What Is Product Stewardship?

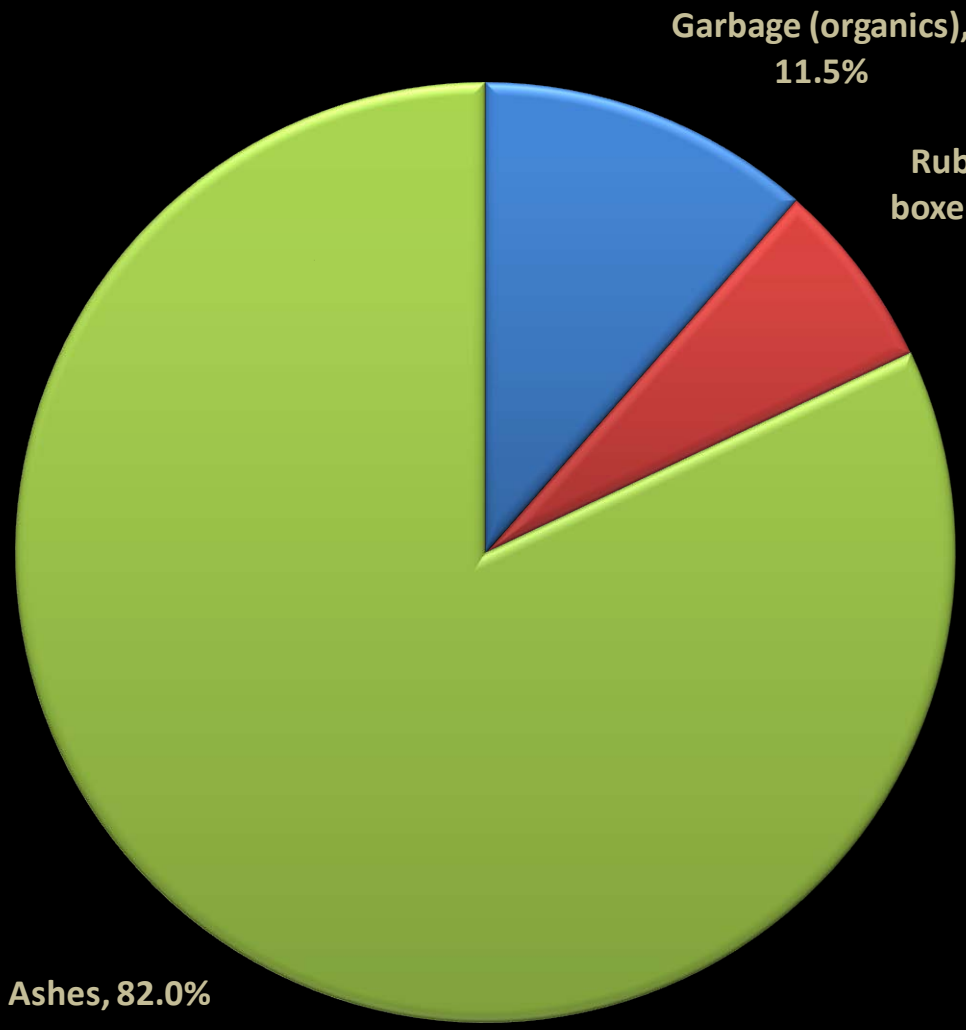
At the broadest level:

- Taking responsibility for the impacts to human health and the natural environment that result from the production, use, and end-of-life management of products.
- The greater the ability a party has to influence the life cycle of a product, the greater the degree of that party's responsibility.
- From an environmental perspective it combines the concepts of "sustainable production" and "zero waste."
- Can address economic and social issues as well.

Existing Product Related Legislation

- Ch.70.76 RCW Polybrominated diphenyl ethers — flame retardants
- Ch. 70.93 RCW Waste reduction, recycling and model litter control act
- Ch. 70.95 RCW Solid waste management reduction and recycle
- Ch. 70.95F RCW Labeling of plastics
- Ch. 70.95G RCW Packages containing metals
- Ch. 70.95I RCW Used oil recycling
- Ch. 70.95K RCW Biomedical waste
- Ch. 70.95L RCW Detergent phosphorus content
- Ch. 70.95M RCW Mercury
- **Ch. 70.95N RCW Electronic product recycling**
- Ch. 70.102 RCW Hazardous substance information
- Ch. 70.103 RCW Lead-based paint
- Ch. 70.104 RCW Pesticide - Health hazards
- Ch. 70.120 RCW Motor vehicle emission control
- Ch. 70.120A RCW Motor vehicle emission standards
- Ch. 70.132 RCW Beverage containers
- Ch. 70.148 RCW Underground petroleum storage tanks
- Ch. 70.149 RCW Heating oil pollution liability protection act
- **Ch. 70.240 RCW Children's safe products**

