

# **VT UNIVERSAL RECYCLING LAW: STATE OF THE STATE FOOD RESIDUAL MANAGEMENT**

**NNE SWANA  
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VT ANR Waste Management & Prevention Division**

Moving from “waste”

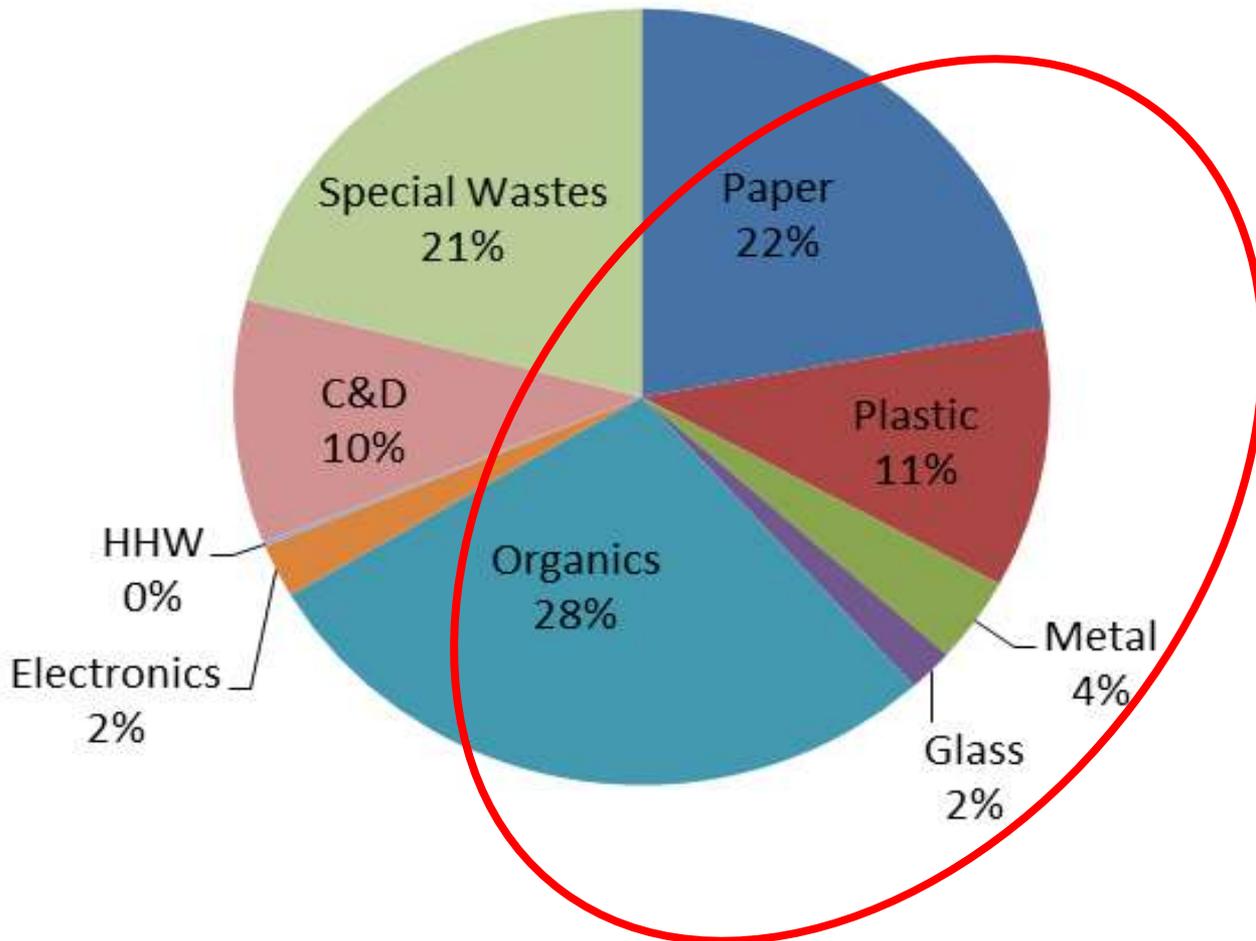




# Materials Management

# THE PROBLEM

VT Residential MSW 2012



**~50% of MSW  
could be  
recycled/  
composted**

**~60,000 tons/yr  
food disposed**

# Universal Recycling Law (Act 148)

- **GOAL:** To decrease the amount of waste disposed
- **STRATEGY:** To provide more consistent services statewide by increasing convenience, choices, and incentives for alternative disposal options

