

Presentation to CT DEEP
Organics Collection and Diversion Working Group
October 9, 2020

- **Brattleboro, VT Food Scrap Collection and Composting**
- Bob Spencer, Executive Director, Windham Solid Waste Management District, Brattleboro, VT
- director@windhamsolidwaste.org

WINDHAM SOLID WASTE MANAGEMENT DISTRICT COMPOST FACILITY 2019

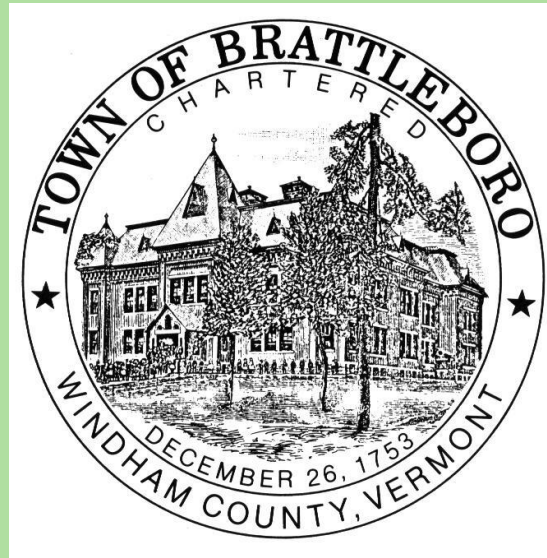


TRIPLE T TRUCKING, BRATTLEBORO

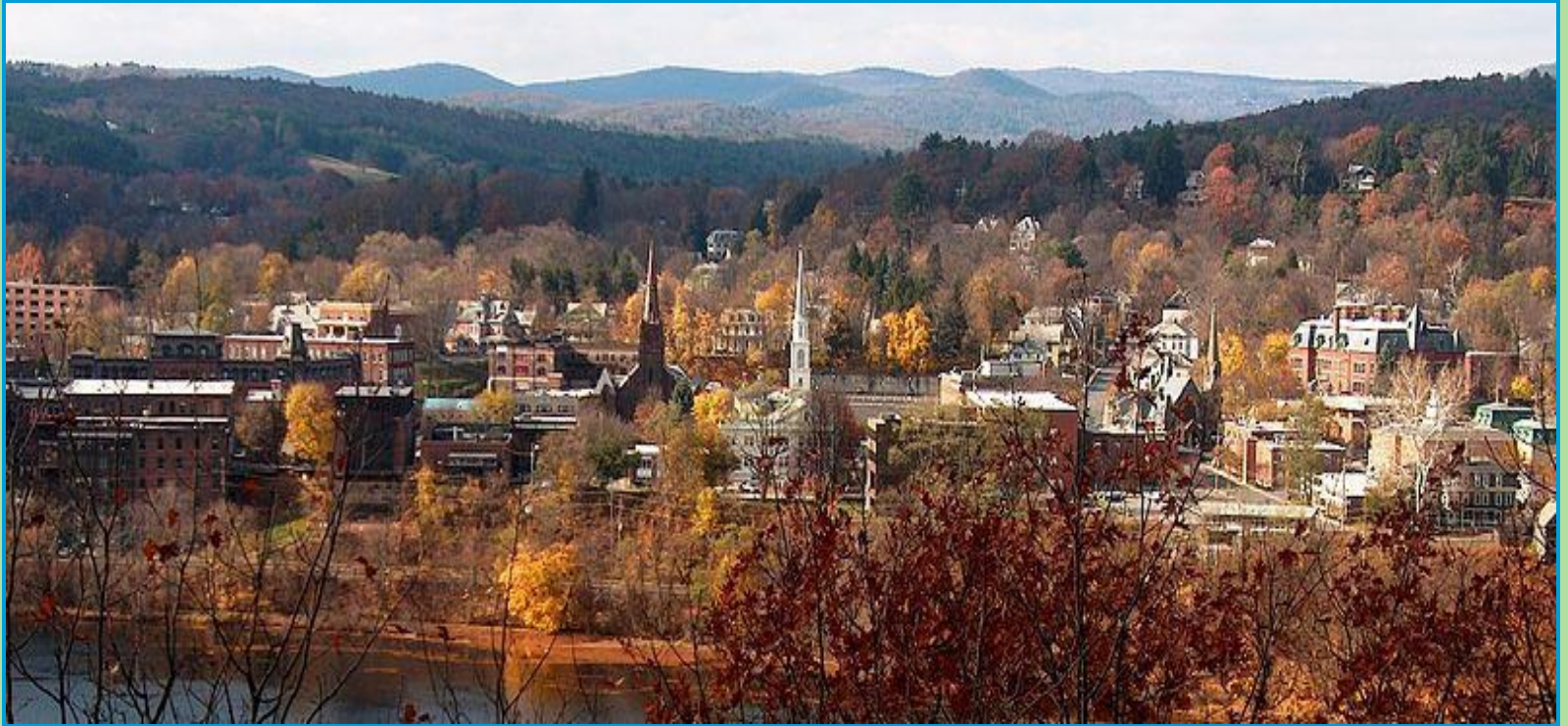
- Compostable Waste Removal
- Triple T collects compostable waste for composting.
- Food waste, unrecyclable paper packaging such as frozen food boxes, napkins and paper towels, and untreated wood.

