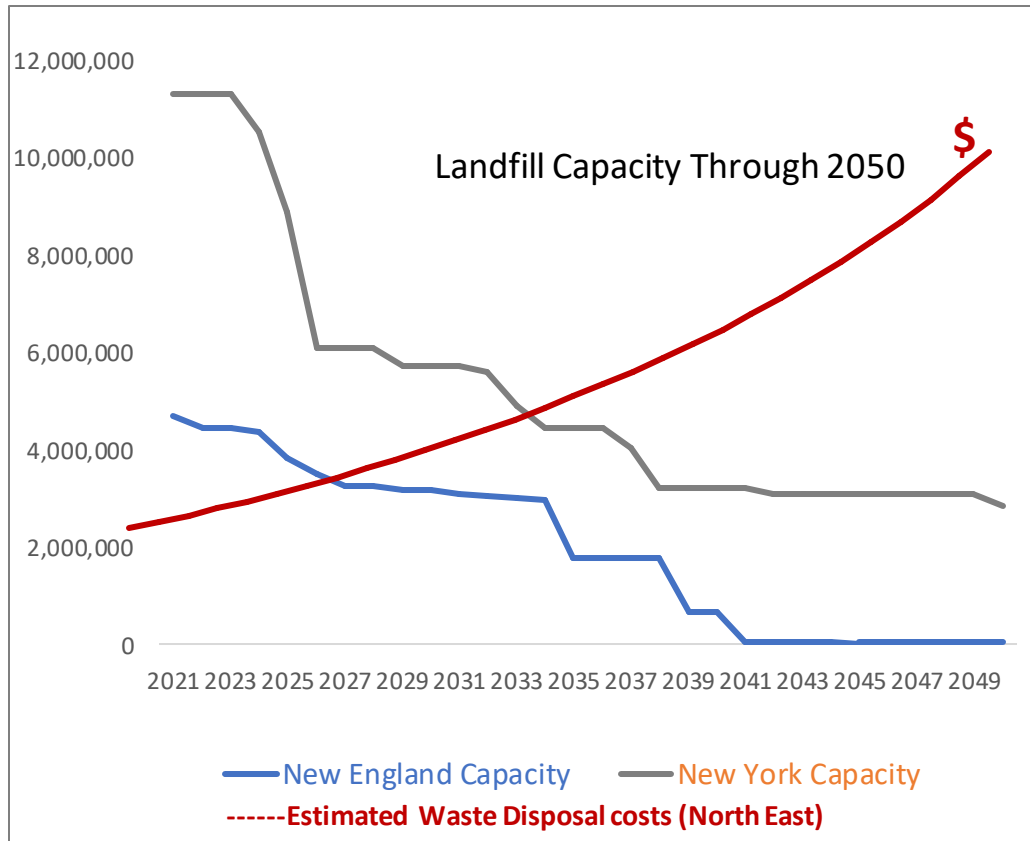


Appendix A: Supporting Information from Waste Zero

We Must Address an Urgent Problem

There are 39 million residents living in New England and New York. It is extremely unpopular and difficult to site a new Incinerator or landfill. Costs are expected to double in the next 4 years.

