

ACT 148

VERMONT HOUSE NATURAL RESOURCES AND ENERGY COMMITTEE

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Chittenden Solid Waste District
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CSWD MISSION and VISION

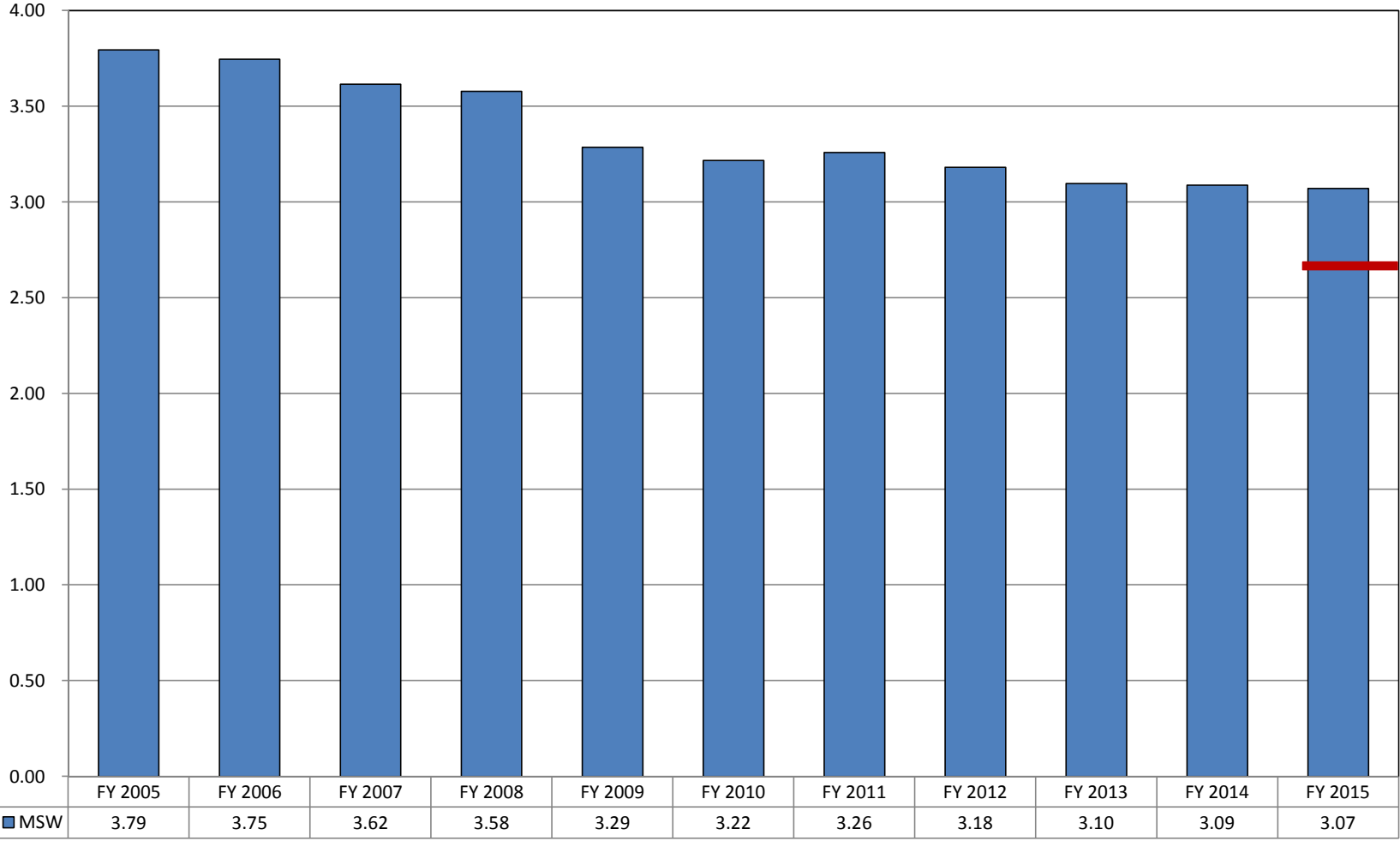
The Chittenden Solid Waste District is a municipality created by the State of Vermont ...

