



UNIVERSAL RECYCLING FOR K-12 SCHOOLS

SEPTEMBER 10, 2014

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Vermont Agency of Natural Resources

Universal Recycling changes our view
from “waste” to...





Materials Management

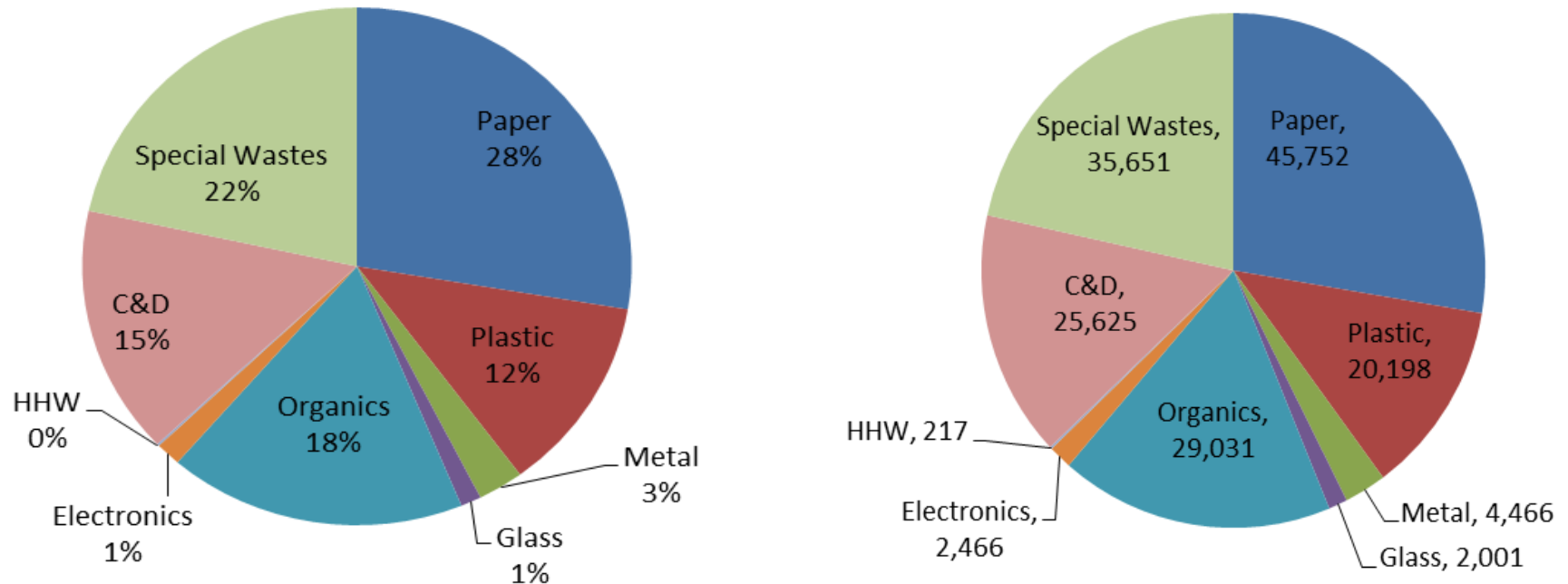


Universal Recycling Law (Act 148)

- Most significant change to VT solid waste law since 1988
- Approved unanimously by legislature
- Focuses on recyclables and organics
 - ▣ Mandated recyclables #1 & #2 plastics, glass, aluminum, paper
 - ▣ Leaf and yard debris and food scraps
- Intent is to provide more consistent services statewide, that offer choices and incentives
- Phased approach to allow development of infrastructure

ICI MSW

by percent and weight



Highest amount of materials sent to the landfill are:

- Paper – 28% or ~45,750 tons
- Organics – 18% or ~29,000 tons
 - Food scraps were 11.2% or ~18,600 tons

Universal Recycling law summary:

□ Bans disposal of:

- listed recyclables by 2015,
- leaf & yard debris and clean wood by 2016,
- food scraps beginning with largest generators in 2014 and phased in to a full ban by 2020

□ Mandates parallel collection by facilities/**haulers** that collect trash:

- listed recyclables by 2014/**2015**
(at no additional charge for residential recyclables),
- leaf & yard debris by 2015/**2016**, and
- food scraps by **2017**



“Listed Recyclables” – Includes most commonly recycled materials

Metal: aluminum and steel cans, aluminum foil, aluminum pie plates,

Glass: bottles and jars from foods and beverages,

Plastic: #1 and #2 (PET and HDPE) plastic bottles, containers and jugs,

Paper: corrugated cardboard, white and colored paper, newspaper, magazines, catalogues, paper mail and envelopes, boxboard, and paper bags.



