

Vermont's Universal Recycling law

Status Report | January 2019



THE LAW IS WORKING

- In 2017, VT composting facilities collected more food scraps than ever before—a 9% increase from 2016.
- Over 100 transfer stations now provide food scrap drop-off for customers.
- Recycling costs increased dramatically when China stopped taking U.S. recyclables. Building local and regional markets for recyclables over the next five years will help the markets rebound. Vermont still recycled slightly more material by weight in 2017, even though packaging continues to get lighter.
- Food rescue nearly tripled from 2014-2017, according to the Vermont Foodbank.
- In 2017, trash disposal surprisingly increased 11% following a two-year decrease of 9%. Now, more than ever we need to reduce waste, recycle, and compost.
- In 2018, the Legislature made some reasonable changes including:
 - removing the hauler requirement to collect leaf and yard debris
 - allowing transfer stations to charge separately for recycling
 - postponing the hauler requirement to collect food scraps



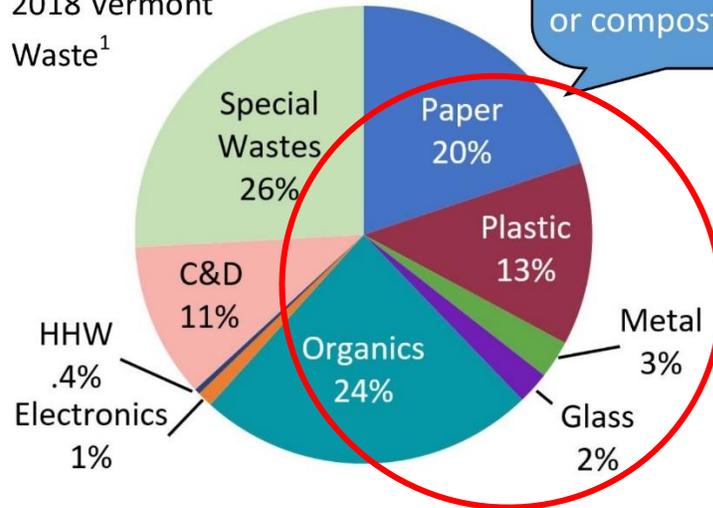
“Vermont joins Massachusetts, Connecticut, Rhode Island, and California in feeding people instead of landfills and using food scraps to make compost and renewable energy.”

- Cathy Jamieson,
Solid Waste
Program Manager

BACKGROUND

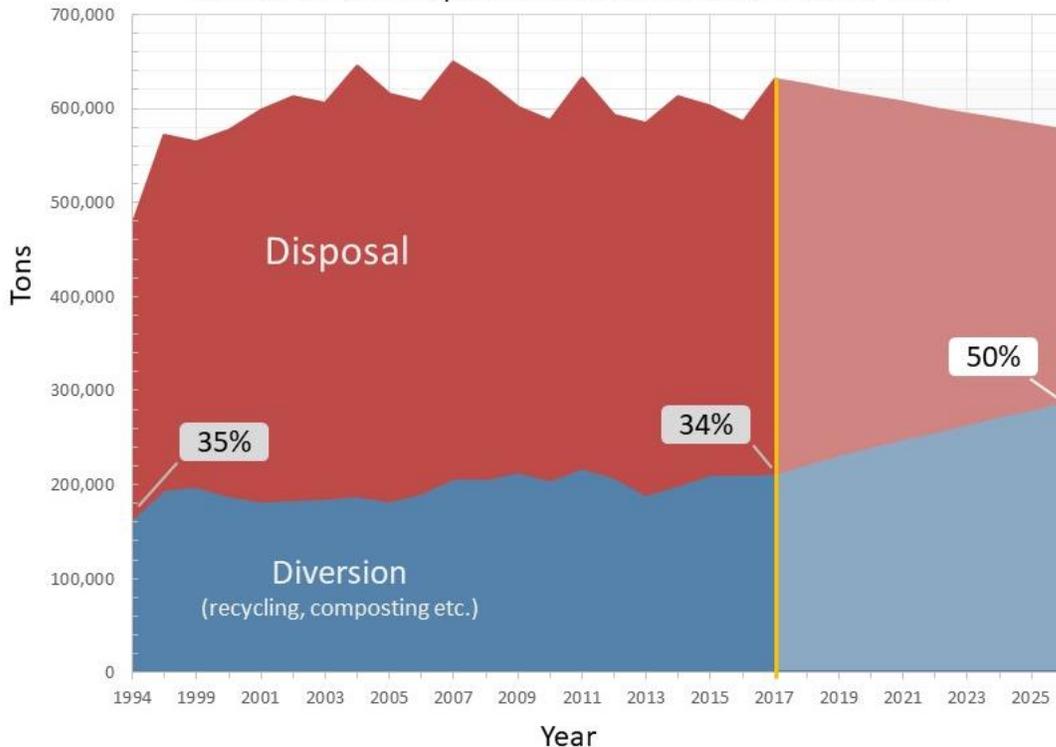
The Vermont Legislature unanimously passed the Universal Recycling law (Act 148) in 2012 in response to the state's stagnant recycling rates that had hovered around 30-36% for nearly two decades. Almost half of Vermonter's trash is recyclable or compostable material like clean paper and food scraps. Landfilling these valuable natural resources not only wastes them, but also releases many more greenhouse gas emissions than reuse, recycling, food donation, and composting. It was time for a change.

