

Save Money and Reduce Trash (SMART)

The Environmental Impact of SMART Solid
Waste Management

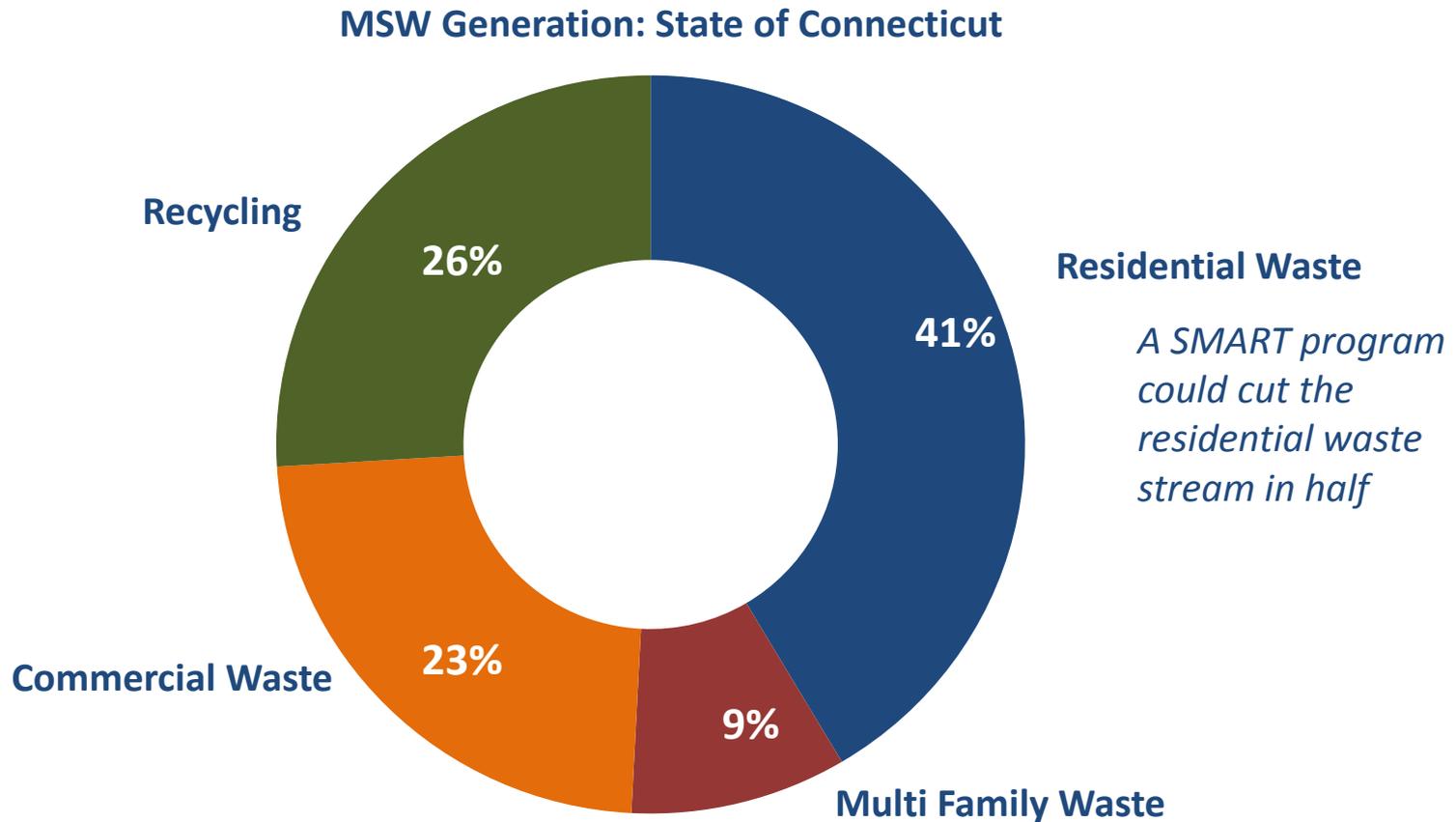
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Department of
ENERGY & ENVIRONMENTAL PROTECTION

CT Annual Tonnage

Assuming that 2.8 million residents of Connecticut have residential trash service (2014)

