

SMART Waste Management



Windham County Conservation Commission
January 31, 2012

Agenda

Statewide materials perspective

Environmental and economic benefits of waste reduction

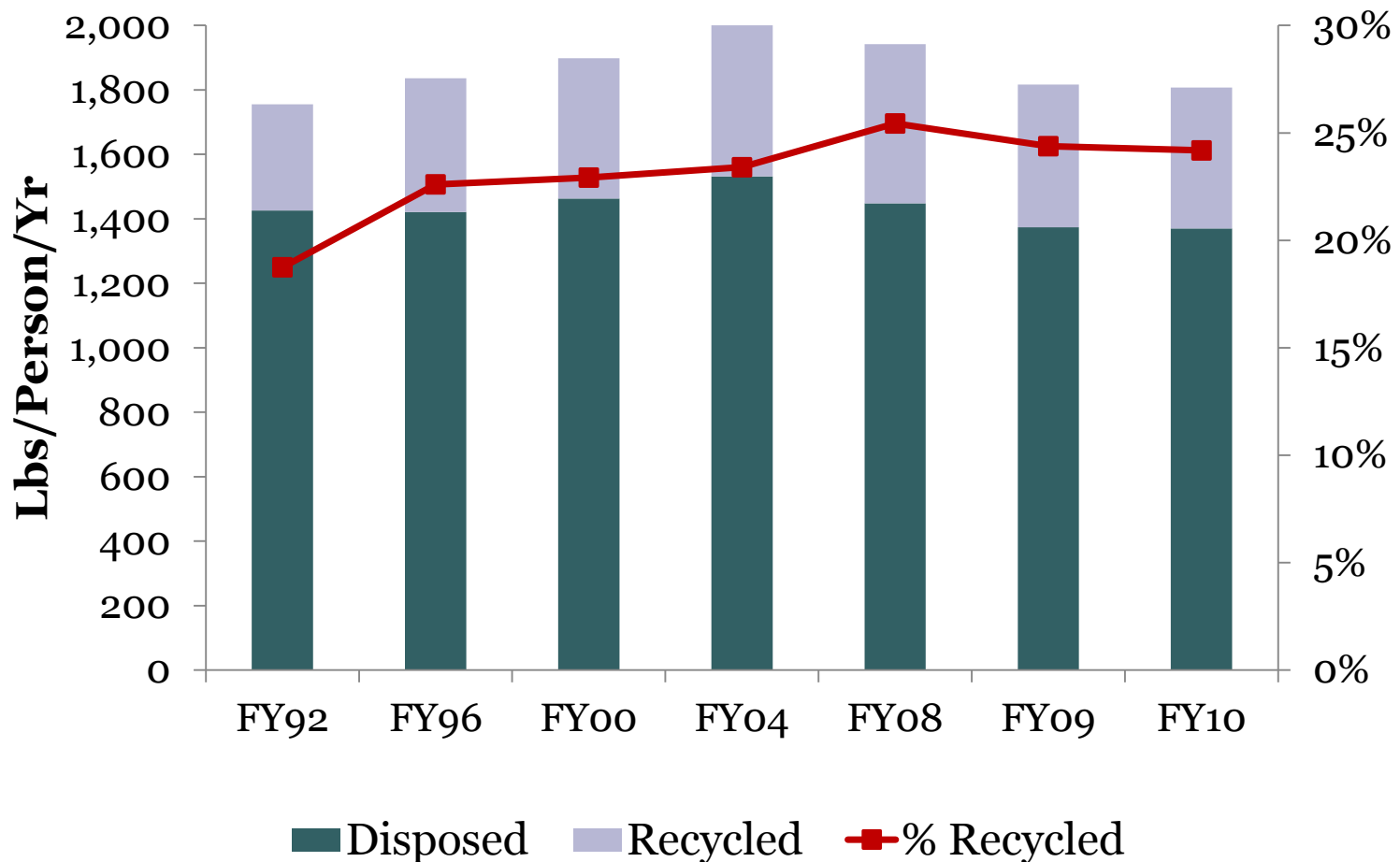
How municipalities can save money and reduce trash