2018 Vermont Waste¹



Almost half of our waste could be recycled, donated, or composted.

Vermont landfill disposal and diversion amounts over time



¹ DEC completes waste composition studies approximately every 5 years. The most recent study took place in 2018.

GOALS AND BENEFITS

- Increase recycling and composting, which conserve natural resources and reduce greenhouse gas emissions and energy use.
- Promote food donation. Feed Vermonters not landfills.
- Provide consistent and convenient recycling and composting services statewide.
- Build green businesses and jobs that strengthen Vermont's economy by encouraging businesses to invest in recycling, food donation, and organics management.
- Reduce the need for landfills, protecting our land, air, and water.



WHAT THE LAW DOES

1. **MOTIVATES:** The law bans disposal of common recyclables (2015); leaves, yard debris, and clean wood (2016); and food scraps (in phases with full ban in 2020). Banned recyclables include: paper (mail, magazines, newspaper, office paper, paper bags, and box board); cardboard; aluminum and steel cans, foil, and pie tins; glass bottles and jars from food; and hard plastic bottles and jugs #1 and #2.
2. **INCREASES CONVENIENCE:** It makes recycling and composting as easy as trash disposal by requiring facilities and haulers that collect trash to offer recycling and food scraps collection. Transfer stations and bag drop haulers must offer leaf and yard debris collection seasonally.
3. **INCENTIVIZES:** It requires haulers and facilities to charge residents for trash disposal using volume or weight-based pricing, such as paying by the bag, cart or dumpster, or by the pound. So-called 'Pay-As-You-Throw' pricing encourages waste reduction, recycling and composting.
4. **LEADS BY EXAMPLE:** It requires recycling containers next to every trash can in publicly-owned buildings and spaces, such as state and town buildings, parks, schools, and offices.
5. **BUILDS GREEN BUSINESS:** It incentivizes investments in alternatives to waste disposal like recycling, food donation, animal feed, composting, and anaerobic digestion by ensuring that materials like recyclables, food scraps, and leaf and yard debris will be available separately for these beneficial uses. In turn, materials that were once thought of as waste, are now part of Vermont's circular economy, and support green jobs rather than causing harm.
6. **PROVIDES BUILT-IN FLEXIBILITY:** It acknowledges that one size does not fit all. The law allows haulers and facilities to request exemptions or variances from some collection requirements. Businesses can dispose of a "de minimus" amount of food waste if they have an active composting program in place. And finally, residents who compost at home can throw meat and bones in the trash—even after the 2020 food scrap ban.





