



Maryland Department of the Environment

## Update on Maryland's Draft Zero Waste Plan

Recycling & Solid Waste Managers Meeting  
January 7, 2014



---

### Current Status

- MDE is currently working on a full draft of the plan.
- The basic concepts for the Zero Waste Plan were included in the Greenhouse Gas Reduction Plan (2013).
- After the full draft is complete, there will be opportunity for stakeholder review and input.





## Zero Waste Principles

- Expand focus from end-of-life management to the full lifecycle
- Increase emphasis on product design, source reduction
- Prioritize management methods to capture maximum value from materials
- Set ambitious, aspirational goals

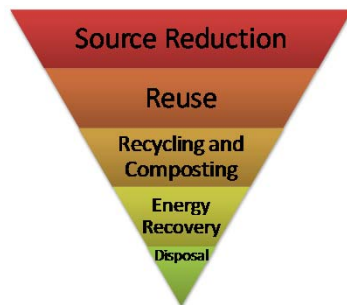
*"...Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them..."*

(ZWIA, <http://zwia.org/standards/zw-definition/>)

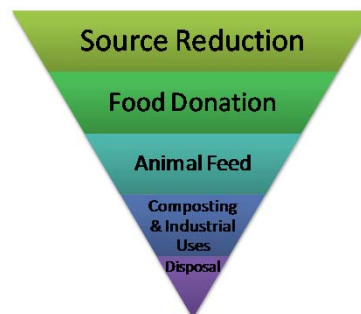


## Zero Waste Hierarchies

Materials Management Hierarchy



Food Management Hierarchy



Adapted from U.S. EPA, "Nonhazardous Waste Management Hierarchy" and "Food Recovery Hierarchy,"  
<http://www.epa.gov/osw/nonhaz/municipal/hierarchy.htm>;  
<http://www.epa.gov/osw/conservation/foodwaste/index.htm>





## Zero Waste Goal Examples

Jurisdiction	Goal
Massachusetts	2020: Reduce 2008 tons disposed by 30% 2050: Reduce 2008 tons disposed by 80%
Delaware	2015: Recycling rate of 50% and diversion rate of 72% 2020: Recycling rate of 55% and diversion rate of 82%
California	2020: Recycling rate of 75%
Washington, DC	2032: Send zero waste to landfills and reduce waste generated by 15%.
Austin, TX	2015: Diversion rate of 50% 2020: Diversion rate of 75% 2025: Diversion rate of 85% 2030: Diversion rate of 90% 2040: Diversion rate of 95%
San Francisco, CA	2020: Diversion rate of 100%
Seattle, WA	2015: Recycling rate of 60% 2022: Recycling rate of 70%



## Maryland Draft Zero Waste Goals

	2015	2020	2025	2030	2040
Recycling	50%	60%	65%	70%	80%
Waste Diversion	54%	65%	70%	75%	85%





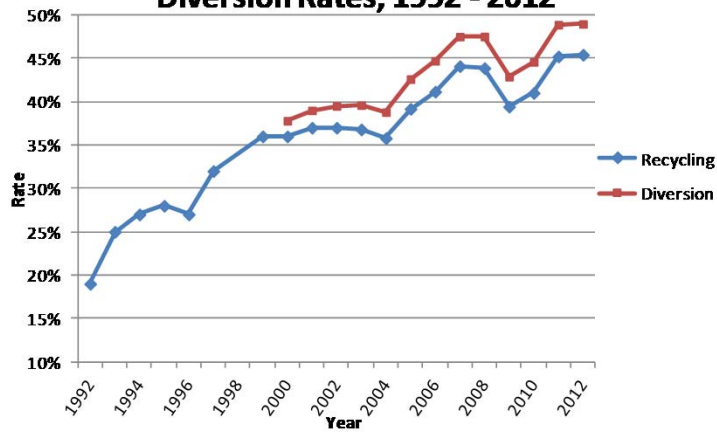
## Key Materials

Material	Percent of Waste Stream*	Estimated MD Recycling Rate, 2012	Tons Left to Capture in MD
Paper	28.0%	50.7%	904,986
Food Scraps	14.5%	8.5%	870,435
Yard Trim	13.5%	70.9%	256,805
Plastic	12.7%	8.6%	672,487

