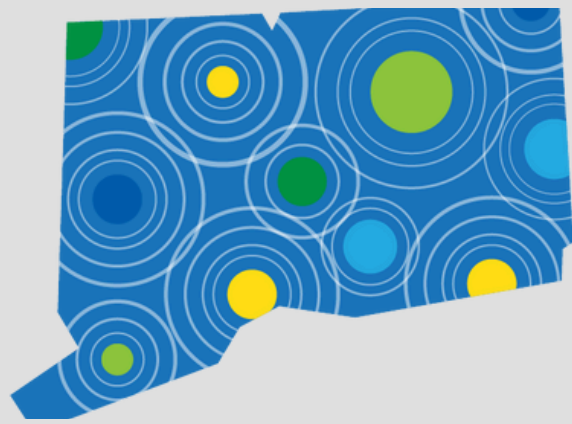


**Sustainable CT**

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AUGUST 2024

# EXAMINING ORGANICS DIVERSION IN CONNECTICUT

**Municipal and Partnering Organization  
Organic Waste Initiatives**

**PRESENTED BY 2024 SUSTAINABLE CT FELLOWS**

For more information please contact:

 [info@sustainablect.org](mailto:info@sustainablect.org)

# Sustainable Ridgefield

Organics Diversion in WestCOG

Population:  
25,000



## Aerated Static Pile Composting Facility

START-UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
<b>ASP: \$18,000</b> <b>Total Project: \$150,000</b>	----	<b>Recycle CT, <u>USDA CCFWR</u>,                      Private Donations</b>
STAFFING	IMPACT	PROJECT SIZE
<b>Transfer Station Staff</b>	<b>28.2 tons of food scraps                      processed in 2023</b>	<b>ASP System: 12 Yd<sup>3</sup>s,                      Total space used: 0.25 acre</b>

### Overview

Ridgefield's solar-powered Aerated Static Pile (ASP) Composting project was piloted in 2022.

The project received \$130,000 in funding, which covered the construction of the system, consulting fees, additional equipment, public education, and outreach. The program is free to residents with an annual transfer station permit. The organic material collected is brought to the ASP system by transfer station staff. The finished compost is available for the community throughout the year.

Ridgefield has distributed 160 yards of fresh compost since 2022.

### Challenges & Lessons

Material costs can often change between applying for a grant and receiving funds, making accurate project budgeting difficult. It is important to budget for unexpected costs.

Collecting accurate data can be a challenge and is important for grant reporting and tracking program effectiveness. It is important to establish data collection processes early.

Stakeholder support is essential for success, specifically municipal and transfer station employee support is crucial to a project's success.

### Benefits

This self-sustaining system demonstrates how municipalities can address food waste locally, reduce the carbon footprint of offsite disposal, and contribute to the waste diversion goals of the state.

A localized composting system removes transportation costs and offsite organic waste disposal fees.

The cover layer of the ASP system serves as a biofilter to absorb odorous gasses. The layer also serves as a vector barrier, eliminating wildlife access to raw feedstock.



# Town of Manchester

Population:  
59,000

Organics Diversion in CROCOG



## Food Scraps Drop-Off Pilot Program

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
~\$20,000	Cost per month: ~\$240 Projected annual: ~\$3000	Municipal Budget
STAFFING	IMPACT	PROJECT SIZE
Recycling & Community Service Coordinator	Collecting ~ 600 pounds/week with 4.7 tons of waste diverted in total 180 homes registered and 125 app users	5 drop-off stations, each hold 65 gal per cart

### Overview

Manchester began food scrap diversion at their transfer station in January 2024 and expanded to include additional units in April 2024 at their senior center, library, and park.

Residents can pick up a free at-home compost bin with lid and roll of biodegradable bags. Users can empty food scraps into any drop-off station in town by using a mobile app to unlock it. They can also drop organics off at the transfer station without the app.

All American Waste collects the food scraps twice a week from each station.

### Challenges & Lessons

Increasing public awareness and engagement in a new program can be a challenge.