Universal Recycling Law TIMELINE

**JULY 1
2014**

- » Transfer stations must accept recyclables
- » Food scrap generators of 104 tons/year (2 tons/week) must divert material to any certified facility within 20 miles

**JULY 1
2015**

- » Statewide unit based pricing takes effect, requiring residential trash charges be based on volume or weight
- » Recyclables are banned from the landfill
- » Transfer stations/Bag-drop Haulers must accept leaf and yard debris seasonally (April 1 - December 15)
- » Haulers must offer residential recycling collection at no separate charge
- » Public buildings must provide recycling containers alongside all trash containers in public spaces (exception for restrooms)
- » Food scrap generators of 52 tons/year (1 ton/week) must divert material to any certified facility within 20 miles

**JULY 1
2016**

- » Leaf, yard, and clean wood debris are banned from the landfill
- » Food scrap generators of 26 tons/year (1/2 ton/week) must divert material to any certified facility within 20 miles

**JULY 1
2017**

- » Transfer stations/Bag-drop Haulers must accept food scraps
- » Food scrap generators of 18 tons/year (1/3 ton/week) must divert material to any certified facility within 20 miles

**JULY 1
2020**

- » Food scraps are banned from the landfill
- » Haulers must offer food scrap collection

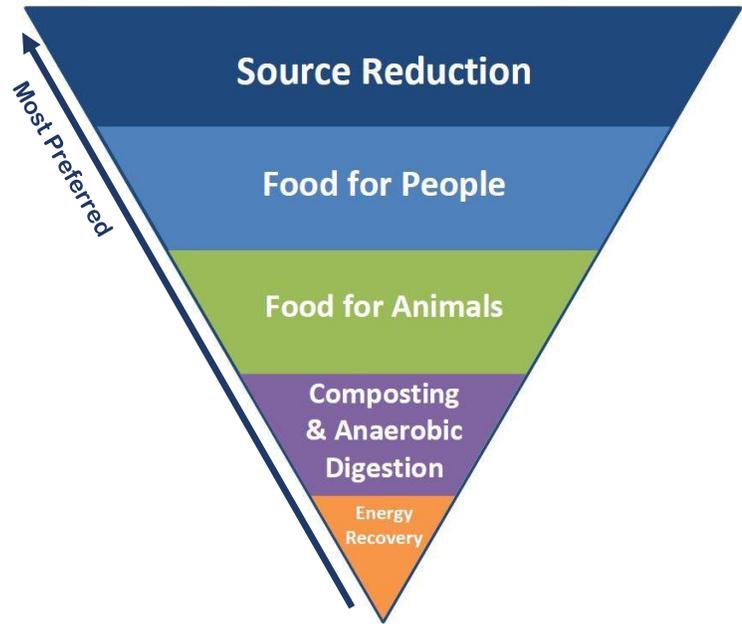


FOOD RECOVERY HIERARCHY

The Universal Recycling law encourages people to follow the Vermont Food Recovery Hierarchy, which prioritizes food waste reduction, food donation, feeding animals, and then composting and anaerobic digestion as the highest uses for food. Energy recovery means generating energy from clean wood.

VT DEC partners with other agencies, non-profits, municipalities, and private entities throughout the state to help Vermonters put excess food and food residuals to their highest uses.

Vermont Food Recovery Hierarchy



Hannaford employees sorting food for donation.



“Vermont’s Universal Recycling law has shifted the focus from trashing edible food to feeding hungry Vermonters. What is not donated can be fed to animals, composted, or used to create renewable energy in anaerobic digesters.”

- Emily Boedecker,
DEC Commissioner

RECYCLING STATUS

- Vermonters want to recycle and it's easier than ever: at the curb and at drop-offs.
- We recycle an estimated 72% of recyclable paper and containers—a good statewide recovery rate².
- Vermont recycling remains stable with a slight tonnage increase in 2017³, which is remarkable considering that packaging is up to 20% lighter.
- Recycling costs increased globally after China stopped importing most recyclables to clean up their environment and use their own recyclables.
- Experts expect recycling markets will improve in two or more years as recycling factories are built both in and out of the U.S. to use these materials.
- DEC collaborated with Vermont's two largest Materials Recovery Facilities to produce the "Recycle Like You Live Here" ads to help clean up recycling.
- Recycling supports an estimated half a million U.S. jobs, accounting for over \$100 billion in annual economic activity.⁴

Recycling workers have a dangerous job cutting out plastic bags from equipment. Don't put plastic bags, electronics, batteries, or leftover food waste in containers into your blue recycling bin.



² 2018 Vermont Waste Characterization Study. 2018. DSM Environmental Services, Inc.

³ Vermont Department of Environmental Conservation Disposal and Diversion Report 2018.