Town of Brattleboro

Curbside Organics Collection



Brattleboro, Vermont



**Population
12,000**

Demographics of Program

- Curbside program available for all residential properties and multi-unit apartments with four or fewer units.
- Approximately 4,450 eligible housing units participate in Brattleboro's Curbside Program.
- Approximately 3,500 Structures/Stops
- Curbside organics collection began in late FY13.
- Initially rolled out as a pilot project.

Brattleboro's Solid Waste Stream

	Trash	Recycling	Organics	Total	
FY18	931	1080	606	2617	
FY17	939	842	511	2291	EOW
FY16	1090	980	449	2519	PAYT
FY15	2318	926	245	3489	
FY14	2357	840	222	3419	

Organics = Cost Savings *

*in Brattleboro

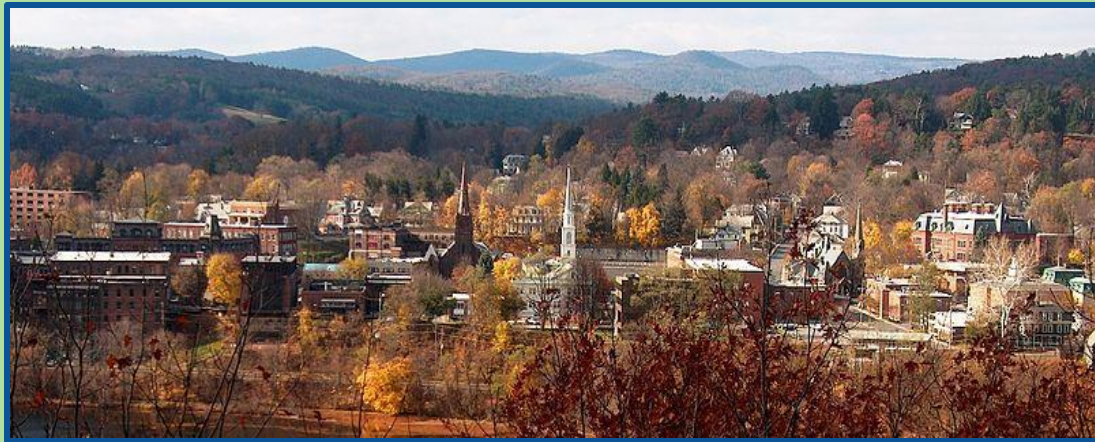
Organics	
FY18	606
Organics per Ton	\$65.00
	\$39,378.30
Trash per Ton	\$110.00
	\$66,640.20
Annual Savings	\$27,261.90

Reasons for Success

- Teamwork!
 - Windham Solid Waste Management District
 - Receives Food Waste
 - Generates Valuable Compost
 - TTT Trucking
 - Not Just Another Hauler
 - Creative – Flexible – Willing to Try New Ways of Doing Business
 - Town of Brattleboro
 - Manage Contracts with TTT and WSWMD
 - Citizens
 - Collect Food Scraps
 - Great Track Record – Very Little Contamination

PERMITTED AS SMALL FOOD WASTE COMPOSTING FACILITY

- Up to 2,000 cubic yards per year of food waste
- Up to 3,000 cubic yards of yard waste
- Also permitted to compost soiled paper and cardboard
- Low-tech operation using turned windrows
- Batches tracked in weekly piles
- Temperature of windrows measured at 1' and 3' depth
- WSWMD employees have taken Vermont ANR class to become certified compost facility operators



ALL Food Scraps

- ✓ Fruits & Vegetables
- ✓ Bread/Rolls Crackers
- ✓ Rice/Pasta/Beans
- ✓ Cheese/Dairy Products
- ✓ Egg Shells
- ✓ Meat & Fish (Cooked & Raw)
(including bones)
- ✓ Shellfish
- ✓ Coffee Grounds & Filters
- ✓ Tea Bags

Non Recyclable Paper & Cardboard

- ✓ Damp/ Wet Paper
- ✓ Wax/Parchment paper
- ✓ Soiled or Waxed Cardboard
- ✓ Milk/Juice Cartons (remove plastic spout)
- ✓ Paper Towels
- ✓ Paper Plates & Cups
- ✓ Sugar/Flour Bags (without plastic liners)
- ✓ Cardboard Egg Cartons
- ✓ Frozen Food Containers

*Also kitty litter and pet waste.