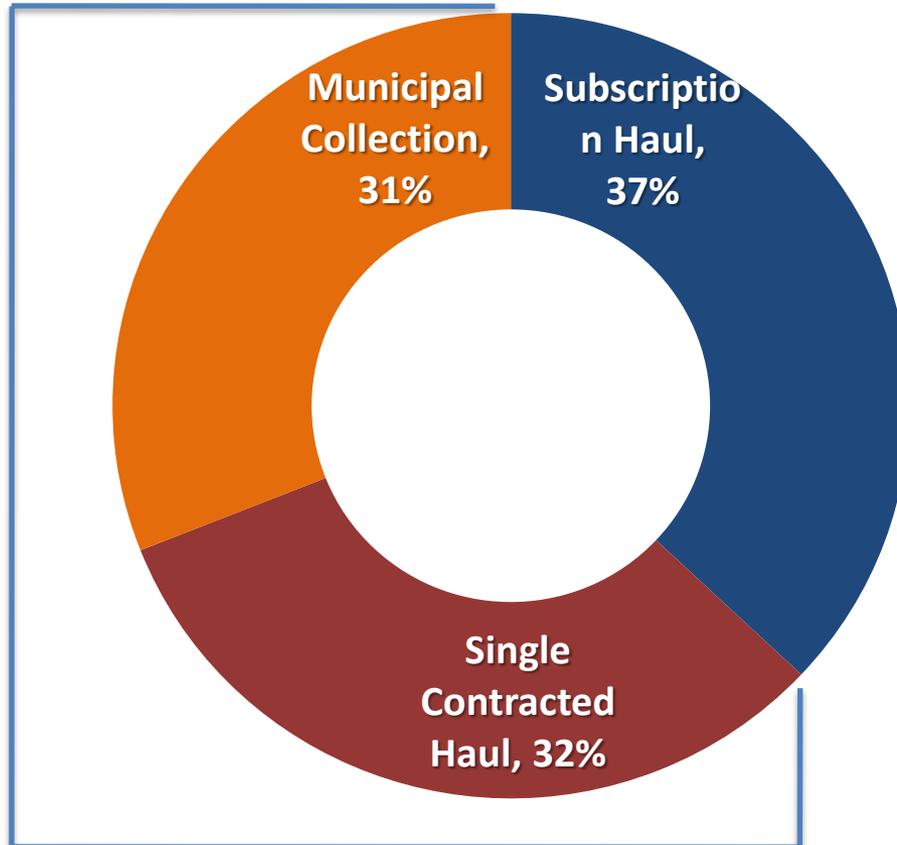


Connecticut's diversion goal is 60% by 2024

Types of Collection

There are three types of residential collection in Connecticut, and they all work with SMART programs.

Types of Collection: State of Connecticut



Approximately 63% of homes pay for waste through property

A SMART System would work with all collection types

Encouraging Waste: Our Traditional Trash System



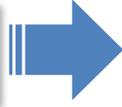
Electricity



Gas



Water



Residents pay for most utilities based on how much they use. Trash is different: In most places, trash is the last unmetered utility. Typically, cities and towns:

- 1 Cover trash costs via property tax or through subscription hauler contract



- 2 Promote recycling



- 3 Offer "unlimited" trash



This type of payment model causes waste and does not provide incentives to recycle.

Reducing Waste: The SMART Approach

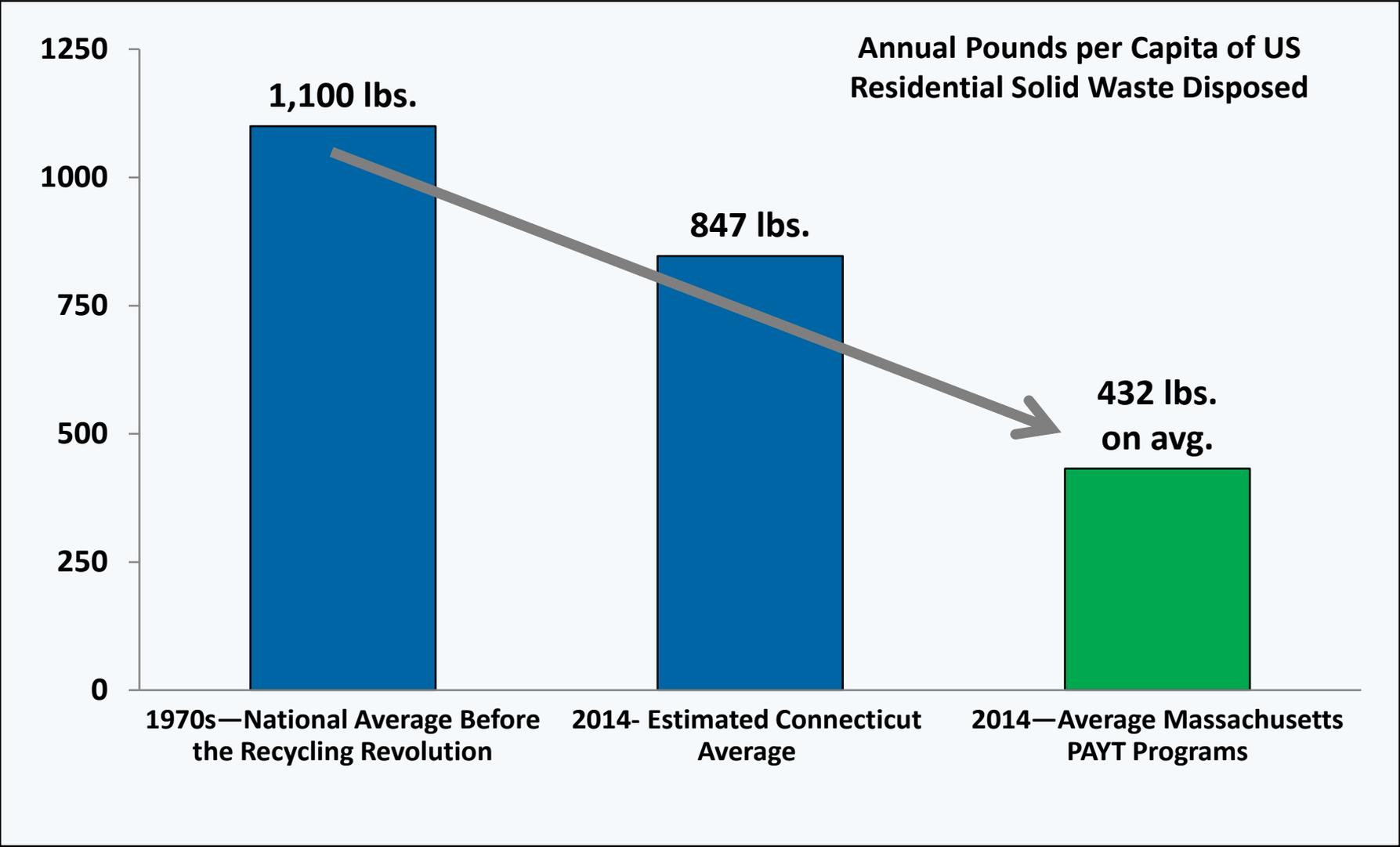
The SMART program is the most effective available means of reducing municipal solid waste, and it works with all collection methods. It is a simple concept that incentivizes waste reduction:

- 1** Take all or a part of trash costs out of the tax base
- 2** Pay per unit for Trash
- 3** Recycle for free (residents recycle more)

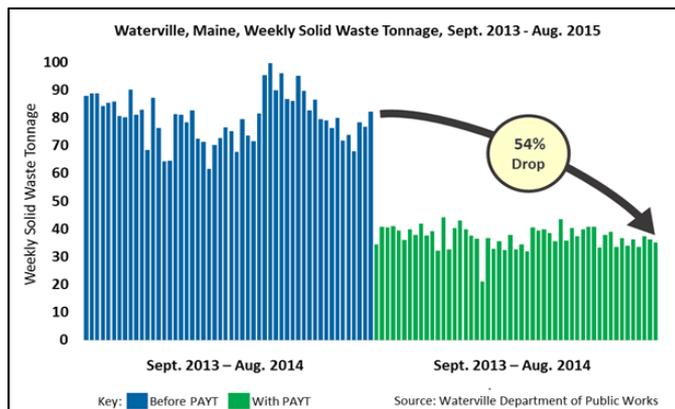


SMART communities allow residents to save money if they reduce their trash.

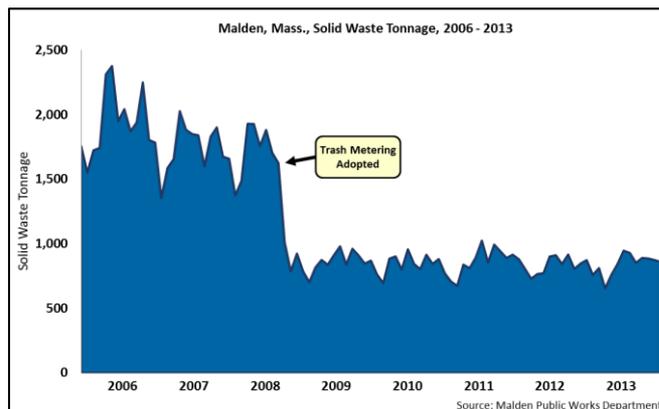
Waste Trend



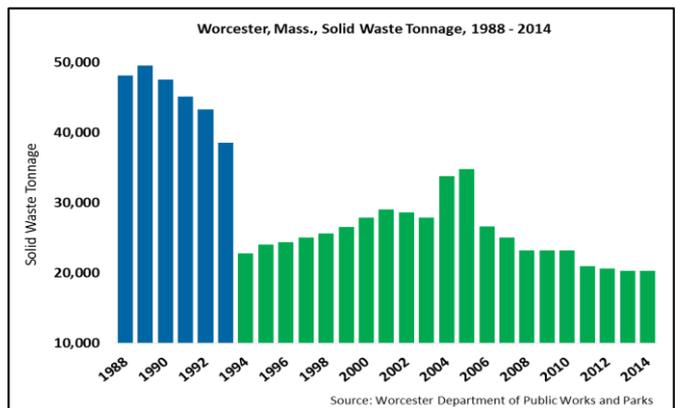
SMART Results: MSW Reduction



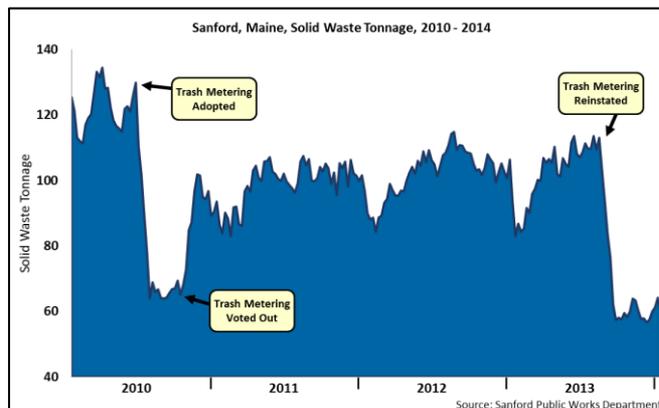
WATERVILLE, MAINE
54% DECLINE IN MSW IN 1 YEAR