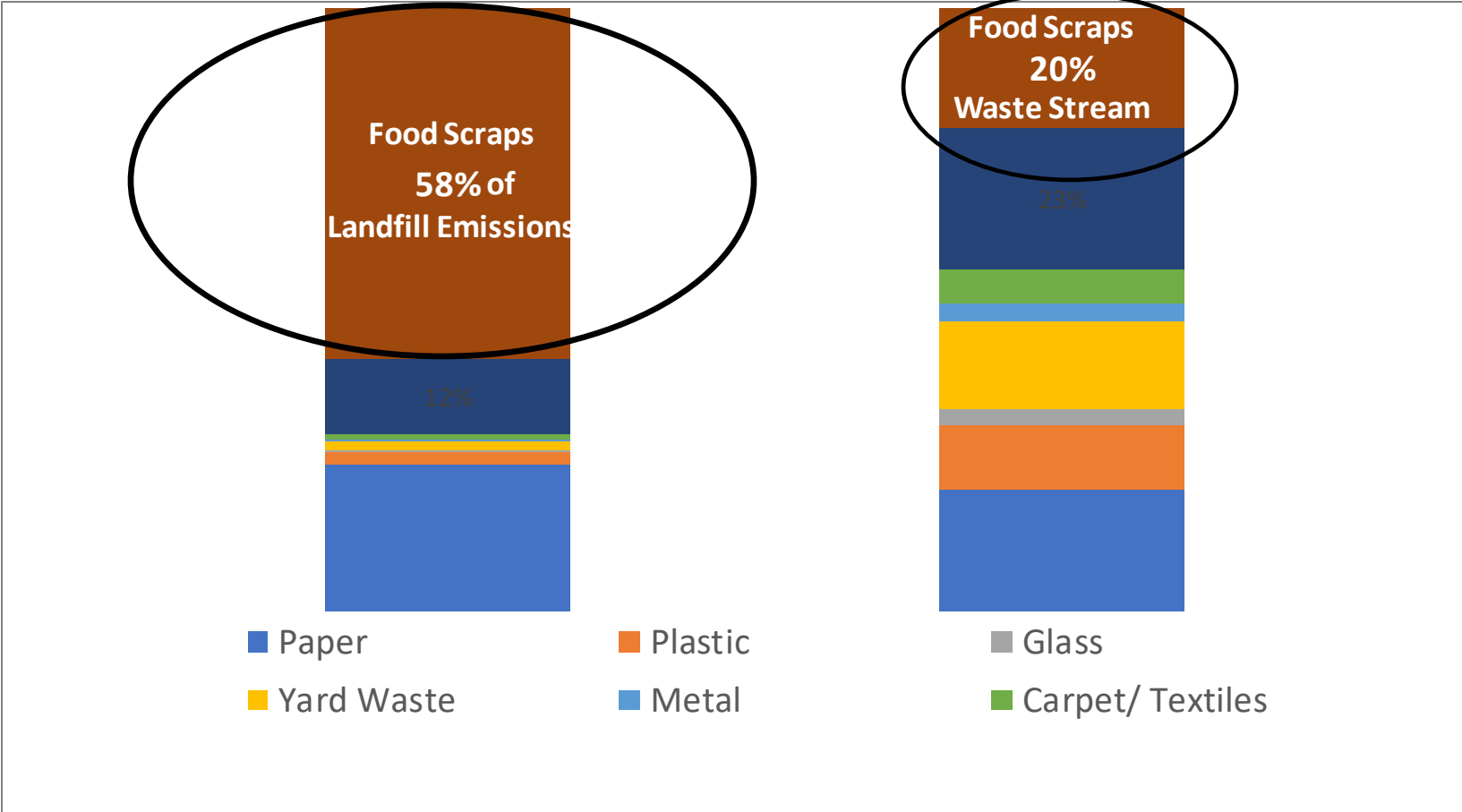


1. Northeast will lose 40% of disposal capacity in the next 5 years.
2. Of the 75 Incineration facilities in the US, all but 1 are over 30 years old – end of their useful life.
3. 85% of disposal facilities are owned by private and public companies.
4. **Costs are expected to double in the next 4 years.**

Sources: Report to the Joint Standing Committee on the Environment and Natural Resources, Maine Solid Waste Generation and Disposal Capacity Report, January 2017; NEW YORK STATE OFFICE OF GENERAL SERVICES, Material Recovery and Waste Reduction Program, ANNUAL REPORT, Fiscal Year 2007-08; BIENNIAL SOLID WASTE REPORT, OCTOBER 2019, Prepared by the New Hampshire Department of Environmental Services; MA Material Management Capacity Study February 11, 2019, MSW Consultants

Why target food scraps?

