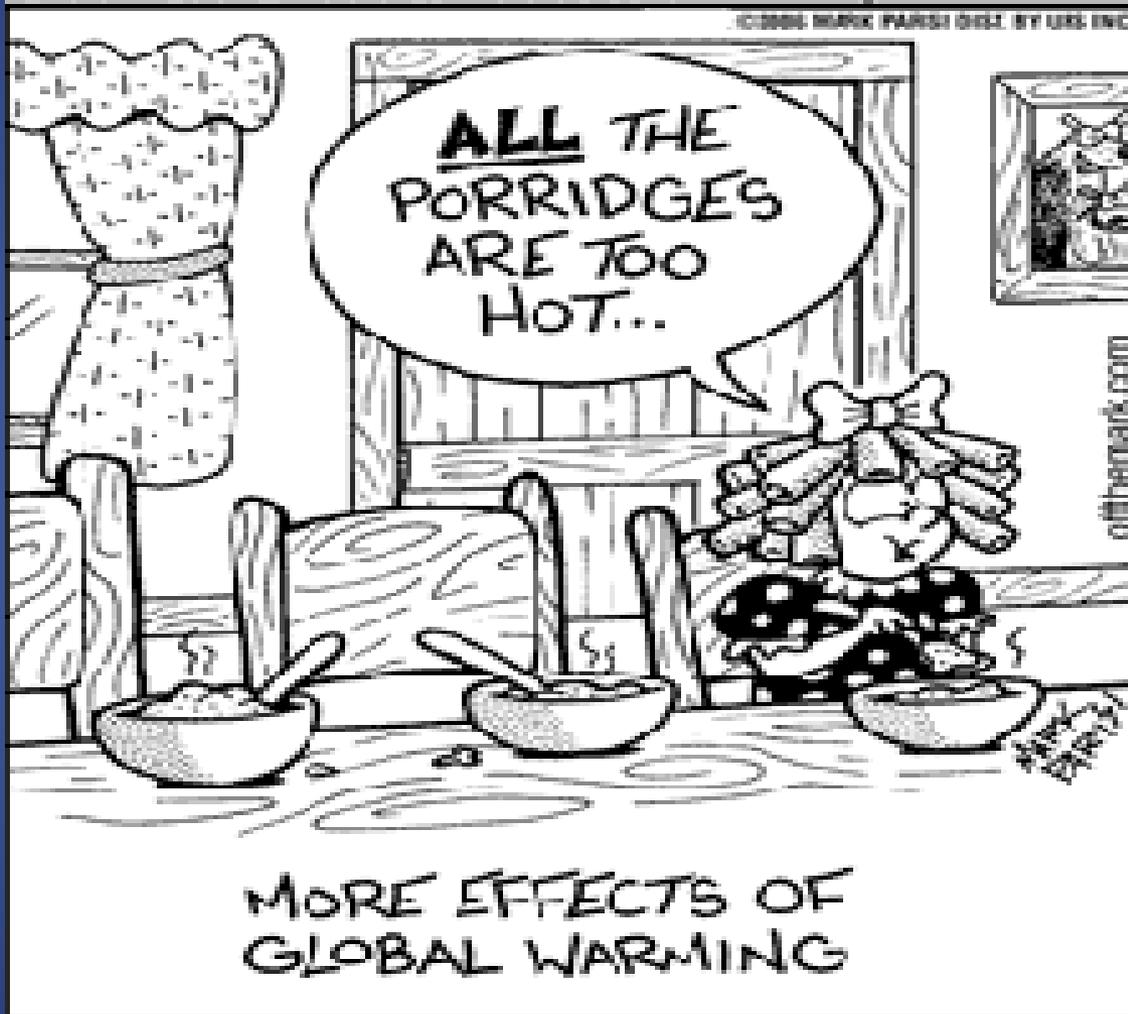


# Today and The Challenges of Tomorrow

Changing  
Gears and  
Staying on  
Track



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# And We Need to Rein in Lunacy



# Today I will Highlight:



- EPA's Green Chemistry Priorities
  - TSCA Reform
  - Design for Environment
- Administrator Jackson's Focus on P2 & Sustainability & Products
- Update on Electronics & Batteries
- Collaboration and Funding Opportunities



# Administrator Jackson's Priorities

- Reducing GHG emissions
- Managing chemical risks
  - Risks of chemicals in consumer products, workplaces environment
- Protecting America's water
- Improving air quality
- Cleaning up hazardous waste sites

# Assuring the Safety of Chemicals

It is clear that we are not doing an adequate job of assessing and managing the risks of chemicals in consumer products, the workplace and the environment. It is now time to revise and strengthen EPA's chemicals management and risk assessment programs.

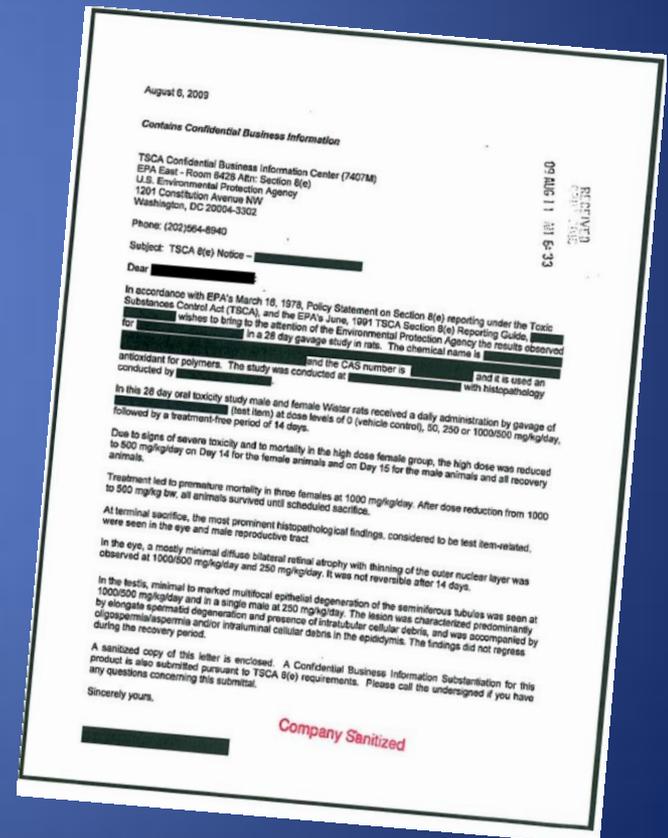


**Administrator Lisa  
Jackson**

– EPA Administrator Lisa Jackson, Jan. 23, 2009

# Challenges for TSCA Reform

- No mandatory program on safety of existing chemicals.
- Difficult legal and procedural hurdles to limit or ban chemicals
- Huge hurdles to get health and environmental effects data
- Confidential Business Information claims limit access to information



# TSCA Reform

- 9/29/09 – Administrator Jackson announced Administration’s 6 principles on TSCA reform.
- 4/15/10 – Sen. Lautenberg introduced the “Safe Chemicals Act of 2010.”
- 7/22/10 –Congressmen Waxman and Rush introduced the “Toxic Chemicals Safety Act of 2010.”
- 2/3/11 – EPA testified before the Senate Committee on Environment and Public Works reaffirming Administration support for TSCA reform before the new Congress.



# 6 Principles for Legislative Reform

1. Chemicals should be reviewed against safety standards that are based on sound science and reflect risk-based criteria protective of human health and the environment.
2. **Manufacturers should provide EPA with the necessary information** to conclude that new and existing chemicals are safe and do not endanger public health or the environment.
3. Risk management decisions should take into account **sensitive subpopulations, cost, availability of substitutes** and other relevant considerations.

# 6 Principles for Legislative Reform

4. Manufacturers and EPA should assess and act **on priority chemicals**, both existing and new, in a timely manner.
5. **Green chemistry should be encouraged** and provisions assuring transparency and public access to information should be strengthened.
6. EPA should be given a sustained source of funding for implementation.