- **Highlights:**

- ✓ Focuses on recyclables and organics
- ✓ Phased-in approach to allow development of infrastructure
- ✓ Organics Hierarchy



# VT Universal Recycling Law Passed 2012

- **Required Diversion (bans) = Motivation**
  - Recyclables 2015
  - leaf, yard, and clean wood 2016
  - food scraps, phased in, 2020
- **Parallel Collection = Convenience**
- **Pay As You Throw = Incentive**
- **Recycling in Public Spaces = Lead by Example**
- **New State Plan = Consistency**

# Food Scraps: Phased Approach

- Phases for larger food scrap generators, if there is a facility within 20 miles
  - 2014 > 104 tons/year **2 tons/wk**
  - 2015 > 52 tons/year **1 ton/wk**
  - 2016 > 26 tons/year **1/2 ton/wk**
  - 2017 > 18 tons/year **1/3 ton/wk**
  - **2020 all food scraps banned regardless of distance**



# How Does UR and Food Waste Fit In?

## □ Nationally

- EPA/USDA Goal: reduce food waste by 50% by 2030
- EPA Sustainable Materials Management Strategic Plan:
  - Increase number of composting and AD facilities that accept food waste by 2020
- ReFED Report: Analyzed 27 options
- Food Rescue Initiatives

## □ Regionally

- Other State Programs: CT, MA, RI, CA
- Other City Programs: Brattleboro, San Francisco, Seattle, NYC

# ReFED Report: financial benefits

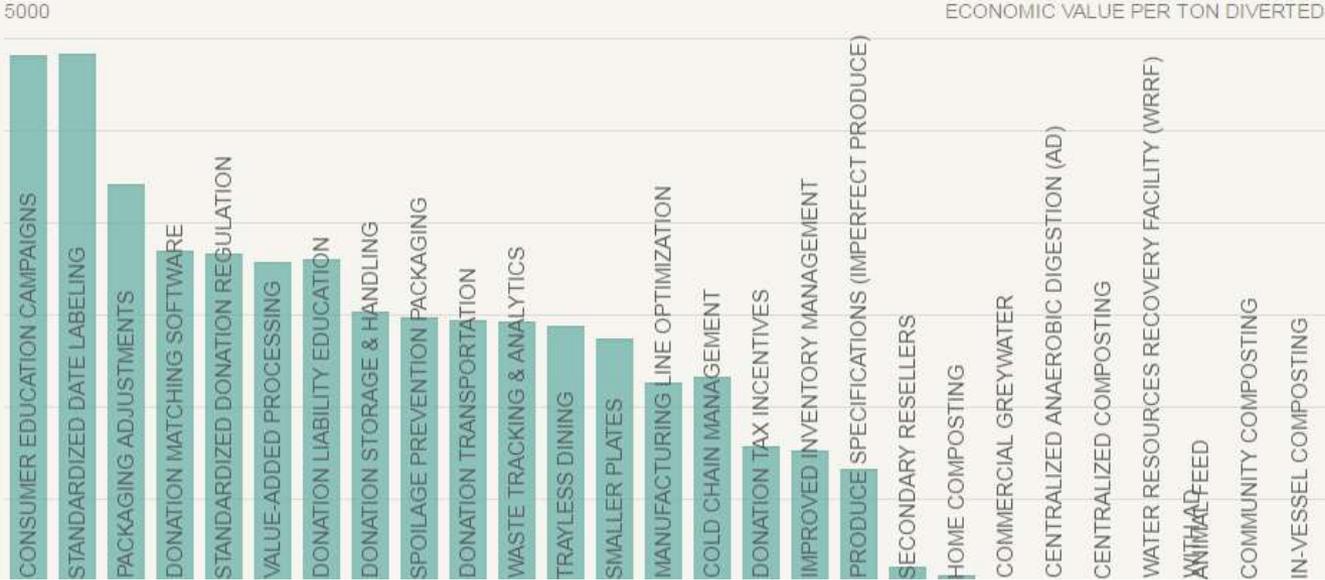
## 27 SOLUTIONS TO FOOD WASTE

The benefits of each of these solutions outweigh the costs.