This program relies on an app, which can become a barrier for those without smartphones or who are uncomfortable with the technology. To combat this, staff did a sign-up event at the senior center and set up the app on people's phones. They have also personally met with anyone who wants help with setting up the app.

The height of the bins can also pose accessibility issues for disabled and/or short users.

### Benefits

The drop-off stations prevent the spread of odors and prevent access to animals.

The app reminds users what is compostable before they unlock a unit, ensuring continual and integrated education, as well as reducing contamination in the collected organic waste.

Providing free bins and bags to residents reduces barriers and eases the process of getting started. Multiple drop off locations increase participation and also reduce access barriers.

# Town of Kent

Population:  
3,000



Organics Diversion in NHCOCG

## Transfer Station Drop Off Program

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
\$15,220.26	\$8,300	<u>DEEP Sustainable Materials Management Pilot Grant</u>
STAFFING	IMPACT	PROJECT SIZE
One Transfer Station Attendant	~28 tons diverted as of July 2024	32 gal collection bin and 12 carts

### Overview

Kent began food scrap diversion at their transfer station in July 2023. This initiative was funded through the DEEP pilot program and was developed in collaboration with the Housatonic Resources Recovery Authority.

The organic waste is then picked up by Curbside Compost and brought to New Milford Farms to be turned into compost. The final compost is made available to participating residents.

### Challenges & Lessons

Encouraging resident awareness and participation in a new program can be a challenge. Specifically, users may have difficulty adjusting to the process of separating their food waste.

Contamination with non-compostable bags was common. To combat this, several education initiatives have been put in place to help residents understand what material is acceptable.

### Benefits

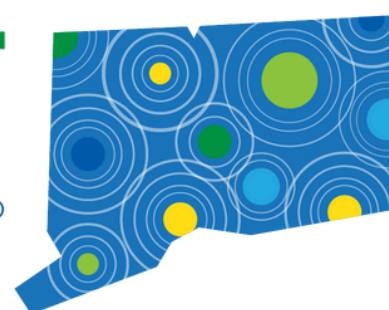
Residents are able to compost materials they could not typically compost at home, such as meats and bones.

The secured transfer station bins also provide an opportunity for residents to compost without worry of attracting wildlife such as bears to their homes.



Housatonic  
Resources  
Recovery  
Authority

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# Sustainable Fairfield

Organics Diversion in MetroCOG

Population:  
63,000



## Fairfield Public Schools Cafeteria Composting

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
\$62,500	\$25,750	<u>Community Match Fund</u>
STAFFING	IMPACT	PROJECT SIZE
Sustainable Fairfield Task Force, Custodians, and Paraprofessionals	152 tons diverted over a 12 month period	8 elementary schools

### Overview

The Town of Fairfield is home to 11 elementary schools. Composting was originally offered at three elementary schools, but in 2024 was expanded to the remaining eight elementary school. Fairfield was the first municipality to offer school-based food waste diversion programs in MetroCOG.

The composting program has been very successful and is coupled with a program where uneaten food is donated to local food rescue organizations to fight food insecurity. Compost waste is picked up by Curbside Compost.

### Challenges & Lessons

Food waste diversion was initially implemented at the high school level, however, student participation was low. Focus was shifted to establishing food waste initiatives at the elementary school level to strengthen the habit of waste separation at a younger age.

Contamination or confusion is common when launching a new initiative. To address this, parent volunteers provided assistance to students to understand what items are recyclable, compostable, or trash.

### Benefits

Elementary school level education on recycling and composting helps establish these habits at an early age.

School-based composting programs divert organics from the waste stream and reduces the trash load.

Including all eight schools in the program reduced the frequency and cost of waste haulers.



# Town of Woodbury

Organics Diversion in NVCOG

Population:  
10,000



## Organic Waste Diversion Program

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
\$159,100 (pilot program), \$185,000 total (bridge grant)	Estimated \$12,000	<u>CT DEEP Grant (pilot)</u> Unit-based pricing (program)
STAFFING	IMPACT	PROJECT SIZE
Pre-existing Transfer Station Staff	42.21 tons diverted annually (pilot)	Transfer station based, 1 hauler, ~ 1,500 homes reached

### Overview

Woodbury's food-waste diversion efforts started off with a pilot program funded by CT DEEP.