# Increasing Transparency

## Regulation & Policy

- New policy for review of Confidential Business Information (CBI) chemical identity claims for **notices of substantial risks**
- New policy for review of CBI chemical identity claims for **all** health and safety studies
- Proposed IUR modifications for 2011 reporting



## Internet Access & Tools

- Addition of 530 chemicals on public version of TSCA Inventory
- Free access to consolidated Inventory – EPA and Data.Gov websites
- Integrated TSCA facility and chemical information into Envirofacts
- Assistant Administrator letter to industry trade associations and 32 companies urging release of unwarranted CBI claims
- New web-based chemical data access tool



# Enhancing Current Program

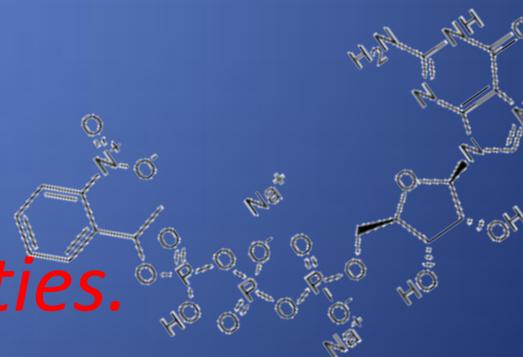
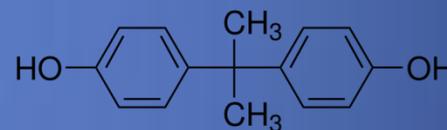
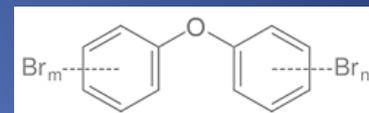
- While legislative reform is under debate, EPA is using the existing Toxic Substances Control Act to the greatest extent possible.
- Meanwhile.....focusing on
  - Increased public access to info
  - Chemical Action Plans
  - And requiring industry to submit more info



# Action Plans – Risk Management

- Eight Action Plans Released to date:

- Eight phthalates
- Penta, octa, and decaBDE – flame retardants
- Hundreds of perfluorinated chemicals
- Range of short-chain chlorinated paraffins
- BPA
- 48 benzidine dyes
- Hexabromocyclododecane (HBCD)
- Range of NP/NPE mixtures



*Actions within Existing Authorities.*

# Action Plans – At OMB for Review

## – Methylene Diphenyl Diisocyanate (MDI)

- Rigid Foams, sealants, sealants, insulation and binder for wood products

## – Toluene Diisocyanate (TDI)

- Used in manufacture of Polyurethane (PU) flexible foams used in furniture, bedding and in seats for cars and airplanes.

## Status of Action Plans:

<<http://www.epa.gov/oppt/existingchemicals/pubs/overview.html>>

# EPA's Design for Environment (DfE) Program

- Conduct CHEMICAL Alternatives Assessments
  - Done: Flame Retardants - Furniture, Circuit Boards
  - Now:
    - Bisphenol A in Receipts/Thermal Paper
    - DecaBDE flame retardant
  - Next: Phthalates and HBCD in foam insulation
- Identify Best Practices
- DfE Safer Labeling Program



# EPA's Design for Environment Program

- Under Administrator Jackson's emphasis on Green Chemistry, DfE is proposing changes to:
  - Alternatives Assessment Criteria
  - DfE Standard for Safer Products



# DfE - Proposed Ingredient Communication

- All must be listed
- Non-confidential ingredients
  - On the bottle, or
  - An easily accessible location (website)
- Confidential ingredients, dyes, preservatives -- use a chemical descriptive name.
- Scent ingredients
  - Can be listed as “Fragrance, ”
  - More detailed information must be provided elsewhere (website or IFRA list)



# Four Sustainability Efforts Underway:

- National Academies of Science Green Book
- P2 & Sustainability Strategy
- Sustainable Materials Management
- Sustainable Products

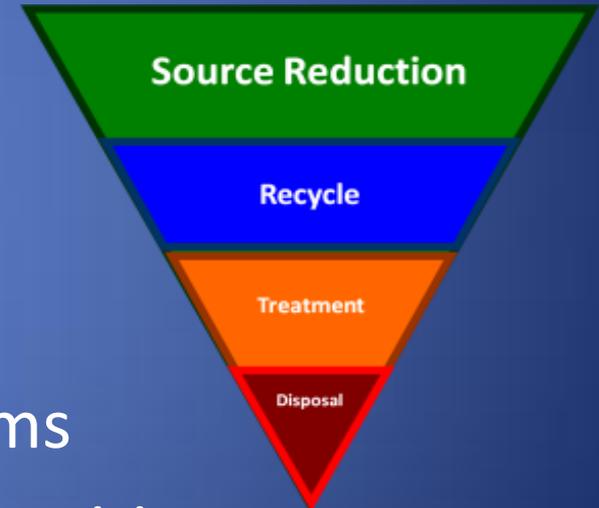
# National Academies of Sciences Green Book

- **Task:** To develop a Sustainability Framework for all EPA Programs to solve complex environmental challenges through a more integrated, systems approach
- Holding Public Meetings Across U.S.
  - Lauren Zeise of OEHHA on Panel
- **Recommendations Due:** Sept 2011



# P2 and Sustainability

- 20<sup>th</sup> Anniversary of P2 Act: President Obama urged that we “recommit” to P2.
- Top Management Focusing on
  - P2 Integration in our core programs
  - Information/Transparency opportunities
  - Improving Messaging on P2 & Sustainability



# Sustainable Products Initiative

- EPA asked constantly to weigh in on what products are greener.
- Exploring path for EPA to pursue to provide guidance on what products are greener
- Seeking to engage Stakeholders...not to be THE standard developer and verifier.

Did you know?

Over a third of greenhouse gas emissions come from producing materials and managing them once they become waste?



# *Sustainable Materials Management*



- ✓ EPA is updating our strategy on materials and resource conservation
- ✓ How we efficiently manage material resources as they flow through the economy – the Lifecycle view

# Advancing Waste Climate Connection West Coast Climate Forum

- EPA Region 9/10 Partnership
  - Connecting Waste/Materials Management to Climate Change
  - 8 States
  - Engaging West Coast Leading Cities
  - Focus on Tools, Policy and Innovation
  - Visit our Wiki
- < <http://captoolkit.wikispaces.com/> >



# New Fed Rules for SLABs...

## Spent Lead Acid Batteries

- Effective July 7, 2010, Exporters to OECD countries must meet
  - Notice and Consent Requirements - HQ
- Universe: 640 U.S. Exporters, 1300 notices/yr, 260,000 metric tons exported in 2010
- 80-90% going to Canada & Mexico
- See Rule at <http://www.epa.gov/epawaste/hazard/international/oecd-slab-rule.htm>



# Update on Electronics Recycling

## Nat Framework for Electronics Stewardship

- President Launched in November 2010
- Focus: Soup to Nuts.....Design, Purchasing, Use, End of Life, Reducing Exports, Input
- Final Recommendations to CEQ by May 6
- Expected Result: Broad principles/Approaches. CEQ will translate into actions and work.



# Provide Input

Send comments **by March 11th** to:

- Email *rcra.docket@epamail.epa.gov* , Attention *Docket ID No. EPA-HQ-RCRA-2011-0185*
- <http://www.regulations.gov>



# EPA's CRT Rule

- Limited Scope
- Requirements:
  - Notification for Export for Reuse -> to R9
  - Notification and Consent Process for Export for Recycling -> to HQ
- **We Do Enforce**
  - Civil and Criminal Cases nationwide
- CBS5 2009 Story -> California CRT Glass...Mountain of Glass in Arizona
- ..:



# EPEAT



EPEAT Update: (<[www.epeat.net](http://www.epeat.net)>)

- ✓ EPEAT is an easy tool to help purchasers identify greener desktop and laptop computers and monitors
- ✓ Currently 34 manufacturers have more than 2200 products registered, 1100 EPEAT Gold

# New EPEAT Products...



New standards under development:

- ✓ Televisions
- ✓ Imaging Equipment



Tough issues include restrictions on toxics,  
recycled content, and end-of-life management

Hope to be completed this summer

# Let's Communicate

- Answer: \$100,000,000 (MILLION!)
- Question: What is the cost to California Taxpayers of collecting/managing HHW?