INCREASING TONS OF ORGANICS

- FY 2016- 457 tons of food waste from Brattleboro curbside collection
- FY 2017- 531 tons of food waste from Brattleboro curbside collection
- FY 2018- 604 tons of food waste from Brattleboro curbside collection
- FY 2016- 26 tons of commercial food waste
- FY 2017- 154 tons of commercial food waste
- FY 2018- 315 tons of commercial food waste
- Projected to increase to over 1,000 tons
- Need increasing amounts of wood chips

7-YEAR CONTRACT WITH BRATTLEBORO

- Brattleboro Selectboard approved contract to have residential curbside organics go to WSWMD
- Tip fee \$50/ton, with CPI escalator
- Includes leaves and grass which are collected for 2 weeks in the spring, and 2 weeks in the fall
- No tip fee for yard waste
- Brattleboro also has a contract with Triple T Trucking for the same period of time for curbside collection of trash, recycling, and organics
- Weekly collection of single stream recycling and organics
- Every other week collection of trash

Contracts

- TTT is Awarded a 5 year Contract in 2009 – (FY10 – FY14)
 - Weekly Trash and Recycling Collection
 - Includes Option for the Town to add Organics Collection in years 4 and 5
- Amendment 1 in 2012
 - 4 Month Pilot Program in FY13
 - Voluntary Participation
 - Limited to Approximately 150 Households
 - Town wide Organics Collection after the 4 Month Pilot
- Amendment 2 in 2015
 - Adopt Pay-As-You-Throw
 - Acknowledge the Potential for Every Other Week Trash Collection

Contracts - Continued

- Amendment 3 in 2016
 - Adopt Every Other Week trash collection beginning 7/1/17 with a 42% or approximately \$96,000 reduction in the cost of trash collection.
 - Extend Contract to include FY15 – FY24
 - Acknowledge the potential for a transition to Single Stream Recycling
 - Must give Notice by 12/31/16
- Amendment 4 in 2016
 - Extend Deadline for Notice to 5/15/2017
- Amendment 5 in 2017
 - Transition to Single Stream Recycling on 7/1/17 with a reduction in recycling collection costs of \$24,000
 - Town directs all organics to Windham Solid Waste Management facility and will compensate TTT at a rate of \$15 per ton for hauling organics.

Contracts - Continued

- WSWMD
 - All organics to be diverted to WSWMD through FY24
 - All towns in the district shall pay the same tip fee.
 - Tip fee shall increase on July 1 of each year by the percentage increase in CPI for the Northeast as measured in November of the previous year.
 - WSWMD and Town agree to collaborate on additional public education if contamination is found to be an issue in the organics program.
 - So far, so good!

SOURCE SEPERATED ORGANICS FROM:

- Brattleboro Curbside Pickup by Triple T Trucking
 - 2,000+ Residences Served Weekly
 - Up to 4 Unit Apartments
- Commercial/Institutional Collection By Area Haulers
 - Restaurants
 - Bread Manufacturers
 - Vitamin Manufacturer
 - Schools, Colleges
 - Food Coops, Supermarkets
- Transfer Station Drop-Off
 - WSWMD



Curbside food scrap collection



www

TRIPLE T TRUCKING CURBSIDE ORGANICS COLLECTION



BRATTLEBORO CURBSIDE ORGANICS



TIPPING BREAD AND DOUGH



ELM CITY COMPOST-KEENE, NH SUBSCRIPTION FOOD SCRAPS COLLECTION



BRATTLEBORO CURBSIDE LEAVES



LOADER MIXING PILES





DONATE COMPOST TO SCHOOLS



COMPOST AT BRATTLEBORO RETREAT



COMPOST PRODUCT ANALYSES

- “Brattlegrow” compost meets Vt. ANR standards for heavy metals and pathogens
- Test compost for agronomic parameters of N,P,K, pH, conductivity, and micro nutrients
- Bioassay of compost by UVM to check for persistent herbicides – over 90% germination (not phytotoxic)
- Staff measure pile temperatures to confirm pathogen kill temperatures of 131+ F
- Staff utilize compost at WSWMD gardens, and at home gardens and lawns

RETAIL DISTRIBUTORS

- D & E Tree Company
Guilford, VT
- Maple Hill Nursery
Swanzey, NH
- Renaud Tree &
Landscaping
Dummerston, VT
- Boyd Nursery
Wilmington, VT



COMPOST SALES

- Retail distributors pay \$20 per cubic yard
- They sell to customers for \$30 - \$40 per cubic yard
- FY 16 compost sales 855 cubic yards; revenue \$15,219
- FY 17 compost sales 525 cubic yards; revenue \$10,353
- FY 18 compost sales 1,965 cubic yards; revenue \$37,831
- Compost used for gardens and lawns
- Compost used for solar project construction
- WSWMD sells directly to buyers of more than 10 cy
- WSWMD also manufactures a compost/soil blend which is sold to distributors for \$25 per cubic yard
- Donate compost to towns, community gardens, and schools

WSWMD STAFF COSTS

- FY18 \$11,740 of staff time to operate compost facility
- WSWMD front loader with operator mixes incoming organics on a daily basis, approximately ½ hour per day
- Staff measure and record compost pile temperatures
- Hire contractor to operate screen

MONITORING TEMPERATURES



COMPOSTING OPERATIONS FINANCIAL REPORT FY 2017 – FY 2019

	FY 2017	FY 2018	FY 18 (3/19)	
Revenue	\$55,402	\$113,071	\$68,684	
Expense	\$23,473	\$69,325	\$42,381	
Surplus	\$31,929	\$43,746	\$26,303	

TA-DA!