Solid Waste Composition
New York City C 1900



Source: “Sanitary City”, Melosi

1889 Washington Statehood
1895 Niagara Falls – First AC Hydropower plant in USA
1908 Bakelite - first synthetic plastic was developed
1910 First Electric Home Appliance
1915 First Transcontinental Telephone Line
1919 U. S. Synthetic Organic Chemical Industry Establish
1929 PCBs Introduced
1935 Nylon invented
1938 Fluorescent lamps first marketed
1942 Grand Coulee Dam Completed
1948 First Television Station in Washington State
1954 TV Dinners Introduced
1967 Residential Microwave Ovens Introduced
1975 Home Video Systems – VCR
1981 IBM PC
1981 First Generation Cel-phone technology
1983 CD Technology
1989 Game Boy
1993 Pentium PCs
2001 Third Generation Cel-phone Technology

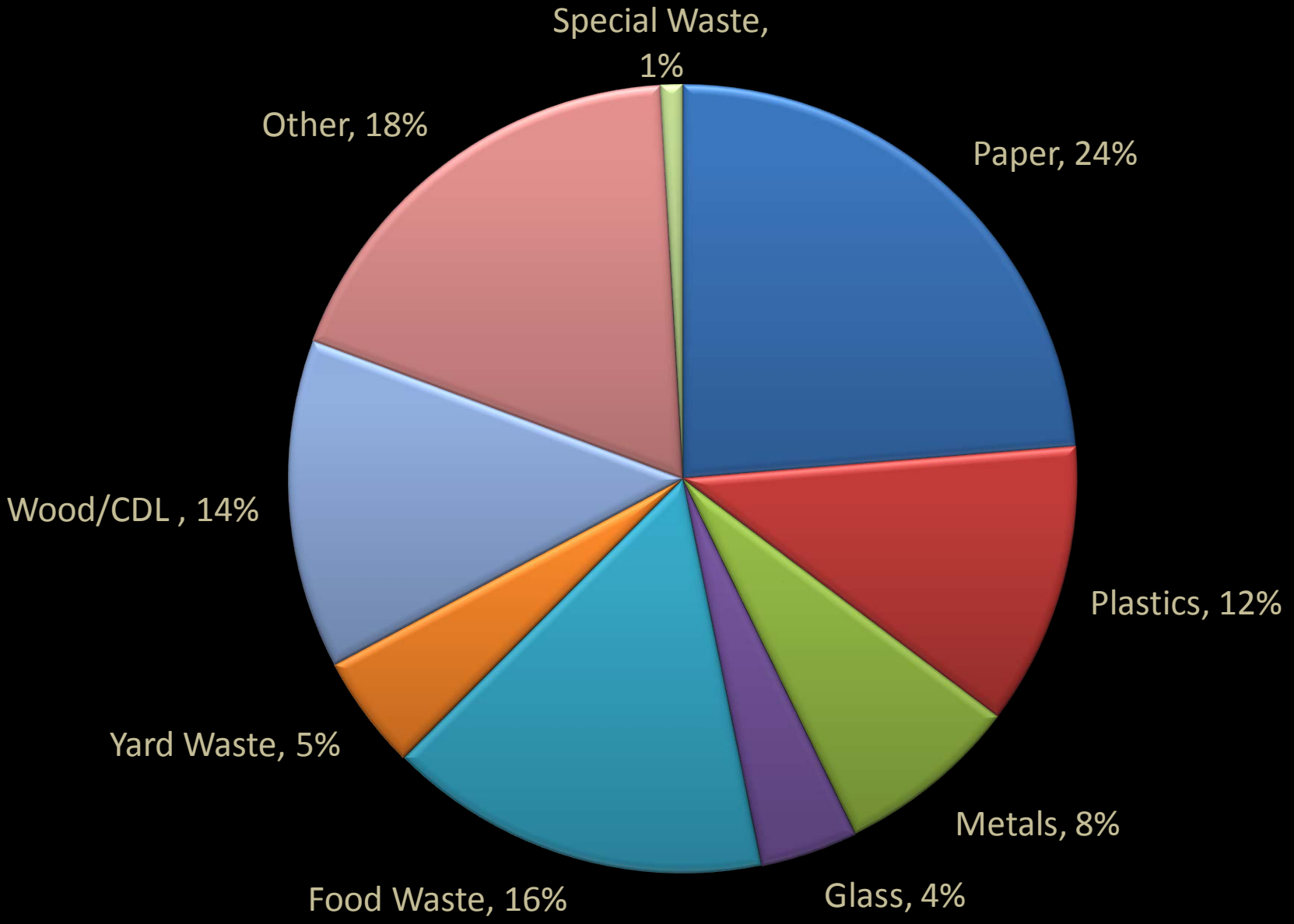
Currently

50% of all kids in US under 15 have Cel-phones
A computer in every house

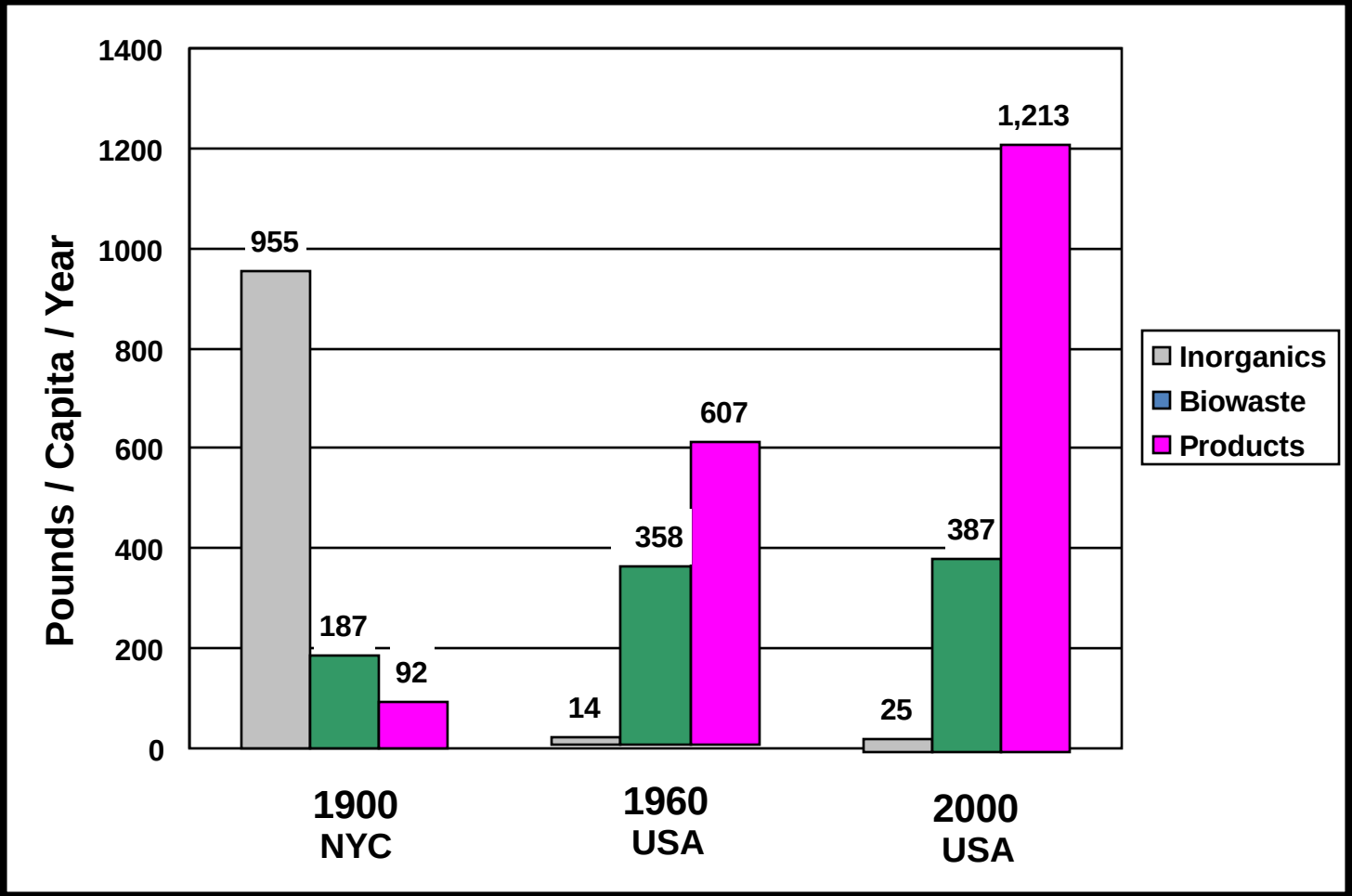
Soon

A television for every person.

