

Presentation to Northeast Recycling Council  
Strategies For Collecting Residential Food Waste  
February 3, 2021

**Brattleboro, VT Food Scrap Collection and  
Composting**

Bob Spencer, Executive Director, Windham Solid  
Waste Management District, Brattleboro, VT

[director@windhamsolidwaste.org](mailto:director@windhamsolidwaste.org)

# WINDHAM SOLID WASTE MANAGEMENT DISTRICT COMPOST FACILITY 2020

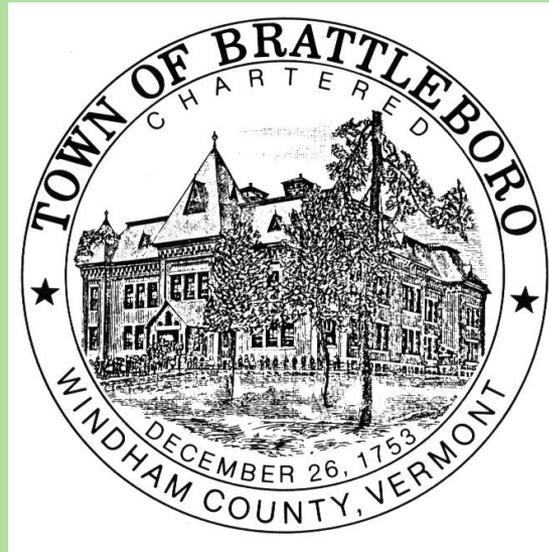


# TRIPLE T TRUCKING, BRATTLEBORO

- 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

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

# TOWN OF BRATTLEBORO RESIDENTIAL RECYCLING RATE FY 19

65%

YEAR	TRASH	RECYCLABLES	ORGANICS	TOTAL	RECYCLING RATE
FY 19	893 tons	1050 tons	623 tons	2655 tons	65%

# Organics = Cost Savings \*

\*in Brattleboro

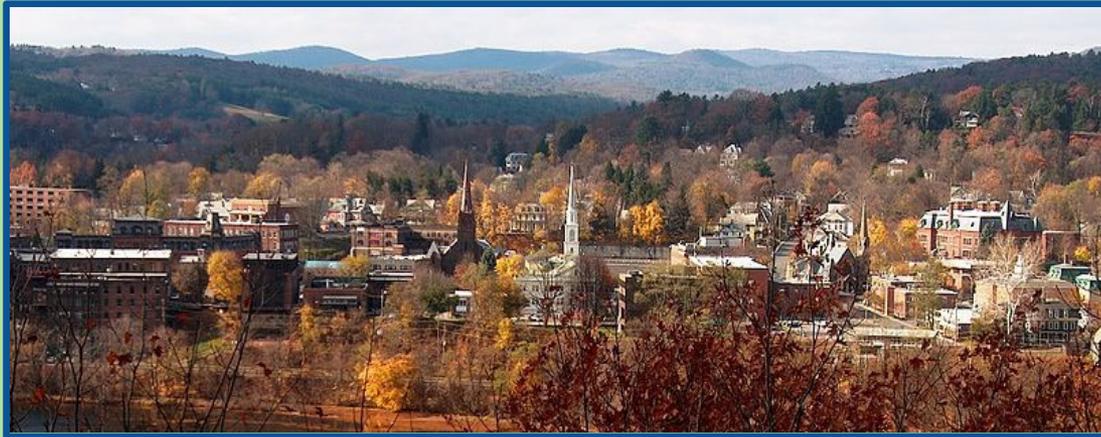
Organics	
FY18	606
Organics per Ton	\$65.00
	\$39,378.30
Trash per Ton	\$110.00
	\$66,640.20
Annual Savings	\$27,261.90

# Reasons for Success

- Teamwork!
  - Windham Solid Waste Management District
    - Receives Food Waste
    - Generates Valuable Compost
  - Triple T Trucking
    - Not Just Another Hauler
    - Creative – Flexible – Willing to Try New Ways of Doing Business
  - Town of Brattleboro
    - Manage Contracts with Triple T 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 2019- 623 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

# BRATTLEBORO CURBSIDE COMPOST LOGO



# Curbside food scrap collection



[www.nerc.org](http://www.nerc.org)

*“We are unique in Vermont and even across the USA. We have curbside collection of food scraps and recyclables, pay as you throw, and now collect trash every other week. Participation in compost collection continues to increase, tonnages are on the rise, and the town is saving money!”*

David Schoales - Woodworker,  
Town Selectboard Member,  
WSWMD Representative



# 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

# 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



# Drop-Off Dumpsters

- WSWMD has two 2 cubic yard dumpsters at the transfer station for food scraps
- When full each dumpster weighs an average of 0.6 tons, or 1,200 lbs.
- Approximately 5 tons per week collected and composted at WSWMD
- No charge to residents to use the food scrap dumpsters

# Minimizing Dumpster Odor & Flies

- During warm weather the food scrap dumpsters produce an odor that some users find offensive
- During warm weather the food scrap dumpsters are attractive to flies and bees, which can be annoying
- Staff sprinkle the surface of the dumpster with wood chips once or twice per day, which helps control flies and odors
- A variety of odor control agents are also applied to the surface of the dumpster as needed
- A commercially available pheromone attractant is used to lure flies to several traps
- When the dumpsters are empty chips and odor agent are put into the containers

# 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



# Compost Marketing

- Takes several years to establish market
- Branded product as BRATTLEGROW COMPOST
- Annual testing per VT regulations for heavy metals and pathogens
- Annual testing for agronomic characteristics
- 20+ flower boxes at transfer station showcase beautiful flowers
- On-site vegetable garden demonstrates robust vegetable growth

# COMPOST SALES

- Retail distributors pay \$25 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

# COMPOST REVENUE

- FY 20 Compost Sales Revenue - \$61,000
- Approximately 3,000 cubic yards sold
- FY 20 had \$90,000 profit from organics program
- Low technology with minimal equipment
- Purchased trommel screen with state grant
- Share labor cost with other operations
- Share loader and backhoe with other operation



**Brattle  
grow  
Compost**

Windham Solid Waste Management District's  
**All Purpose Compost**

**Call to order 802-257-0272**

.org

# Tire Flower Beds at Transfer Station!





# DONATE COMPOST TO SCHOOLS



# COMPOST AT BRATTLEBORO RETREAT



# MONITORING TEMPERATURES



# 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



# Organic Topsoil

- Blending compost with sandy topsoil to manufacture organic topsoil (not certified organic)
- Excellent for new lawns and lawn repairs
- Developing markets for stormwater and erosion control
- Started blending with sand and silt to manufacture large quantities for highway projects
- Need more state and community procurement of compost and soil blends

# KEEP YOUR SENSE OF HUMUS!

## For more information:

- Bob Spencer, Executive Director
- Windham Solid Waste Management District 327 Old Ferry Road Brattleboro, VT 05301
- 802-257-0272 Ext.111
- [director@windhamsolidwaste.org](mailto:director@windhamsolidwaste.org)