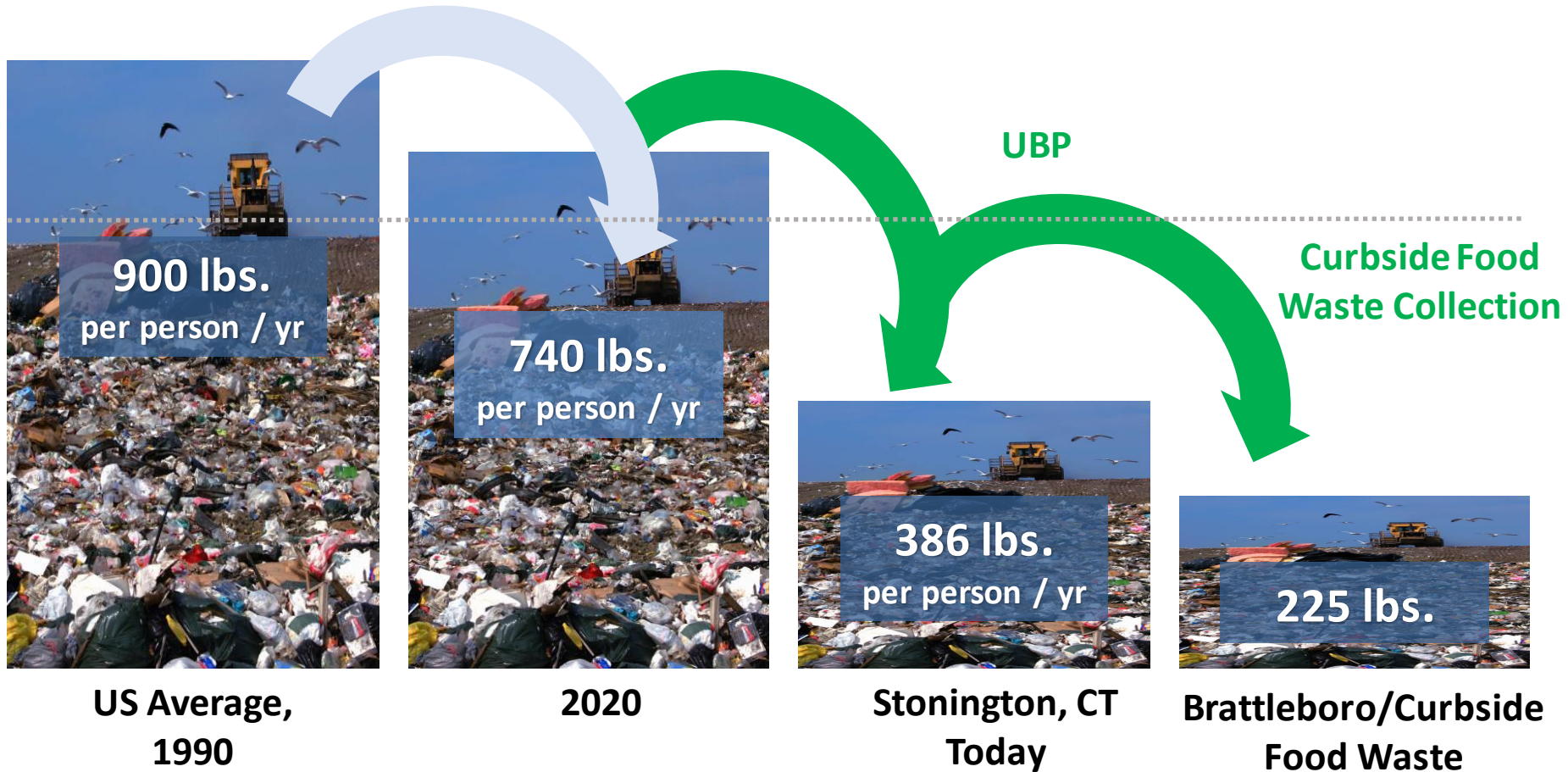
Food Waste is about 20% of the waste stream but responsible nearly 60% of all emissions



*Project Drawdown <https://drawdown.org/solutions/reduced-food-waste>
Washington DC Carbon Neutrality Modeling Report September 2019