Mission...to reduce and manage the solid waste generated within Chittenden County ...

...in an environmentally sound, efficient, effective and economical manner.

Vision Products are designed to be reused or recycled and our community fully participates in minimizing disposal and maximizing reuse and recycling.

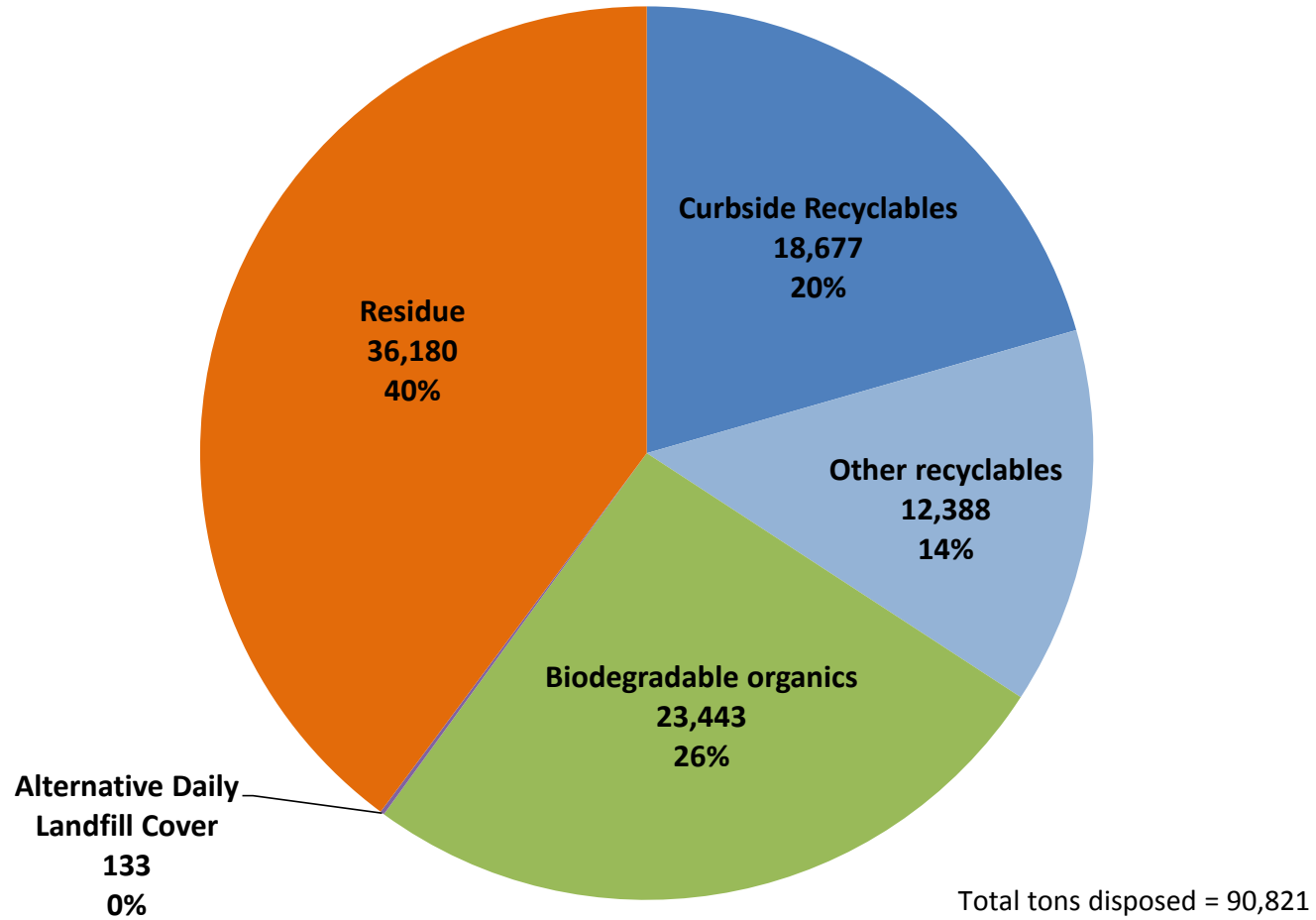
CHITTENDEN SOLID WASTE DISTRICT
Pounds per Capita per Day Landfilled - Fiscal Years 2005-2015