⁴ Economic Impact Study. 2015. Institute of Scrap Recycling. www.isri.org.

Vermont's Universal Recycling law

Status Report | January 2019

“Forging recycled aluminum products... uses 95% less energy than creating them from virgin materials... If the average worldwide recycling rate increases to 65% of total recyclable waste, household recycling could avoid 2.8 gigatons of carbon dioxide emissions by 2050.”⁵ - *Drawdown*

Mixed Paper and Glass in 2018

Mixed Paper: In spring 2018, the Legislature authorized the ANR Secretary to issue a waiver allowing mixed paper disposal if insufficient recycling markets exist. This provision expires July 1, 2019. To date, no waivers have been requested. Creating domestic markets for recycled materials will help sustain recycling and retain recycling jobs in Vermont and the United States.

Glass: ANR approved Casella Waste Management’s request to use recycled glass from the Rutland Materials Recovery Facility (MRF) for construction projects at the NEWSVT landfill in Coventry. ANR granted the request for several months in 2018 and required Casella to submit short- and long-term plans for managing recycled glass. Chittenden Solid Waste District invested in glass processing equipment at their Williston MRF so their glass can be used for state and local road projects.

Bales of cardboard and mixed paper at the Williston Materials Recovery Facility.



⁵ Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming ranks 100 solutions that could reverse global warming. Solutions #55, #56, and #70 are all forms of recycling. www.drawdown.org Citation. From <https://www.drawdown.org/solutions/materials/household-recycling>; November 5, 2018.

Vermont's Universal Recycling law

Status Report | January 2019

“Now more than ever Vermont needs to stay the course with recycling. Markets for materials like steel and cardboard fluctuate. Every ton Vermonters recycle sustains decades of recycling investments and reduces landfilling.”

- Julie Moore, ANR Secretary

The Future of Recycling

Product/Packaging Responsibility: When recycling markets are down, consumers and haulers shoulder the cost of recycling. DEC is examining how other regions and countries are addressing the products and packaging that make up a large portion of the waste and recycling stream. Two Canadian provinces and several European countries require manufacturers to take responsibility for the cost to recycle and sustainably manage their products and packaging.

Recycling Testimonials

Alanna Sweet, Autumn Joyner, and Diya Kulkarni of Main St Middle School, Montpelier: “Recycling is important to us because as the upcoming generation, we realize the world around us is facing significant changes and that we are the ones who must take action. Integrating recycling into our everyday lives and communities brings us one step closer to a more sustainable world.”



Cathy Mander-Adams, Lamoille County Resident:

“It is imperative that we keep as much out of the landfill as possible. When I recycle, I feel as though I am doing my part to keep materials out of the landfill. I feel even better when I can convince others to take a serious look at the materials they throw in the trash and make a conscious effort to change their habit to throwing recycling materials where they belong. I like to make a game out of it by holding up items and asking where they go. Children are better at responding than adults.”



Phil Baker, Windham Solid Waste District Transfer Station/Composting Facility Operations Manager: “I’ve sorted, baled, and marketed recyclable materials for over 25 years and now I’m monitoring temperatures of food scrap compost piles. I’m proud to say that we’re now recycling or composting 76% of the materials we receive at our facility.”



ORGANICS STATUS

- VT's capacity to process food scraps is increasing as compost facilities expand, often at old or proposed landfill sites.
- If every Vermonter composted their food waste, it would reduce greenhouse gas emissions as much as taking over 7,000 vehicles off the road each year⁶
- 56% of respondents to the 2018 Vermonter Poll strongly or somewhat agree that food waste should be banned from the landfill⁷.
- The US EPA and USDA have called for a 50% reduction in food waste by 2030.⁸

Compost Operator Chris Duff dumps totes of food scraps at the Lamoille Soil compost facility in Johnson.



⁶ [Vermont Department of Environmental Conservation Disposal and Diversion Report 2016.](#)

US Environmental Protection Agency Waste Reduction Model. www.epa.gov/warm.

⁷ Household Food Waste Perceptions and Behaviors: a Vermont Case Study. 2018. Recycling Organics and Resources (ROAR) www.uvm-ROAR.com.

⁸ United States 2030 Food Loss and Waste Reduction Goal. <https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal>.