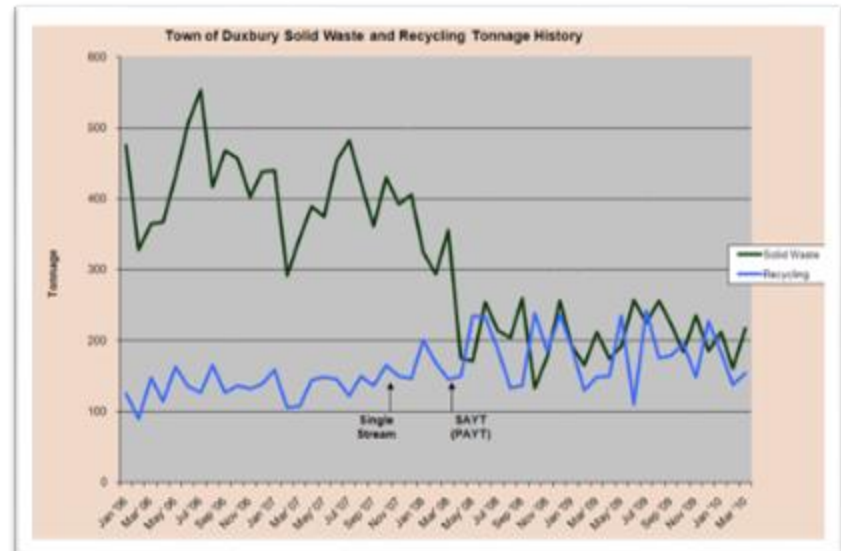
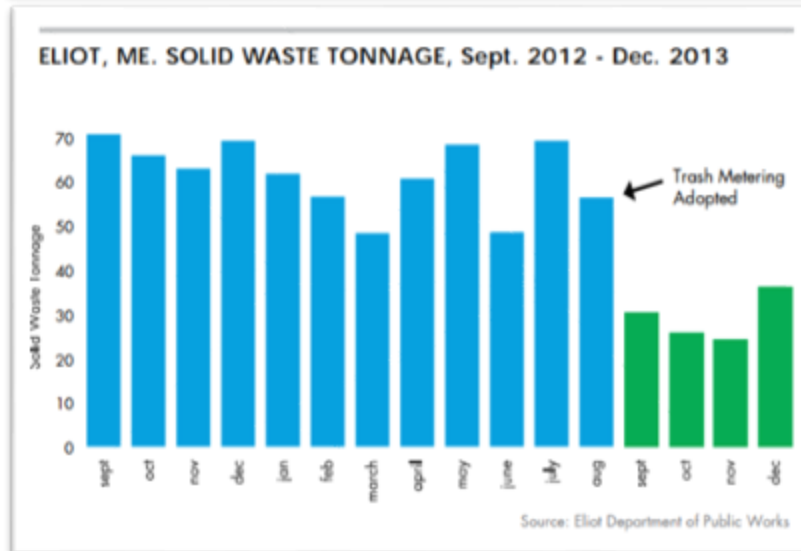
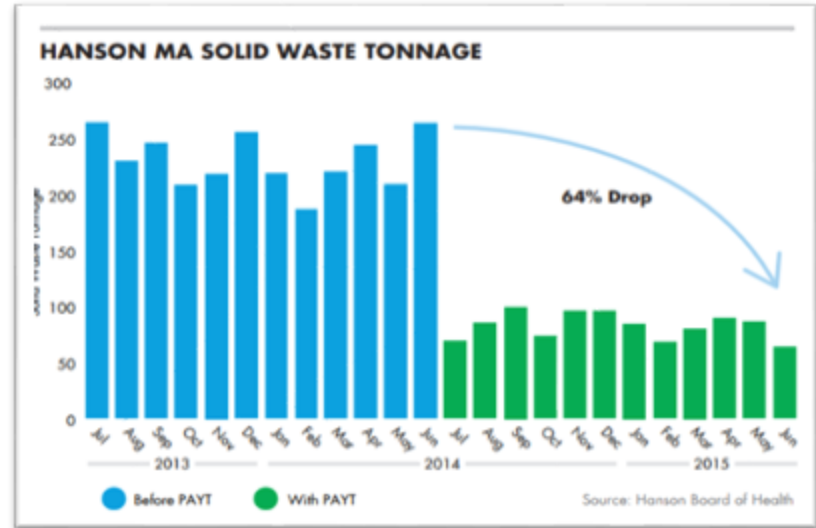
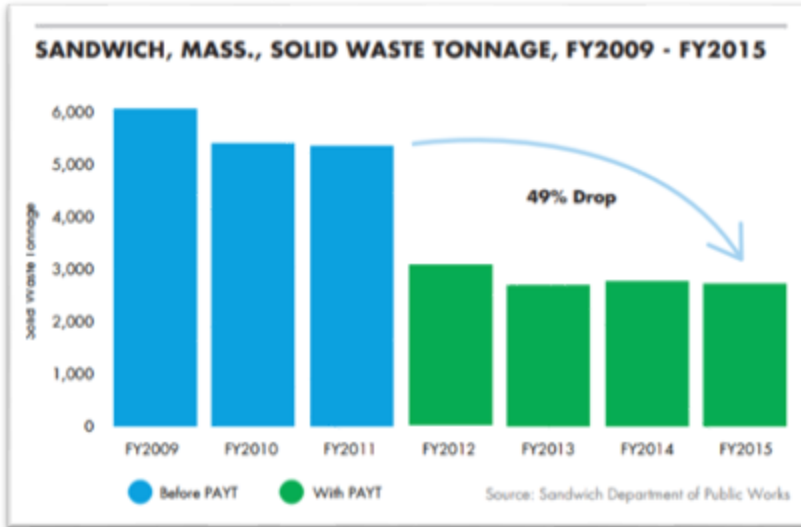
Per Capita Disposal with Unit Based Pricing plus Food Waste

According to USEPA - UBP is the single most effective action that a municipality can take to reduce waste. Curbside food waste collection—and other new program types—can reduce per capita waste even more. Over 550 municipalities in the Northeast have UBP with an average of 44% waste reduction.