CSWD COMPONENTS OF MSW DISPOSED

Estimated Percents and Tons per Year

Based on 2012 Vermont & 2010 CSWD Waste Composition Studies & CY 2014 CSWD Disposal Data



CSWD Waste Reduction Efforts

- 4.8 FTE waste reduction staff provide assistance to residents, schools, businesses, municipalities, institutions and events
- 2 FTE marketing and communications staff that provide education through a hotline, displays, newspaper ads, website, Facebook, Twitter, Front Porch Forum, Pinterest, YouTube, e-newsletters, radio, T.V., handouts, posters, signage and mailers
- 0.7 FTE enforcement staff responsible for licensing of haulers and facilities and ordinance compliance.

- \$875,000 Waste Reduction and Marketing
- \$82,000 Enforcement
- Funded by solid waste management fee (\$27/ton)

Act 148 Requirement: Unit-Based Pricing/Pay as You Throw



- CSWD worked with the haulers to come up with unit-based pricing. Many haulers already using PAYT pricing.
- CSWD facilities charge per bag or by weight and meet the requirements

Act 148 Requirement: Away From Home Recycling

- CSWD worked with municipalities providing technical and financial assistance to provide recycling containers in public spaces where trash containers are available.
- CSWD added requirement for privately owned properties that are open to the general public (not just public spaces) to CSWD ordinance effective 2016.



Act 148 Requirement: Mandatory Recycling

1993: CSWD Ordinance banned recyclables from landfill disposal and required haulers and drop-off facilities to collect them

2015: Act 148 bans recyclables from landfill disposal

Mandatory Recyclables • Banned from landfill disposal. No food residue. Items must be clean, empty & dry.

PAPER	PLASTIC	METAL	GLASS
<p>* MUST BE EMPTY, CLEAN & DRY. *</p> <p>NEWSPAPERS, MAIL, OFFICE PAPER, ETC.</p>  <p>CARDBOARD & BOXBOARD</p>  <p>NO: Paper cups - "paper" made from Tyvek, plastic, or foil - padded mailers - spiral or 3-ring bindings - plastic bags - waxed paper - animal food or litter bags - paper towels & plates - stickers or sticker backing.</p>	<p>* MUST BE EMPTY & RINSED CLEAN. *</p> <p>BOTTLES, TUBS & JUGS</p>  <p>SINGLE-USE FOODWARE</p>  <p>NO: Food residue, filmy plastic (bags, wraps, bubble wrap) - durable items (toys, laundry baskets, housewares) - hazardous product containers - Styrofoam - utensils - compostable or biodegradable "plastic" items - caps or lids smaller than 2" across</p>	<p>* MUST BE EMPTY & RINSED CLEAN. *</p> <p>CANS</p>  <p>ALUMINUM FOIL & PANS</p>  <p>NO: Food or beverage residue - propane tanks - batteries - scrap metal - jar lids - bottle caps - containers that once held hazardous materials - caps or lids smaller than 2" across</p>	<p>* MUST BE EMPTY & RINSED CLEAN. *</p> <p>BOTTLES</p>  <p>JARS</p>  <p>NO: Light bulbs - dishes - Pyrex - ceramics - drinking glasses - vases - window panes - mirrors - candle jars - plastic caps or lids smaller than 2" across - metal lids</p>

Q: Why aren't plastic bags recyclable in my blue bin? **A:** They get tangled up in the recycling equipment, causing facility shutdowns. Many grocery stores accept them for recycling.

Q: Why aren't paper cups recyclable? **A:** They have an unrecyclable plastic or wax coating.

