Putting Organics to a Higher Use through Composting or Biofuels: How Municipal Efforts Can Earn Points Toward Certification
To provide municipalities with a menu of coordinated, voluntary actions, to continually become more sustainable; to provide resources and tools to assist municipalities in implementing sustainability actions and advancing their programs for the benefit of all residents; and to certify and recognize municipalities for their ongoing sustainability achievements.
Round 1 submission deadline for initial feedback • May 1

Webinar and comments released to municipalities • Mid-June

Round 2 (final) action review period: September

Round 2 (final) submission deadline • August 24

Final determination of certified communities • Early October

Awards presentation at CCM annual meeting • October 30
Certification Overview

2018 Bronze Certification Requirements

Complete at least 1 action in each of the 9 categories.

Successfully complete actions totaling 200 or more points.

2018 Silver Certification Requirements

Complete at least 1 action in each of the 9 categories.

Successfully complete actions totaling 400 or more points.

Note: Actions, points, and certification point thresholds are for 2018 and may change for future certification cycles.
7.7: Recycle Additional Materials and Compost Organics

Objective
Reduce residential solid waste and increase recycling of non-mandated materials and organics composting.

What to Do
1. Create infrastructure to recycle additional materials that Connecticut law has not designated as mandatory recyclable items. Such items include rigid non-HDPE and non-PETE plastic containers, textiles, and items covered under the Connecticut Product Stewardship program. You may also include organics as non-mandated materials, through organics composting or organics biodigestion. In this case, you may send source-separated organics to a permitted food waste composting facility or you may operate an on-site composting program at a municipal facility. You may target education and implementation to specific populations, such as residents or schools, for example. In all cases, be mindful of any potential barriers to participation. For each additional material recycled, you must provide educational materials to the population served. You will receive 10 points for each non-mandated material recycled, up to 40 points.

*The Connecticut Product Stewardship program makes producers responsible for end-of-life management (including recycling and/or
How to Earn Points

• Create infrastructure to recycle additional materials that Connecticut law has not designated as mandatory recyclable items.
• Organics included as non-mandated materials, through organics composting or organics biodigestion:
  o Can send source-separated organics to a permitted food waste composting facility or operate an on-site composting program at a municipal facility.
  o Can target education and implementation to specific population sectors.
• Recycling of leaves is mandatory in CT and grass clippings are banned from disposal, so programs for either of these items are not eligible for points.
• Earn **10 points** for each non-mandated material recycled. (up to **40 points total**)
“The civilization of New England has been like a beacon lit upon a hill, which, after it has diffused its warmth around, tinges the distant horizon with its glow.”

- From Alexis de Tocqueville’s “Democracy in America”
Lead for certification process; your primary contact as reviewers

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Organics Recycling

Recycling of source-separated organic materials

- “Source-separated organic material” means organic material, including but not limited to, food scraps, food processing residue and soiled or unrecyclable paper that has been separated at the point or source of generation from nonorganic material (Sec. 22a-207)
Organics Recycling

Recycling of source-separated organic materials

- “Recycling” means the processing of solid waste to reclaim material therefrom (Sec. 22a-207).
- “Composting” means a process of accelerated biological decomposition of organic material under controlled conditions. (Sec. 22a-207a)
Organics Recycling

• “Composting facility” means land, appurtenances, structures or equipment where organic materials originating from another process or location that have been separated at the point or source of generation from nonorganic material are recovered using a process of accelerated biological decomposition of organic material under controlled aerobic or anaerobic conditions. (Sec. 22a-208q)
Organics Recycling

• Anaerobic digestion – system that produces energy by capturing methane gas produced through anaerobic decomposition of organic material, such as food scraps, FOG, biosolids.

• CT DEEP
  – Does not encourage AD that processes food scraps & Biosolids (aka sludge) together.
  – Requires digestate to be further processed/composted for the AD facility to be considered a “recycling” facility and not a Resource Recovery Facility (combustion facility).
Different Management Programs

- Leaf, yard debris – curbside collection; municipal composting/chipping
- Food scraps &/or compostable paper – backyard composting; on-site composting (including schools); curbside collection; community composting; commercial composting; anaerobic digestion
  
  – Note: composting programs require carbon materials such as leaves, wood chips, horse manure.
Organics Recycling Law (CGS 22a-226e)