# Let's Collaborate

- **May 12:** EPR Workshop on Household Batteries with CPSC at EPA R9 Office in San Francisco
- Ongoing **Collaboration with**
  - **DTSC** on green chemistry, green biz & nail salons.
  - **Cal Recycles** on organics, composting & zero waste.

# Working Together...**WSPPN**

- WSPPN - Western Sustainability and Pollution Prevention Network - [www.wsppn.org](http://www.wsppn.org)
- Multi-Media Network California, Nevada, Hawaii, Arizona, Tribes, Pacific Islands
- Government, NGOs, Academia, Business Assistance Centers



# Collaboration....

## WSPPN



- Services offered include:
  - Annual conference - *Fall 2011 or Spring 2012*
  - Webinars
  - Listserve
- Topic Hubs with "best of the best" info on Hospitality, E-Waste, and Auto Repair
  - Rapid Response service for P2 questions

# Funding Opportunities



Go to:

– <grants.gov> or [www.epa.gov/region09/funding](http://www.epa.gov/region09/funding)

Some EPA Deadlines....

- Mar 18: Workforce Developmt/Job Training
- Mar 28: P2 Grants for States/Tribes
- Mar 31: Env Justice Small Grants
- Mar 31: Tech Assist. to Sustainable Cmmties
- May 2: Env. Education Grants

# Think Outside Usual Funding ...Forge New Collaborations

- Department of Labor **Green Jobs** Innovation Funds. \$40 million
  - <http://www.doleta.gov/grants>
  - Due: Mar 29<sup>th</sup>
- Department of Commerce EDA funding



# We are also working on...

- Marine debris issues...plastics reduction
- Green Hospitality
- Green Building & Home Energy Retrofit
- Professional Recycling Certification
- Food Scraps Diversion -> Anaerobic Digestion and Composting



# Reminder: Input Welcomed and Needed

- Mar 11: Comments on National Framework for Electronics Stewardship

# Thank You!

Eileen Sheehan

Manager

Office of Pollution Prevention and Solid Waste

U.S. EPA Pacific Southwest Region

415.972.3287

[Sheehan.eileen@epa.gov](mailto:Sheehan.eileen@epa.gov)

# Zero Waste – Focus on Top of Hierarchy



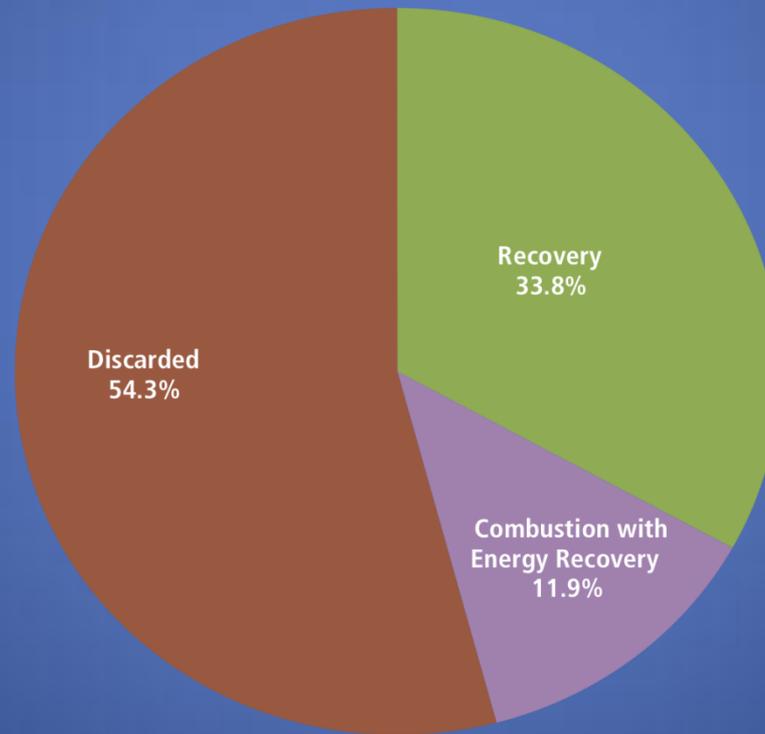
# Latest MSW Figures - 2009:

*December 2010*

- 243 million tons of MSW **generated** (2009)
- Current Recycling Rate: 33.8%
- Current Per Person Waste Generation
  - **4.34 lbs/person**
  - 1.46 lbs recycled or composted
  - 2.88 lbs per person per day STILL discarded