Q: Do I really have to rinse my plastic & glass recyclables? **A:** Yep. Recycling works because companies that buy recyclables to make into new products need those recyclables to be uncontaminated. Food & beverages are contaminants. **Hint:** Soak that peanut butter jar with rinse water from your dishes — It'll be easier to clean.

Q: Why isn't Styrofoam recyclable? After all, there's a number on the bottom, right? **A:** Pay no attention to the numbers! Not everything with a number is recyclable—and not everything *without* a number *isn't* recyclable. As for recycling Styrofoam, we don't produce enough in Chittenden County to make it economically or environmentally feasible to collect it and ship it to market. We recommend giving Styrofoam peanuts to local shipping companies or to those who regularly ship delicate items. For a list, visit cswd.net and search for "peanuts"

NOTE: All items should be at least 2" on any 2 dimensions.



Recycling works!
Last year **you** helped keep **80 million** pounds of resources out of the landfill.

Materials Recovery Facility (MRF) Operation

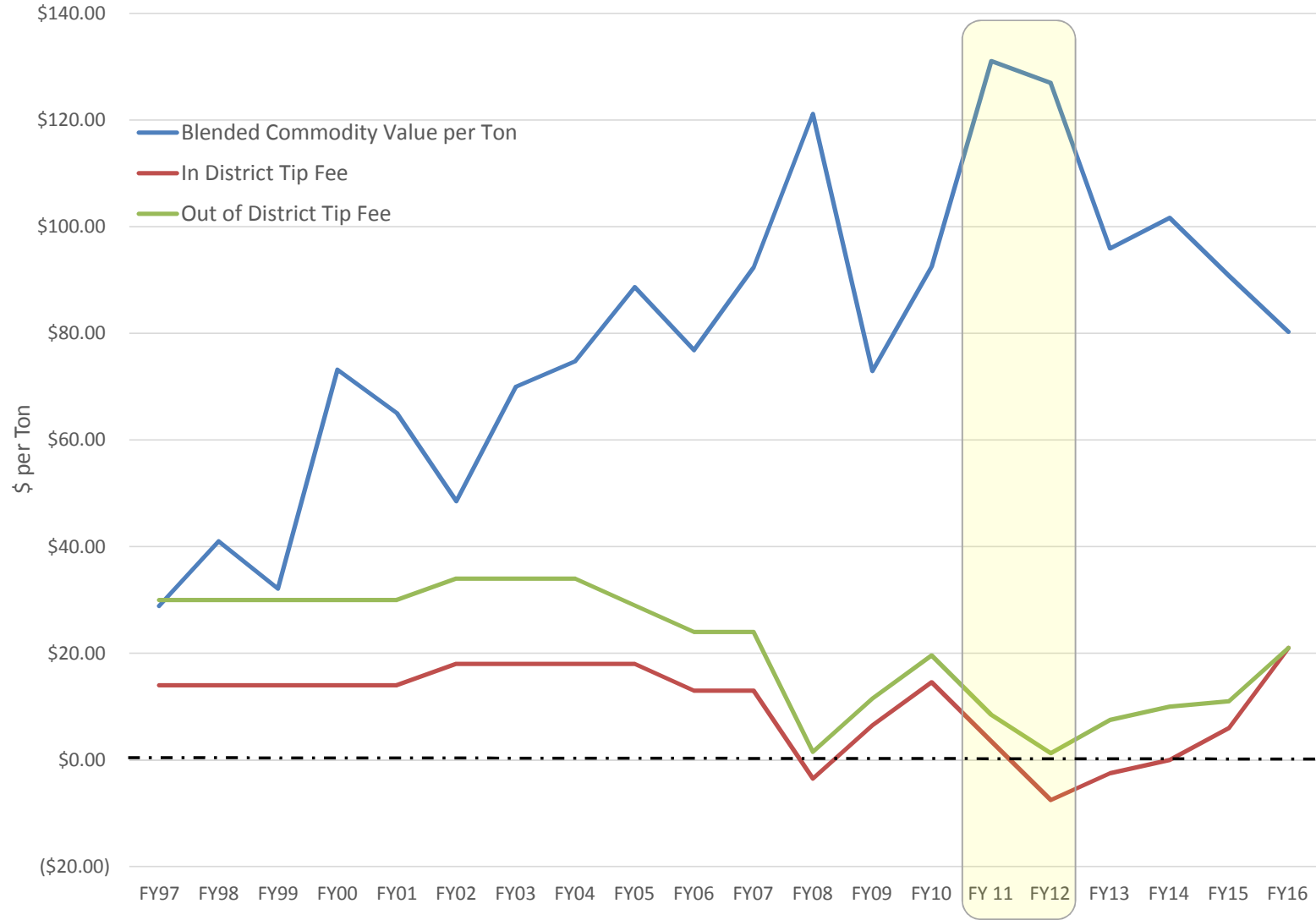
- CSWD Owns – Casella operates
- ~44,000 tons per year
- ~23 tons per hour
- Incoming material – 60% in-County, 40% out-of-County