Recommendations

DEEP Initiatives

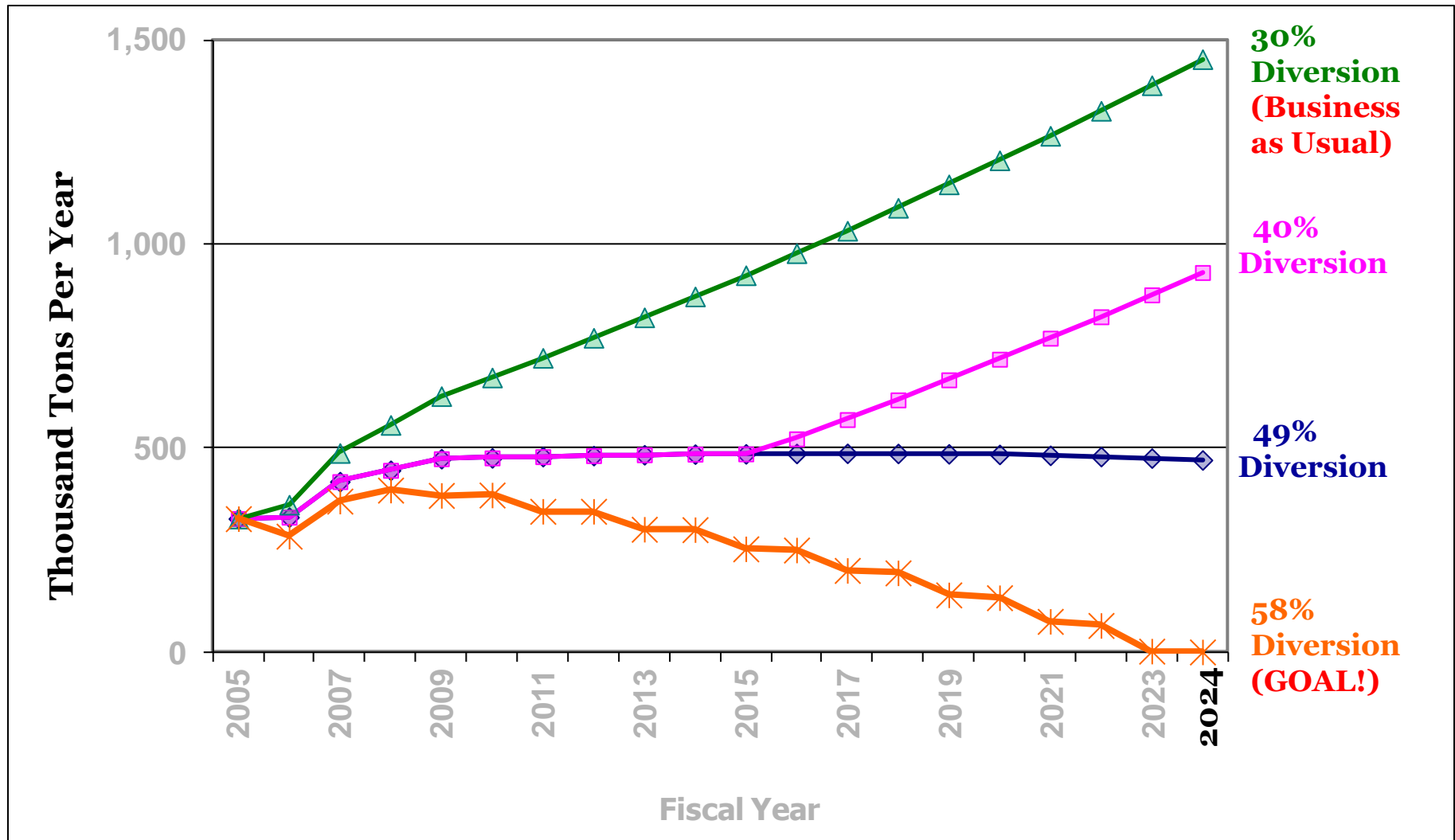
CT Solid Waste Trends

Residential and Commercial Waste and Recycling



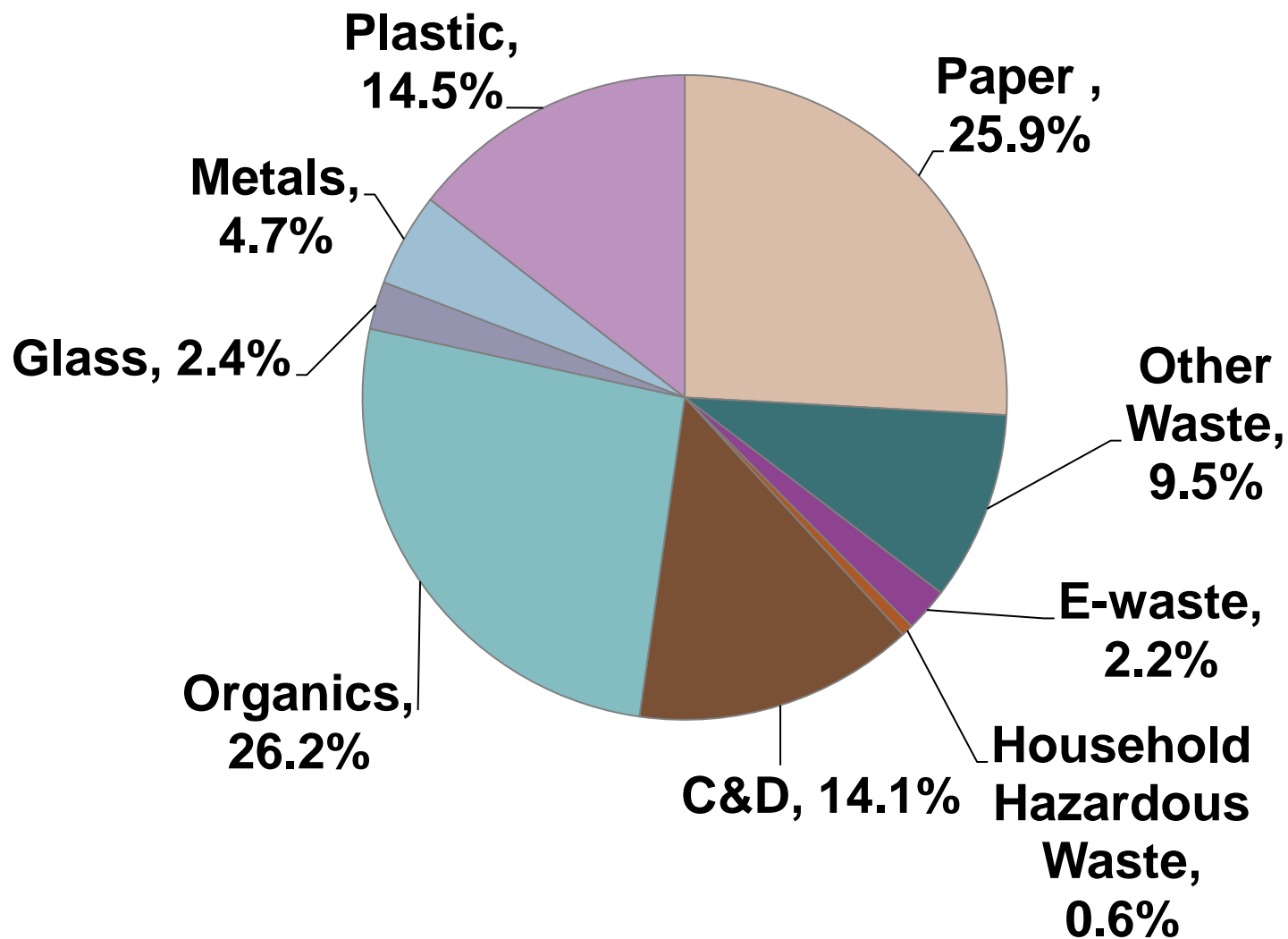
CT Solid Waste Management Goal

Projected Capacity Shortfall



What's Still in the Trash?

CT Statewide Overall MSW Disposal Composition, 2009



Changing the way residents value trash

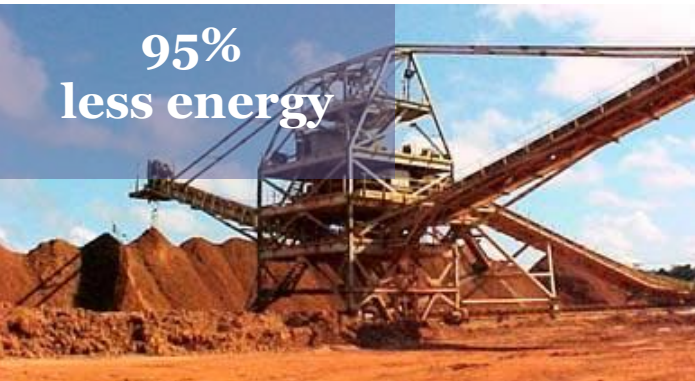
Environmental value



Economic value



Environmental Value of Recycling



- Saving **Natural Resources**
- Saving **Energy**
- Reducing **Greenhouse Gases**



Sources: Northeast Recycling Council (NERC)
Environmental Paper Network

The Economic Value of Waste Reduction

- Immediate benefit to municipality and state through avoided disposal costs
- Long- term benefit to the region
 - Recycling means jobs
 - Recovered materials available to local community
 - Extended life at resource recovery facilities
 - Recycling industry creates revenue of \$35 billion in 5 northeast states



[Recycling Economic Information Study Update, NERC Feb 2009]

Waste Reduction is a Behavior Change

- Purchase less or in bulk
- Purchase products with less packaging
- Purchase products that can be reused or recycled and composted
- Reuse or donate textiles, appliances, furniture, and other materials
- Compost food scraps

How can municipalities save money and reduce trash?