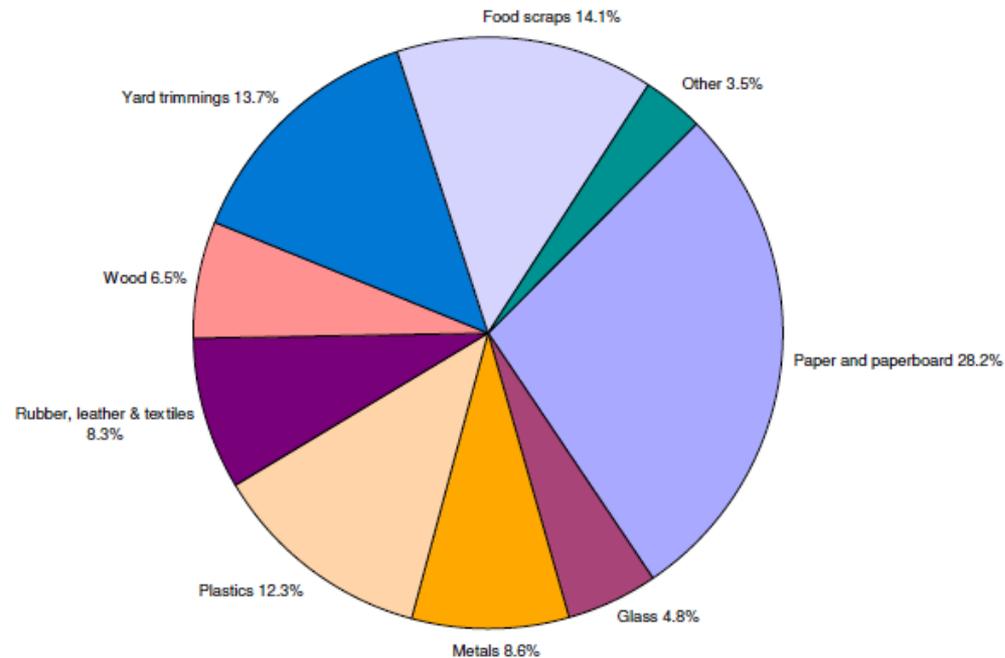
# 2009: Over Half of MSW Discarded

Figure 4. Management of MSW in the United States, 2009



# 2009: 243 Million Tons Before Recycling

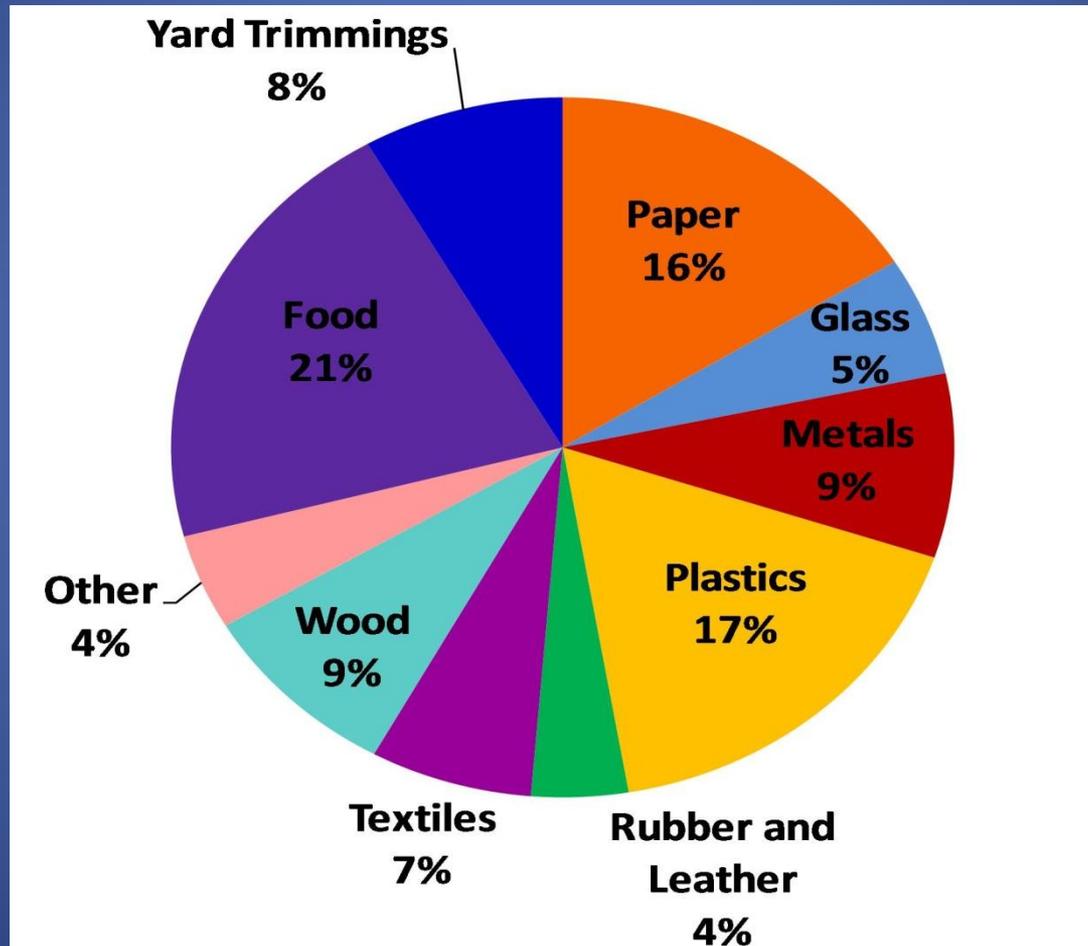
Figure ES-3. Materials Generation in MSW, 2009  
243 Million Tons (before recycling)



# 2009: What Got Recycled/Recovered

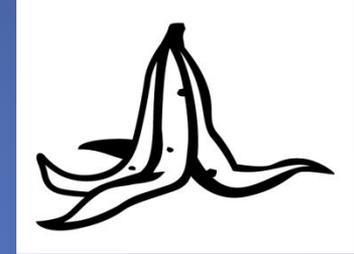
- >60% of paper/paper board recycled
- 59.9% of yard trimmings composted
- 33% of steel is recycled
- 25% of glass is recycled
- 7% of plastic is recycled.
- Only 2.5% of food is composted.

# After Recycling/Recovery, What Goes to Landfills



# To Move Beyond the Blue Box, We Need to Address....

- Food (21%)
- Plastics (17%)
- Paper (16%)

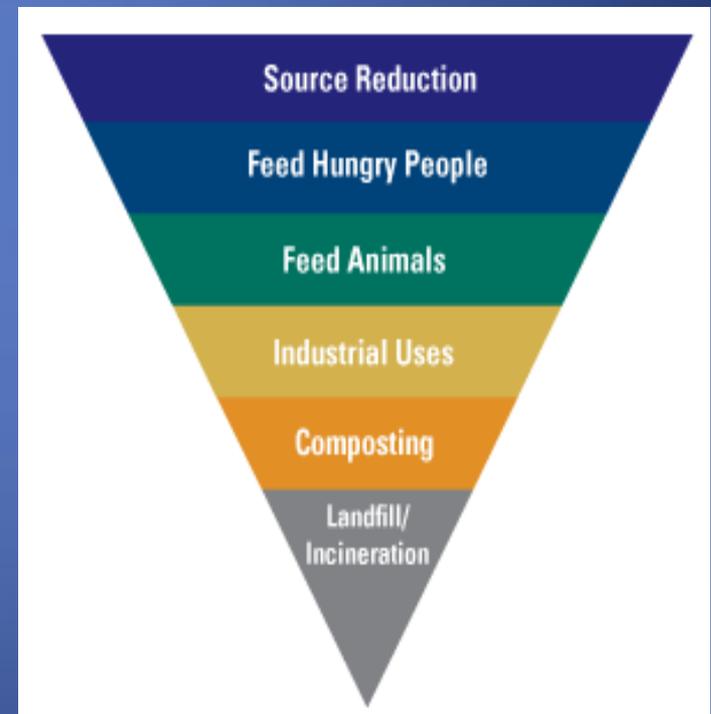


These 3 Materials Remain our biggest categories  
disposed...in that order.

# Thinking Outside the Box...

## Food Scraps

- Multi-Pronged strategy:
  - Reduce food waste. Emphasize donation
  - Boost collection
  - Explore Anaerobic digestion
  - Compost wherever feasible

