



MUNICIPAL, COMMERCIAL & LARGE SCALE COMPOSTING DEEP DIVE INTO DEEP: PERMITTING, POLICIES & LEGISLATION

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WASTE GENERATION IN CT – AN OVERVIEW

CT generates 3.3 million tons per year of municipal solid waste per year.
2020 CT average 740lbs Per Person

Reduced in-state disposal options – MIRA Hartford Closure

860,000 tons of waste to out-of-state disposal locations. Mostly OH and PA.

Projected in the next 20 years there will be no landfill space in New England

Tipping fees have increased projected to increase.

Tip fees for municipal solid waste disposal have nearly doubled over the last decade and will continue to increase as disposal capacity in the northeast further declines

CURRENT WASTE MANAGEMENT LANDSCAPE

3.3M tons per year of municipal solid waste.

1.2M tons diverted

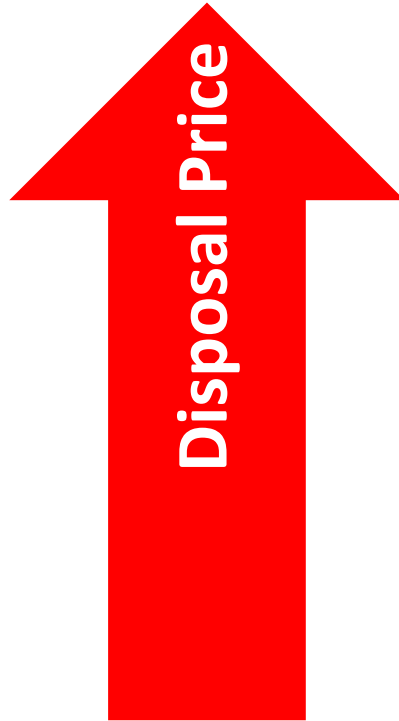
MSW is disposed at one of the 4 RRFs or WTE facilities in state (Bridgeport, Bristol, Preston, Lisbon) ~1.5M Tons total capacity

2021 – 322,037 Tons exported out of state

July 2022 shut of MIRA – Hartford: loss of 739,855 TPY of capacity

Estimated over 860,000 tons per year of CT generated waste going out of State

IMPACT ON DISPOSAL COSTS



As the number of disposal the disposal costs (\$/ton of trash) increase options decrease in CT and in the northeast region.

\$60.90/ton in 2012 to \$102.50/ton in 2022

AVG CT MUNI

COST INCREASE DUE TO INFLATION?