Processing Food Scraps

- Currently, 12 certified food scrap processing facilities (composting & anaerobic digestion) operate year-round in Vermont.
- Vermont has 17 farm digesters, and some accept food-processing byproducts from dairy, brewing, and other food manufacturing to produce electricity and heat.

Hauling Food Scraps

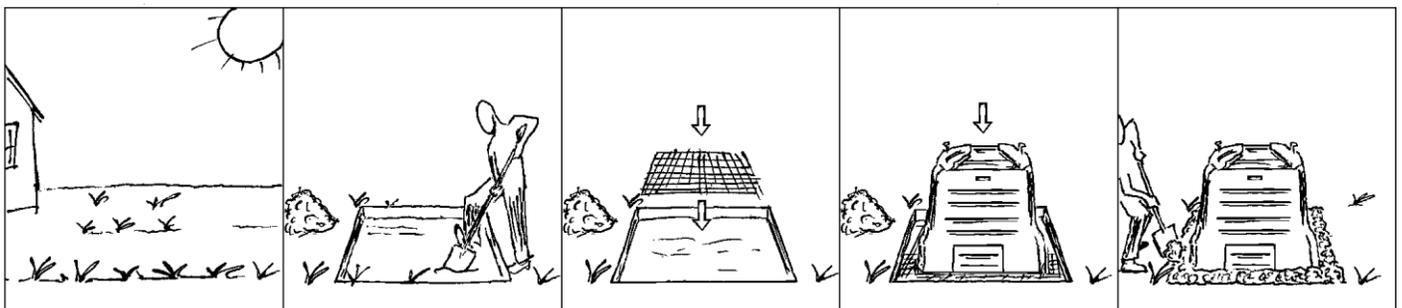
- ~80% of towns have commercial food scrap hauling and some have residential.
- The number of food scrap haulers in Vermont has nearly doubled since 2012.
- Hundreds of businesses, schools, and institutions were composting even before the law went into effect, including: UVM Medical Center, The Wayside Restaurant, and Bennington College.

Transfer stations now collect food scraps and leaf & yard debris

Composting is easier than ever since over 100 transfer stations now collect food scraps and leaf and yard debris.

Home Composting is on the Rise

- 58% of Vermonters surveyed by Castleton Polling Institute in 2018 said they compost or feed animals at least some food scraps.⁹
- 72% of Vermonters surveyed through UVM's Vermonter Poll said they compost or feed animals at least some food scraps.¹⁰



DEC's guide for how to install an animal-resistant home composting bin with wire mesh hardware cloth.

⁹ Vermont Department of Environmental Conservation 2018 Waste Composition Study. Castleton Polling Institute home compost survey.

¹⁰ Household Food Waste Perceptions and Behaviors: a Vermont Case Study. 2018. Recycling Organics and Resources (ROAR) www.uvm-ROAR.com.

Organics Testimonials

Suzee Bushee, General Manager of Burger King in Bennington: “We have been composting our food scraps for over 5 years. It’s not hard. I think it’s wonderful. I’m a gardener. I compost at home, so I know it’s possible. It’s a mindset. With new staff, we train them right away. It’s just a matter of changing habits, that’s all. We’re keeping stuff out of the landfill. It’s good for the environment.”



