

Zero Waste Communities



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The GrassRoots Recycling Network is a national nonprofit dedicated to developing, advocating and implementing Zero Waste

www.grrn.org

What is Zero Waste?



Zero Waste...

... is a philosophy and a design principle for the 21st Century;

... it is not simply about putting an end to landfilling because aiming for Zero Waste is not an end-of-pipe solution

Zero Waste...

A primary strategy is to look “upstream” and redesign products, materials, and systems of resource use to keep them from entering the waste stream.

Instead of managing waste, we will manage resources and strive to eliminate waste.

Looking Upstream

Every product has its hidden history

—Paul Hawken

- **1: 71** curbside waste: upstream waste
- **1: 100** durable products: upstream waste
- **1: 4,000** laptop computer: upstream waste
- **1: 100,000** semi-conductor: upstream waste

Zero Waste Communities



Zero Waste Communities

(www.ZWIA.org)

- Country of New Zealand
- + Plus over 50% of New Zealand Cities
- Canberra, Australia
- Buenos Aires, Argentina
- Seattle, WA
- Boulder County, CO
- Summit County, CO
- Central Vermont Waste Management District
- New York City (Citizens ZW Plan)
- Halifax, Nova Scotia
- Toronto, Ontario
- Nelson, British Columbia (BC)
- Regional Districts BC
 - ◆ Kootenay Boundary
 - ◆ Central Kootenay
 - ◆ Nelson
 - ◆ Cowichan Valley
 - ◆ Sunshine Coast
- Smithers, BC
- Nanaimo, BC

CA Zero Waste Communities

- **CIWMB Strategic Plan**
- **San Luis Obispo County**
- **Del Norte County**
- **Burbank (informally)**
- **San Bernardino County
Zero Waste Communities
(informally)**

SF Bay Area

- **San Francisco**
- **Oakland**
- **Santa Cruz County &
all cities in county**
- **Berkeley**
- **Palo Alto**

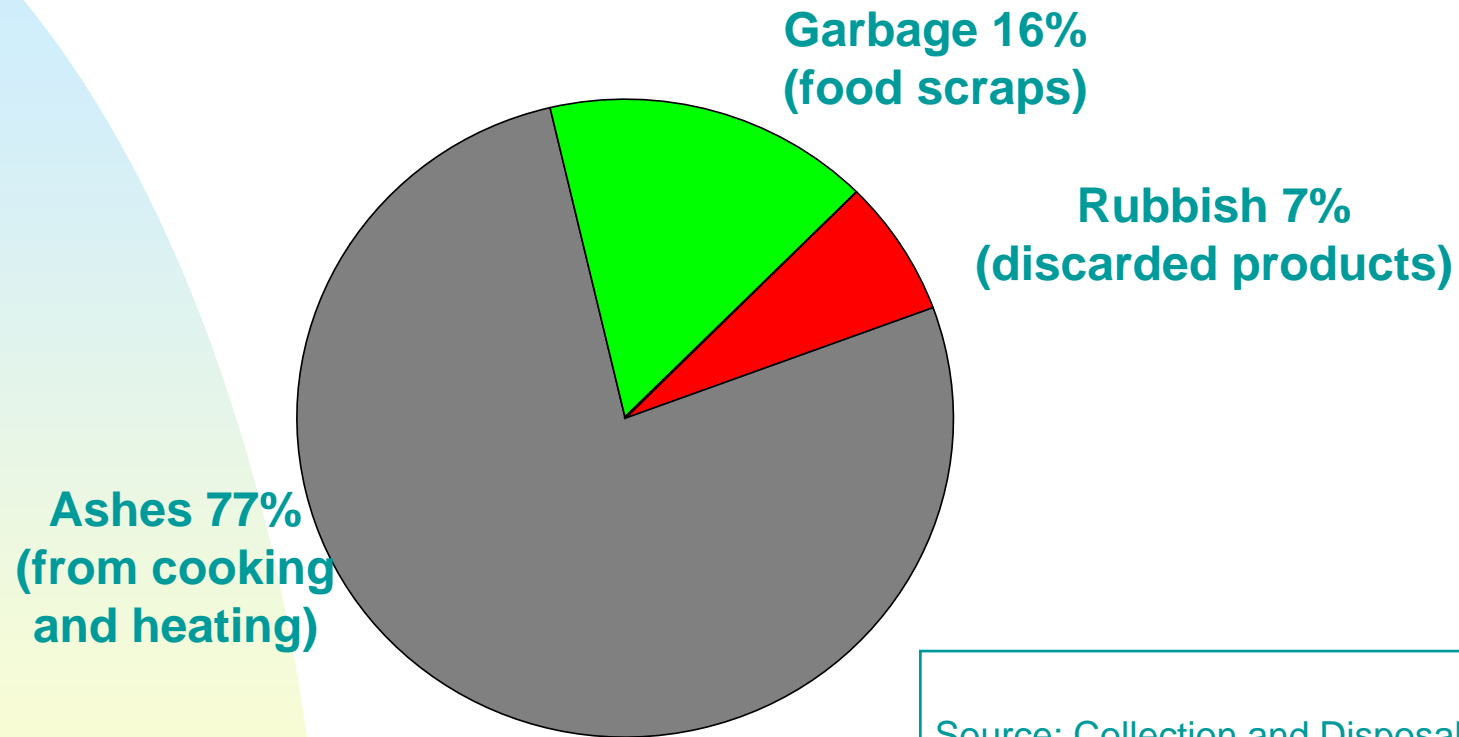
Zero Waste Make Sense for Local Governments