- PA 11-217 as amended by PA 13-285 (start date of 2014)
- Applies to food wholesalers, distributors, manufacturers, processors, supermarkets, resorts & conference centers that:
  - Generate 104 tons/yr (2 tons per week) of source separated organics, and are
  - Within 20 miles of a permitted food waste processing facility.
Organics Recycling Law (CGS 22a-226e)

- Generation volume reduces to 52 tons/yr in 2020 (1 ton per week)
- Smaller generators will benefit due to creation of more options to recycle food waste
- CT was the first state to adopt a program
- DEEP Organics Law (22a-226e):
## Permitted Volume Reduction, Anaerobic Digestion and Food Waste Composting Facilities

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Type of Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridgeport Bioenergy, Bridgeport</td>
<td>Anaerobic Digester (Not constructed to date)</td>
</tr>
<tr>
<td>City Wide Energy Action, North Haven</td>
<td>Anaerobic Digester (Not constructed to date)</td>
</tr>
<tr>
<td>Harvest New England, Ellington</td>
<td>Composting - Outdoor Turned Windrow (Operational)</td>
</tr>
<tr>
<td>New Milford Farms, New Milford</td>
<td>Composting - Indoor Turned Windrow (Operational)</td>
</tr>
<tr>
<td>Supreme Energy and Recycling (Quantum Biopower)</td>
<td>Anaerobic Digester (Operational)</td>
</tr>
<tr>
<td>Turning Earth, Southington</td>
<td>Anaerobic Digester (Not constructed to date)</td>
</tr>
</tbody>
</table>
Identifying, Quantifying, and Mapping Food Residuals from Connecticut Businesses and Institutions

Connecticut Department of Energy and Environmental Protection
Fact Sheets
Connecticut Food Donation: Date Labeling Laws
Connecticut Food Donation: Liability Protections
Connecticut Food Donation: Tax Incentives for Businesses
Connecticut Food Donation: Feeding Food Scraps to Animals
Available on the DEEP Website
Technical Assistance

- Letter to potential generators informing them about the law

- Second letter to several restaurants and hotels

- Field visits – focus on generators within 20 miles of the permitted facilities.

- Compliance assistance visits are also conducted at companies, restaurants, hotels, hospitals, etc. to help implement an organics diversion program, even if the law does not apply.
Food Waste Diverted from Carla’s Pasta
South Windsor
CET partners with school districts, environmental committees, and municipal offices to implement food waste diversion programs.
CET partners with West Hartford Department of Public Works to create a food waste diversion guide for their 17 schools.
The Center for EcoTechnology helps people and businesses in New England save energy and reduce waste.

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www.ct.gov/deep/recycle
West Hartford
Food Scraps Initiatives
John Phillips DPW Director - Town of West Hartford
Food Waste Projects

• Residential Food Waste Experiment
• School Organics Collection
Residential Food Scrap Experiment Partners

- Covanta
- Paine's
- Quantum Bio Power
Residential Food Scrap Experiment Details

- 130 Residents
- Informational Session
- Oct 5-Jan 4 weekly collection
- Resident’s received brown cart
- Special collection truck
- One bag per cart
- Small portable containers distributed
Residential Food Scrap Experiment Challenges

- Zero contamination
- Odor issues
- Liners
- Inconvenience
- “Yuck” factor
Residential Food Scrap Experiment Results

- 9.26 tons of material collected
Residential Food Scrap Experiment Challenges Going Forward

• Setting up a program that removes enough food scraps from the MSW stream to be beneficial
• Residential acceptance of the program
• Engineered solutions not ready for main stream
School Organics Collection (Year 1)

- CT DEEP CMMS- Increase Source Separation and Composting/Conversion of Food Scraps and Organics
- 4 schools in 2014-2015
  - Conard High School
  - Hall High School
  - Sedgwick Middle School
  - King Philip Middle School
- 4,800 Students
- Waste separators provided
- New signage introduced
- Students allowed to recycle compostables (paper, napkins)
- Agricultural compost solution
- 1 ton collected the first year
School Organics Collection (Year 2)

- Expanded to include 7 schools
  - Conard
  - Hall
  - Sedgwick
  - King Philp
  - Bristow
  - Duffy
  - Webster Hill

- 6,200 Students

- 8.8 tons collected in 2016
School Organic Collection (Year 3)

- Expanded to all schools (16 schools)
- Over 10,000 students
- New zero contamination policy
- Food Waste to anaerobic digestion plant
- Re-education
School Food Scrap Results