The town adopted a unit-based pricing model where residents can purchase compostable bags for a small fee to collect their organic waste and drop off their food waste at the transfer station. This program incentivizes residents to reduce their overall waste.

The waste is sent to Quantum Biopower in Southington, where it is turned into clean energy.

### Challenges & Lessons

Engaging the community and gaining awareness of the food waste program proved to be a challenge. Many residents were unaware of the program's introduction and were surprised when it became a requirement.

Although there were widespread municipal communication efforts to address and spread this information, the lack of awareness was a challenge. Finding effective communication methods to reach residents is important.

### Benefits

The food waste drop-off program reduces waste disposal fees for residents.

This initiative diverts organic waste from the landfill and reduces residential trash accumulation.

The marked bags in a dedicated receptacle simplify the food-waste diversion process.

# Common Ground New Haven

Organics Diversion in SCRCOG

Population:  
135,000



## Aerated Static Pile Composting

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
\$70,000	\$40,000	USDA, CT DoAG, NRCS, <u>Community Match Fund</u> , and <u>ILSR</u>
STAFFING	IMPACT	PROJECT SIZE
1 part-time, 4 students in the school year, 3 summer interns, and support from Peels & Wheels	37+ tons diverted annually	Midscale ASP

### Overview

Common Ground started composting in the 90s, and has since expanded through the construction of an Aerated Static Pile (ASP) in 2017.

The program diverts food and farm waste from the Common Ground High School cafeteria, Haven's Harvest (a local food rescue organization), Peels & Wheels (a bike-powered, neighborhood-scale compost operation), and "pay what you can" community drop-offs.

### Challenges & Lessons

Due to limited space, Common Ground cannot increase capacity to expand their customer base.

It also takes significant advocacy work to show potential partners the value of a small/midscale operation, in addition to job training and educational opportunities in the field.

Other challenges include fundraising for large equipment and on-ground issues, such as source material contamination.

### Benefits

This program facilitates engagement with students and the community through volunteers, paid roles, and educational opportunities.

Common Ground furthers city-wide sustainability efforts by collaborating with local organizations.

# Town of Stonington

Population:  
18,000



Organics Diversion in SCCOG

## Curbside and Transfer Station Drop Program

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
\$552,000	\$227,000	<u>CT DEEP Sustainable Materials Management Grant</u>
STAFFING	IMPACT	PROJECT SIZE
Director, Administrative Assistant, and Equipment Operator/Driver	20 tons of waste diverted monthly	3 Haulers 2 yard hopper & 30 yard bin at the transfer station

### Overview

Funded by CT DEEP, Stonington's curbside pickup program allows residents to separate their organic food waste using biodegradable green bags. When this program started in 2023, residents were given a one-year supply of green bio bags.

The waste is then picked up by haulers along with other curbside waste. The waste is then transferred to Anaergia in Johnston, RI, which utilizes an anaerobic digester to convert food waste into energy.

### Challenges & Lessons

As a coastal town, Stonington is home to many seasonal residents. Therefore, they have experienced decreased participation of the curbside pickup program in the winter.

To spread the word and increase participation the town went door to door to hand out supplies, which took a lot of time and staffing.

Despite receiving two DEEP Sustainable Materials Management grants, consistent and long-term funding solutions are a challenge.

### Benefits

Diverting 1,500 bags of organic waste from the solid waste stream a week is cost saving. Since food waste is wet and heavy, it is harder to burn and costs more to dispose of.

Education was essential to this program's success and encourages long term resident engagement, including online webpages and in person events.

This program is extremely accessible for all residents as the waste is picked up at their homes.