Recycling in Public Spaces

- Recycling collection containers must be available in publically owned places by 2015



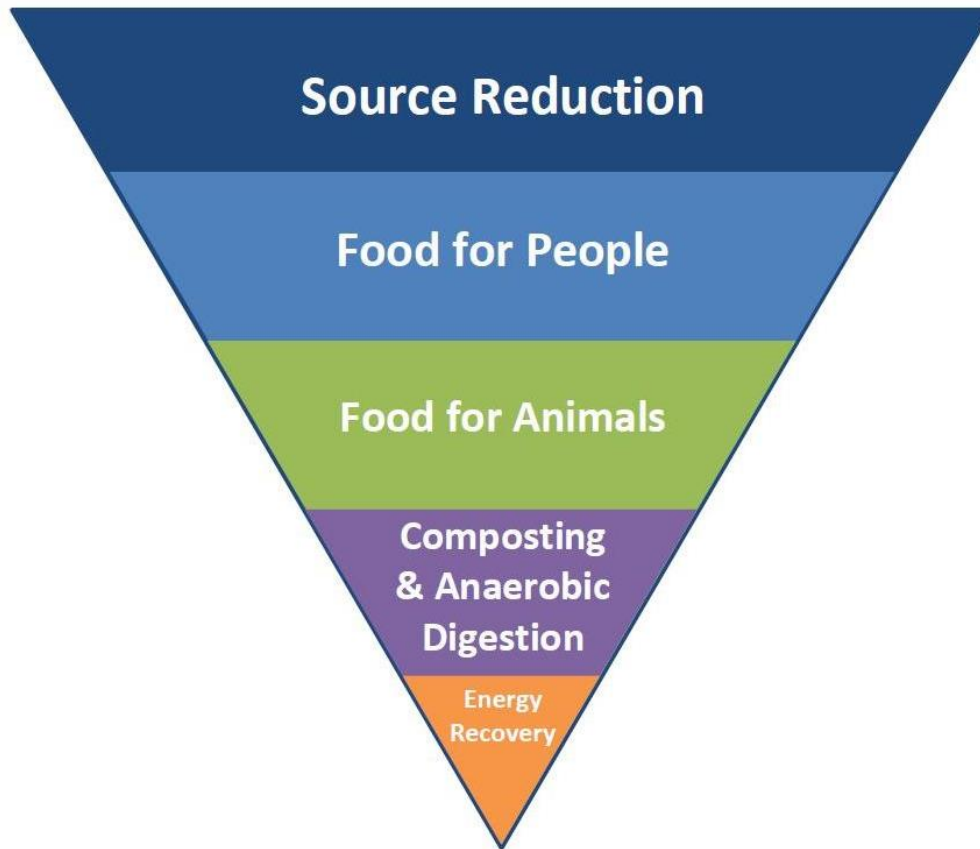
*Except in restrooms

Universal Recycling law summary:

- Phased in mandates for larger generators to divert food residuals, if there is a facility within 20 miles
 - ▣ 2014 for generators > 104 tons/year 2 tons/wk
 - ▣ 2015 for generators > 52 tons/year 1 ton/wk
 - ▣ 2016 for generators > 26 tons/year 0.5 ton/wk
 - ▣ 2017 for generators > 18 tons/year 0.34 ton/wk
 - ▣ **2020 all food scraps banned regardless of distance**



Food Recovery Hierarchy



Bill Emerson Good Samaritan Food Donation Act (1996) – helps protect food donors from liability associated with donated food.

So where are these facilities?*

- ❑ **Cookeville Compost - Corinth**
- ❑ **Green Mountain Compost - Williston**
- ❑ **Grow Compost - Moretown**
- ❑ **Hudak Farm - Swanton**
- ❑ **Kingdom View Compost - Lyndon**
- ❑ **TAM Organics - Bennington**
- ❑ **Vermont Compost Co. - Montpelier**
- ❑ **Vermont Natural Ag. - Middlebury**
- ❑ **Windham SW District - Brattleboro**
- ❑ **Wise Worm Compost – Burke**

*Be sure to check with your composter before sending materials to them

See also **Find-A-Composter.com**.