CPI Inflation Calculator

\$

in 2012

has the same buying power as

in 2022

\$

in 2012

has the same buying power as

in 2024

REGIONAL CAPACITY - PROJECTED

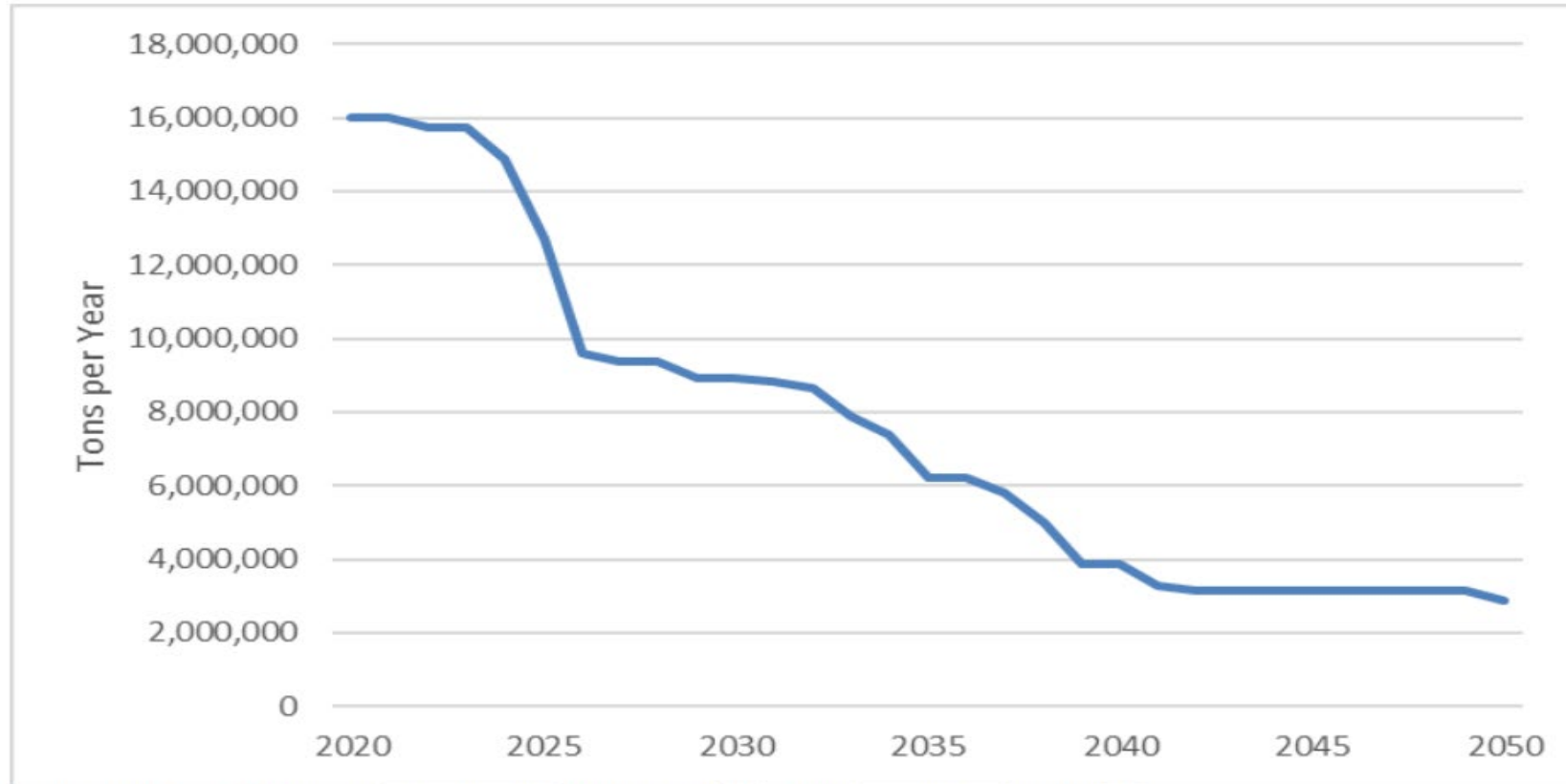


Figure 7: Projected Northeast (ME, MA, NH, VT, RI, CT, NY) Landfill Capacity Through 2050.²³

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; via Waste Zero Presentation to CCSMM, October 28, 2020

OUT-OF-STATE DISPOSAL IS NOT SUSTAINABLE

What happens when other States don't want our waste?

HB 1632-FN

This bill prohibits newly permitted solid waste facilities from accepting more than 15 percent of solid waste transported from out-of-state.

CONNECTICUT'S STRATEGY

Laid out in the Comprehensive Materials Management Strategy (2016) & Amended January 2023

Connecticut's response to the closure must be to restore self-sufficiency as soon as possible by (1) **accelerating and maximizing diversion** solutions consistent with the CMMS and the state's statutory waste hierarchy, and (2) **investing in disposal infrastructure** for the balance of tonnage not addressed through diversion.

This CMMS Update recommends two main strategies for accelerating and maximizing diversion solutions including:

- Enacting legislation to authorize an Extended Producer Responsibility (EPR) Program for packaging materials, which DEEP estimates will reduce MSW disposal by up to 190,000 tons per year while saving \$50 million per year for municipalities; and
- **Implementing organics reuse and diversion strategies, including pursuing more opportunities for source reduction and food recovery**, adding authorized transfer stations as triggers for the Commercial Organics Recycling Law, expanding the Commercial Organics Recycling Law to cover institutions, and **providing universal access to source separated food scrap collection to all residents and businesses.** DEEP estimates that by implementing these organics strategies, MSW disposal can be reduced by 185,000 tons per year.

LOW HANGING FRUIT?