MALDEN, MASS.
52% DECLINE IN MSW OVER 5 YEARS



WORCESTER, MASS.
55% DECLINE IN MSW OVER 21 YEARS

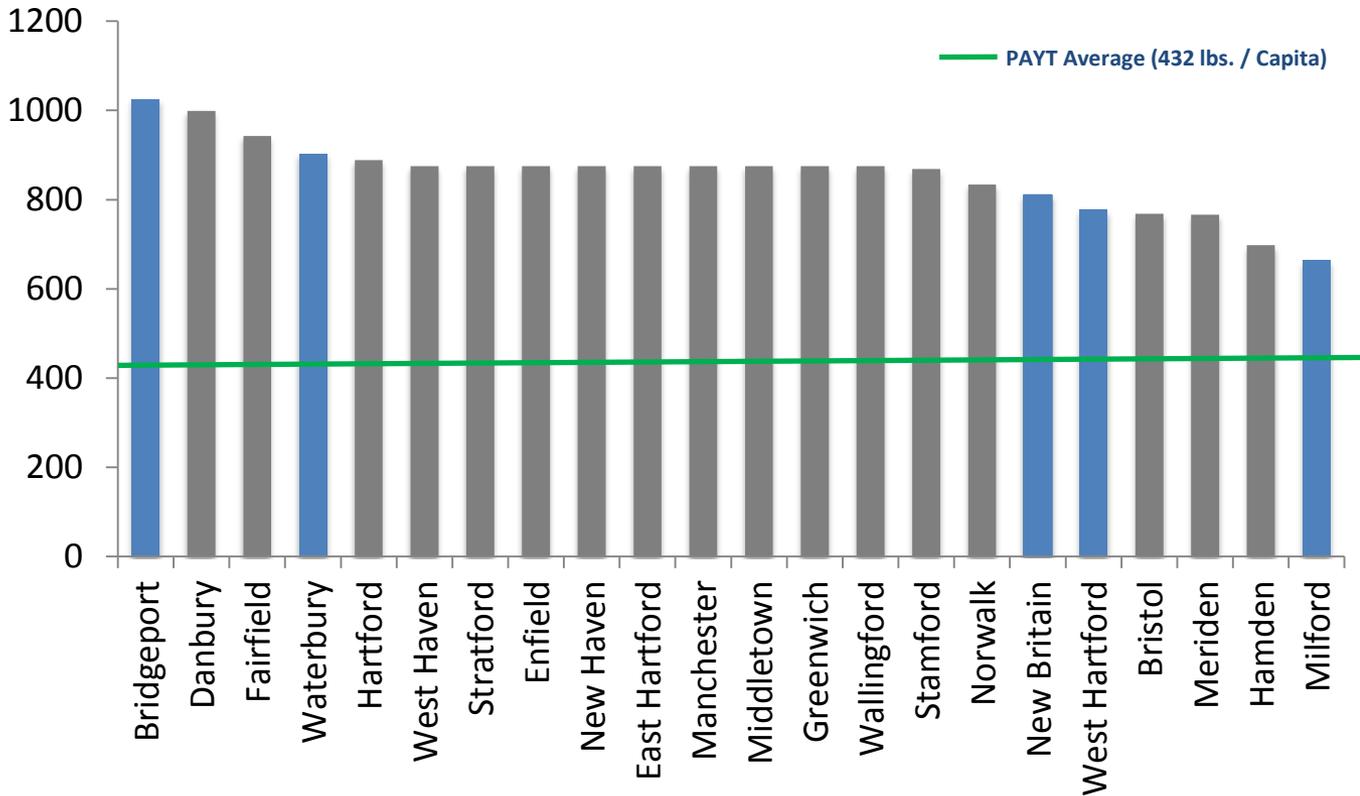


SANFORD, MAINE
41% DECLINE IN MSW IN 3 MONTHS

Selected Cities

Five Connecticut cities were selected out of the original 22 evaluated.

Municipal Solid Waste: Annual Pounds per Capita (PPC)