Choose a filter button or bar to see the impacts of each solution.

FINANCIAL BENEFIT	WASTE DIVERTED	EMISSIONS REDUCED	WATER SAVED	JOBS CREATED	MEALS RECOVERED
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The aggregate financial benefit to society (consumers, businesses, governments, and other stakeholders) minus all investment and costs per ton of food waste diverted. It shows the amount of benefit received per ton of reduction and is calculated as the Economic Value per Ton.



# ReFED Report: Waste diverted

## 27 SOLUTIONS TO FOOD WASTE

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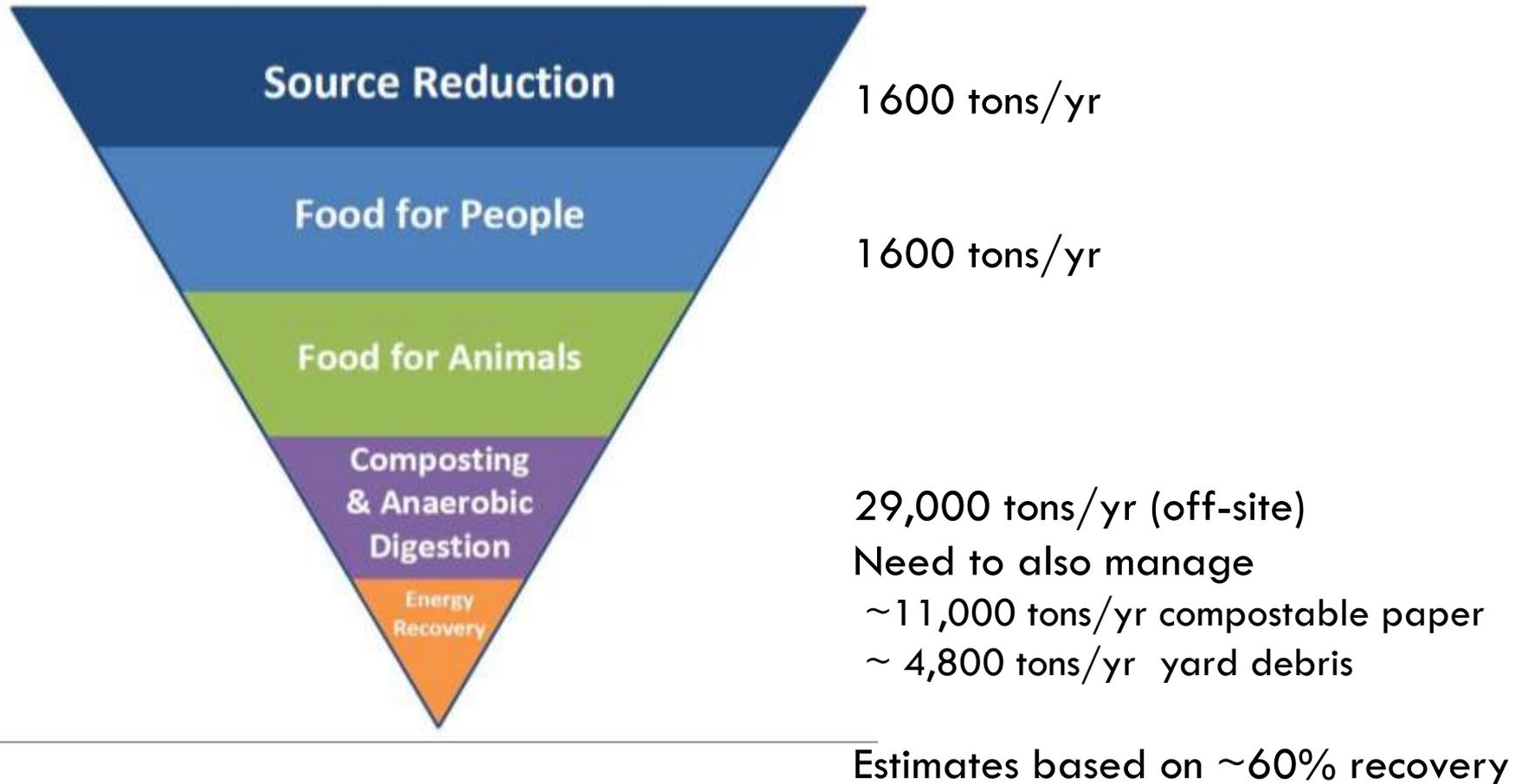
Choose a filter button or bar to see the impacts of each solution.