CSWD MRF Revenue: Commodity Sales and Tip Fee

Product Sales Avg \$/ton	CSWD \$/Ton	Tip Fee \$/Ton
\$70.00	\$35.00	\$ 21.92
\$75.00	\$37.50	\$ 19.58
\$80.00	\$40.00	\$ 17.25
\$85.00	\$42.50	\$ 14.91
\$90.00	\$45.00	\$ 12.57
\$95.00	\$47.50	\$ 10.23
\$100.00	\$50.00	\$ 7.90
\$105.00	\$52.50	\$ 5.56
\$110.00	\$55.00	\$ 3.22
\$115.00	\$57.50	\$ 0.88
\$116.89	\$58.45	\$ (0.00)
\$120.00	\$60.00	\$ (1.45)
\$125.00	\$62.50	\$ (3.79)
\$130.00	\$65.00	\$ (6.13)
\$135.00	\$67.50	\$ (8.47)
\$140.00	\$70.00	\$ (10.80)



CSWD MRF - Blended Commodity Value vs Tip Fee by Fiscal Year



Act 148 Requirement: Leaf, Yard Debris and Clean Wood Ban

CSWD banned leaf and yard waste in 1993 and clean wood in 2015.

Act 148

- ☑ **2015:** Transfer stations must collect leaf and yard debris
- ☑ **2016:** bans leaf, yard debris and clean wood from landfill disposal

2016: Haulers must offer leaf and yard debris collection **New!**



Act 148 Requirement: Commercial and Residential Food Scrap Landfill Ban



Estimated quantity of food scraps and non-recyclable paper sent to landfill from CSWD generators in 2014

	2014 Tons/Year
Commercial Organics Disposed	9,000
Residential Organics Disposed	14,500
Estimated Total Organics Disposed	23,500

Commercial Organics Diversion & Collection

Options for Businesses and Institutions

- 1) Manage onsite
 - a) Onsite outdoor or in-vessel composting
 - b) Worm composting
 - c) Garbage disposal/grinder
- 2) Donate to food shelves
- 3) Donate or sell to farms to feed livestock
- 4) Self-haul to Drop-Off Center (4-cy limit/week) or to GMC
- 5) Contract with hauler for collection (3 available)

Commercial Food Scrap Generators

- 1,200 commercial food-scrap generators in CSWD
- 107 businesses/institutions meet Act 148 threshold (>52 tpy)
- 92 have been contacted/visited by CSWD staff
- 91% of the 2014 threshold are now in compliance and 56% of the 2015 list are currently in compliance.
- 55 additional businesses that are voluntarily diverting food scraps ahead of the Act 148 requirement.