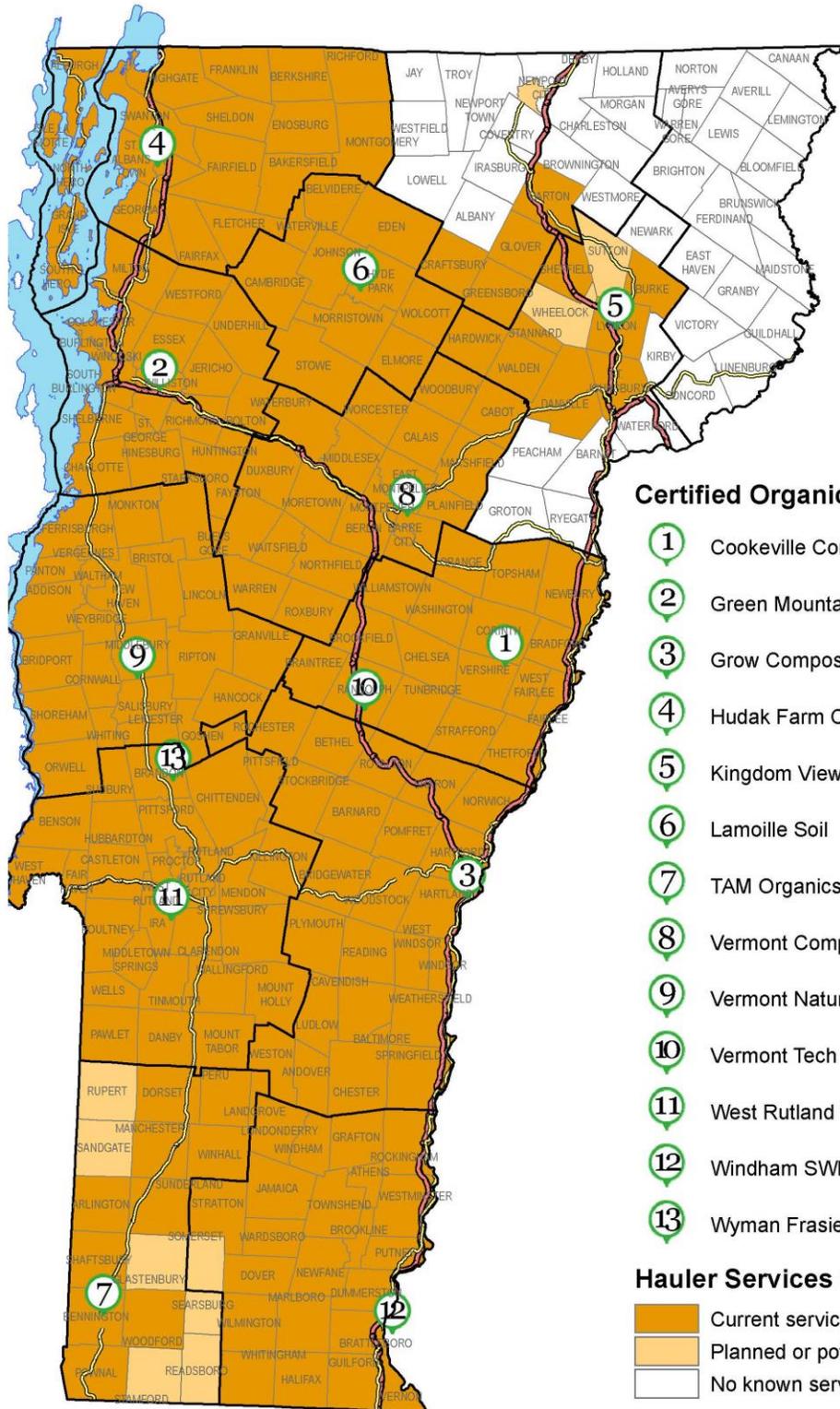
Gretchen Schimelpfenig, Master Composter: “Composting matters to me because the health of our soil is crucial to our planet's ecosystems and to our food supply. I wanted to become a Master Composter after moving to Vermont, learning about the upcoming composting law, and buying our house in Huntington. With seasonal lawn debris, our kitchen's food waste, and our new veggie garden's leftover plant material, we had so many streams of potential compost it was obvious that composting would benefit us directly and reduce our contribution to the landfill. I also get wonderfully rich soil for growing delicious produce!”



Cameron Scott, Co-owner, No Waste Compost: “No Waste Compost was formed to close the loop of food reuse in our local system. We knew Vermont residents needed an affordable food scrap pickup service and the ban [on food scraps] encourages residents and businesses alike to consider their impact on the local environment and how they can be a part of the solution.”