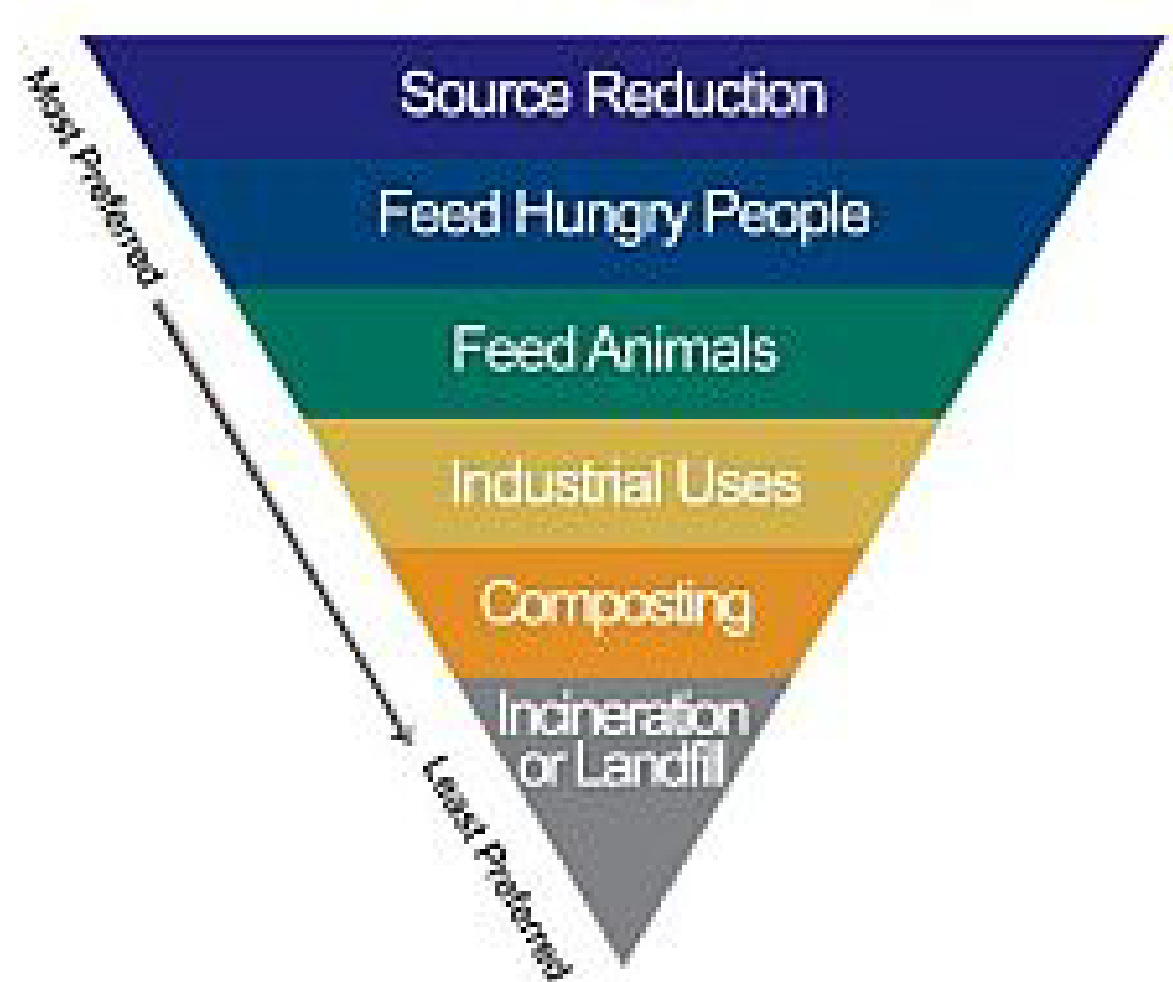
2015 CT Waste Characterization study found that ~ 22% of MSW in waste stream is food waste.

Disposal Cost for Organics: APPROX. \$61/ton

Treating Organics as trash costs > 59% more than diversion.

Achieving 40% diversion of food scraps from disposal would save CT municipalities annually in tip fees.

Food Recovery Hierarchy



PILOT PROGRAMS FOR FOOD WASTE DIVERSION

In 2021, legislation passed allowing DEEP to establish the Sustainable Materials Management (SMM) Grant Program

- **15 original pilot programs awarded and 3 regional partners totaling \$4.27M**
- **3 programs have/ are transitioning to permanent programs:**
 - Middletown (transitioned to permanent in November 2023)
 - Woodbury (permanent program starts July 1, 2024)
 - Stonington (transitioning to permanent program)
- **7 active pilots** – Bethel, Kent, Guilford, Madison, Middlebury, West Hartford, Newtown
- **5 former pilots**
- **3 regional partners**
- **Various methods employed**

OUTCOMES

- Over 1.6M lbs of food scraps collected
- Pilots have diverted more than 20% of available food scraps.
- Reduction of Waste to landfills 4%-19%
- Increase diversion of recyclables and organics by 6%-44%
- Avg. increase of 20% in waste diversion
- Residents more aware of their waste generation
- Transfer Station drop-off programs –highest % of “clean” organic material

CAPTURING THE FRUIT PERMITTING OPTIONS - MUNICIPALITIES

Collection

Municipal Transfer Station Registered under the Municipal Transfer Station General Permit

- Maximum 80 cubic yards (cy) for food waste. Aggregation only. No processing
- Allows for Satellite collection of food waste
- Munis can seek a variance to the limitations in the MTSGP

Municipal Transfer Station Individually Permitted

- Case by case determination on collection and transfer and amounts

Processing

Food waste Composting at an existing Municipal Registered Leaf Composting Facility

- Case specific. Demonstration Authorization

Proposed Municipality to Compost food waste.