Unit Based Pricing is Critical?

UBP is the single most effective action that a municipality can take to reduce waste – Average reduction 44% - Additional food waste collection—can reduce per capita waste even more



Appendix B: Summarized Financials for All Options

Woodbury Budget and Pro Forma

WASTE / RECYCLE (10133)	2023-2024	2024-2025		
		Do Nothing	Lg \$1.65 , Sm\$1.00, Mini, \$0.75	Overflow
Expense				
<i>Transfer Station Operators Salary</i>	\$56,208	\$56,208	\$56,208	\$56,208
<i>Landfill Monitoring</i>	\$5,434	\$5,434	\$5,434	\$5,434
<i>Hauling Fees - Bulk</i>	\$18,150	\$18,150	\$18,150	\$18,150
<i>Hauling Fees - Recycle</i>	\$27,000	\$27,000	\$27,000	\$27,000
<i>Bulky Waste/Wood Chipping</i>	\$81,589	\$81,589	\$81,589	\$81,589
<i>Tire Disposal</i>	\$7,250	\$7,250	\$7,250	\$7,250
<i>Freon Dispsal</i>	\$3,408	\$3,408	\$3,408	\$3,408
<i>Food Scrap Collection</i>	\$0	\$0	\$18,000	\$18,000
Sub Total Expense	\$199,039	\$199,039	\$217,039	\$217,039
<i>Tipping Fees & Haul</i>	\$140,642	\$151,812	\$75,906	\$106,268
Total Expense	\$339,681	\$350,851	\$292,945	\$323,307
Revenue				
<i>Revenue from Fees</i>	\$54,891	\$54,891	\$54,891	\$54,891
<i>Revenue From Bags</i>	\$0	\$0	\$73,213	\$0
Net General Fund Budget	\$284,790	\$295,960	\$164,840	\$268,416
Net Benefit		(\$11,170)	\$119,950	\$16,374

Appendix C: Alternative Food Disposal Options

Food Disposal Options for Woodbury

During the Sustainable Materials Management pilot, Blue Earth hauls food waste from Woodbury’s transfer station to Quantum Biopower in Southington, CT. There, the organics are processed into compost and renewable energy.

Here are the links to Blue Earth and Quantum Biopower:

<https://www.blueearthcompost.com/>

<https://quantumbiopower.com/>

Alternatives to Woodbury’s current food disposal system are listed in the table below.

Alternatives From Current Food Scrap Disposal Method	Description	Difference From Current Blue Earth and Quantum Biopower Disposal Method	Links
New Milford Farms Composting	Commercial composting facility that processes food waste located in New Milford, CT	Similar to Quantum Biopower. They will take organics from the hauler of your choice and process food scraps into compost. New Milford Farms does not create renewable energy.	https://www.garick.com/new-milford-farms-new-milford-ct
Curbside Compost	Food scrap residential and commercial hauler that brings food scraps to compost facilities	Similar to the current hauling company Blue Earth. They will also bring municipal food scraps to compost facilities. Hauling fees should be compared.	https://www.curbcompost.org/ https://www.blueearthcompost.com/
In-unit, onsite composter from Green Mountain Technologies	Onsite composter that self-processes food scraps in a shipping container; the municipality would own the unit	This food scrap disposal method would eliminate the need for the municipality to use a hauler to bring food scraps to an anaerobic digester. The organics and yard waste from the town would be processed at the transfer station and the town can decide what to do with the compost. Device and operating cost should be considered when comparing to other alternatives.	https://www.compostingtechnology.com/in-vessel-composting-systems/earth-flow/



Source: Green Mountain Technologies. *EARTH FLOW INTERMODAL*.
<https://www.compostingtechnology.com/in-vessel-composting-systems/earth-flow/>

Both, New Milford Farms Composting and Curbside Compositing represent off-site disposal options with on-going operational but negligible capital. The Committee do not feel they represent compelling advantages over the recommended options at the current time, but provide future alternatives.