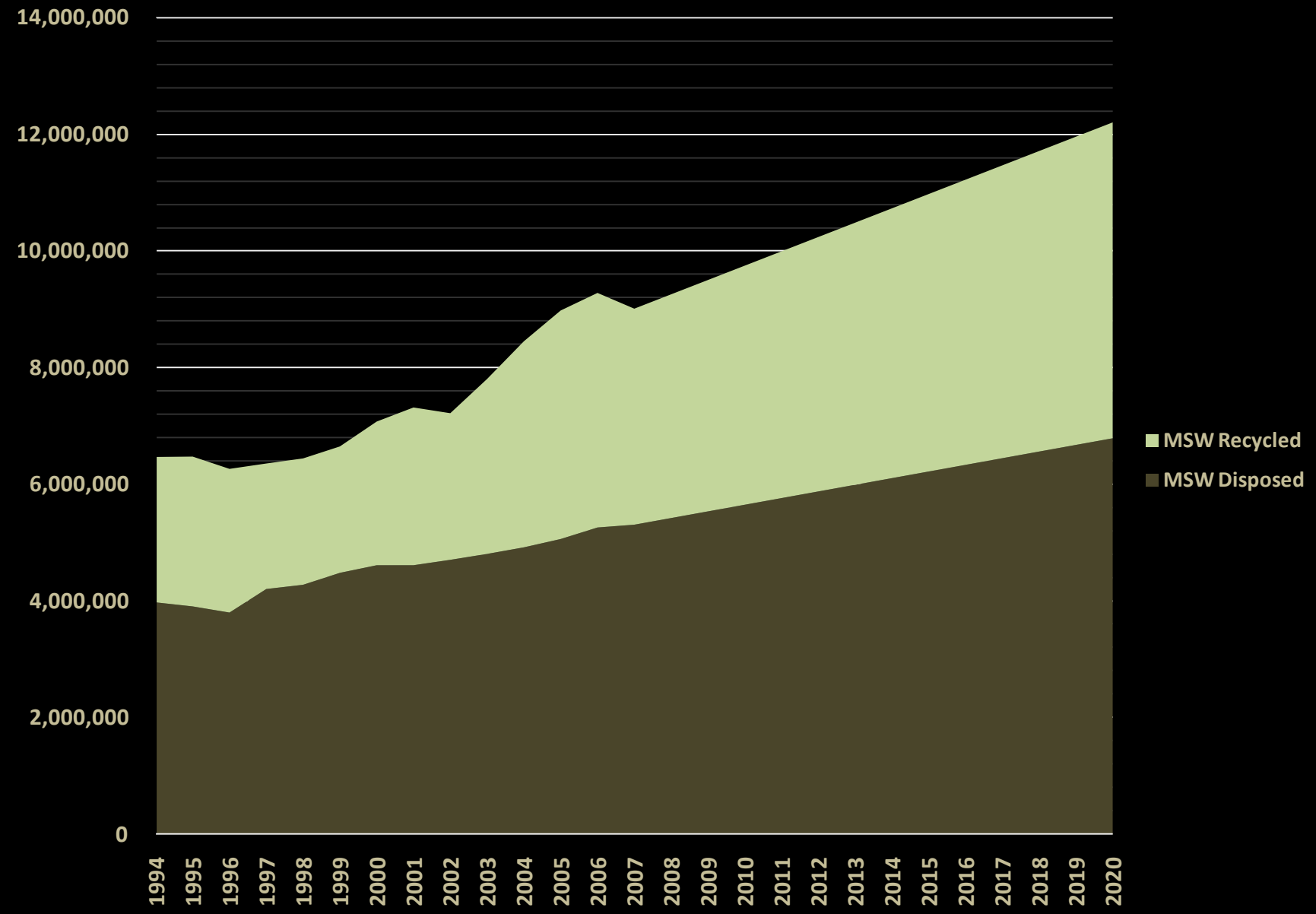
Solid Waste Disposed in Washington State 2002