Bridgeport

Population **144,229**
MSW PPC **1,025**

Waterbury

Population **110,366**
MSW PPC **903**

New Britain

Population **73,206**
MSW PPC **810**

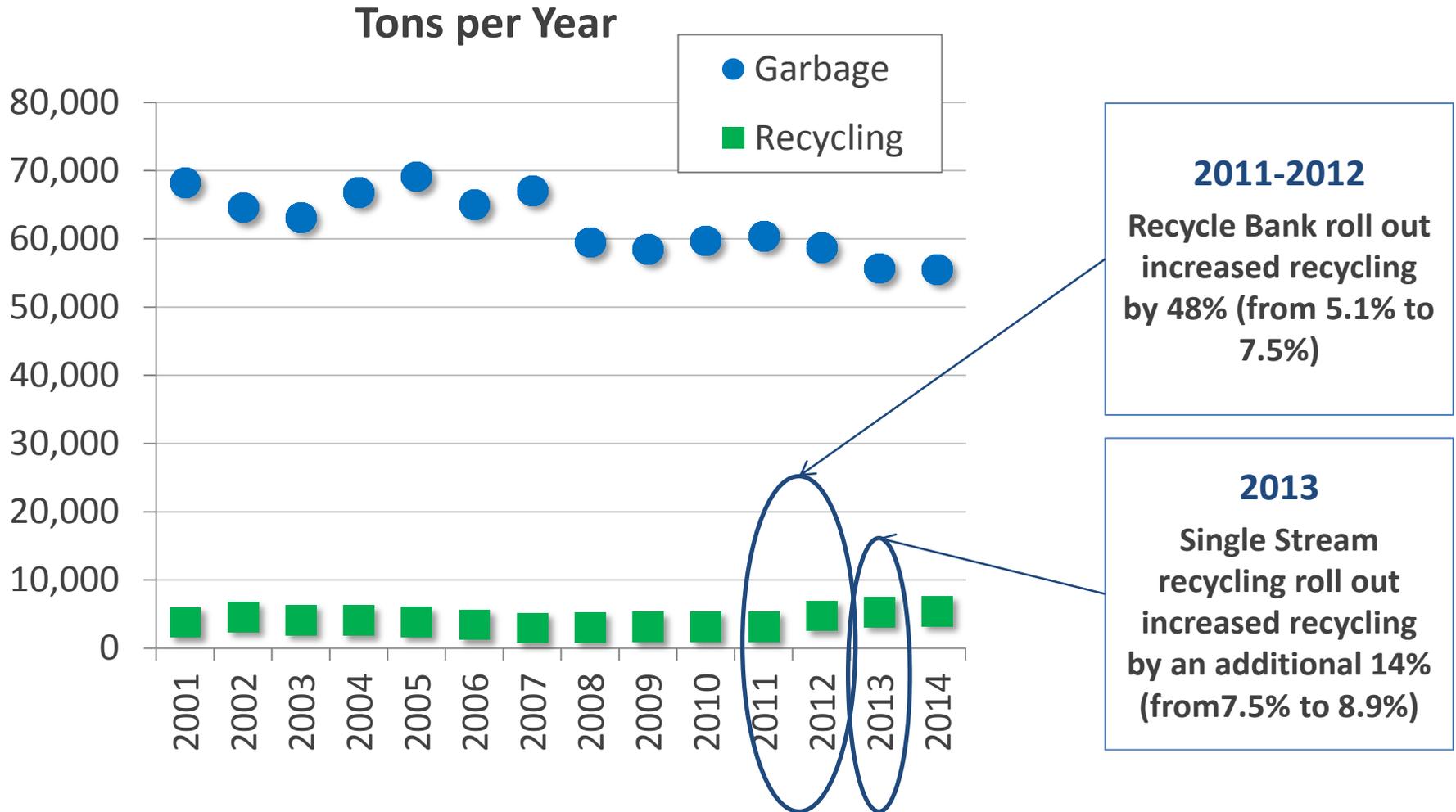
West Hartford

Population **63,268**
MSW PPC **777**

Milford

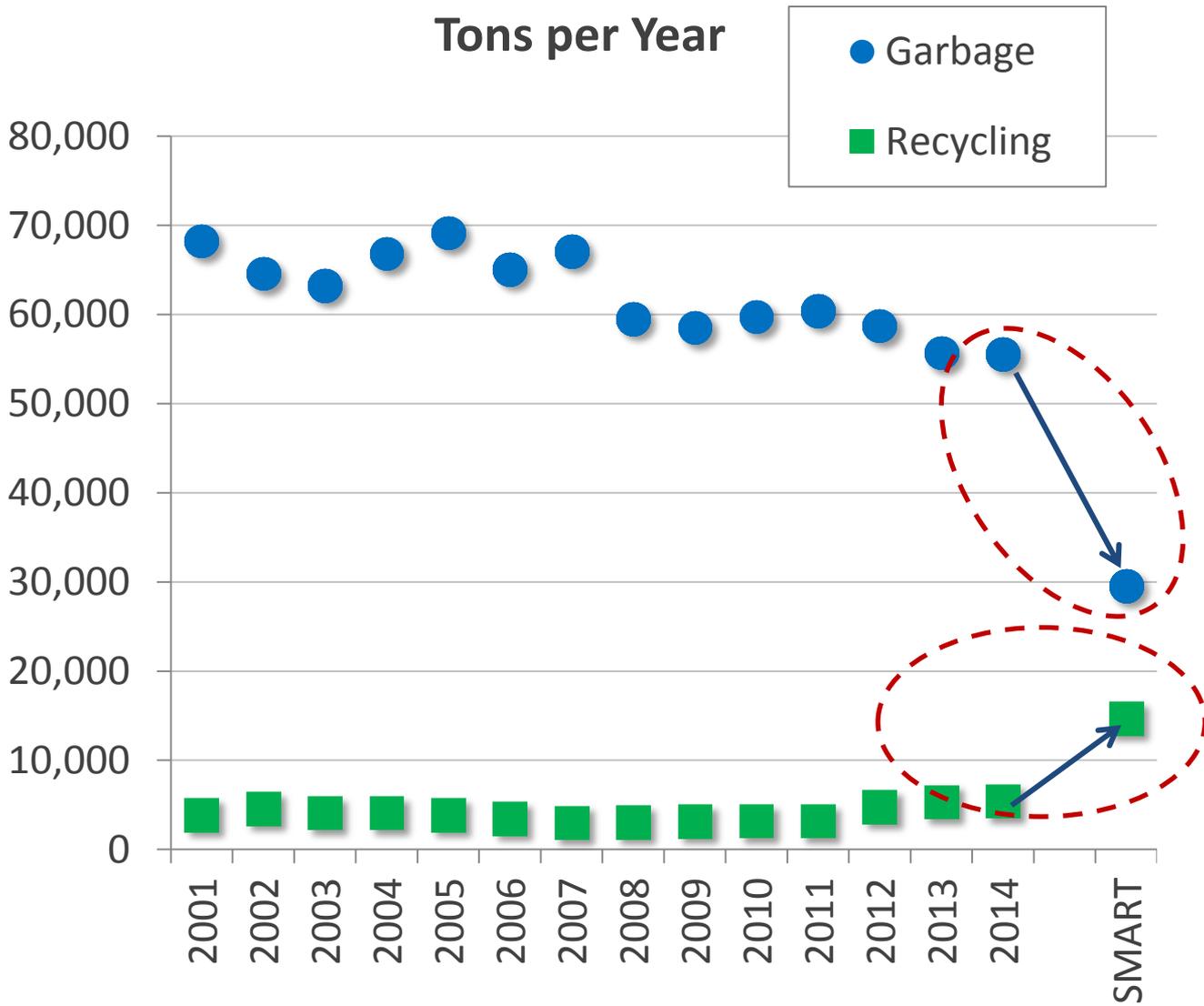
Population **52,759**
MSW PPC **664**

Bridgeport Garbage and Recycling Trend



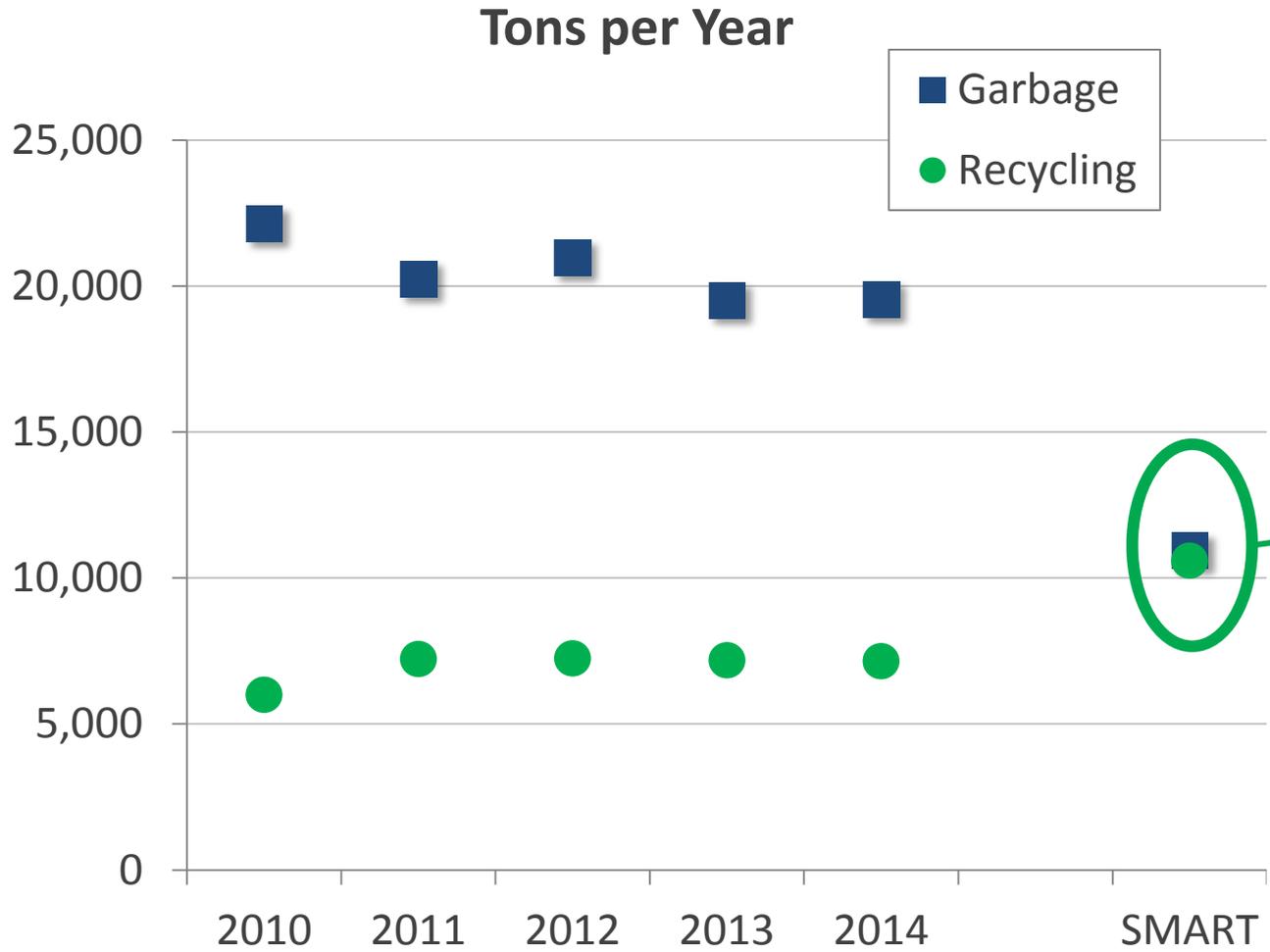
Bridgeport has now realized the benefits of both Recycle Bank and single stream. The next step to meaningful waste reduction is SMART.

Environmental Impact of SMART—Bridgeport



A SMART program could decrease waste by 44% increase recycling by 171%

Environmental Impact of SMART compared to Alternatives



A SMART program could increase recycling by 43% and decrease waste by 44%

West Hartford could realize \$22.7 million in benefits and savings over the next ten years

More Efficient Revenue-Generation West Hartford

SMART can help West Hartford cover solid waste costs while asking less from residents to fund the solid waste budget.