Commercial Organics Diversion Challenges

- Identifying generator rates
- Contamination
- Space
- Cost
- Employee training and compliance



Residential Organics Diversion & Collection

Management Options for Households

- 1) Manage at home
 - a) Backyard composting
 - b) Worm composting
 - c) Garbage disposal
- 2) Use for animal feed
- 3) Deliver to Drop-Off Center or GMC
- 4) Set out for collection by hauler



Residential Organics Diversion

Current Management (from 2015 survey)

FOOD SCRAPS

RESPONSE	%
Put down garbage disposal	17.7%
Compost at home	39.1%
Drop off at designated composting sites	7.0%
Set out for collection for composting	1.2%
Use for animal feed	1.0%
Put in trash	46.5%
Don't know/No response	0.5%
TOTAL (more than one answer allowed)	113.0%

Residential Organics Collection Challenges

Challenges

- “Yuck factor”
- Contamination
- Collection route density
- Cost



Residential Curbside Collection of Food Scraps

Increase in Monthly Cost per Household for Food Scraps Collection Over Current Trash & Recycling

	Current Subscription Service		Franchised Organics Hauler		Entire System Franchised	
	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly
Organics						
Trash and Recycling	Weekly	EOW	Weekly	EOW	Weekly	EOW
Voluntary Participation	\$39	\$22	\$19	\$2	\$2	(\$7)
Mandatory Participation	\$21	\$4	\$18	\$1	(\$6)	(\$15)

Source: Chittenden Solid Waste District Analysis of Residential Curbside Organics Collection Options, Skumatz Economic Research Associates, Inc., June 2014

Residential Curbside Collection of Food Scraps

Increase in Monthly Cost per Household for Food Scraps Collection Over Current Trash & Recycling

	Current Subscription Service	
	Weekly	Weekly
Organics		
Trash and Recycling	Weekly	EOW
Voluntary Participation	\$39	\$22
Mandatory Participation	\$21	\$4

Act 148 Requirements: Food Scrap Collection

- **2017** – Transfer stations/drop-off facilities must accept food scraps
All CSWD drop-off facilities have offered food scrap collection since 2009.
- **2017** – Haulers must offer food scrap collection. 3 of the 10 licensed haulers in CSWD currently offer food scrap collection.



CSWD Green Mountain Compost Facility - Williston, Vermont



Capital Cost: \$2.3 million

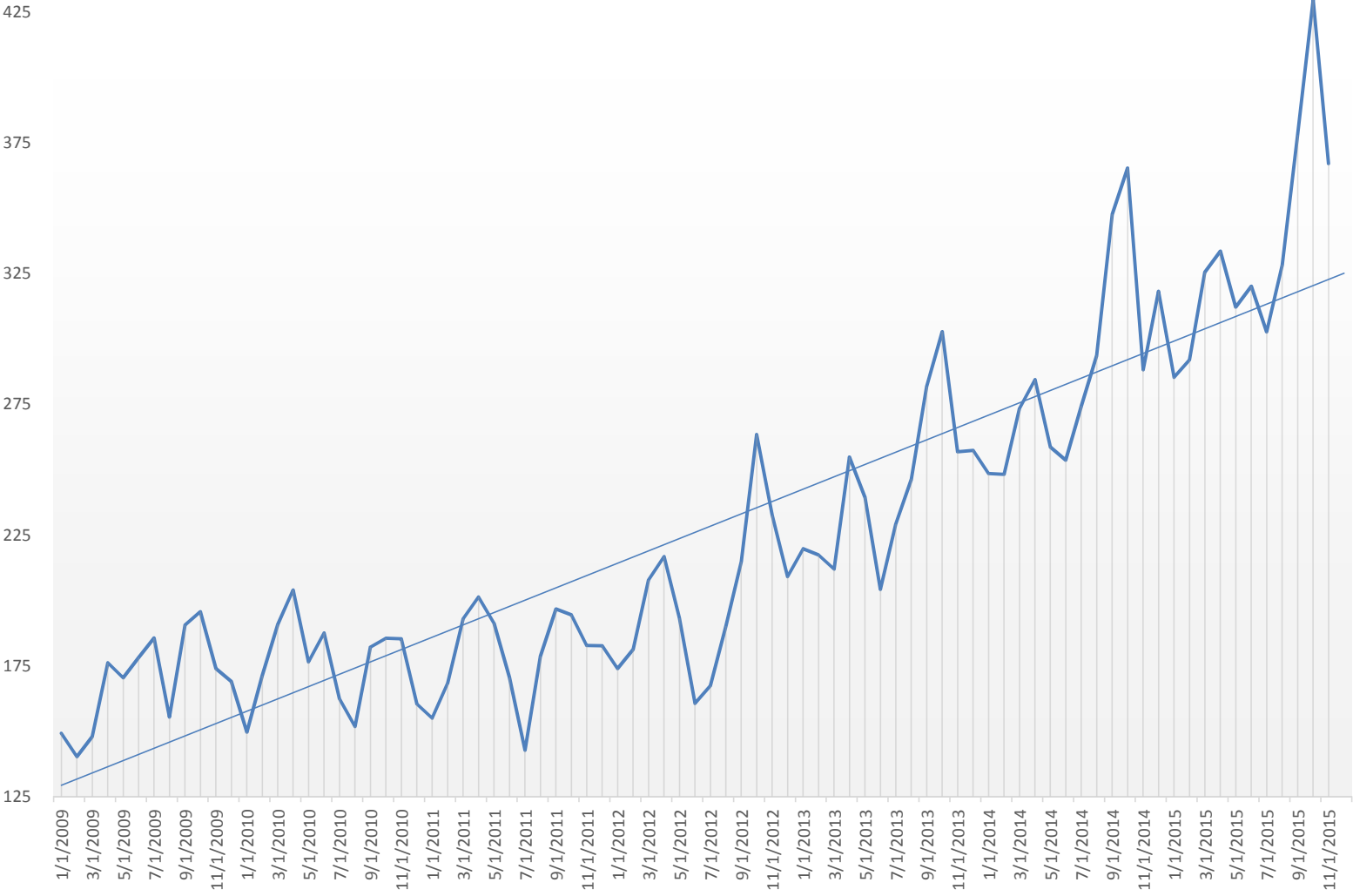
Aerated Static Pile (2 phases)