- Unit-based pricing for trash aka Save Money and Reduce Trash (SMART)
- The more you recycle the more resources and money you save

“Financially incentivizes people to make the right choice”

*Jared Bloomenfeld, Environment San Francisco
Fortune Magazine, 2/10/07*



Unit based pricing programs are flexible



- **Work within existing infrastructure**
- **Change pricing mechanism**

How Do We Pay for Trash?

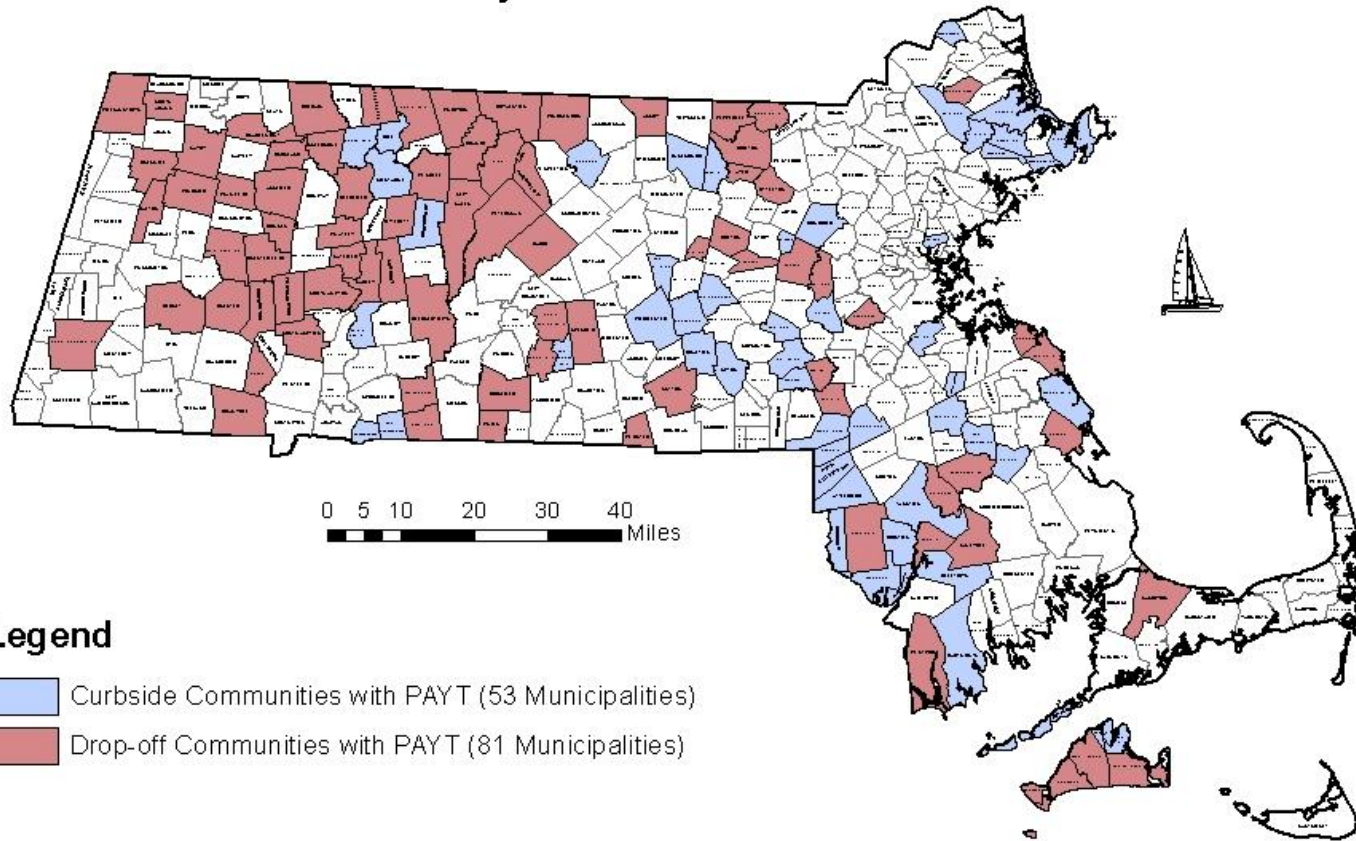
Costs covered through town taxes, hauler charges, other revenue, and resident fees (i.e. transfer station pass):

- Hauling and collection costs
- Tipping fees (per ton)
- Administrative and operational costs





Municipal Solid Waste Pay-As-You-Throw (PAYT) Communities in Massachusetts

July 2011



Legend

-  Curbside Communities with PAYT (53 Municipalities)
-  Drop-off Communities with PAYT (81 Municipalities)



Deval Patrick
Governor
Richard K. Sullivan Jr.
Secretary of Energy and
Environmental Affairs

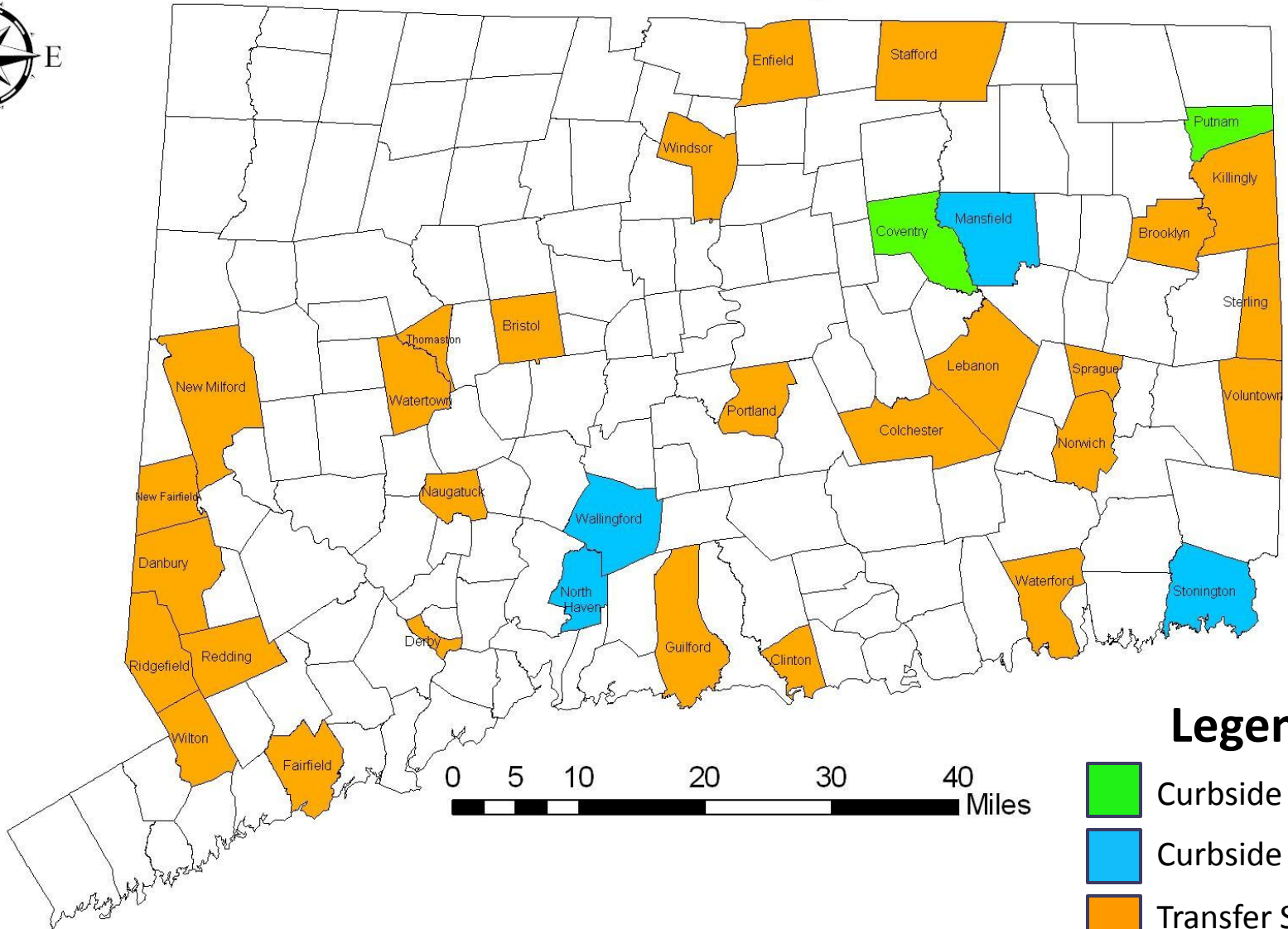
Data Sources:

Pay As You Throw Communities - BWP Consumer Programs 2011
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Massachusetts Municipalities - MassGIS 2004

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Unit Based Pricing in CT

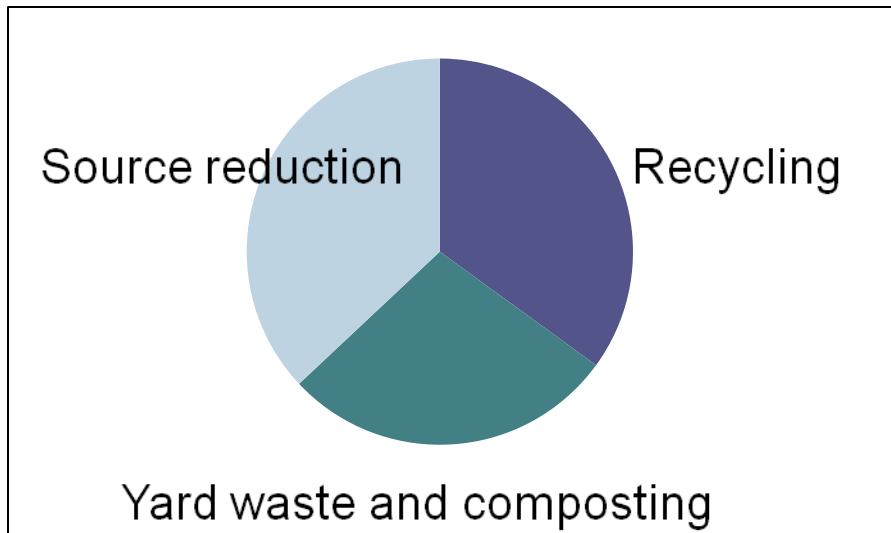


Legend

-  Curbside Only
-  Curbside and TS
-  Transfer Station Only

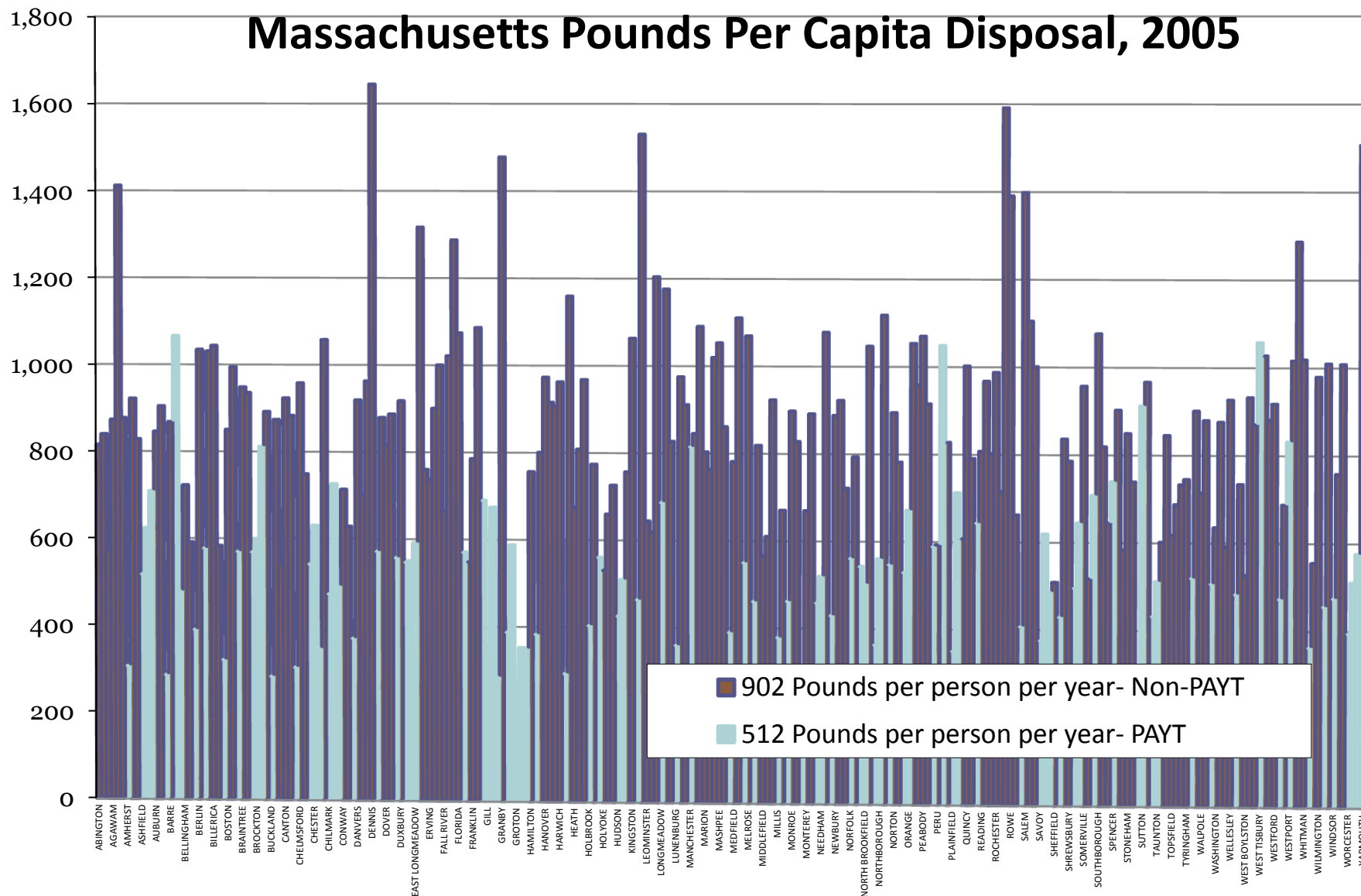
Why SMART?