Photo courtesy of CVSWMD

What can be composted?



All Food Scraps including spoiled, rotten, stale:

- Meat, fish, & bones/shells
- Milk, cheese, & other dairy
- Veggies & fruits
- Bread, pastas, grains, beans, nuts
- Soups & sauces
- Eggs & eggshells
- Oils & fats
- Coffee grounds & filters

Wood chips, waste hay and grain

Manures

Landscape debris (leaves, brush)

Paper, cardboard* (*contact composter)

Who's hauling food scraps?



Tote washing. Photo courtesy of CVSWMD

White River Junction Region

- Cookville Compost, Bob Sandberg

Windsor County

- Casella Resource Solutions

Addison County - Casella Resources Solutions

Brattleboro Region

- Triple T Trucking
- Goodenough Rubbish

Bennington Region

- TAM Waste Management
- Casella Resource Solutions

Central Vermont - CVSWMD

Chittenden County Region

- Casella Resource Solutions
- Gauthier Trucking Co.
- Myers Container Service

Mad River/Randolph - Grow Compost

Morrisville Region - Highfields Composting

Rutland Region - Casella Resource Solutions

St. Albans Region - Northwest Solid Waste Mgmt District

St. Johnsbury Region - Highfields Composting

How much food waste do you produce?



Sample Estimate:

	Students	X	Lbs./student/wk	=	Lbs./wk
Thatcher Brook Primary	442	X	1.13	=	500

0.25 tons/week = 13 tons/year

Below the 2017 **18 tons/year** threshold.

Compliance required by **July 2020**.

Calculating Food Waste at Your School

Elementary	1.13	pounds/student/week
Middle	0.73	
Elementary/Middle	0.93	
High School	0.35	
K-12	0.72	
Pre-school	1.13	
College/University	1.13	



“Waste” Goes to School...

1. Gather ALL Stakeholders & Champions

- ✓ Assess Gaps and Current/Future Costs

2. Create Action Plan & Assign Roles

3. Deploy Infrastructure

- ✓ Recycling beside every trash receptacle (except restrooms)
- ✓ Height appropriate containers in cafeteria sorting area

4. Educate and Train Students, Staff, and Faculty

- ✓ Seek help from solid waste entity

5. Launch, Measure Progress, Meld with Curriculum, and Retrain



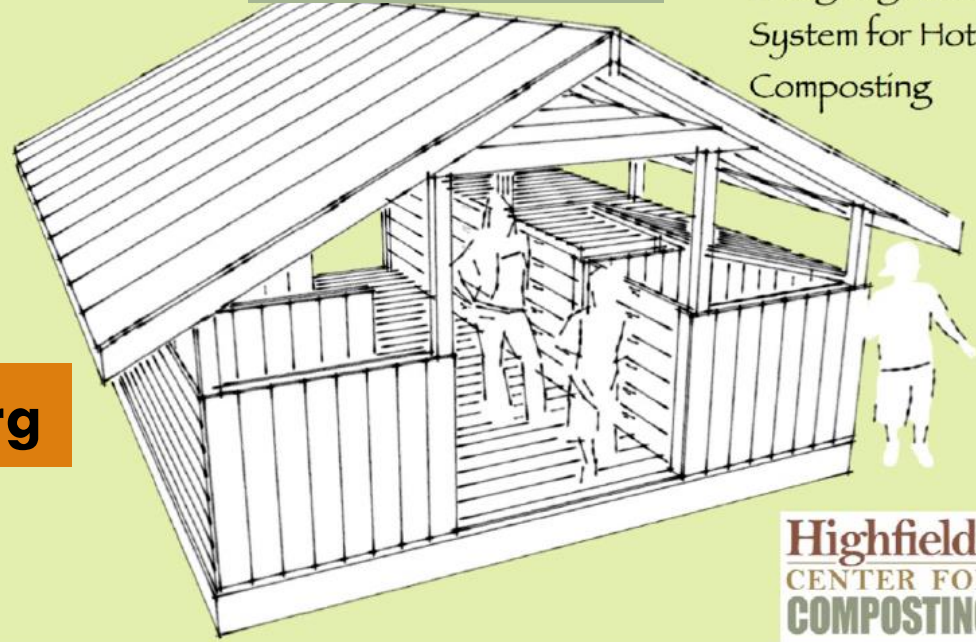
Resources

- Northeast Resource Recovery Association
www.schoolrecycling.net
 - ▣ Recycling/Composting Lesson Plans
 - ▣ School Composting Guide and much more...
- Northeast Recycling Council www.nerc.org
 - ▣ Case Studies, Recycling Guides, and much more...
- Cornell Waste Management Institute
<http://compost.css.cornell.edu/schools.html>
 - ▣ Teacher Page, Trash Goes to School Guide
 - ▣ Compost Troubleshooting Guide and much more...