Options for Meeting Financial Target

■ General Fund ■ Bag Revenue2 ■ Tip Fee Savings2



*Average Household spends @
\$250 per year*

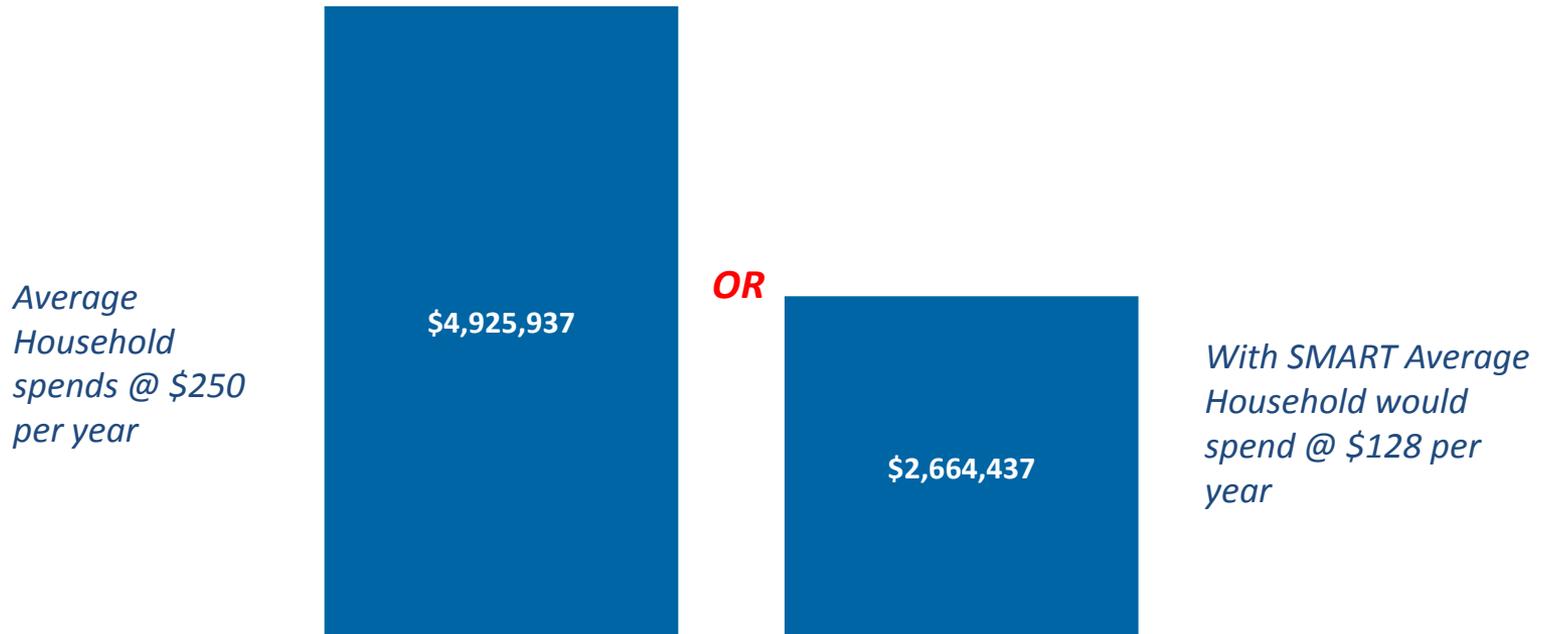
Today waste is covered property taxes

More Efficient Revenue-Generation West Hartford

SMART can help West Hartford cover solid waste costs while asking less from residents to fund the solid waste budget.

Options for Meeting Financial Target

■ General Fund ■ Bag Revenue2 ■ Tip Fee Savings2



With SMART waste is funded only partially from property taxes

More Efficient Revenue-Generation West Hartford

SMART can help West Hartford cover solid waste costs while asking less from residents to fund the solid waste budget.

Options for Meeting Financial Target

■ General Fund ■ Bag Revenue ■ Tip Fee Savings²



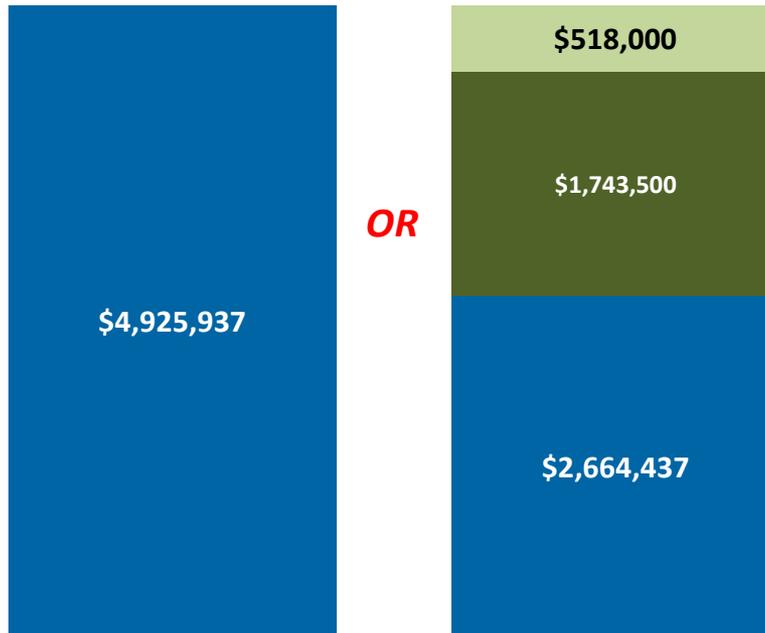
Overall waste budget is reduced by approximately 11% because of tip savings

More Efficient Revenue-Generation West Hartford

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Options for Meeting Financial Target