- **Waste Diverted** - reduces trash 17% by weight to 500-600 PPY (EPA)

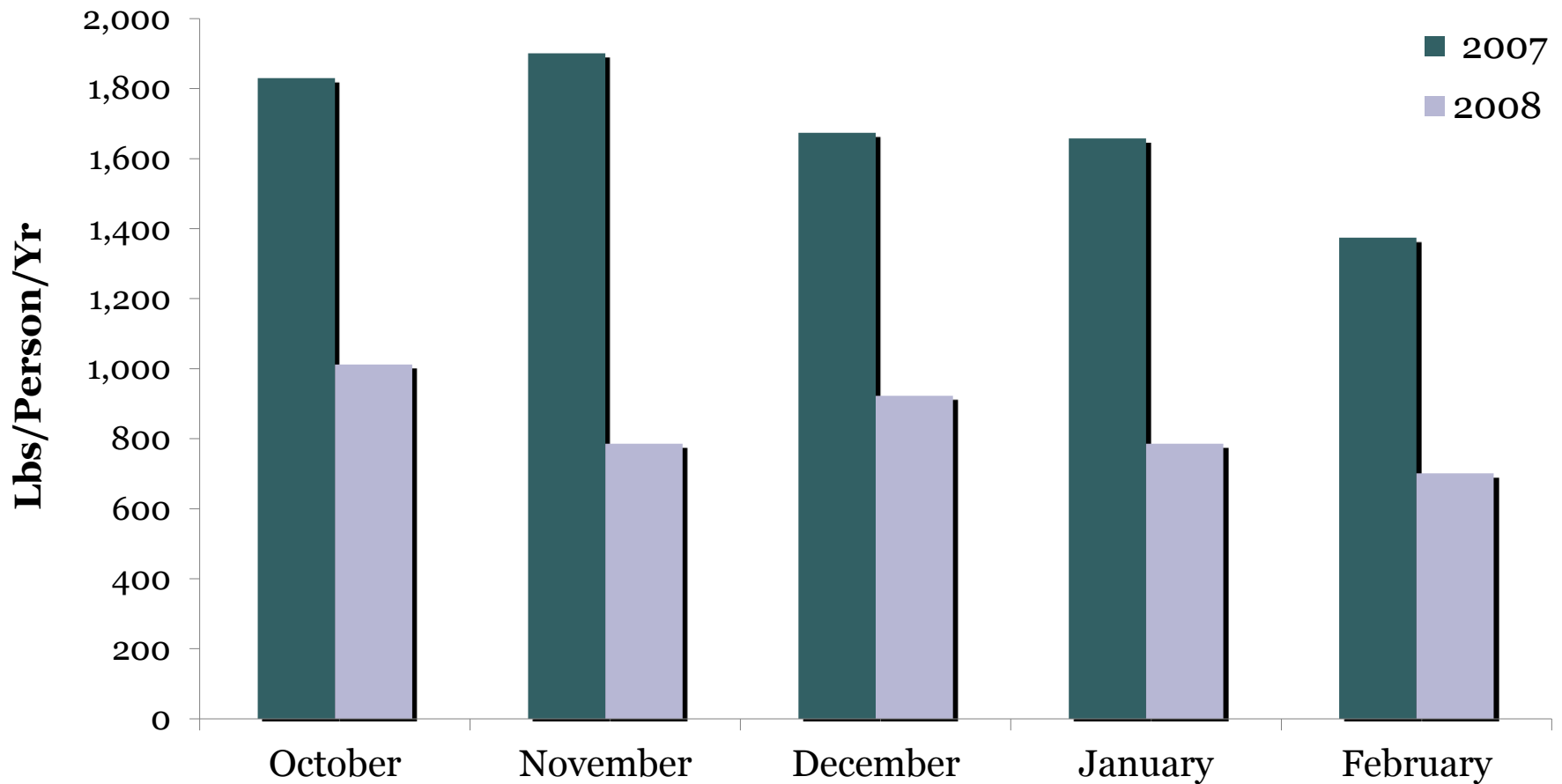


- **Doubles Recycling** - supports CT Solid Waste goals
- **Alleviates town budgets** – reduces waste and associated costs
- **Greenhouse Gas Emissions Avoided**
 - SMART programs reduced 7-13 MMT CO₂E (nationally)
 - Recycling is top ten method for reducing GHG— supports State Climate Action Plan

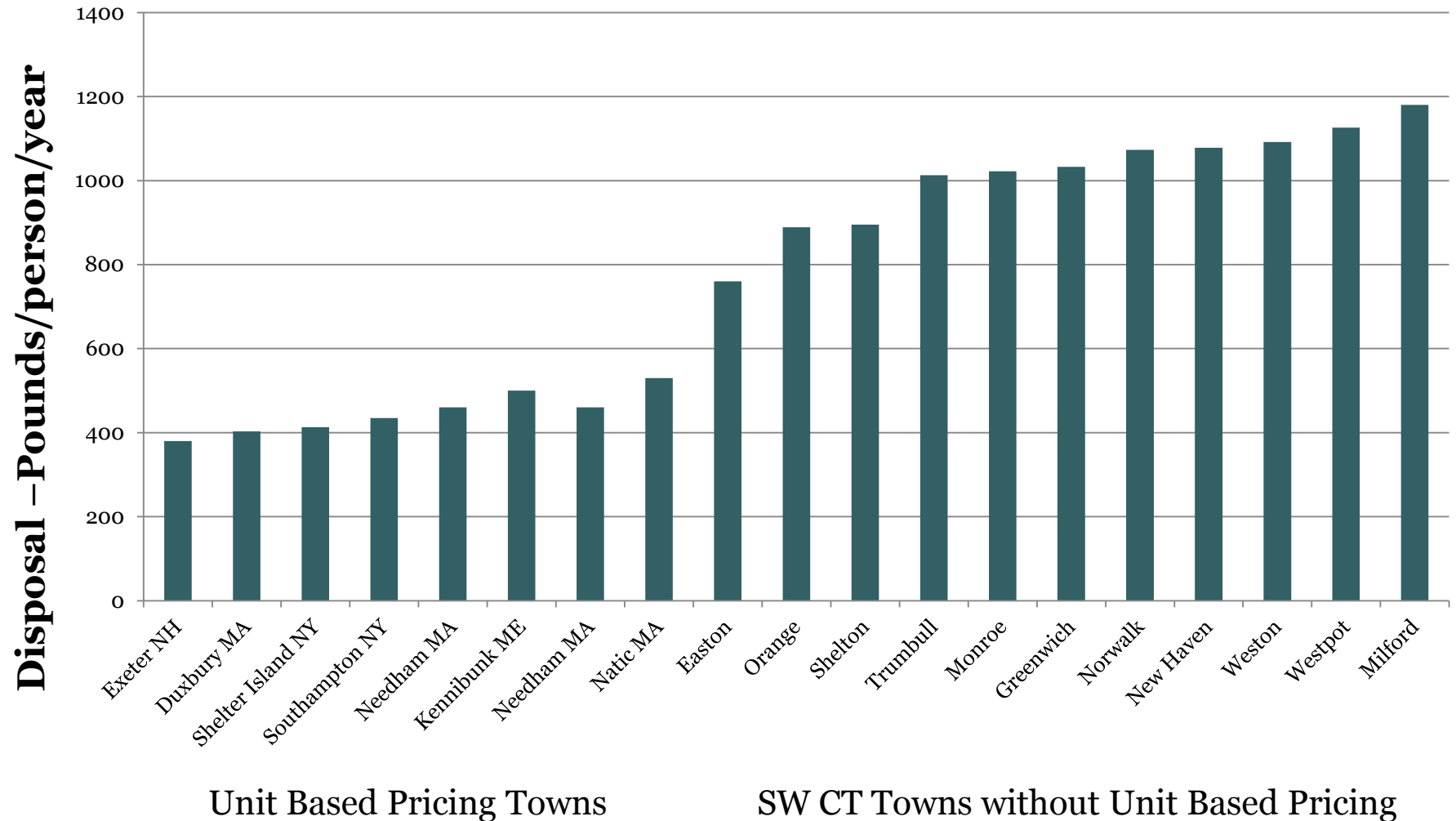
Massachusetts Pounds Per Capita Disposal, 2005



