Brattleboro, VT Food Scrap Collection and Composting

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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

<table>
<thead>
<tr>
<th></th>
<th>Trash</th>
<th>Recycling</th>
<th>Organics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY18</td>
<td>931</td>
<td>1080</td>
<td>606</td>
<td>2617</td>
</tr>
<tr>
<td>FY17</td>
<td>939</td>
<td>842</td>
<td>511</td>
<td>2291</td>
</tr>
<tr>
<td>FY16</td>
<td>1090</td>
<td>980</td>
<td>449</td>
<td>2519</td>
</tr>
<tr>
<td>FY15</td>
<td>2318</td>
<td>926</td>
<td>245</td>
<td>3489</td>
</tr>
<tr>
<td>FY14</td>
<td>2357</td>
<td>840</td>
<td>222</td>
<td>3419</td>
</tr>
</tbody>
</table>

- FY: Fiscal Year
- EOW: End of Year
- PAYT: Pay as You Toss
Organics = Cost Savings *

*in Brattleboro

<table>
<thead>
<tr>
<th>Organics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY18</td>
<td>606</td>
</tr>
<tr>
<td>Organics per Ton</td>
<td>$65.00</td>
</tr>
<tr>
<td></td>
<td>$39,378.30</td>
</tr>
<tr>
<td>Trash per Ton</td>
<td>$110.00</td>
</tr>
<tr>
<td></td>
<td>$66,640.20</td>
</tr>
<tr>
<td>Annual Savings</td>
<td>$27,261.90</td>
</tr>
</tbody>
</table>
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
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**

<table>
<thead>
<tr>
<th></th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 18 (3/19)</th>
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</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$55,402</td>
<td>$113,071</td>
<td>$68,684</td>
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<tr>
<td>Expense</td>
<td>$23,473</td>
<td>$69,325</td>
<td>$42,381</td>
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<tr>
<td>Surplus</td>
<td>$31,929</td>
<td>$43,746</td>
<td>$26,303</td>
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TA-DA!