- Local government cannot afford to research, develop, finance, and manage disposal of every product introduced into the market.
- As products become more complex, recycling programs have become expensive and onerous for local government.

What was in the trash a century ago?



Municipal Solid Waste New York City, 1905

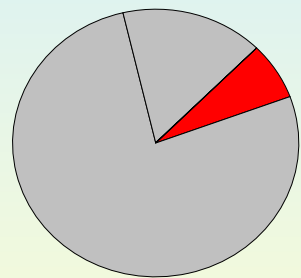


Source: Collection and Disposal of
Municipal Refuse, Hering & Greeley,
McGraw Hill. New York, 1931. p. 13

What is in municipal waste today?

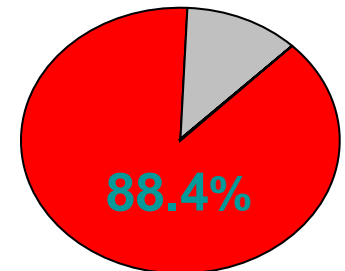
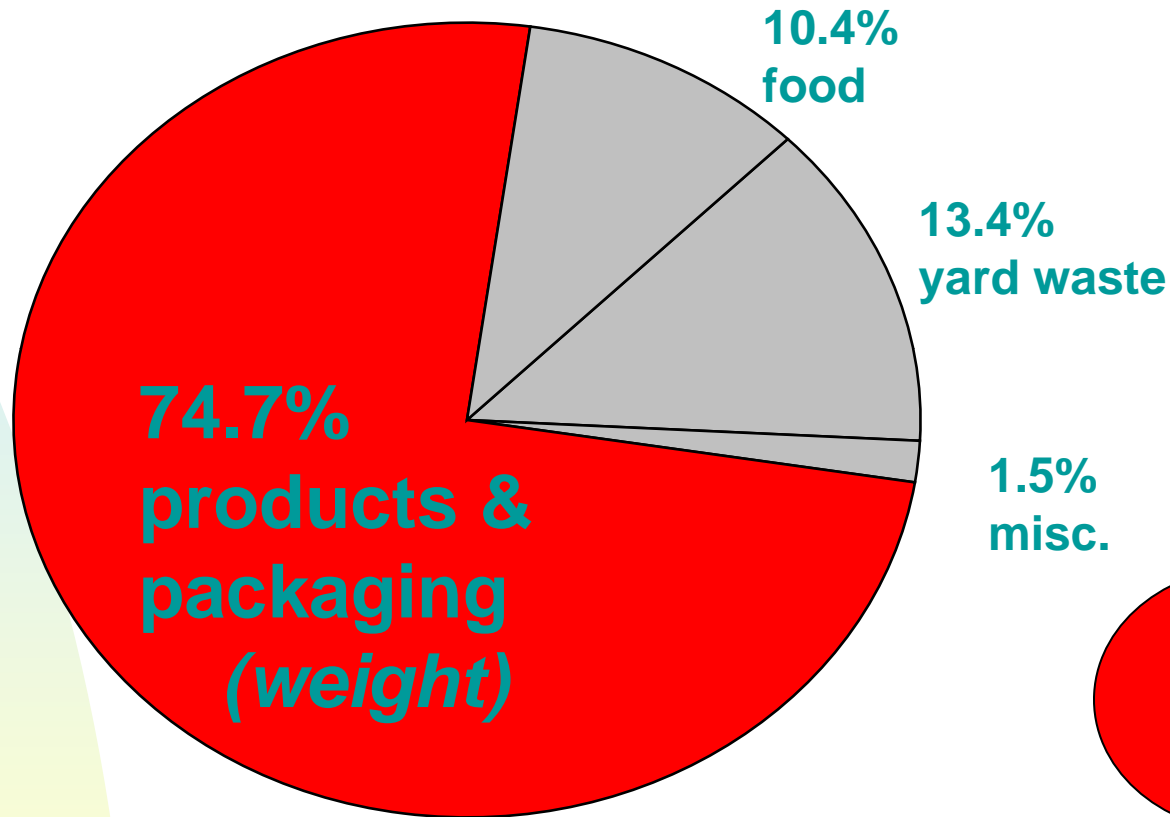