Malden MA - 44% Waste Reduction

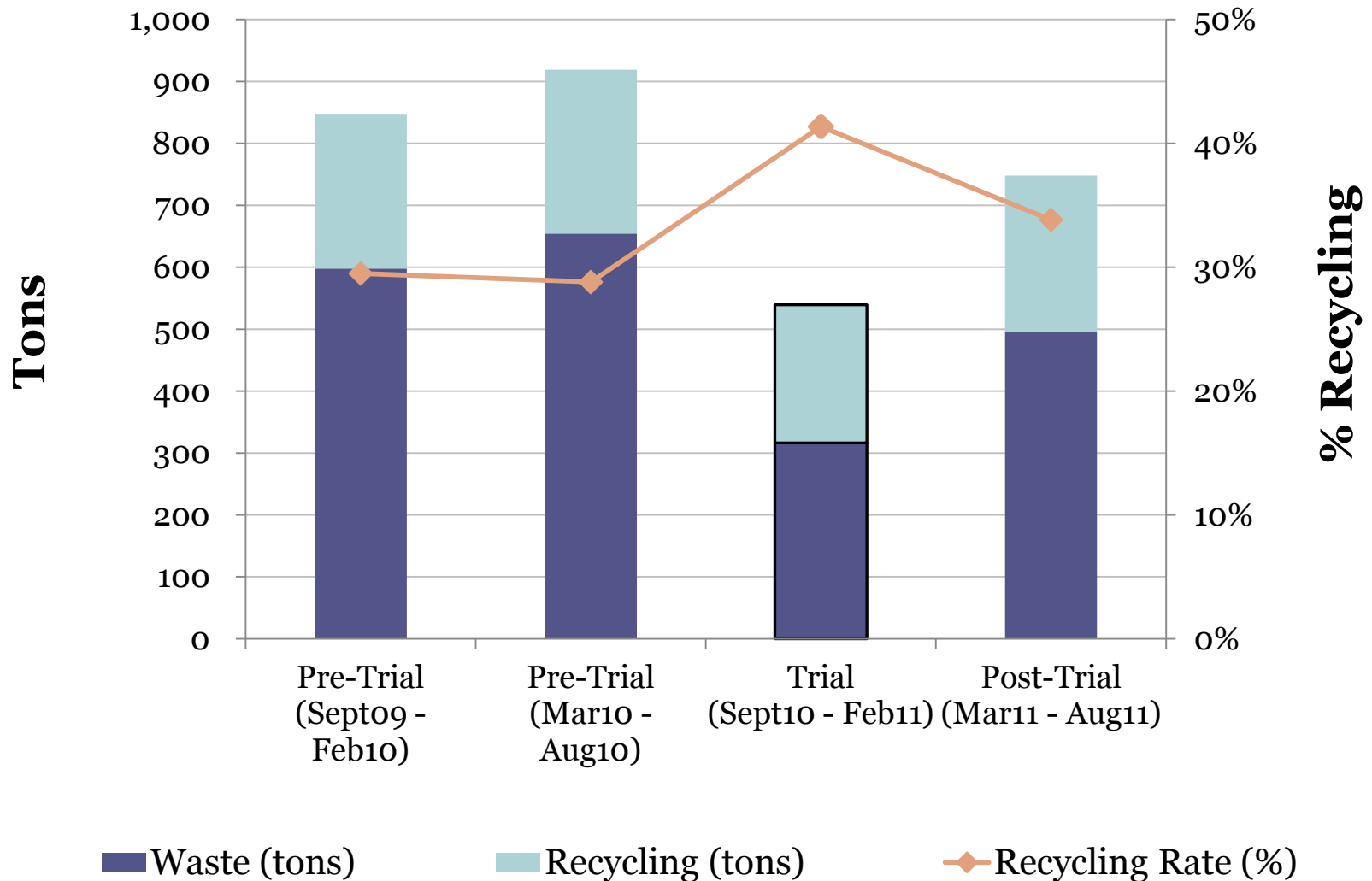


Community Comparison



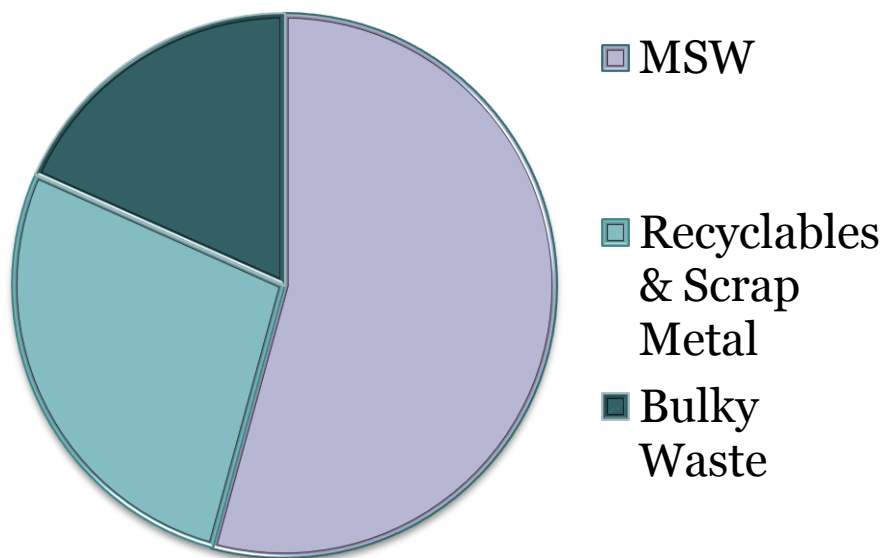
Columbia's Unit-Based Pricing Results

(total over 6 months)



