 10,000 TPY
Product Reuse	
Computer Reuse	296
Textile Reclamation	85
Misc. Durables Reuse	62
Wooden Pallet Repair	28
Recycling-based Manufacturers	25
Paper Mills	18
Glass Product Manufacturers	26
Plastic Product Manufacturers	93
Conventional Materials Recovery Facilities	10
Composting	4
Landfill and Incineration	1

Source: www.ilsr.org/recycling/recyclingmeansbusiness.html

How to Achieve Zero Waste

- **Adopt a Zero Waste Goal & Plan for It**
 - ◆ **Ask Businesses to Do As Well**
- **Know Your Waste**
- **End Subsidies for Wasting in**
 - Ordinances,
 - Contracts and franchises,
 - Permits and zoning,
 - General Plans,
 - Garbage rate structures

How to Achieve Zero Waste

- **Reduce & Reuse, Then Recycle & Compost**
- **Reduce - Design it Out, EPR (e.g., Ottawa Takebacks) and Bans**
- **Reuse – Used Bldg Matls., Ewaste, Appliances, Furniture**
- **Food Waste Composting**
- **C&D Recycling**
- **Resource Recovery Parks**