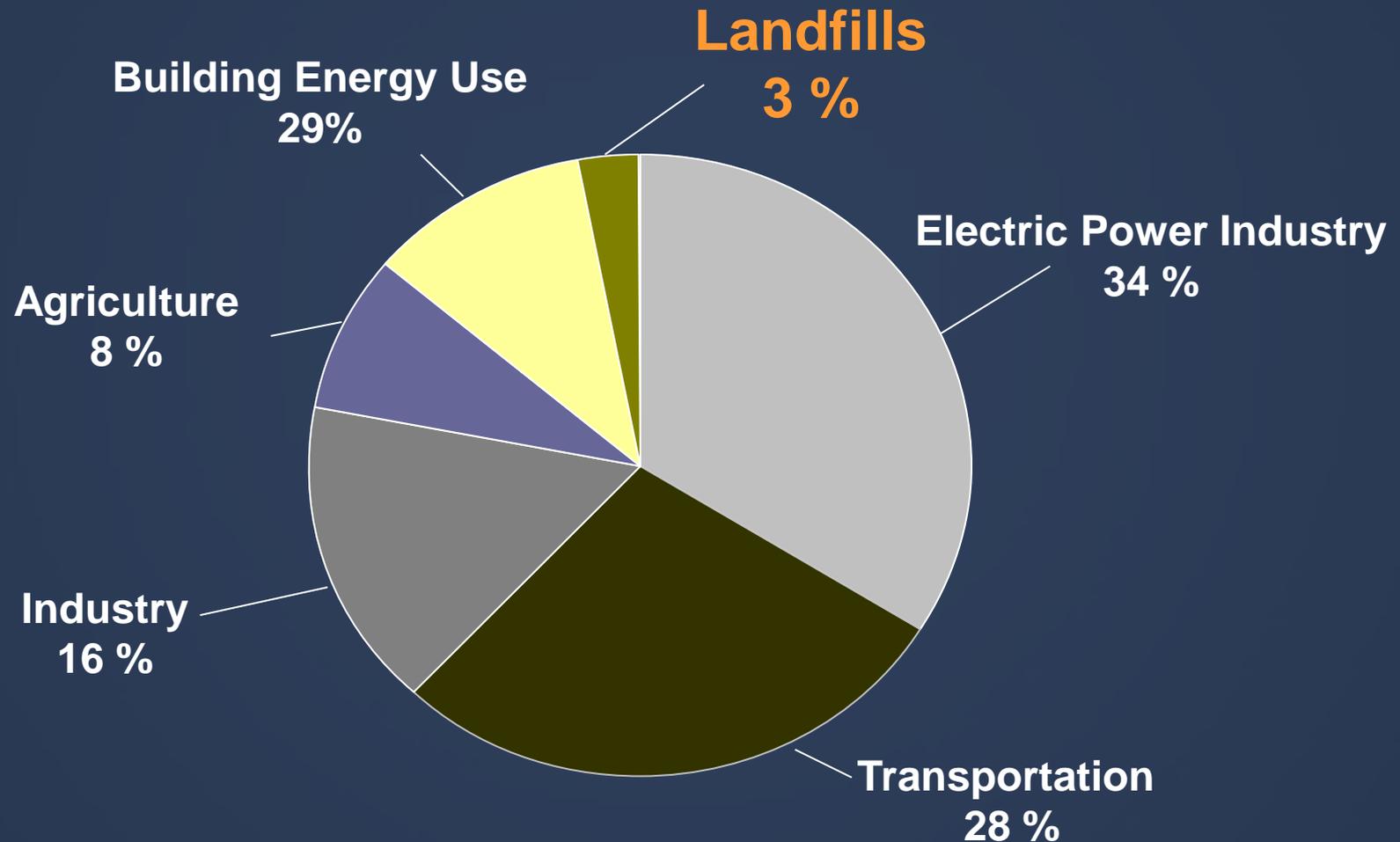


# San Francisco Mandatory Composting Ordinance

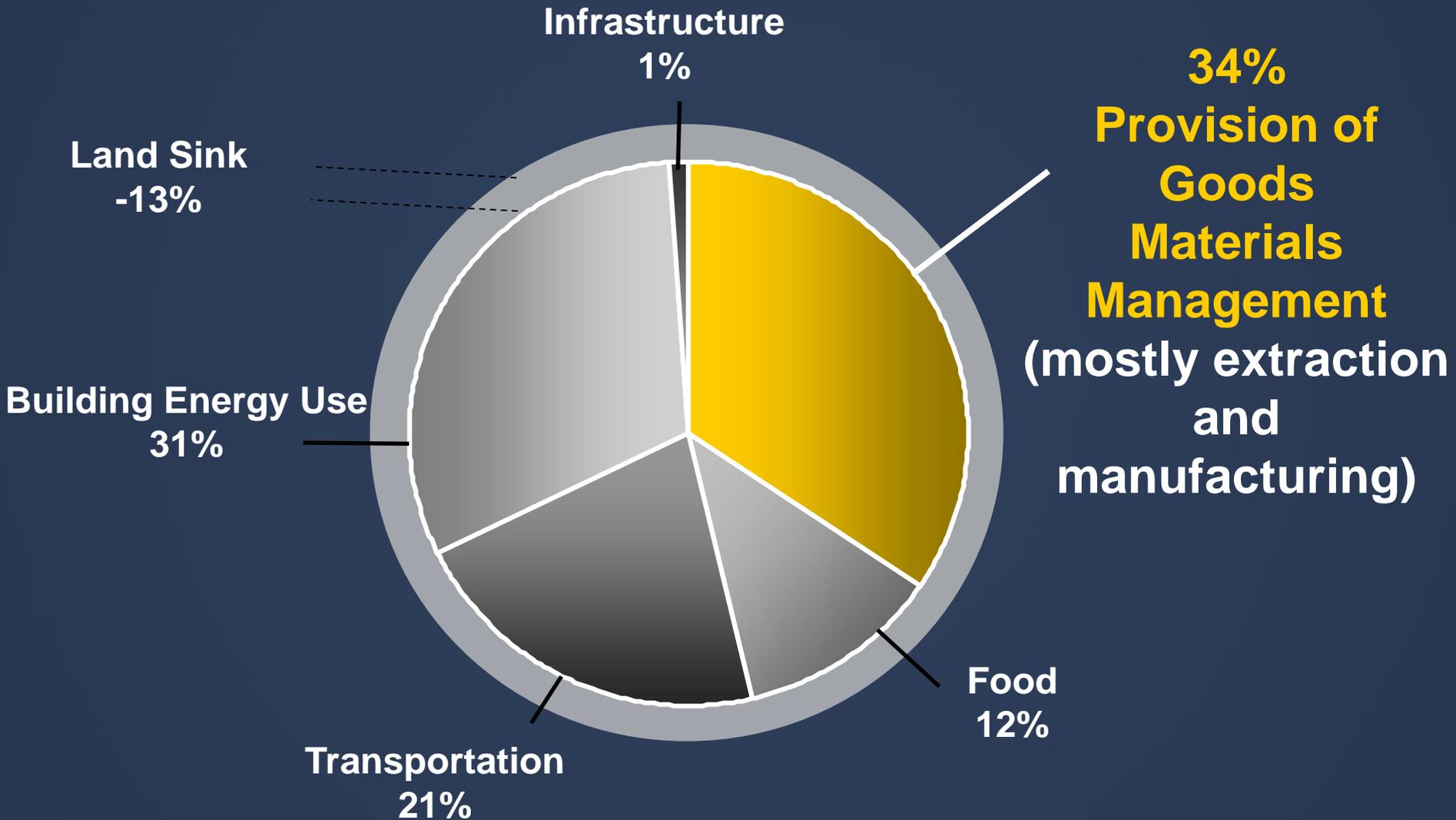
- San Francisco has its mandatory composting ordinance < <http://bit.ly/gh648w> > for commercial, residential and multi-family
- Contamination notices issued to residents
- Fines given only in cases of blatant on-going non-compliance.



# Conventional Accounting: Waste Makes Up Only 3% of GHGs



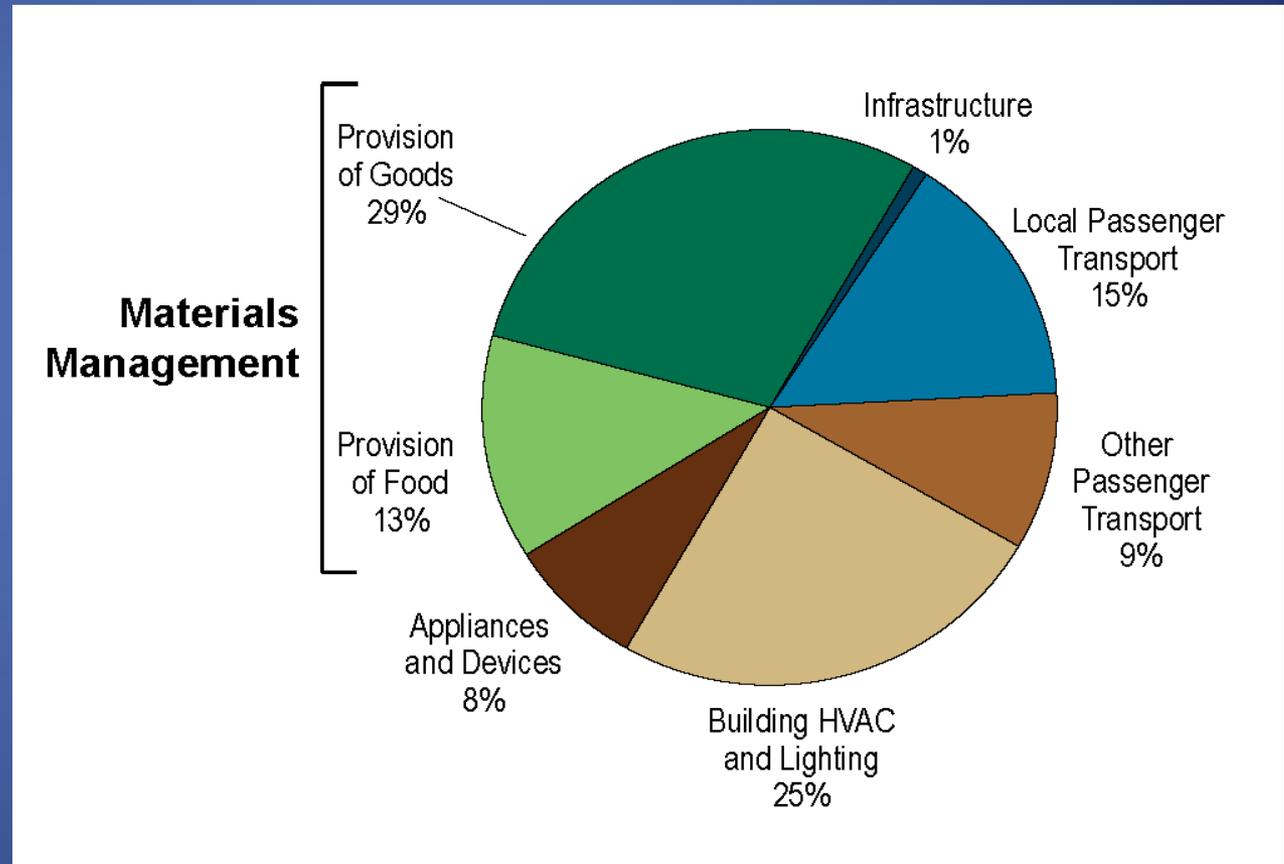
# Systems Approach



# Systems Based View: U.S. GHG Emissions (2006)

Same GHG  
emissions, a  
new lens.