The tons of annual waste that can feasibly be diverted from landfills and on-farm losses per solution.



# DSM Systems Analysis: Estimated amount of food waste to be managed off site by 2022



# Universal Recycling Food Hierarchy

Source Reduction

Food for People

Food for Animals

Composting  
& Anaerobic  
Digestion

Energy  
Recovery

Reduction is challenging to quantify/track statewide

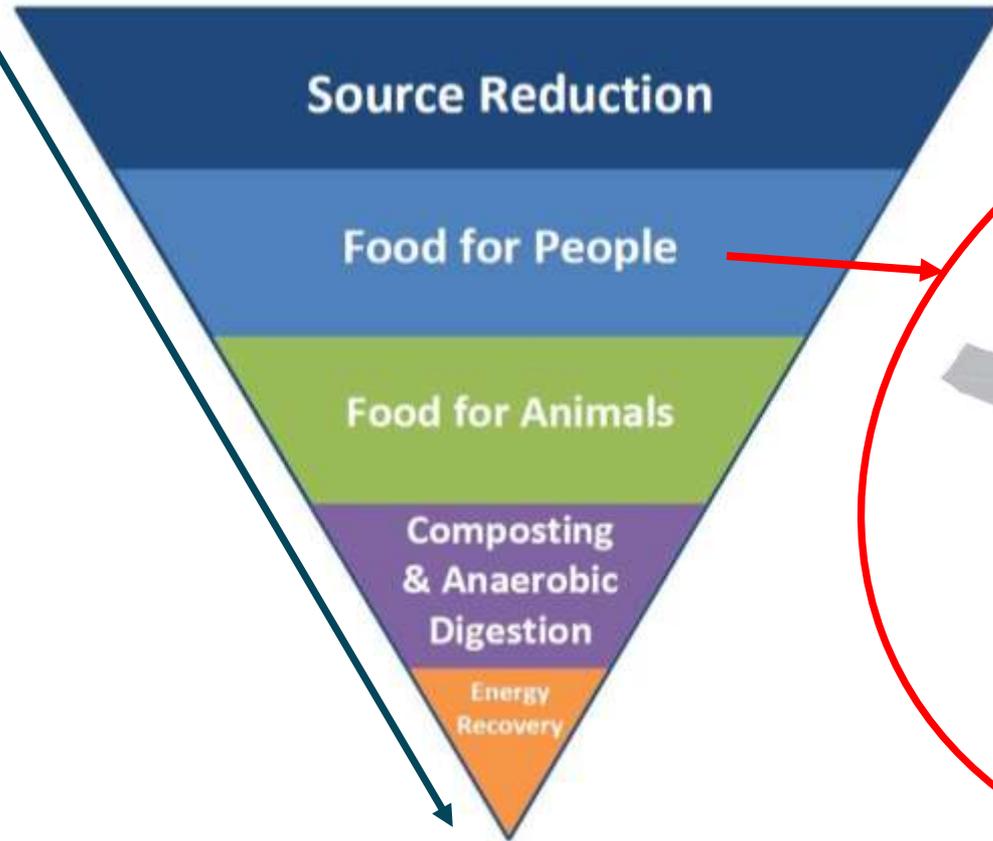
Example Programs:

**LeanPath**   
FOOD WASTE PREVENTION

  
**TOO GOOD  
TO WASTE**

ReFED recommendations: Standardize date labeling,  
consumer education,  
packaging adjustments

# Universal Recycling Food Hierarchy



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

# Food Rescue in Vermont



- Policy / Law
  - driver of change
  - incentives
  
- Partnerships / Synergy
  - ▣ VT FoodBank
  - ▣ Farm to Plate
  - ▣ Gleaning



Photo by Bryn Oakleaf

# Food Bank & Food Rescue & UR

- CHANGE in 2014 with Large Grocery Stores
  - **Fresh Produce and other foods** not sold, delivered directly to RPAs (food shelves)
  - Used UR law as an incentive to do it
- Diverted 3,320 tons (6.64 Million pounds) In 2015 (food rescue & donations)