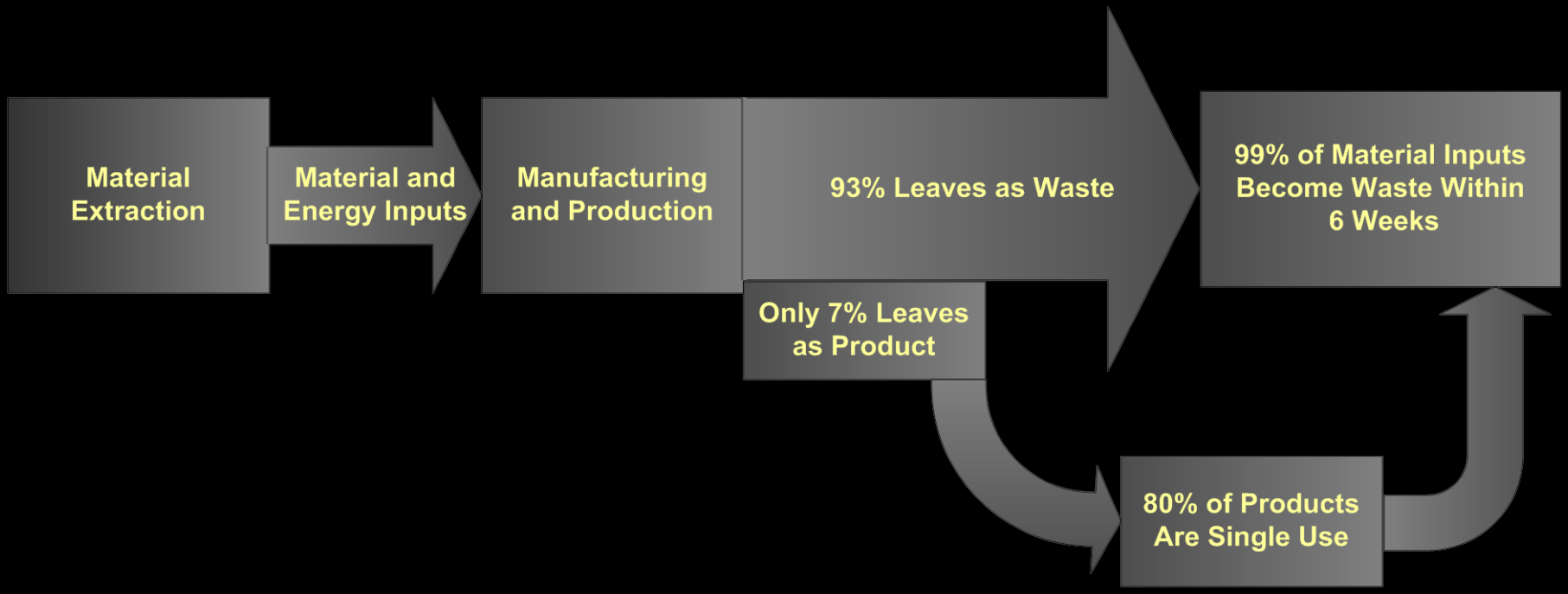
Waste Composition



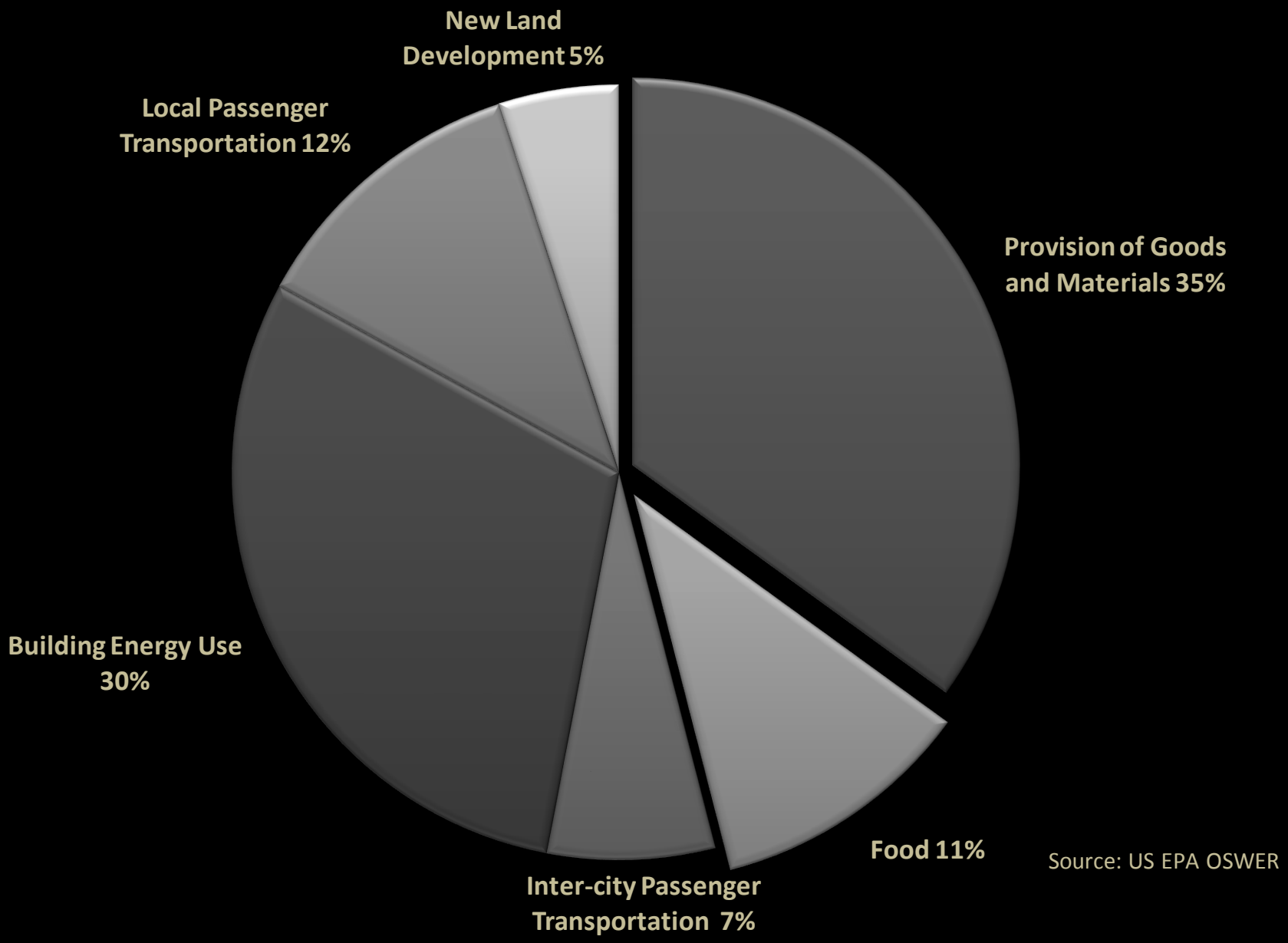
Municipal Solid Waste Generated in Washington



Material Flow



U.S. GHG Emissions Sources - Systems Approach



Source: US EPA OSWER

Wasteful

Obsolete


Pharmacy prescription
1882662
TAKE 1 CAPLET TWICE
DAY BY MOUTH AS
MEDICINE 40 MG CAPLETS
Refillable 1 times before 09-25-2008
Pharmacy prescription
PUBLIC, JOHN
123 Maple Street
Anytown, US
Prescriber:
MEDICAL DOCTOR
1882692
1 CAPSULE EVERY DAY AS
FOR SYMPTOMS
MEDICINE 40 MG CAPSULES
Refillable 1 times before 09-25-2009
TABLET EVERY DAY
AS SYMPTOMS PERSIST
CATION 30 MG TABLETS
Pharmacy prescribed
1882544
TAKE 1 CAPSULE EVERY DAY
FOR SYMPTOMS
Pharmacy prescription
1882254
1 TABLET EVERY DAY
AS SYMPTOMS PERSIST
CATION 30 MG TABLETS
Refillable 2 times before 09-06-2008

Harmful

Toxic

Scope of Product Stewardship

Product stewardship includes consideration of:

- Energy and materials consumption;
- Air and water pollution;
- Carbon footprint;
- Toxics used in the production of products;
- Product toxicity;
- Consumer choices – choose wisely, use fully, dispose of safely
- Worker safety and health;
- Production waste management;
- Consumer use and safety;
- Product durability, reusability and recyclability; and
- Post consumer product take-back.