Leads to  
prevention –  
oriented  
strategies



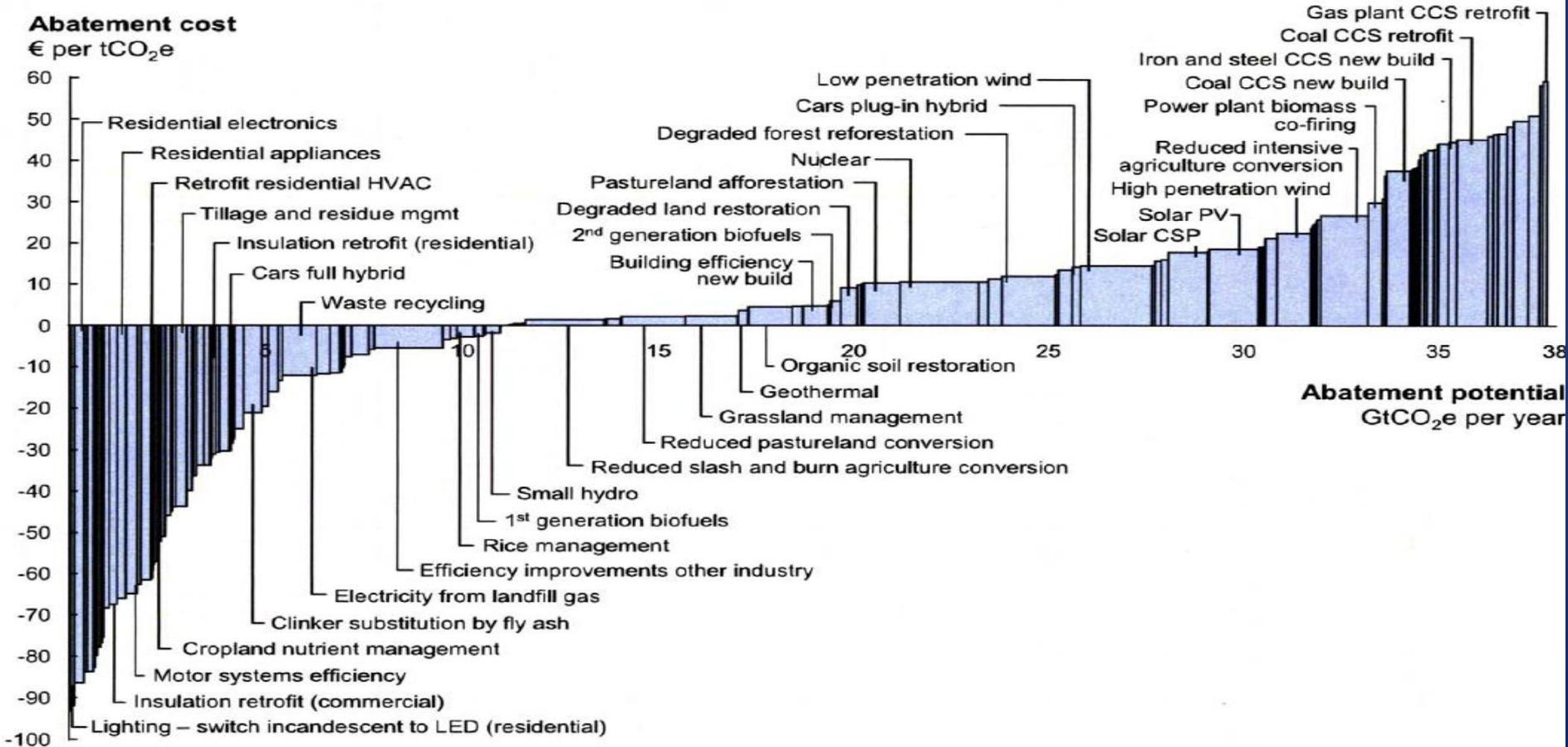
Source: Draft values from *Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices*. U.S. EPA. (forthcoming).

# Grabbing “the low hanging fruit”

From McKinsey & Company: Pathways to a Low-Carbon Economy, 2009

Exhibit 1

## Global GHG abatement cost curve beyond business-as-usual – 2030



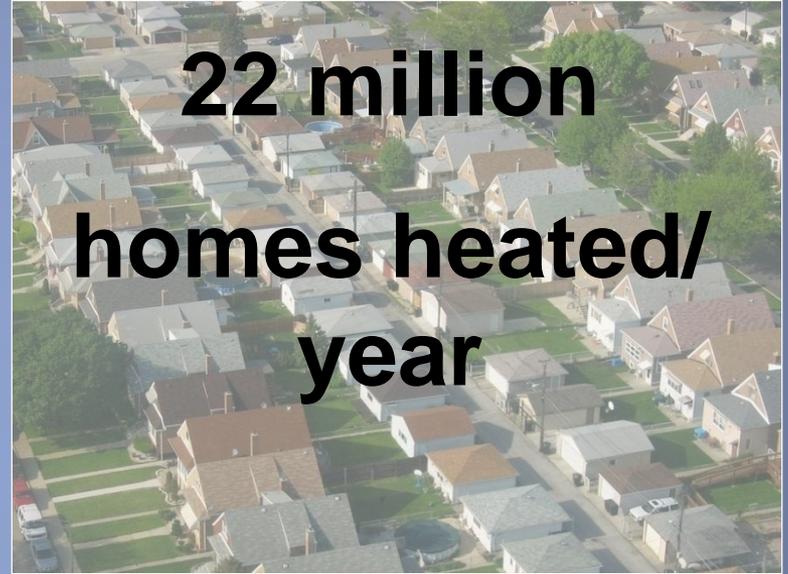
# Impacts from the National Recycling Rate

33% recycling rate

**39 million  
cars off the road**



**22 million  
homes heated/  
year**



**50  
power plants  
avoided**



**400 million  
barrels of oil  
conserved**



# NEED YOUR INPUT:

## Zero Waste Franchise and Contract eGuide

- Best practices for Zero Waste franchises and hauler contracts.
- Model language and case studies for any local government or tribe to use.
- Incentives for all that eliminate waste – not just maximize diversion
- Rewards for local job creation, economic development and GHG reduction.



For more info:  
Saskia Van Gendt  
415 947-4103

# Change Regs: Disposal Bans



- Prohibits designated types of waste from landfills
- Feasible to ban disposal only when there are recycling and reuse options
- Example: Massachusetts's Department of Environmental Protection
  - Waste Disposal Ban Regulation  
[www.mass.gov/dep/recycle/laws/bansreg.htm](http://www.mass.gov/dep/recycle/laws/bansreg.htm)



# Ordinances: Targeted Bans



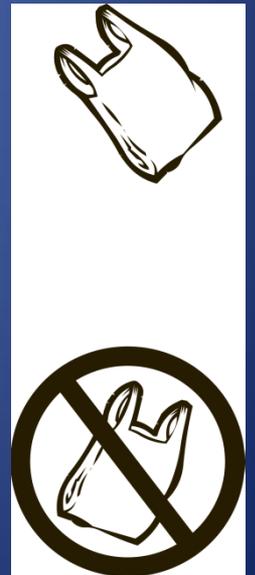
Many cities have minimized the use of certain materials through ordinances:

Styrofoam reduction ordinance

[www.sfenvironment.org/downloads/library/foodservicewaste.pdf](http://www.sfenvironment.org/downloads/library/foodservicewaste.pdf)

Plastic bag reduction ordinance

[www.sfgov.org/site/uploadedfiles/bdsupvrs/ordinances07/o0081-07.pdf](http://www.sfgov.org/site/uploadedfiles/bdsupvrs/ordinances07/o0081-07.pdf)





# EPR: What Local Governments Can Do

**Adopt a local EPR resolution**

**Use disposal bans to drive products into recycling  
and EPR programs**

**Adopt local take-back laws where feasible**

**Lobby senior levels of government for EPR legislation**



# Model Local Government Ordinances & Policies

## Recycling

[www.ciwmb.ca.gov/Iglibrary/LocalDocs/default.htm](http://www.ciwmb.ca.gov/Iglibrary/LocalDocs/default.htm)