In contrast, an In-Unit, On-Site, composter, such as the one from Green Mountain Technology, provides for a means of reducing food scraps to compost on-site, thus eliminating the need and on-going cost of hauling and disposing of food waste. However, an on-site solution such as this requires a capital investment and the "break-even" time depends on factors such as the size and cost of the unit, as well as its utilization rates.

Appendix D: Waste Advisory Committee Membership & Meeting Dates

Woodbury Waste Advisory Committee

All agendas and minutes may be viewed here:

<https://woodburyct.org/index.asp?SEC=9DAA66BC-4556-4201-A294-96FE06F3AA4B>

Members

- Richard Coates, Chair
- Vicki Davis, Vice Chair
- Christine Aberg
- Mary Connelly
- John Kildahl
- Lesa Peters
- David Snieckus
- Steve Tranguch

Meetings run by Tory McBrien of Waste Zero. Additional attendance from Public Works staff, members of the Board of Selectmen, and the Naugatuck Valley Council of Governments.

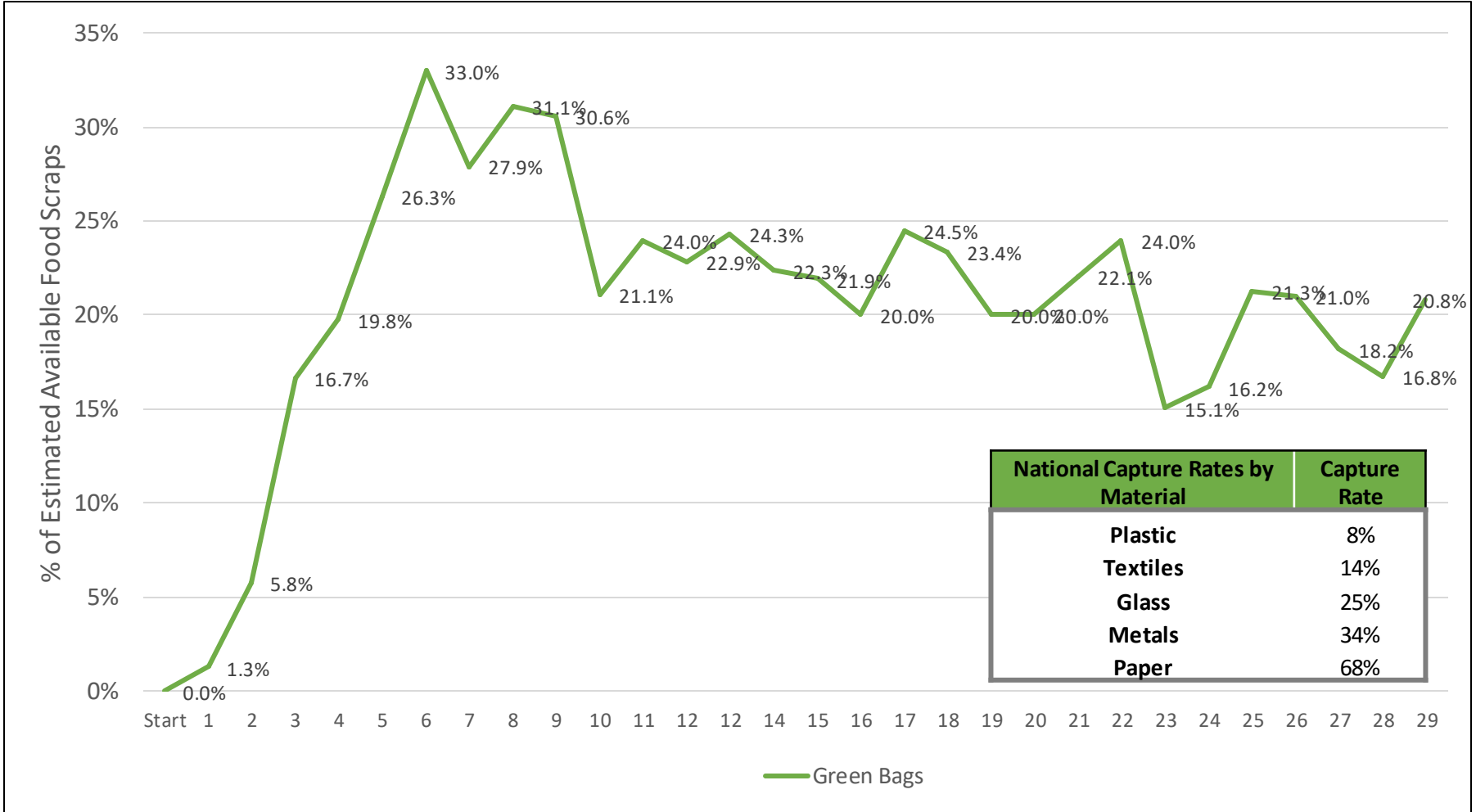
Meeting Dates

- 11/1/23
- 11/15/23
- 11/29/23 – canceled
- 12/6/23
- 12/20/23
- 1/3/24
- 1/6/24
- 1/17/24
- 1/24/24