Started operations in July 2011

Capacity: 20,700 tons/year or 83 tons/operating day

Tip Fee: \$40.00/ton for food scraps

GMC - Tons of Traditional Foodscrap by Month: 2009-2015



Organic Waste Processing Capacity

- GMC current 4,000 tpy food scrap with 6,000 tpy capacity before odors become an issue
- CSWD in collaboration with Green Mountain Power, large haulers, and local farmer considering pre-processing and an anaerobic digester



Funding for Infrastructure

VT ANR Request of Interest for Capital Needs for Implementing Act 148 resulted in \$47.2 million. DSM came up with \$45.4 million capital costs. SWIAC committee recommended 25% grants or low interest loans = \$11.8 million.

CSWD supports funding with conditions:

- Grants available for both public and private sector
- Grantees must demonstrate the need in their region and provide a sound business plan reviewed by Vermont Economic Development Authority
- Grantee must demonstrate the ability to fund 75% of the capital costs
- Solid Waste Planning Entities are awarded funding proportional to what they are charging their members



CHITTENDEN SOLID WASTE DISTRICT

Rates Charged by Other SWMDs

COMPARISON OF DISTRICT FEES AND SURCHARGES - SEPTEMBER 2015	
DISTRICTS	COMBINED EQUIV. FEE per ton
Addison County SWM District	\$33.40
Central Vermont SWM District	\$31.43
Chittenden SW District	\$27.00
Greater Upper Valley SWM District	\$41.07
Lamoille Regional SWM District	\$21.00
Northeast Kingdom WM District	\$23.25
Northwest Vermont SWM District	\$23.43
Windham SWM District	\$19.74
Rutland County SW District	\$16.97
Southern Windsor/ Windham SW District	\$7.00
MEMBER ALLIANCES	
Mad River Resource Mgmt. Alliance	\$8.57
Rutland County SWAC	\$5.33

Summary

- Continue to support Act 148
- Maintain organics and food scrap ban for both businesses and residential generators under current timeline
- Support additional funding for necessary infrastructure with sufficient requirements and oversight