- Needs Leaf Composting Registration
- Demonstration Project Approval

Individual Permit

CAPTURING THE FRUIT PERMITTING OPTIONS - COMMERCIAL/PRIVATE FACILITIES

Collection

Commercial/Private Facility – Small-scale through a **General Permit**.

- Appendix H Commercial GP
 - **Tier I**
 - *Receipt*: 20 tpd
 - *Storage*: 120 cy for 72 hrs.
 - **Tier II**
 - *Receipt*: 50 tpd
 - *Storage*: 200 cy for 48 hrs.
 - *Limited Processing/depackaging allowed

Commercial/Private Facility – large-scale through an **Individual Solid Waste Facility Permit**.

Case by Case limits

PA 21-16 allow for receipt of up to 75TPD and up to 150cy of storage without a permit modification. MUST BE A PERMITTED FACILITY

Processing

Commercial/Private Facility – Small-scale through a **General Permit**.

- Appendix H Commercial GP

Food waste Composting at an existing Commercial/Private Registered Leaf Composting Facility

- Case specific. Demonstration Authorization

Proposed Commercial/Private to Compost food waste.

- Needs Leaf Composting Registration and Demonstration Project Approval

Individual Permit

On farm Anaerobic Digesters

- co-located with an animal feeding operation
- feed stock consists of at least 50% farm-generated organic waste
- no more than 40% of feedstock is food waste

LEGISLATION

S.B 191 AN ACT CONCERNING FOOD SCRAP DIVERSION FROM THE SOLID WASTE STREAM AND THE REDEMPTION OF OUT-OF STATE BEVERAGE CONTAINERS

- **Section 1 requires all entities covered by the commercial organics law (on or before January 1, 2025) to adopt a written policy pertaining to a food donation**
 - Description
 - Designed to support operations of food relief organizations
 - Education to management, employees, vendors.
 - Make efforts to partner with at least 2 relief organization
 - Framework to formalize and streamline protocols
- **Section 2 would require designating food scraps as a designated recyclable**
 - Require municipalities to establish program to requiring source separation of food scraps/food residue for recycling
- **Section 3 pertains to out-state bottle-bill containers being redeemed in-state**

LEGISLATION

HB 5437 AN ACT CONCERNING MANDATE RELIEF

- **Primarily geared towards education**
- **By July 1, 2025 public or private educational institution, generating more than 26 tons per year of source separated organic material and located no less than 20 miles from composting facility shall source separate organics and recycle said organics at a permitted composting facility**

S.B 363 AN ACT CONCERNING ASSORTED REVISIONS TO THE EDUCATION STATUTES.

- **Encourage school boards to include in curriculum “...recycling and renewable energy, including, but not limited to, protocols for recycling and reducing food waste...”**

LEGISLATION

H.B. No. 5088 AN ACT CONCERNING FUNDING FOR THE CONNECTICUT FOOD BANK

S.B. No. 87 AN ACT AUTHORIZING BONDS OF THE STATE FOR INFRASTRUCTURE AND BUILDING REPAIRS AND EQUIPMENT FOR GEMMA E. MORAN UNITED WAY/LABOR FOOD CENTER IN NEW LONDON

S.B. No. 71 AN ACT AUTHORIZING BONDS OF THE STATE FOR A GENERATOR FOR THE MONTVILLE SOCIAL SERVICES OFFICE AND FOOD PANTRY

S.B. No. 64 AN ACT AUTHORIZING BONDS OF THE STATE FOR THE PURCHASE OF GENERATORS FOR THE LEDYARD SENIOR CENTER AND FOOD PANTRY

WHAT DOES THE FUTURE HOLD?

General Permit for food waste composting.

General Permit for food waste composting at leaf composting facilities.

Shell Recycling guidance – DoAg and DEEP

Legislative Action

QUESTIONS?

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