Appendix E: Waste Zero Pilot Data

Woodbury Food Waste Capture Rate 22% (of available food waste)

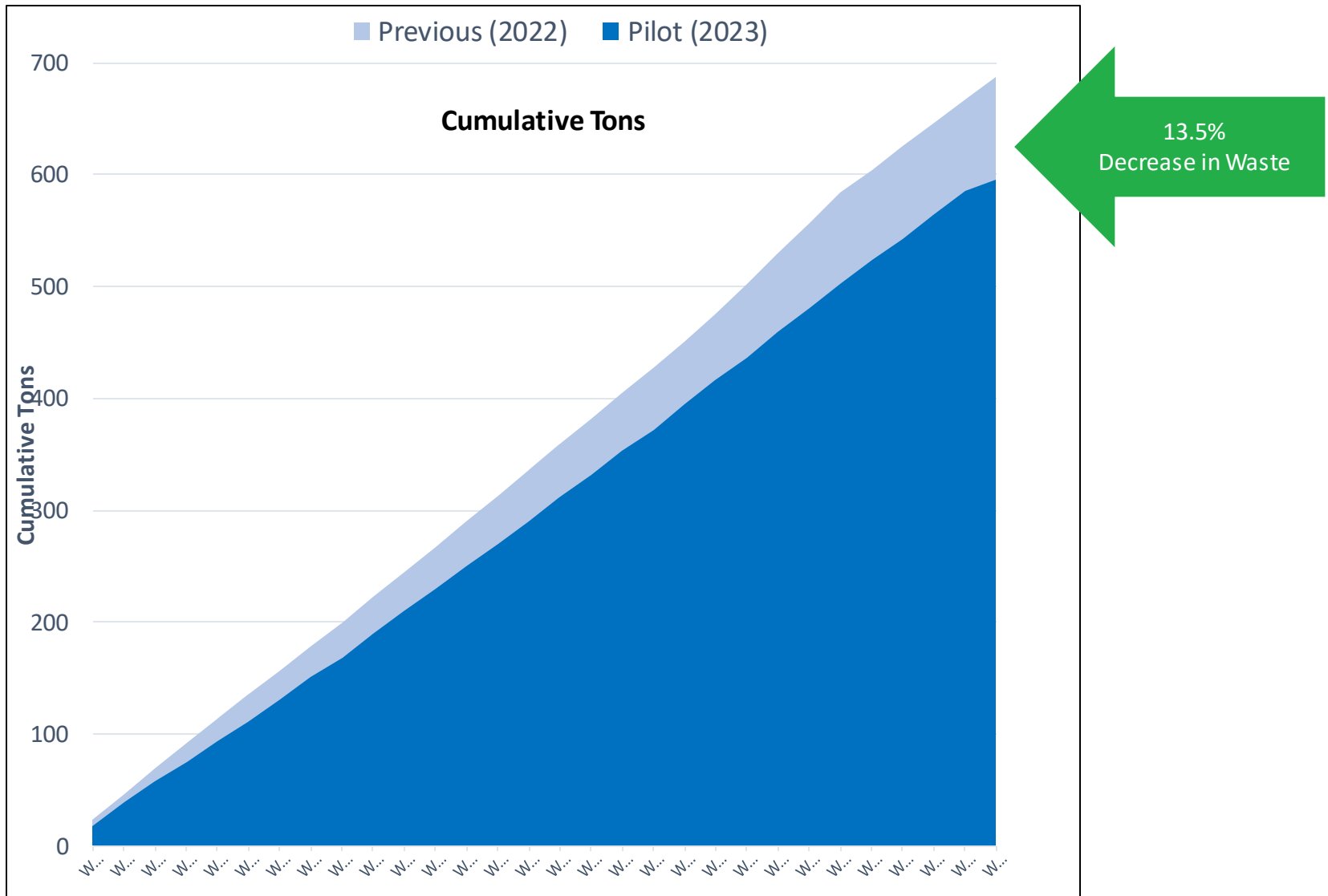
Food scrap capture is off to a great start compared to national commodity capture rates: for instance, glass at 25%



Note: **Green Bags** represent the weight of all green bags recovered as a percentage of the overall estimated available food waste weight.