Municipal Solid Waste 1996



1905

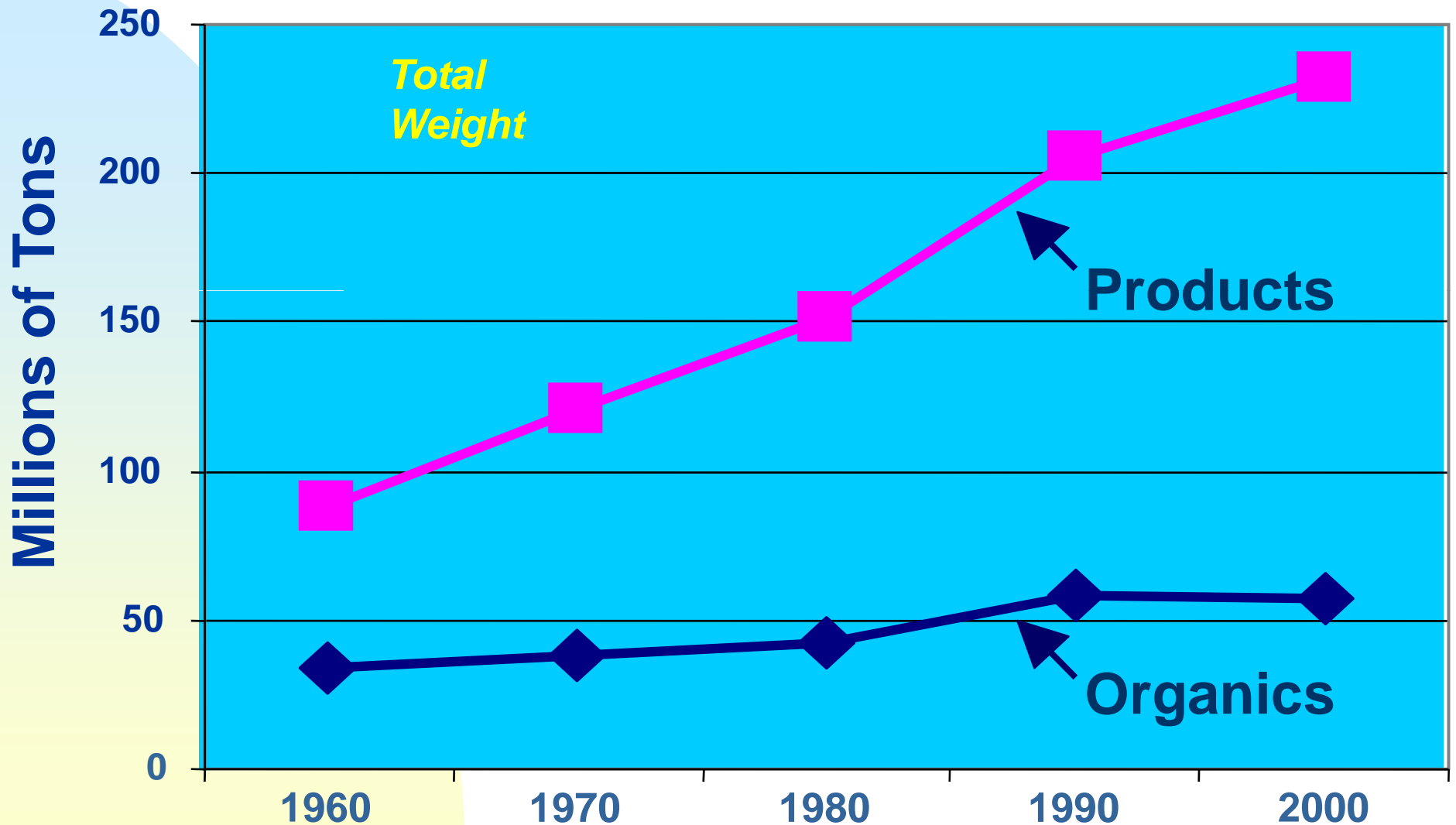
Source: Collection and Disposal of Municipal Refuse, Hering & Greeley, McGraw Hill, New York, 1931. p. 13



(volume)

Source: Characterization of Municipal Solid Waste in the United States, 1997 Update, US EPA

US Municipal *Discards* 1960-2000



Source: Bill Sheehan, Product Policy Project

Zero Waste Communities

Local government has enormous influence to create economic incentives to eliminate waste.

- ◆ Taxes & incentives
- ◆ Permits and zoning
- ◆ Contracts and franchises
- ◆ General Plans
- ◆ Integrated Waste Management Plans
- ◆ Ordinances
- ◆ Purchasing for Zero Waste

Zero Waste = Zero Waste Economy



Zero Waste = Zero Waste Economy

- **Zero Waste is not about creating more government & hauler programs.**
- **Zero Waste is about energizing local entrepreneurs to use undervalued resources.**

Zero Waste = Zero Waste Economy

- **Materials that flow into our community don't become an expensive liability, but resources for businesses and a sustainable economy**

Zero Waste Economy

“How can undervalued local resources be used to create regional industries?”

—George Washington Carver


Zero Waste Economy

“Since nature creates no waste, people should not treat materials as if they lacked value or purpose.....”

—George Washington Carver


Zero Waste Economy

- Organic Liquid Fertilizers
Fish Waste and Worm Compost
- Bio-diesel Cooperative
- Keratin derived from crab shells
- Protein from chicken feather waste



We treat each tree as wood until nothing remains which is serviceable as wood, and then we treat what remains as a chemical compound to be broken down into other chemical compounds which we can use in our business..... we keep the waste and earn money from it.

–Henry Ford



“We have a large salvage department, which apparently earns for us twenty or more million dollars a year. As that department grew...we began to ask ourselves: ‘Why should we have so much to salvage? Aren’t we giving more attention to reclaiming than to not wasting?’”

—*Henry Ford, 1930*



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