## Composting (draft)

[www.sfgov.org/site/uploadedfiles/sfenvironment/meeting/coe/supporting/2008/MandatoryOrdinance.doc](http://www.sfgov.org/site/uploadedfiles/sfenvironment/meeting/coe/supporting/2008/MandatoryOrdinance.doc)

## Construction & Demolition Debris / Green Building

[www.ciwmb.ca.gov/ConDemo/SampleDocs/](http://www.ciwmb.ca.gov/ConDemo/SampleDocs/)

## Local Extended Producer Responsibility

[www.productpolicy.org/content/local-epr-resolutions](http://www.productpolicy.org/content/local-epr-resolutions)

[www.calpsc.org/policies/local/index.html](http://www.calpsc.org/policies/local/index.html)

# Persuading Decisionmakers to Adopt Zero Waste Strategies

- Save money....Cost Effective
- Create green jobs

# Creating Green Jobs

- Recycling creates **jobs!**
- Making new products with recycled content sustains an additional **12X jobs** compared to disposal
- Recycling jobs pay above the average wage and above disposal wages

# Beyond the Blue Box - -> **Professional Certification Program**

- EPA Grant > California Resource Recovery Association
  - Develop & provide training (32 hrs)
  - Testing for each course
  - Implement measurable waste reduction project

# Davis Farmers Market Zero Waste Project

Michael Sminintus, Waste Busters Consulting

- Implemented Zero Waste Plan
- Required vendors to use **compostables**
- Educated vendors & the public

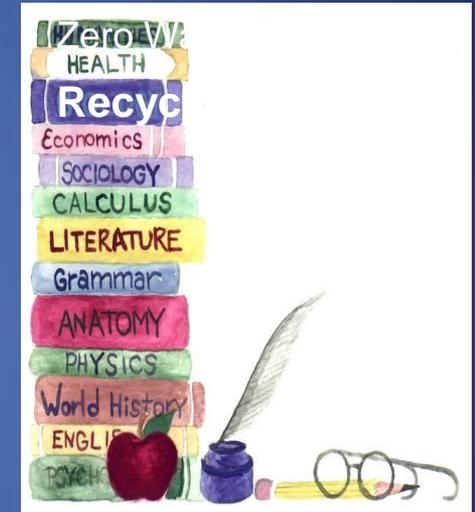


# Department of Labor Grant - \$4.87 M

- **Community College curriculum**
  - Serve 1,200 Southern CA students
  - Job training and placement support
  - White paper - national program

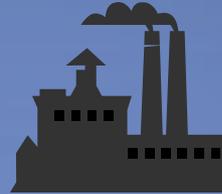
- **Partners**

- **Community Colleges:** Santa Monica College, Orange County, Irvine Valley, and Golden West
- Orange Co. Workforce Investment Board
- Recycling Organization of North America
- **CRRA: \$750,000**





# Lifecycle of a PET Plastic Bottle



## Manufacturing

U. S. Annual PET Bottle Usage Generated: 2.54 Million Tons of material

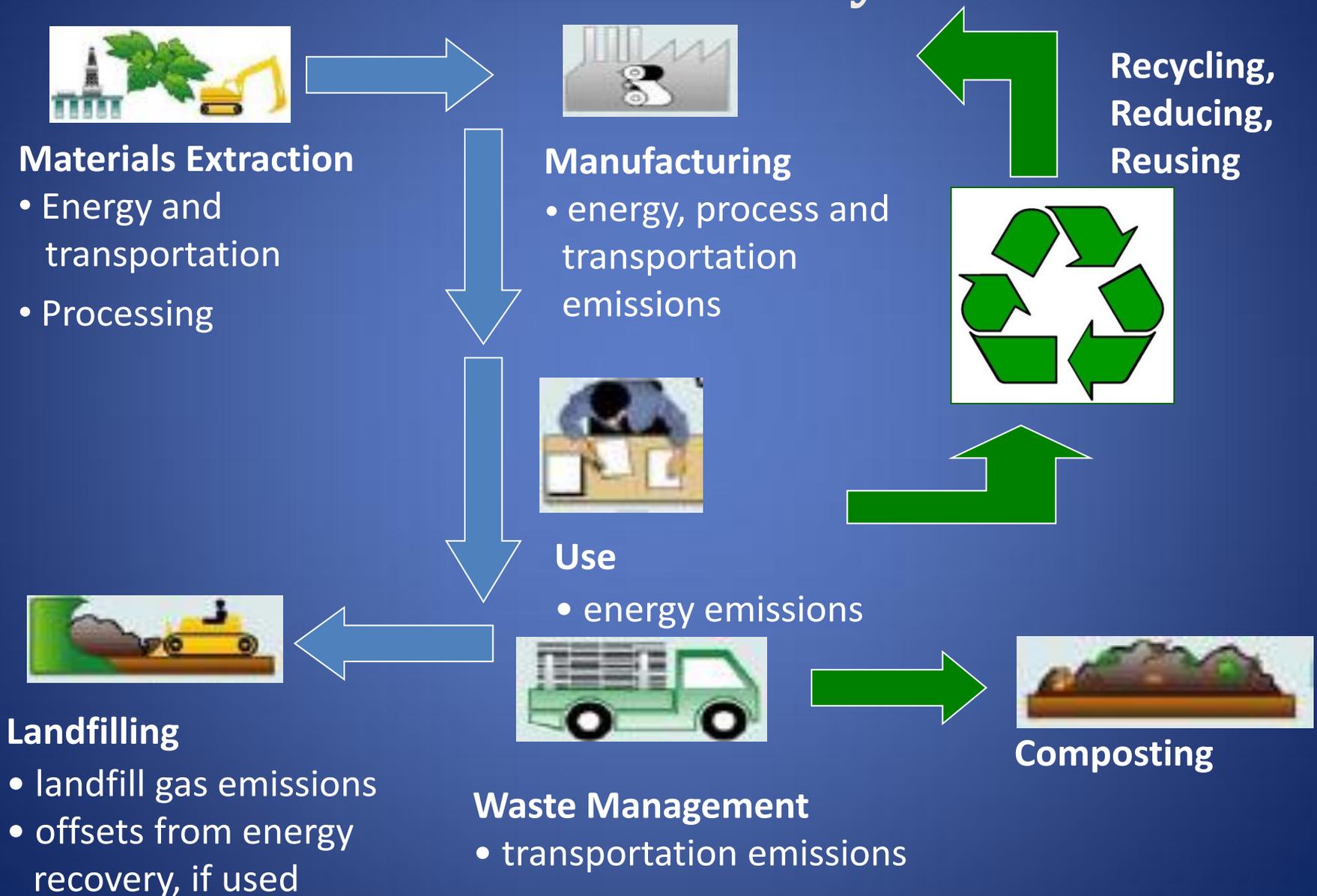
If we avoided creating these materials rather than landfilling them, that would be equal to over 5 million tons of CO<sub>2</sub> equivalent avoided.



## Recycling Avoids GHG Emissions

If we recycled 25% more PET, that would be equal to avoiding GHG emissions from 131 million gallons of gasoline<sup>1</sup>