\*Top 4 materials as a portion of the U.S. waste stream, based on EPA, Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2011, [http://www.epa.gov/osw/nonhaz/municipal/pubs/MSWcharacterization\\_508\\_053113\\_facts.pdf](http://www.epa.gov/osw/nonhaz/municipal/pubs/MSWcharacterization_508_053113_facts.pdf).

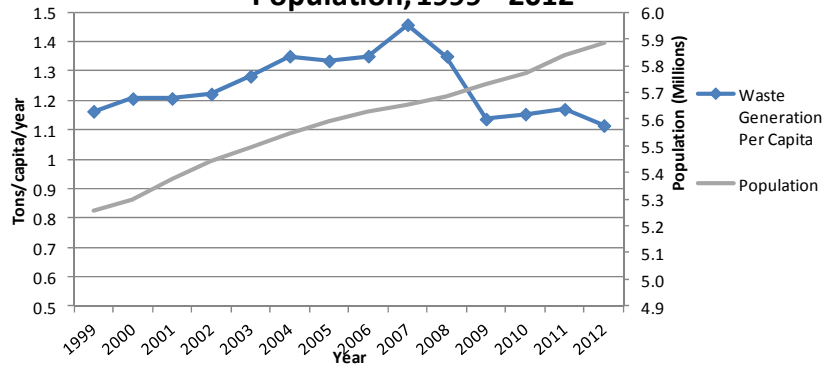


**Figure 1: Maryland Recycling and Waste Diversion Rates, 1992 - 2012**





**Figure 3: Waste Generated Per Capita and Population, 1999 - 2012**



## Action Plan

- Divided into 7 broad objectives.
- Under each objective, proposes initiatives in the following timeframes:

Underway	In process of being implemented now
Near term	2014 – 2020
Medium term	2021 – 2030
Long term	2031 – 2040





## Objective 1 - Increase Diversion of Organics

- Currently underway:
  - Implement new composting law and regulations
  - Conduct composting education and outreach campaign
- Future organics strategy should include increases in food donation as well as composting



## Objective 2 – Increase Recycling Access and Participation

- Improve measurement of business recycling
- Investigate other strategies, such as:
  - EPR for packaging
  - PAYT
  - Increasing away-from-home recycling
  - Universal recycling
- Support WTE as an interim strategy





## Objective 3 – Address Specific Target Materials

- Conduct a waste sort
- Consider disposal bans for specific materials
  - Example: electronics
- Consider EPR programs for specific materials
  - Example: consider mattress EPR to address county concerns about costs of managing mattress & illegal dumping.
- Consider other laws to encourage recycling of specific materials
  - Examples: carryout bags; beverage containers
- Restrict the sale of certain non-recyclable products



## Objective 4 – Incentivize Innovation and Develop Markets

- Review regulatory requirements & provide guidance (esp. for new technologies)
- Support waste diversion research
- Conduct pilot programs
- Establish financial incentives for new recycling facilities
- Collaborate across agencies on business and market development
- Incentivize adoption of new programs by local governments





## Objective 5 – Increase Source Reduction and Reuse

- Organize a waste exchange
- Study/update SR credit system
- Conduct a consumer-facing SR outreach campaign
- Provide/fund SR technical assistance for businesses
- Research methods of encouraging sustainable product design



## Objective 6 – Collaborate & Lead by Example

- Increase State government procurement and use of compost
- Increase State government procurement of recycled materials
- Create a State government SR checklist
- Increase composting and AD by State government
- Increase State government recycling rates.







---

## Objective 7 – Conduct Education and Outreach

- Seek sustainable funding for outreach
- Provide funding to local governments for outreach programs
- Establish a zero waste business recognition program
- Conduct outreach to schools
- Provide business recycling assistance