# Durham Fair Composting

Organics Diversion in RiverCOG

Population:  
7,000



## Event Food Scrap Diversion

START UP COST	ANNUAL OPERATIONS COST	FUNDING SOURCES
-----	~\$400	2013-2015: <u>Coginchaug Valley Education Foundation Grant</u> 2016-Present: <u>The Durham Fair Association</u>
STAFFING	IMPACT	PROJECT SIZE
Sustainable Durham & volunteer supported	~4 tons diverted annually	Annually ~200,000 visit over 4 days

### Overview

The Durham Fair has had an ongoing composting system since 2013. Each food vendor is given five gallon buckets lined with bio bags or 40 gallon rolling bins to deposit their compostable waste. Buckets are kept inside the booths and conveniently have a poster that describes what is allowed in the bins.

Volunteers collect the food waste daily from the exhibitor halls before the fair opens and closes. The food scraps are then brought to Quantum Biopower by HQ Dumpster.

### Challenges & Lessons

Initially, fair goers were also encouraged to compost; however, contamination from visitors mixing non-compostable materials into compost bins was very common. As a result, it was concluded that focusing on vendor composting was most efficient.

The dumpsters used to collect waste frequently leaked liquid. To resolve this, the fair began collecting large amounts of fats, oil, and grease separately. Some of this grease is given to a local business that turns it into biodiesel.

### Benefits

Through this organics diversion, the fair has collected over 40 tons of food scraps since starting the system at the fair.

In 2023, 4.7 tons of food waste was diverted at the fair.

This program turns an event that normally would have significant amounts of waste into a successful organics diversion event.



Lower Connecticut River Valley  
Council of Governments



# Learn More

## KEY TERMS

### **Aerated Static Pile (ASP)**

A system that uses air circulation to biodegrade organic material without physically manipulating it during the primary composting process. The system uses large pipes to circulate air through a pile of composting material, which can be placed in windrows, open or covered containers, or on perforated piping. ASP composting can handle large amounts of waste, such as manure or food waste.

### **Anaerobic Digester**

A sealed, oxygen-free tank designed for the anaerobic digestion of sewage or other organic waste by microorganisms. Anaerobic Digestion is a sequence of processes by which microorganisms break down biodegradable material in the absence of oxygen. The process is used for industrial or domestic purposes to manage organic wastes, produce gas and digested materials, minimize odors, reduce pathogens, and reduce solid wastes.

### **Bio Bags**

Also known as compostable bags, these bags are made from plant-based resins and are designed to break down when exposed to microorganisms in the ground or on organic waste.

### **Compostable**

A product that can disintegrate into non-toxic, natural elements.

### **Organic Waste Diversion**

The process of reducing the amount of organic waste, such as food, that ends up in landfills. Organic waste is any material that is biodegradable and comes from either a plant or an animal.

Watch the Municipal  
Organic Waste Initiatives  
Webinar here



Check out our Compost  
Organic Waste action Item  
here



Contact for more information

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# Acknowledgements

Sustainable CT is a free, voluntary certification program that supports Connecticut municipalities in reaching their sustainability goals. Each summer, the Sustainable CT Fellowship Program places highly qualified fellows across the state's Councils of Governments (COGs) to help cities and towns work on sustainability actions, support certification efforts and work on regional sustainability projects associated with the COGs.



**Sustainable CT 2024 Fellows Cohort**

In the summer of 2024, the Sustainable CT Fellows completed a comprehensive review of organics diversion initiatives across the state. The Fellows identified nearly 80 initiatives across Connecticut's 169 municipalities.

From this extensive inventorying effort, eight successful organics diversion programs were used to create these peer learning factsheets. The purpose of these fact sheets is to provide an illustrative sample of different organics diversion methods, funding sources, challenges, successes, and more.

**2024 Fellows:** Brigitte Arcoite, Jacob Bartel, Paige Booth, John-Henry Burke, Ella Burns-DeMelo, Jackie Flaherty, Adrian Huq, Brett Hurley, Odeth Sandoval, Rebecca Stanton, and Dylan Steer

For more information please contact [info@sustainablect.org](mailto:info@sustainablect.org)