# GHG Emissions Across the Waste and Materials Lifecycle



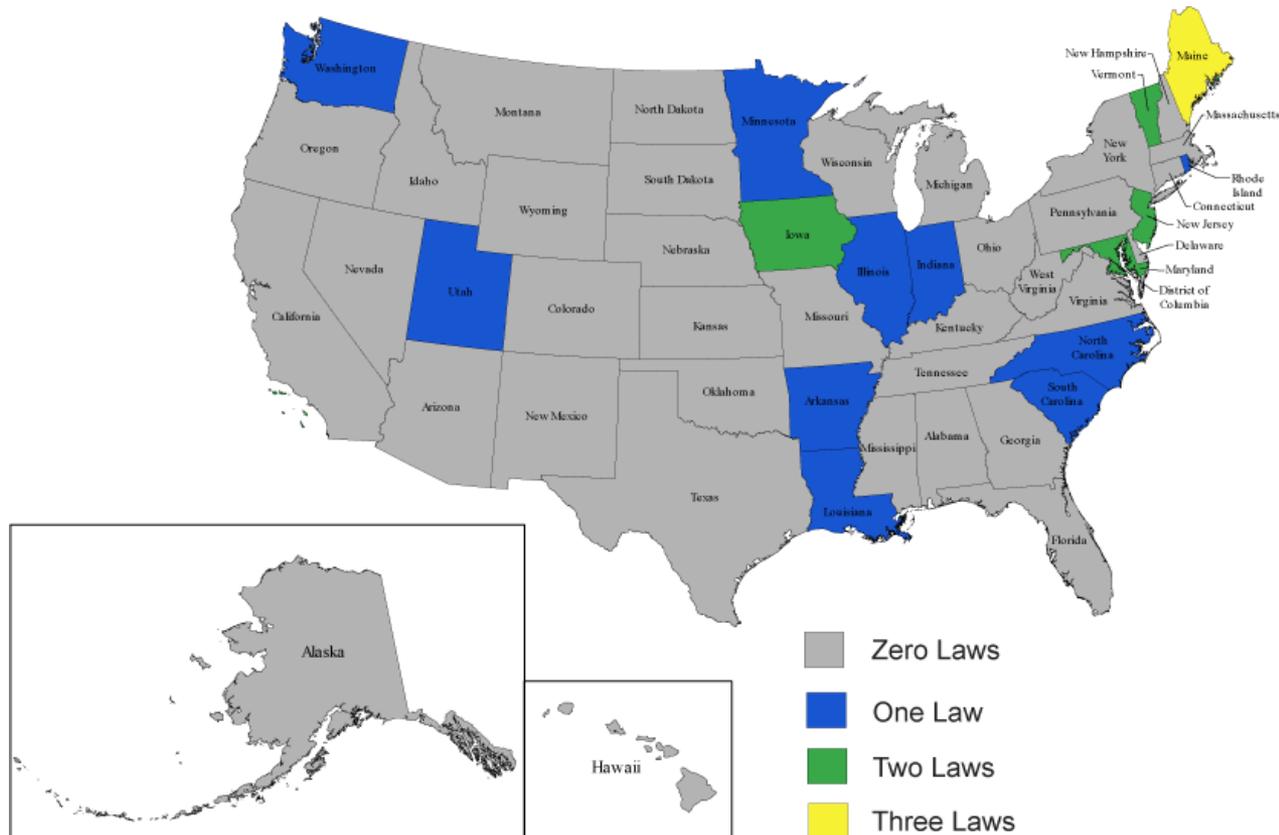


# Extended Producer Responsibility

- Product Stewardship
- Based on commonsense principle
  - Producers will design with recycling in mind when they are required to take back their products and recycle them
- Shifts responsibility
  - For end of life of products and packaging to those who design, market and profit from them: the producers



# Extended Producer Responsibility

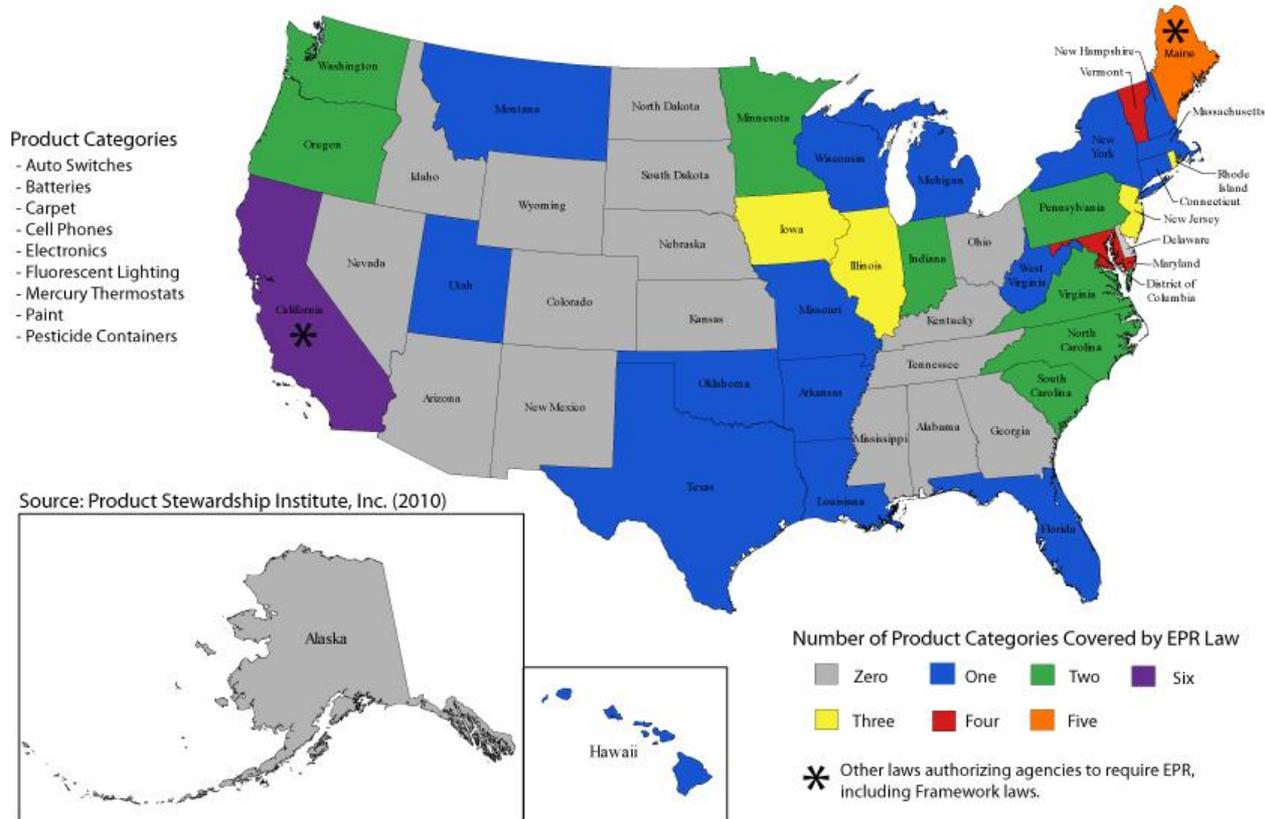


**Extended Producer Responsibility Laws  
as of 2006**



# Extended Producer Responsibility

## Extended Producer Responsibility State Laws as of November 2010





# Extended Producer Responsibility



The screenshot shows the Product Policy Institute website. At the top left is the PPI logo, a blue compass rose with a globe in the center. To its right is the text "Product Policy Institute". Further right is a large green leaf graphic. Below the leaf are four navigation buttons: "The Need", "About EPR", "Councils", and "EPR Framework". Below the navigation is a yellow banner with the text "Local governments working together to make producers responsible for reducing waste." Below the banner are two links: "Send to friend" and "Printer-friendly version". Below the links is a row of five images: a water bottle, a pile of electronic waste, a camera, a hand dropping a white object into a blue recycling bin, and a stack of red plastic cups. Below the images is a yellow banner with the text "Disposable by design". Below the banner is a paragraph of text describing PPI's mission and services.

**Product Policy Institute**

The Need About EPR Councils EPR Framework

Local governments working together to make producers responsible for reducing waste.

[Send to friend](#) [Printer-friendly version](#)

**Disposable by design**

**Product Policy Institute (PPI)** is a North American not-for-profit education and technical assistance organization. Our **mission** is to prevent waste and to promote sustainable production and consumption practices through good public policy and governance.

PPI **offers local governments** practical tools to navigate the transition from a Throw-Away to a Zero Waste Society. PPI works with local governments and community organizations to build support for effective **Extended Producer Responsibility (EPR)**, or **Product Stewardship**, policies that hold producers responsible for ensuring that their products do not become public liabilities.

Resources: Product Policy Institute  
[www.productpolicy.org](http://www.productpolicy.org)



# Product Durability

What would be the environmental effect of having cell phones and computers that lasted longer?

Extending the life of personal computers by 50%, could result in an estimated reduction of emissions of approximately 51 MMTCO<sub>2</sub>E per year.



# Product Durability

Encourage product durability through:

- Changing procurement policies
- Working with your suppliers
- Educating consumers
- Participating in state and national dialogue

[www.productpolicy.org/resources/index.html](http://www.productpolicy.org/resources/index.html)