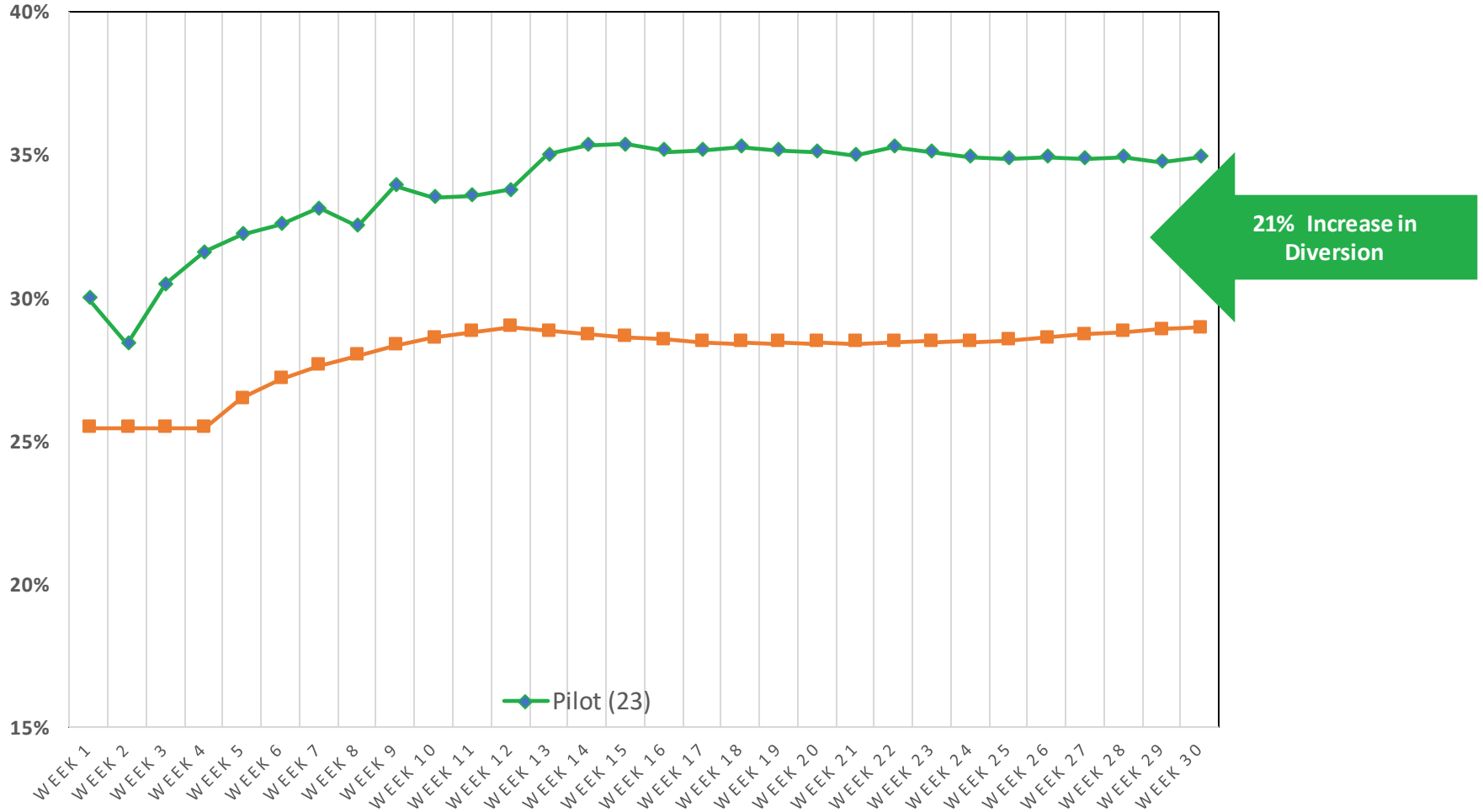
WOODBURY - Cumulative Trash

First 30 weeks of 2022 versus same period in 2023



WOODBURY – Recyclables and Food Scraps Diversion Rate

First 8 weeks of 2022-2023 pilot versus prior year's week



Note: Diversion is the combined clean food waste and single-stream recyclables as a percentage of all materials generated