Roles and Responsibilities

- Manufacturers have primary responsibility in product stewardship as they have the greatest influence over product life-cycles and are rewarded in the free market for making responsible environmental decisions
- Consumer's role is to select products that demonstrate best environmental performance and to participate in the take-back programs that are set up by the manufacturers.
- Government's role is to establish a level playing field through regulations and enforcement. Assures transparency and accountability.

Financing

- Cost internalization is the best and most effective method of financing product stewardship programs.
  - recognizes that all product lifecycle costs – from using resources, to reducing health and environmental impacts throughout the production process, to managing products at the end-of-life – are included in the total product cost.
- Environmental management costs are shifted to manufacturers and consumers, minimizing costs for taxpayers.
- Gives manufacturers a direct financial incentive to redesign their products to reduce costs.

Benefits of Product Stewardship

- Can be used to address a variety of environmental concerns – toxics, resource conservation, water quality, air quality, climate change – related to consumer products
- Provides incentives to design “greener” products
- Creates green collar jobs
- Responds to citizens that want stewardship programs.

- Landmark product stewardship law passed in 2006 – RCW 70.95N
- E-Cycle Washington launches January 2009
- Free recycling for computers and TVs for residents, schools, and small businesses
- Producers set up and pay for program
- Over 200 collection sites throughout state
- Expects over 20 million pounds recycled in first year

Future Products

- Fluorescent lamps
- Pharmaceuticals
- Paint
- Lead wheel weights
- Mercury thermostats (return)
- Rechargeable batteries
- Carpet
- Additional electronic products

Alternative Approaches to Product Stewardship

- Product by product legislation
- “Template” legislation that is used on a product-by-product basis
- Legislation that allows legislature to easily add products over time
- Legislation that empowers state agency (with advisory committee) to designate additional products over time

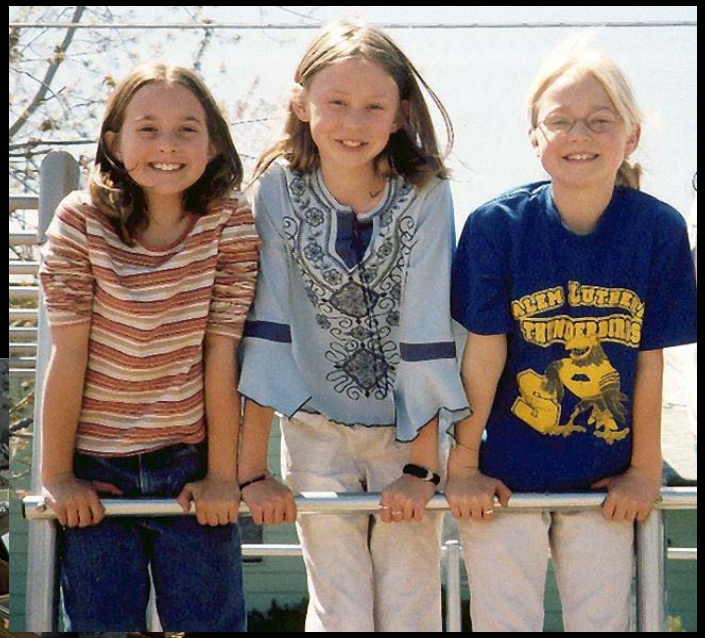
Benefits to Environmental Health

- Addresses product life-cycle including production and use – not limited just to disposal
- Improves product quality
  - Environmental Quality
  - Human Health
  - Product Performance – durability and recyclability

Products that are safe for . .

the people who make them,

the people who use them,



and the people who recycle them.

Benefits to Taxpayers

- State Government – Low cost option for large return

- Local Government
  - Cost savings
  - Expanded convenience and participation
  - Environmental and economic development benefits

Example: Electronics in Snohomish County

- New Product Stewardship System begins January 1, 2009
- Snohomish County
  - 3 public transfer stations provide collection
    - $370,000 in current costs removed since transportation and recycling is covered by manufacturers
    - Payment of $.09 per lb. collected projected to yield payment of $180,000 in 09.
    - Total value to Sno Co = $550,000 per year
  - At least 15 additional private/charity locations with similar benefits, including Goodwill

Example:
Electronics in Snohomish County

- New businesses and business locations
- Local charities and businesses benefit as collectors
- Free recycling also available to:
  - All schools and school districts
  - All special service districts (~ 80)
  - All charities and nonprofits (~1,150)
  - All small businesses (~ 20,000)
  - 17 of 18 cities/towns for own e-waste
  - Minimize Illegal dumping and related costs

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