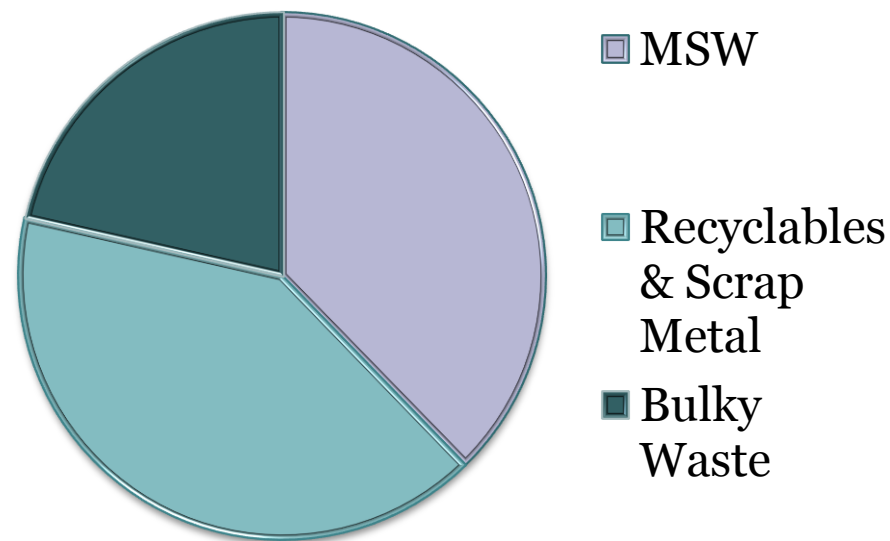
Columbia: Flat Rates vs. Unit-Based

2009
September-December



Total Materials = 616 tons

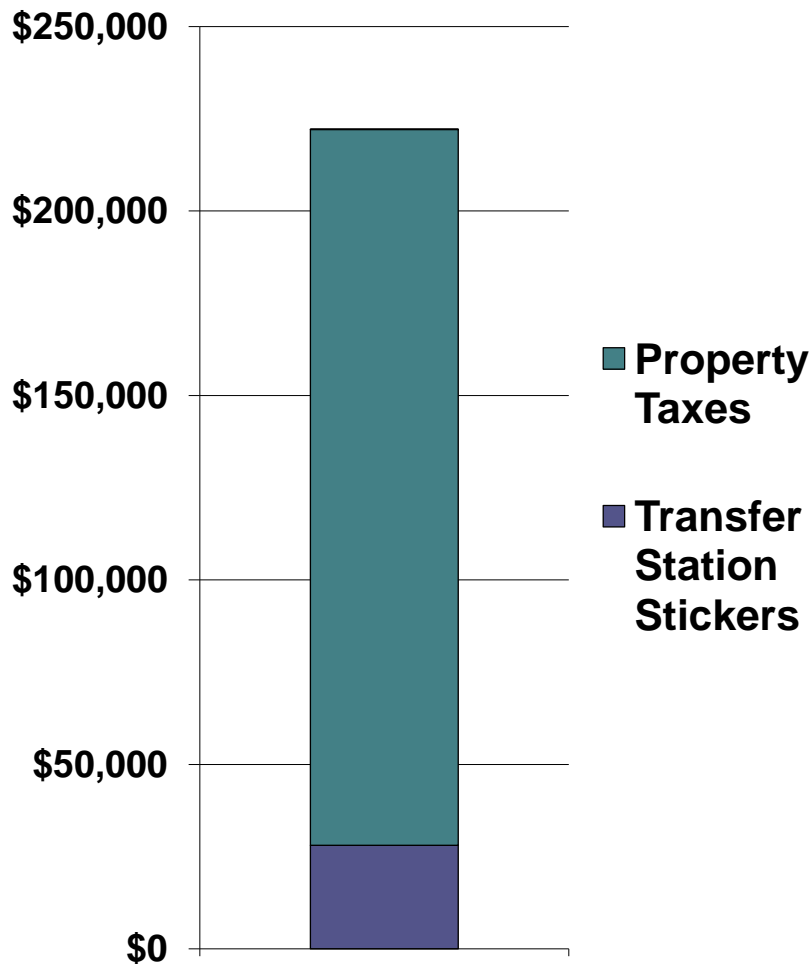
2010
September-December



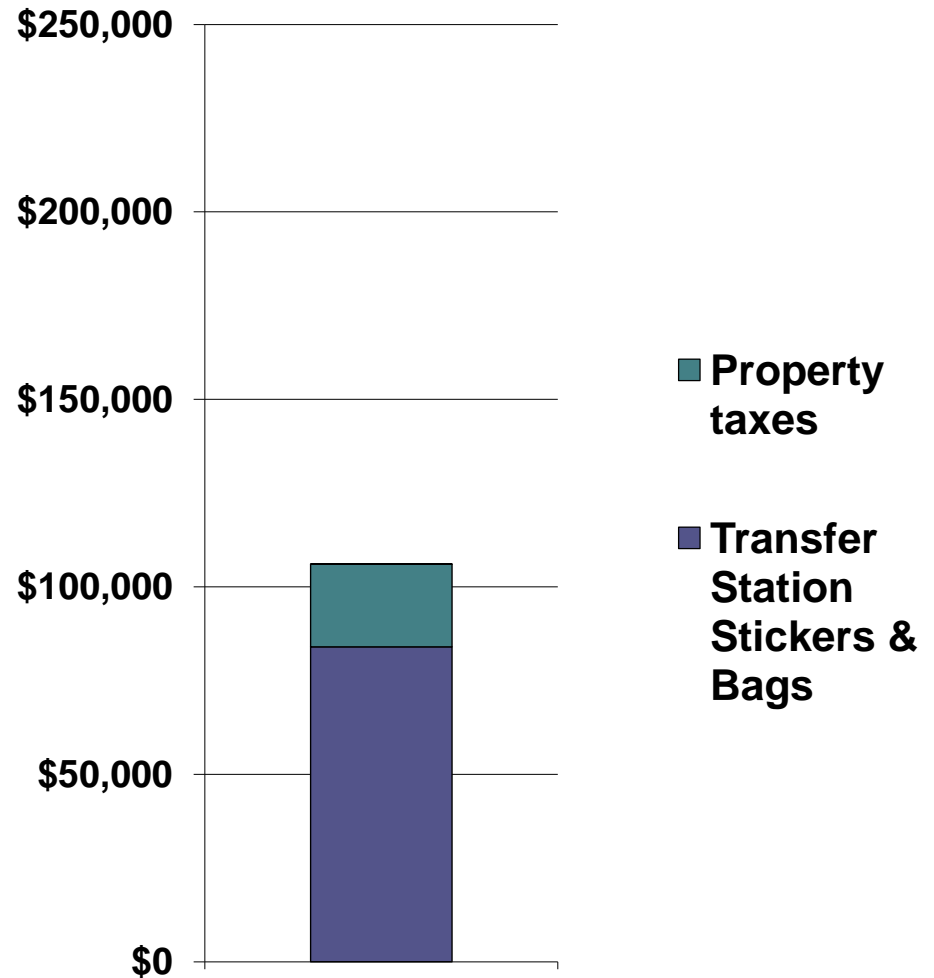
Total Materials = 408 tons

Columbia: Business as usual, *or* better control of future costs?