Commercial Food Scrap Collection Services



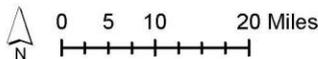
Certified Organics Facilities

- ① Cookeville Compost
- ② Green Mountain Compost
- ③ Grow Compost
- ④ Hudak Farm Composting Facility
- ⑤ Kingdom View Compost
- ⑥ Lamoille Soil
- ⑦ TAM Organics Compost Facility
- ⑧ Vermont Compost Company
- ⑨ Vermont Natural Ag. Products
- ⑩ Vermont Tech Community Anaerobic Digester
- ⑪ West Rutland Organics Facility (Not Operational)
- ⑫ Windham SWMD Compost Facility
- ⑬ Wyman Frasier Compost of Vermont

Hauler Services for Commercial Customers

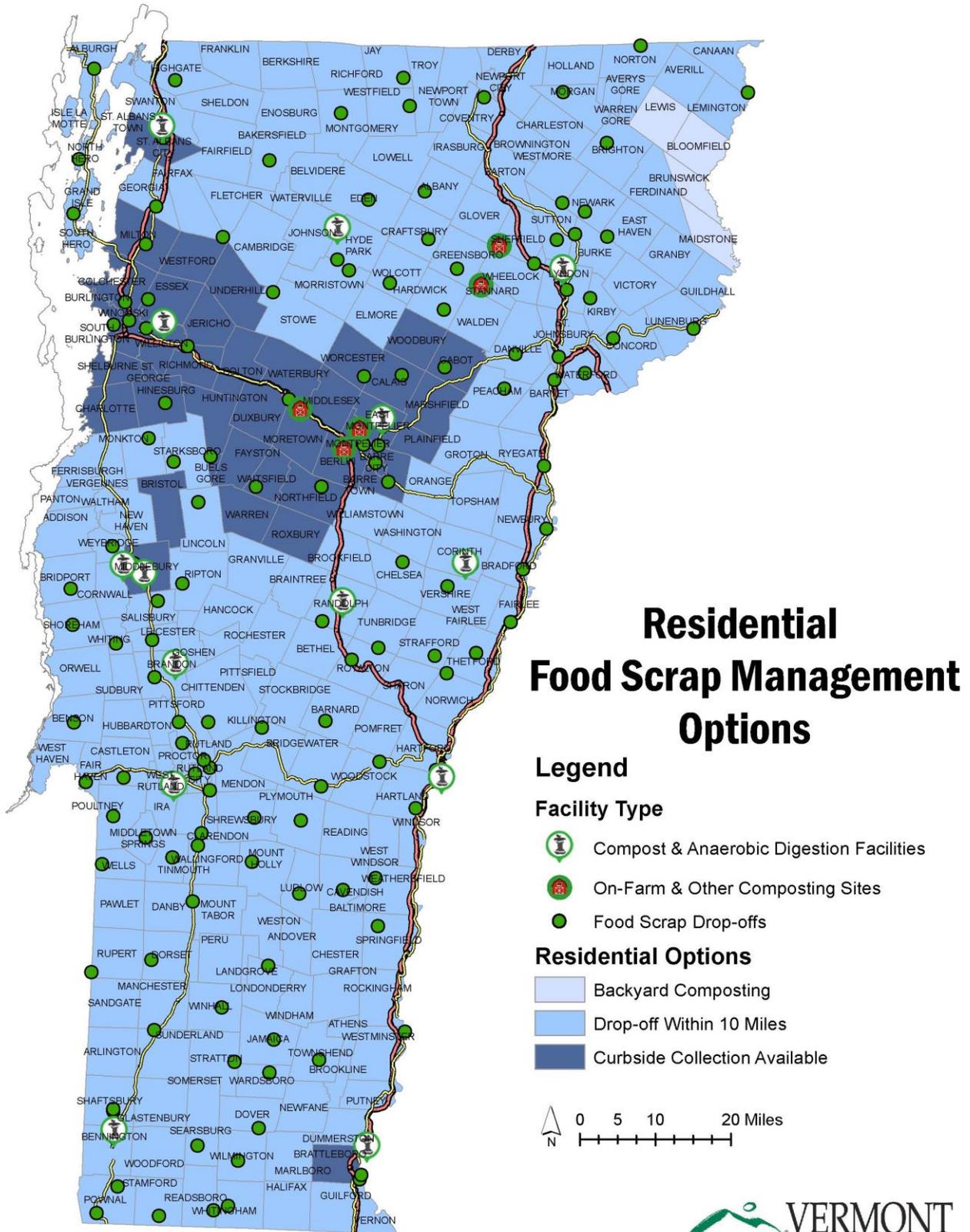
- Current service available
- Planned or potential service
- No known service

December 5, 2018



Vermont's Universal Recycling law

Status Report | January 2019



Residential Food Scrap Management Options

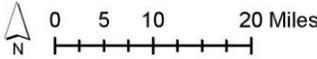
Legend

Facility Type

-  Compost & Anaerobic Digestion Facilities
-  On-Farm & Other Composting Sites
-  Food Scrap Drop-offs

Residential Options

-  Backyard Composting
-  Drop-off Within 10 Miles
-  Curbside Collection Available



January 9, 2019



Benefits of Keeping Food Waste out of the Landfill



1



Feeds People

Rescued food donations **almost tripled** from 2014 to 2017 at the Vermont Foodbank.