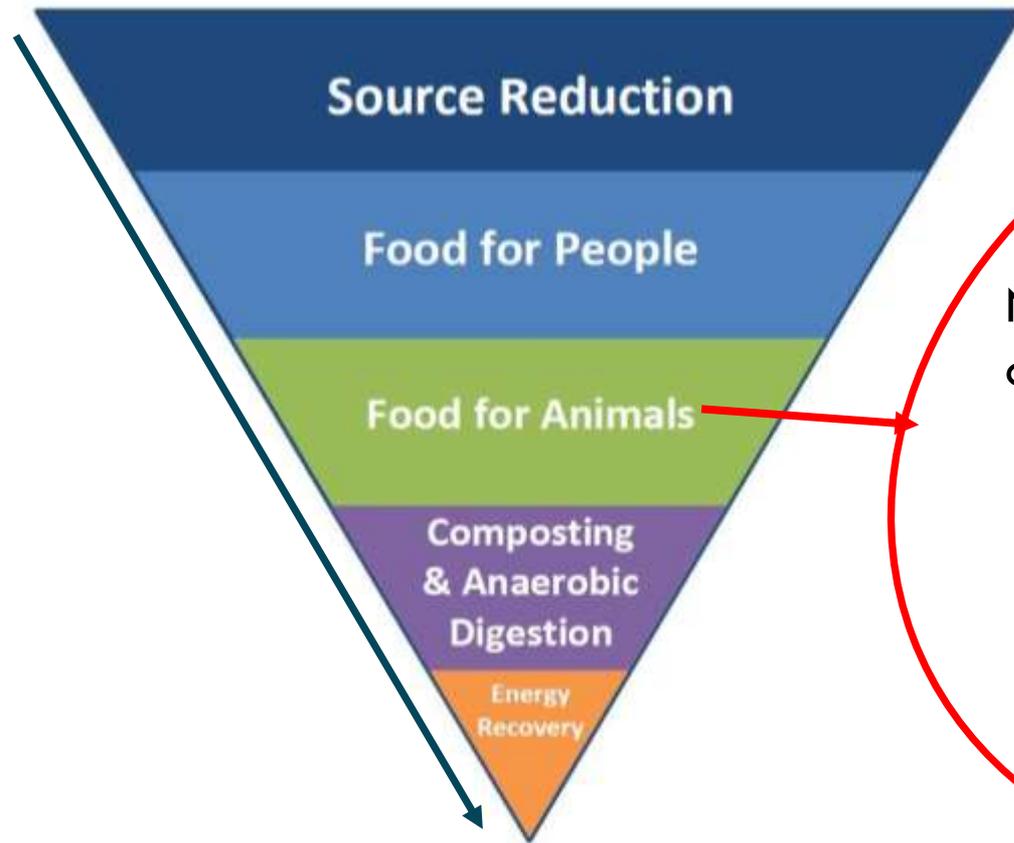
**Vermont Foodbank**

FEEDING AMERICA

CHITTENDEN EMERGENCY  
**FOOD SHELF**  
*feeding people, cultivating opportunities*

Photo by Bryn Oakleaf

# Universal Recycling Food Hierarchy



Chickens  
Swine (NO meat)

No reporting required,  
challenging to quantify.

At least 4 farms with  
significant number of  
chickens feeding on  
food scraps.

Issues with some chicken  
feeding operations.