Pay by household tax value?

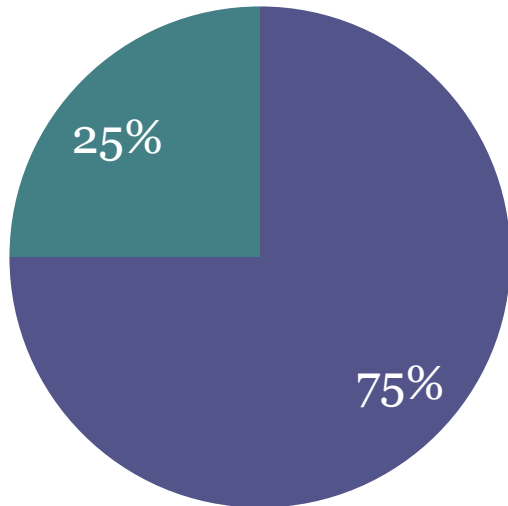


Pay by volume of trash?

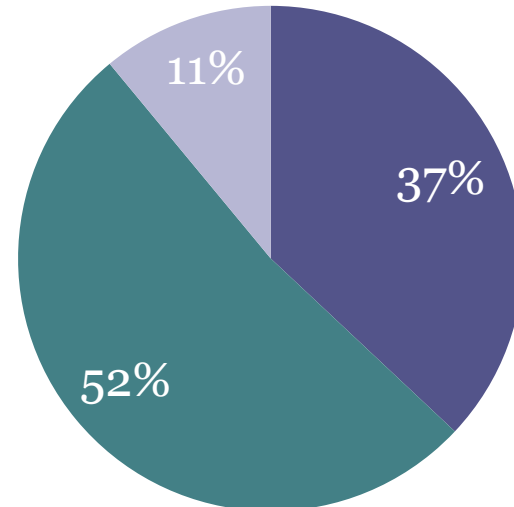


Monroe Projected Waste Stream

Before SMART



After SMART



■ Total Waste

■ Recycling (plastic, glass, metal, paper, yard waste)

■ Source Reduction

Stonington

- \$5m in avoided disposal costs (since 1995)
- 98% of solid waste costs are paid through the revenue from the bags

Source: John Phetteplace, Solid Waste Manager, Stonington

Bag price for CT Towns

Town	13+ gallon	30+ gallon	40 gallon
Brooklyn		\$1.80	
Clinton		\$1.00	
Colchester		\$3.00	
Danbury	\$2.00	\$3.00	\$4.00
Essex		\$3.00	
Killingly		\$2.50	
Lebanon	\$1.00	\$2.00	
New Fairfield	\$1.50		
New Milford	\$1.50		\$5.00
Brookfield	\$2.00		\$5.50
Sherman	\$2.00		\$5.50
Portland	\$1.00	\$4.00	\$5.00
Sprague	\$0.60	\$1.25	
Stafford	\$0.65	\$1.25	
Sterling/Voluntown		\$1.50	
Stonington	\$0.75	\$1.25	
Watertown	\$2.00	\$3.00	
Weston		\$1.50	
Wilton		\$4.00	

Bag revenue
can cover
tipping costs
AND
incentivize
residents to
reduce

**\$2 = Average price of
30gal bag in CT & MA**

Recommendations


- Pilot residential municipal solid waste first (curbside or transfer station)
- Bag price covers the variable cost of solid waste
- Create an enterprise fund to collect revenue from bags and to cover tip fees
- Bag pricing should incentivize less waste
- Send message to residents: you control what you pay

DEEP Initiatives

- E-waste, paint, mattress recycling
- Statewide recycling equipment contract
- Technical SMART assistance
- Materials management summit (March)
- Statewide marketing campaign

Other Ideas

- **Implement unit-based pricing for trash**
- Start a town recycling committee
- Educate and provide support to schools and businesses
- Start a school composting program
- Improve park and event recycling
- Promote recycling and waste reduction through local media and town website
- Implement best practices from other towns, share success stories
- Recycle residential mattresses
- Ensure successful e-waste collection program
- Implement reuse program or swap shop at transfer station



“If we would insist on a recycling rate in our country at 80, 85, 90%... we would save a tremendous amount of water and energy and we would create millions of jobs.”

(Lisa Jackson, EPA Administrator, December 2011)

What questions do you have?

www.ct.gov/dep/e-waste

www.ct.gov/dep/SWMP

www.ct.gov/dep/recycle

www.ct.gov/dep/whatdoidowith

Source Reduction & Recycling
Bureau of Materials Management and Compliance Assurance
CT Department of Energy and Environmental Protection
79 Elm Street, Hartford CT 06106
www.ct.gov/dep/recycle

More Resources:

www.ct.gov/recycle

www.ct.gov/dep/whatdoidowith

www.ct.gov/dep/e-waste

www.epa.gov/osw/conserveserve/tools/payt



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Department of
Energy and
Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Phone:
(860) 424-3000
Voice/TTY

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Signup for our Email Newsletters

Municipal Recycling Resource Center



"We won't have a society if we destroy the environment."
~ Margaret Mead

As the recycling and waste management leader in your community, we want you to have access to important information, useful tools and resources that are easy to find. This page is meant to be a gateway to recycling information pertinent to municipalities.

Recycling is mandated in state statutes and municipal ordinances, but it is also an important activity that every resident and visitor in Connecticut *can and should* do. Connecticut's goal of recovering **58%** of our municipal solid waste through waste reduction, reuse, recycling, composting and energy recovery by the year 2024 will only be met *when we all share in the responsibility* of protecting our environment!

SMART (PAYT)	Composting & Organics Recycling	Household Hazardous Waste
Electronic Waste	Construction and Demolition Waste Management	Separating Recyclables from the Waste Stream
Buy Recycled Products	Municipal Recycling Honor Roll	2008 Full Cost Accounting Survey
Recycling Collection Systems	Solid Waste & Recycling Reporting Forms	Municipal Recycling Coordinators
What Do I Do With...?	Additional Municipal Recycling Resources	Solid Waste & Recycling Data