Resources

Design ideas

Designing a Bin System for Hot Composting



Highfields
CENTER FOR
COMPOSTING

HighfieldsComposting.org



Composting for Kids

Videos

Material	Recipe 1	Recipe 2
Food Scraps		
Horse Manure		
Leaves		
Chips/Sawdust		

Tech. info.

Curriculum



Benefits of Universal Recycling

- Saves resources.
- Reduces GHG emissions.
- Sustainable Practice – Going Green.
- Supports new jobs, businesses and farming.
- Value of materials, now considered commodities.
- Reduces landfill space needs.
- No more smelly trash.



Waste Prevention & Sustainability

- Tweak.
- Don't give up.
- Celebrate **SUCCESS!**

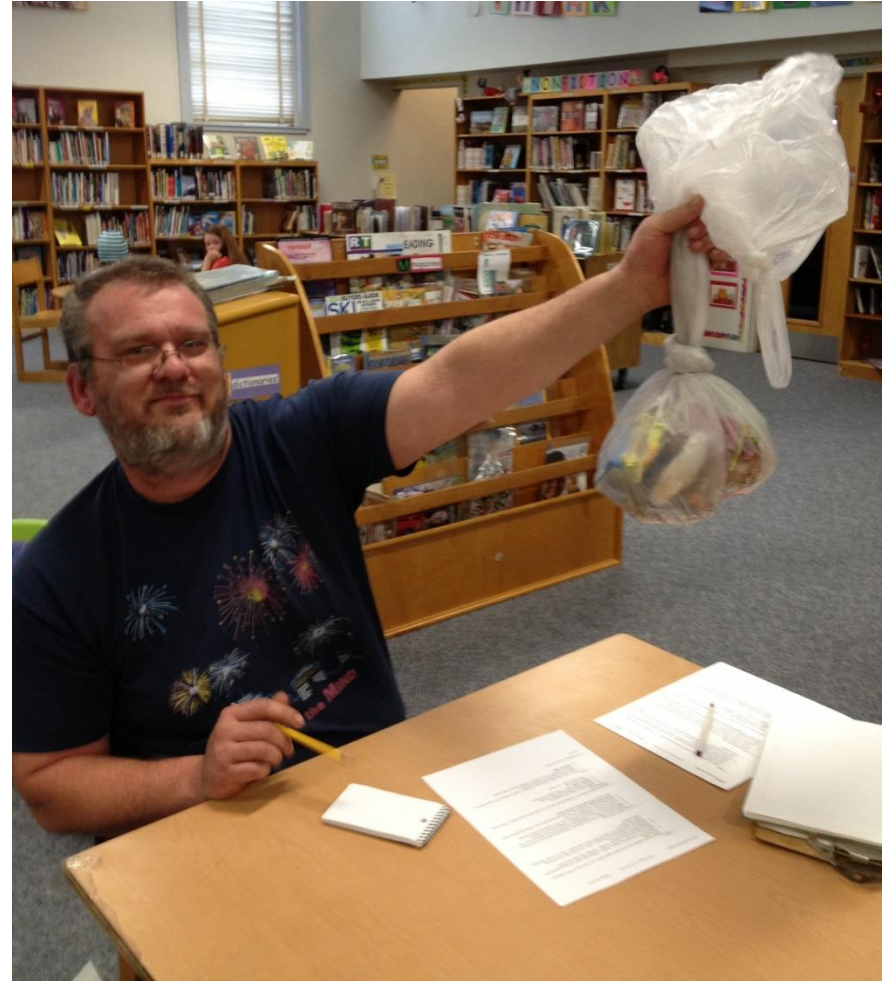


Photo of Dale Durant at Charlotte Central School

Contact Details & Website

For assistance contact:

josh.kelly@state.vt.us

802.522.5897

bryn.oakleaf@state.vt.us

802.522.5783

Website: www.recycle.vermont.gov

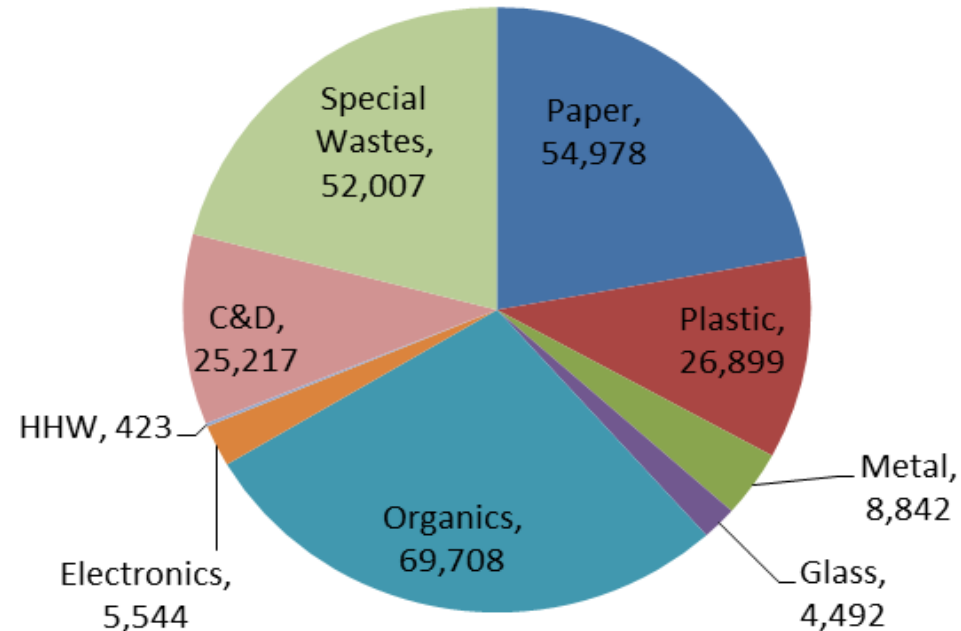
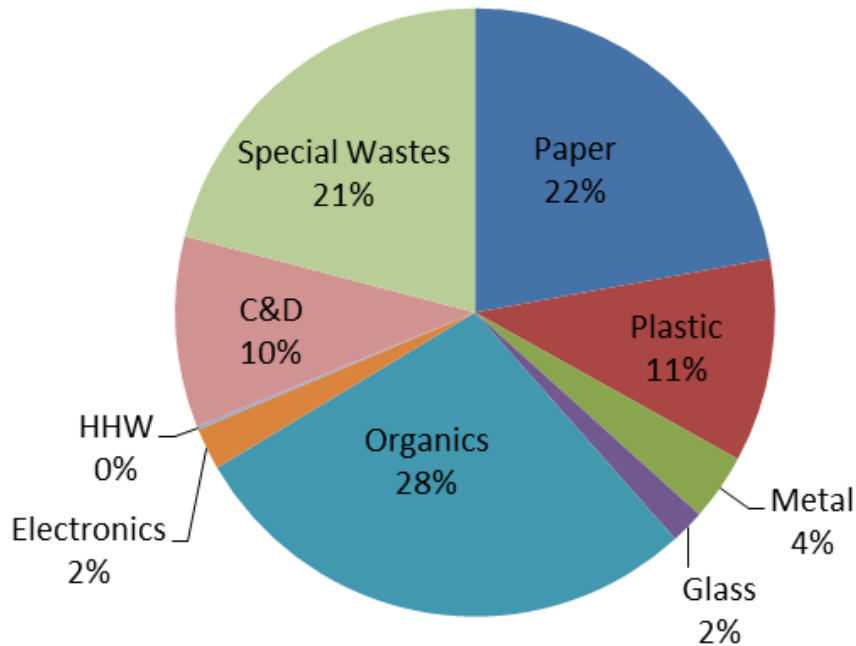
or search for: “Universal Recycling VT”

and follow us on Twitter: [@VTrecycles](https://twitter.com/VTrecycles)

Questions?



Residential MSW by percent & weight



Highest amount of materials sent to the landfill are:

- Organics – 28% or ~70,000 tons
 - Food scraps were 16.7% or ~41,500 tons
- Paper – 22% or ~55,000 tons

What is a “facility”?

**Vermont Technical College's
Anaerobic Digester**



**Green Mountain
Compost Facility**