- 26.24 tons of material collected
Next Steps
Moving Towards A Sustainable Future With Organics

FOOD SCRAP RECYCLING PROGRAMS
Housatonic Resources Recovery Authority
The HRRA is a regional, governmental, sustainable waste management and recycling authority, serving 11 municipalities in Western Connecticut with a population of 225,000 people. Municipalities include: Bethel, Brookfield, Bridgewater, Danbury, Kent, New Fairfield, New Milford, Newtown, Redding, Ridgefield & Sherman.
Getting to 60% by 2024... was a driving force

More than 90% of materials disposed of @ WTE or LF can be reused, recycled or composted.¹

More food reaches landfills and incinerators than any other single material in our everyday trash.²

Food waste shouldn’t be burned or landfilled:
• Heavy = cost more per ton
• Wet = Not efficient at WTE, creates methane in LF.

Support the hierarchy of waste management. COMPOST before WTE or LF.

The US EPA has identified landfills as the single largest source of methane. It is a potent GHG that is 23x more efficient at trapping heat than CO₂³
The practice of separating Organics at the curb wasn't new... but Connecticut had never tried it.

- 3120 community composting programs documented in 2012.²
- Over 2.4 million households have food waste composting collection programs.²
- However... In 2013 EPA reported that out of the 37 million tons generated, ONLY 5% was diverted to be composted.⁴

**Challenge for CT**
- 169 Municipalities with different waste plans
- Few organic processor in CT
- Rural Communities – distance to a processor
- Private Subscription hauling
- Cost per ton
Building a Program

1. Research the cost for your municipality
2. Apply for grants
3. Partner with processor to accept material
4. Agree on materials that are acceptable
5. Contract with a hauler to transport material
6. Plan how to supply and fund the program
7. Get the word out

The HRRA FOOD SCRAP RECYCLING Programs

What goes in the bin?

- Fruits, Nuts & Vegetables
- Coffee Grounds, Filters & Tea bags
- Plates Scrappings
- Household Plants & Flower Bouquets
- Bread, Pasta & Grains
- Paper Towels & Napkins
- Dairy Products & Egg Shells
- Sauces, Soup & Gravy
- Meat & Poultry (bone also)
- Fish (including shellfish)
The Kit
Provide the tools to make a successful program
Getting the word out

“If residents don’t know why they should be saving organic waste, they’re far less likely to do so.”

EDUCATION IS KEY

*Curbside Composting Added to a Major City: Is it Yours? By Elizabeth Daigneau/February 2012
Understanding the public to drive the program (August, 2013 - 422 surveys completed)

1. Do you recycle at home? **96% Yes**
2. If you don’t recycle at home, why not? **Need more info, believes hauler mixes anyway**
3. Do you compost organic (food scraps) at home? **28% Yes / 73% No**
4. If you don’t compost, why not? **47% need advice / concern of odor & animals / too much work**
5. Would you be interested in a once a week organics (food scrap) curbside pick-up program? **98% yes**
6. Would you be willing to purchase an organics compost collection bin for $35-$45? **55% yes / 45% No**
7. Would you be willing to pay for the pick-up service? **31% Yes / 69% No**
8. Who is your trash hauler? **Many did not know**
9. Do you use a cart on wheels for your trash and or recycling now? **75% yes / 20% No / 7% other**
10. How much do you pay for trash pick-up? **Many did not know**
11. How do you pay for your waste disposal now? Monthly, Quarterly? **Many did not know**
12. Would you be interested in saving money and reducing trash? **79% yes / 21% No**
13. Would you be interested in participating in a pilot program for 6-12 months for organics (food scrap) curbside pickup in July 2014? **100% Yes**
Implementing the program (March 11, 2014)
Making it easy for the residents to understand the program

- Selectmen -
Curtis Read and Alan Brown

The HRRA FOOD SCRAP RECYCLING Programs
The HRRA **FOOD SCRAP RECYCLING** Programs

**Making it official**

Deputy Commissioner - **Macky McCleary**  
Bridgewater First Selectman – **Curtis Read**  
HRRA Director – **Jen Heaton-Jones**  
New England Compost – **Jeff Demers**  
HRRA V. Chair and Ridgefield First Selectman – **Rudy Marconi**  
All American Waste – **Eric Fredericksen**
Weekly Reminders

Good Afternoon!
This is your weekly reminder to remember to put your bin out tomorrow morning before 6am!