■ General Fund ■ Bag Revenue ■ Tip Fee Savings2

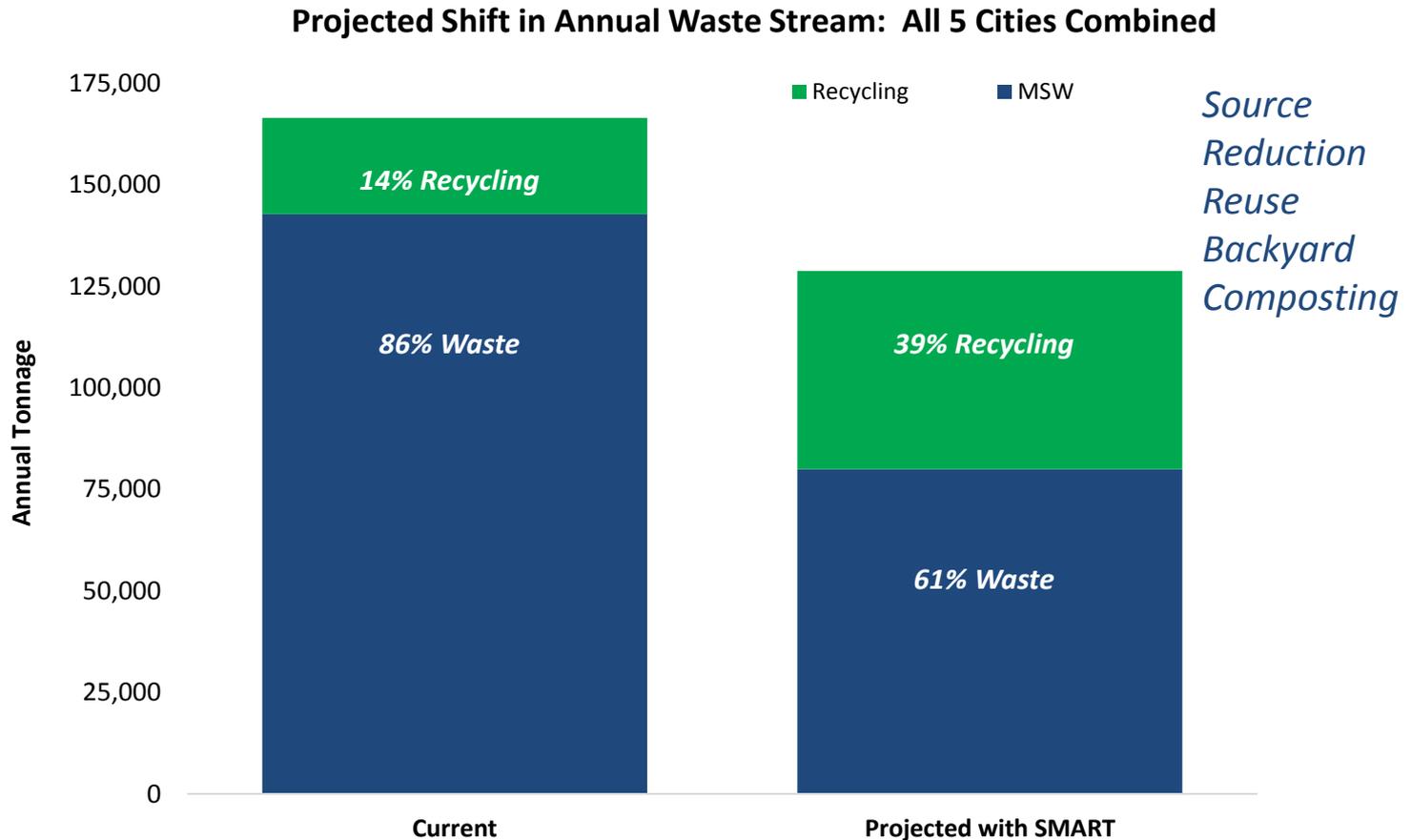


OR

- ✓ Lower burden on taxpayers
- ✓ More fiscally responsible
- ✓ Less dependence on property tax

The average household will save about \$25 per year

Summary of Annual Municipal MSW & Recycling Impacts



West Hartford, New Britain, Waterbury, Milford and Bridgeport

Estimated Annual Environmental Impact of Statewide SMART



CO₂e (Greenhouse Gas)

Annual
Reduction

1,084,000
Metric Tons

Equivalent to:



Removing
212,550
passenger vehicles from the road

or

Reducing gasoline consumption by
21,525,000
gallons



BTUs (Energy Used)

Annual
Reduction

9,019,000
Million Units

Equivalent to:



Powering
80,220
residential homes

or

Installing
1,119,100
rooftop solar panel arrays



Source: EPA Warm Model

Three Things to Remember

1. According to USEPA SMART is the single most effective way to reduce waste
2. A SMART payment model is more fair to more people than the current payment model
3. All Municipalities should consider SMART as a part of their Climate Action Plans

Thank You!

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Summary of Annual Municipal MSW & Recycling Impacts

	MSW (tons)		Recycling Rate		MSW Reduction (tons)	CO2e Reduction (Metric Tons)	BTU Reduction (millions of units)
	Current	w/ SMART	Current	w/ SMART	w/SMART		
Bridgeport	52,746	29,538	9%	33%	23,208	43,500	364,000
Waterbury	35,792	20,044	7%	31%	15,748	29,700	247,000
New Britain	21,569	12,079	16%	40%	9,490	17,900	149,000
West Hartford	19,551	10,949	27%	49%	8,602	16,200	135,000
Milford	13,192	7,388	21%	45%	5,804	10,900	91,000
TOTALS	142,850	79,998	14%	38%	62,852	118,200	986,000