# Universal Recycling Food Hierarchy

Source Reduction

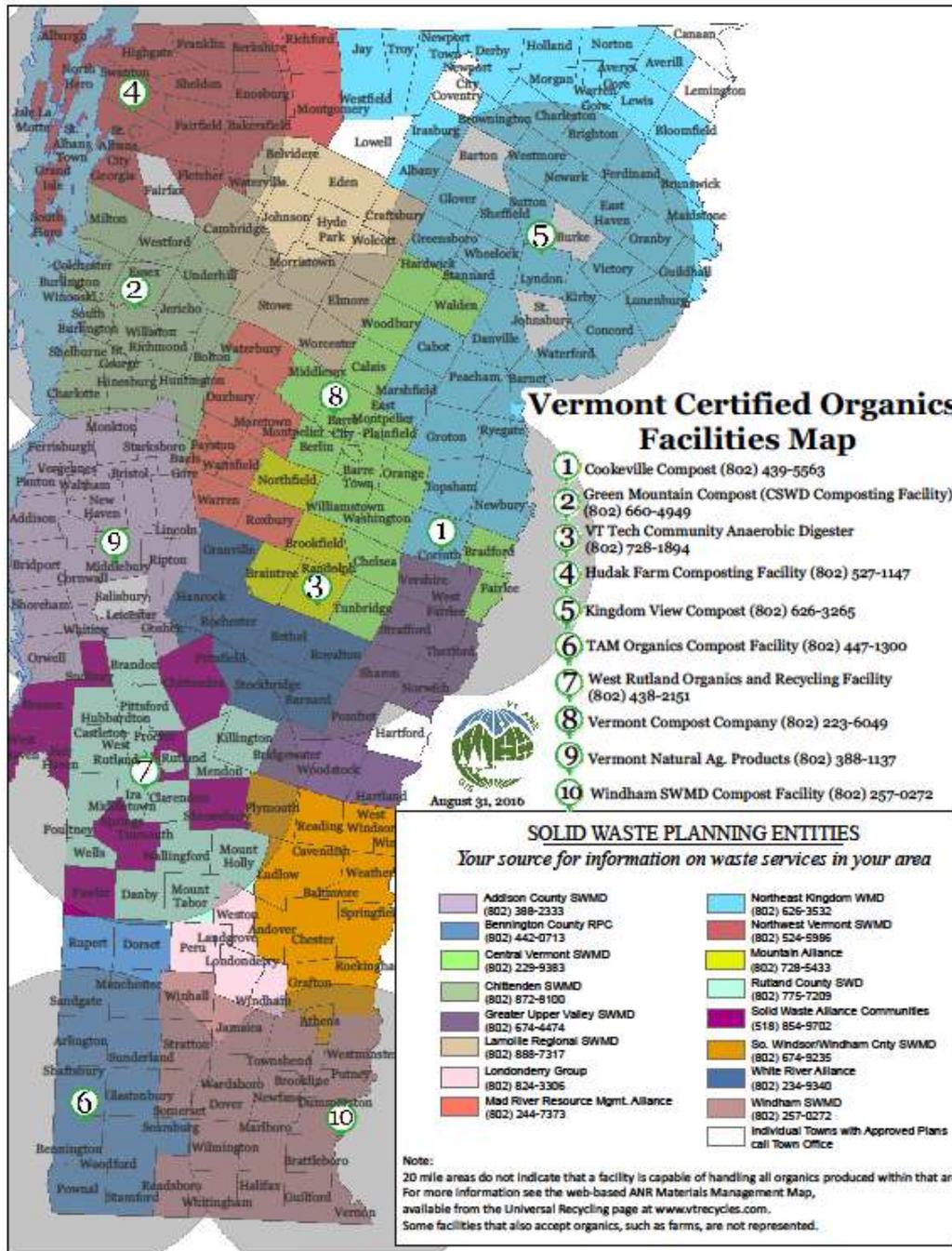
Food for People

Food for Animals

Composting  
& Anaerobic  
Digestion

Energy  
Recovery

10 Certified Organics Facilities:  
8 compost facilities  
1 anaerobic digester  
1 organics treatment facility



# Food Waste Treatment Capacity

## □ Composting Facilities

- Total Certified Composting Capacity = 16,672 tons/yr

- Uncommitted Capacity to take

~10,000 tons/yr *on paper*, reality is likely less

## □ Anaerobic Digesters

- VTC

- Pilot Projects

- Green Mtn Power – proposed project

- Potential capacity



# LESSONS

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## **CHALLENGES**

- Lack of Funding from Legislature
- Rural State / Economies of Scale

## **OPPORTUNITIES**

- Management of Food, More Attention Than Ever
- Partnerships, Connections, Leverage

# Universal Recycling is Working!

- All VT municipalities adopted Pay-as-You-Throw
- 5% decrease in MSW disposal (2014 vs. 2015)
- Diversion up 2%, from 33% to 35%
- Businesses and consumers pay attention to wasted food
  - VT Food Bank: **increase in food rescue >40%**
    - **BIG** increase from supermarkets, food retailers
  - Collection of food scraps going to composting is also up

# Next Steps

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- Develop map indicating facilities and service areas
- Follow AD Pilot Projects, other potential projects
- Continue to evaluate funding options
- Continue to do outreach to haulers and generators

# Stay Tuned!

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