*REMEMBER - ONLY FOOD Scraps are allowed in your bin. No PLASTIC items, stickers, rubber bands or twist ties!*

Acceptable Food Waste Items for Curbside Pick-up
- Meat, Poultry (bones also) Fish (including shellfish)
- Dairy Products
- Flower & Vegetable Garden Waste
- Houseplants & Flower Bouquets
- Fruits & Nuts (including pits)
- Vegetables ***Remove stickers, bands and ties***
- Bread, Pasta & Grains
- Sauces, Soup & Gravy
- Coffee Grounds & Filters
- Tea Bags
- Paper Towels & Napkins
- Egg Shells
- Plate Scrapings

If you are having issues with animals, feel free to use a bungee cord.
If you have an issue with pick-up please contact All American Waste directly at 860-354-2213 and speak with Stephanie DiLucca.

To date 18,880 lbs. or 9.44 tons of organic material have been collected in 22 weeks.
If you wish to be removed from this email list please reply and add "Remove Me" in the subject line.
Thank you,
Jen
The HRRA **FOOD SCRAP RECYCLING** Programs

Closing the Loop
Giving away Compost
Lessons learned

Keeping participants – Communication is key

Increasing participation is not easy – continue to promote 364 days.

Animals – Bungee cord

Pest – Freeze bag, use newspaper, keep container dry, keep in cool place

Not enough bags can be an issue, be sure to have enough to start with

Contamination – Communication and Education is the only way to keep contamination down.

Cost – Set fees upfront
Program results

- After 60 Weeks in Bridgewater CT
- Started with 120 participants ended with 141 – 16% of town
- Village Store, Church and local school
- Over 50,000 lbs. / 25 tons collected
- Average household – 10 lbs. per week
- Average bins out – 74%
- Nearly zero contamination reported

If... 882 residents diverted their organics, it would equal 4 tons a week or 212 tons a year from Bridgewater, CT.

HRRA serves 81,000 households (per 2010 census / www.hvceo.org)

Potential diversion - 374 tons wk or 19,459 tons a yr from waste to energy
End result

Bridgewater residents were not willing to pay more money for the organics collection.

The program transitioned from curbside to a drop-off program 18 months after the initial curbside launch.

The town is still offering collection after 4 years, but it has not grown.
HRRA has 5 Municipal Drop-off Programs

- Bridgewater
- New Fairfield
- Newtown
- Redding
- Ridgefield
Bridgewater, CT – Organics Drop-off

- Transition from Curbside
- Disposal is free for residents
- Town pays for disposal
- Material goes to New Milford Farms.
Ridgefield, CT – Organics Drop-off

- Launched in November of 2015
- CT DEEP grant
- Participants received a Free Kit
- $3 disposal
- Material goes to New England Compost
The HRRA **FOOD SCRAP RECYCLING** Programs

**Newtown, CT – Organics Drop-off**

- Launched in November of 2015
- Self Funded
- Participants received a Free Kit
- Free disposal
- Material goes to Quantum BioPower, Southington, CT
The HRRA **FOOD SCRAP RECYCLING** Programs

**Redding & New Fairfield CT – Organics Drop-off**

- Both launched in 2016
- CT DEEP grants
- Participants received a Free Kit
- Redding residents pay .10 cents a pound
- New Fairfield residents pay $1 a bucket.
- Material goes to New England Compost via private hauler
The HRRA FOOD SCRAP RECYCLING Programs

Contamination!!

Coffee pods & Zip locks

Clip tie

medication

twist ties
Down the road – Moving towards a sustainable future with organics

- It will require regulatory & public support to COMPOST not Landfill or Incinerate.⁴
- Financial support and investment is needed
- Education is essential
- Most important you need a local champion(s) and Administrative support
- *The path to a sustainable society may be long and difficult, but composting organics is clearly a step in the right direction.*⁴ EPA
Don’t forget back-yard Composting education

- HRRA has offered over 20 back-yard composting classes since the fall of 2017.

- Classes are free with a discounted composting bin at $25 for class participants.

- Each student receives a kitchen collection container and educational material including a book on “how to”.

- We also educate and promote vermicomposting at the class and give out worms to anyone interested in trying it at home.
The HRRA FOOD SCRAP RECYCLING Programs

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REFERENCES:
1. GAIA - Incinerators: Myths vs. Facts about “Waste to Energy”
3. USCC Position Statement Keeping Organics Out of Landfills