						
<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>			
Reduces Greenhouse Gas Emissions	Supports Green Jobs	Compost Restores Soil	Reduces need for Landfills			

VT landfills ~60,000 tons of food scraps each year.



Composting the scraps



instead of trashing them would...

reduce greenhouse gas emissions



as much as not driving ~84 million miles.

That's like driving around Earth 3,373 times!



November 2018



DEC HIGHLIGHTS

Listening and engaging stakeholders has been critical to the success of the Universal Recycling law.

Since its first milestones took effect in July 2014, the Department of Environmental Conservation (DEC) has been implementing the law in collaboration with stakeholders including solid waste districts, towns, solid waste haulers, nonprofits, facility operators, industry groups, and more. DEC staff have presented at hundreds of meetings and conferences locally and regionally and met multiple times with associations and industry groups such as:

Solid Waste Haulers	Assoc. of Hospitals and Health Systems
Solid Waste District Managers Association	League of Cities and Towns
Retail Grocers Association	Principals Association
Health Care Association	School Board Association
Campus Sustainability Network	Superintendents Association

Universal Recycling Stakeholders Group

- The Universal Recycling Stakeholders Group listserv currently includes over 97 stakeholders.
- DEC has hosted 22 public meetings with this group so far, usually quarterly (9 as the Solid Waste Infrastructure Advisory Committee, 13 as UR Stakeholders).

DEC Grants in Support of Recycling, Composting, and Waste Reduction

- School compost/recycling grants
- Home compost bin grants
- Solid Waste Management Entity outreach grants
- 13 years supporting the Vermont Organics Recycling Summit (VORS)
- 6 years supporting the Master Composter course
- 3 years of Technical Assistance for Composters & Compost Operator Training
- \$975,000 in municipal grants for Organics Infrastructure to process food scraps

Media

DEC advertised five Universal Recycling videos in 2017. In 2018, DEC continued to run two of these ads and partnered with Chittenden Solid Waste District (CSWD) to produce and broadcast “Recycling Right Vermont”. In 2018/2019, DEC partnered with CSWD and Casella to produce and broadcast “Recycle Like you Live Here.” All the videos can be viewed on ANR’s [YouTube channel](#).

Vermont's Universal Recycling law

Status Report | January 2019



Recycle Like You Live Here - Intro Sequence

Vermont Agency of Natural Resources • 1 view • 1 day ago

Learn what SHOULD and SHOULD NOT go in your recycling bin. Visit VTrecycles.com for more information.

New



Recycle Right Vermont

Vermont Agency of Natural Resources • 92 views • 8 months ago

Learn the DOs and DON'Ts of Recycling in Vermont.



Get a Handle on Trash

Vermont Agency of Natural Resources • 560 views • 1 year ago

You don't have to be perfect to recycle right. What's important is not wasting materials that can create new products and ...



VT ANR Compost 2020

HMC Advertising • 134K views • 1 year ago

Dept of Environmental Conservation Universal Recycling & Composting.

DEC Guidance & Fact Sheets (available at www.VTrecycles.com)

- Universal Recycling (UR) [Summary Sheet](#) & [Timeline](#)
- [Recycling Guidance for Residents](#); UR for [Businesses](#), UR [FAQ for Haulers](#), UR for [Municipalities](#)
- [Variable Rate Pricing \(Pay As You Throw\) Guide](#)
- [Parallel Collection Factsheet](#)
- Statewide List of [Food Scrap Haulers](#)
- [Managing Food Scraps at Businesses](#)
- [Food Donation](#) and [School Food Share Table](#) Guidance
- [Leaf, Yard, and Clean Wood Debris Guide](#)
- [Resident Home Compost Tips](#)