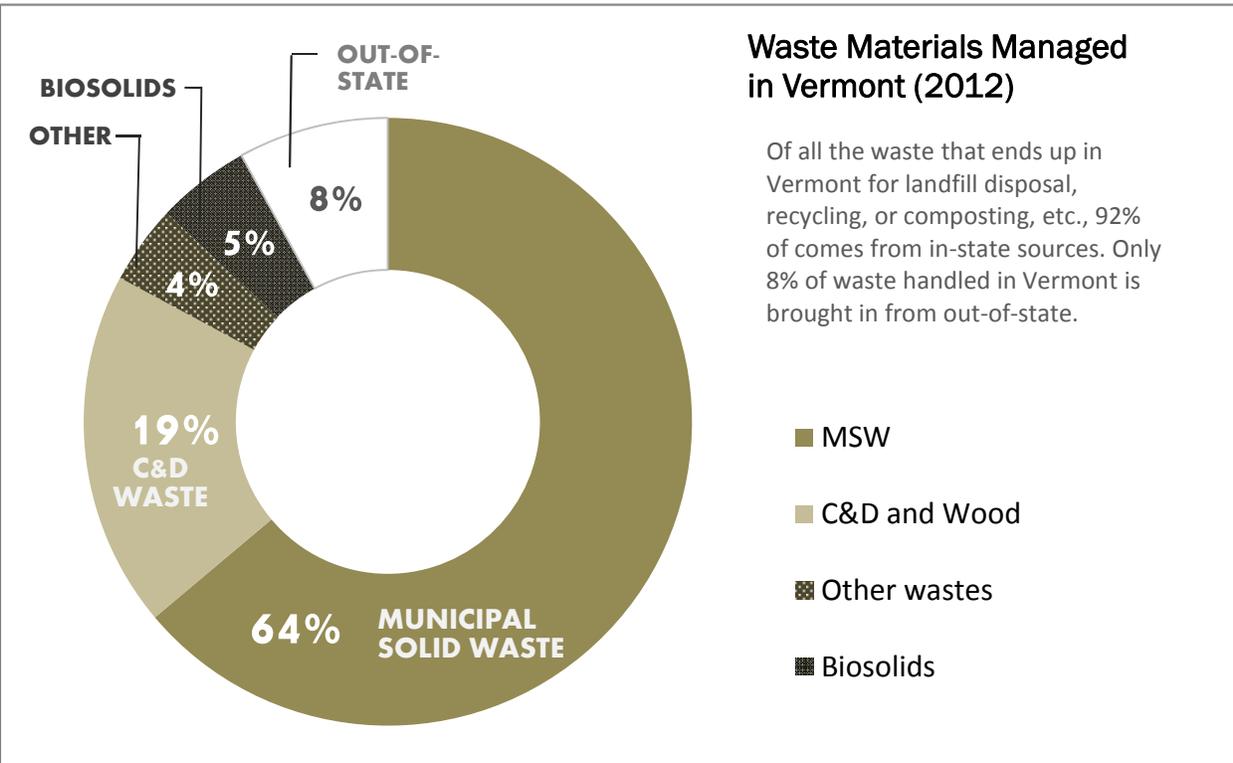
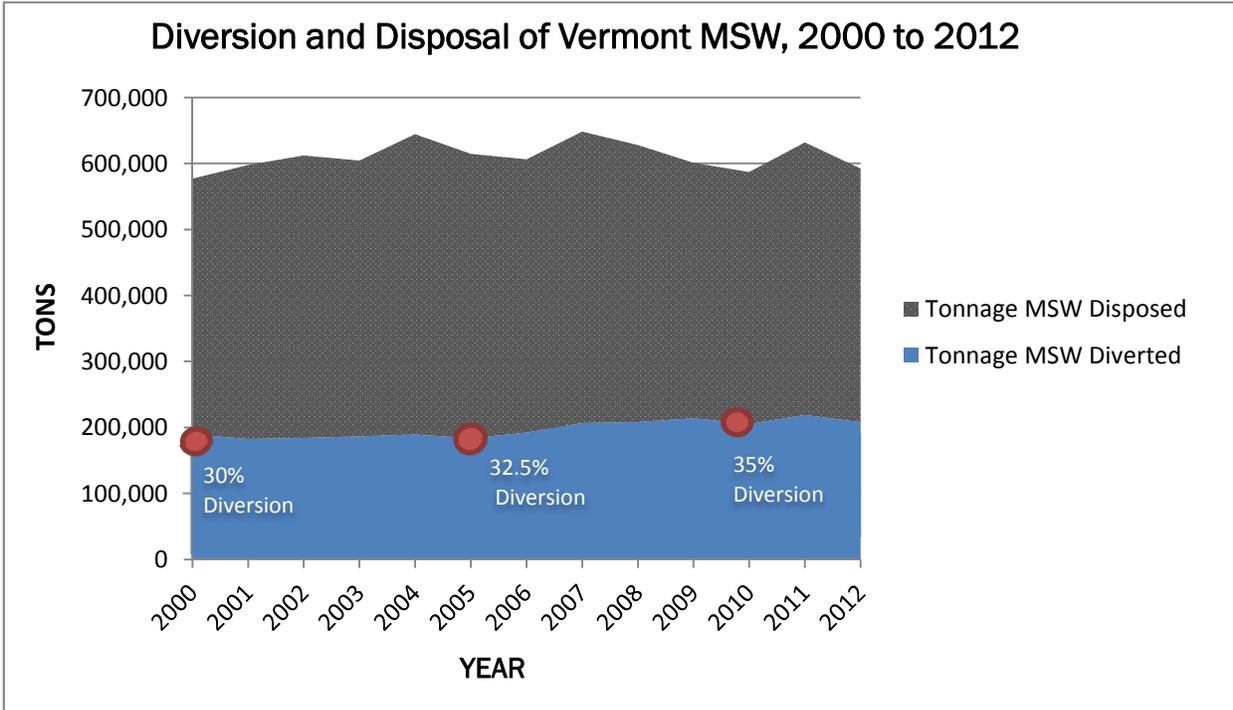


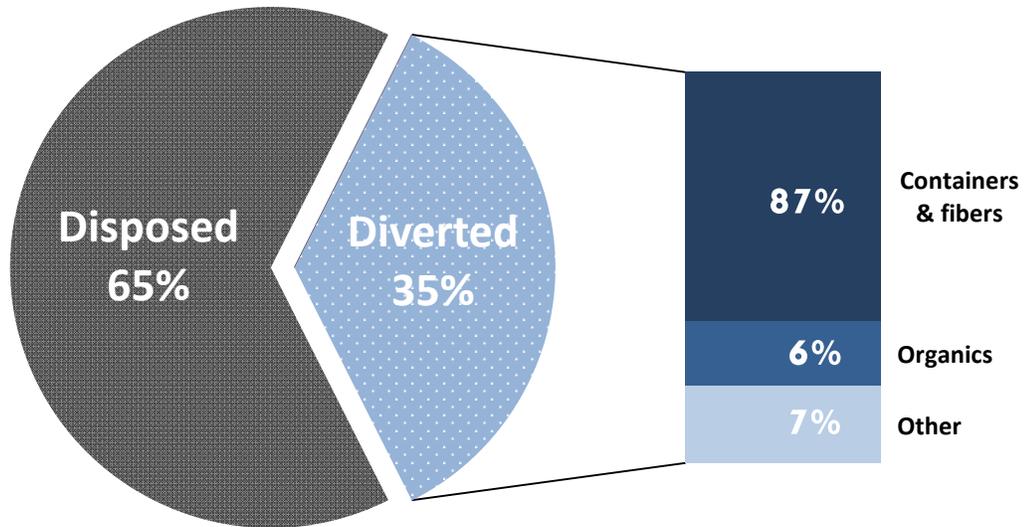
VERMONT SOLID WASTE GENERATION - SUMMARY 2012

MATERIALS	(TONS)	Table Source:
MUNICIPAL SOLID WASTE (MSW)		
<i>MSW Materials Diverted</i>	208,088	Table 2
<i>MSW Materials Disposed</i>	384,044	Table 3, Table 4
TOTAL MSW:	592,132	
CONSTRUCTION & DEMOLITION WASTE (C&D) & WOOD		
<i>C&D/Wood Used in Landfills - VT Waste</i>	3,157	Table 4B
<i>C&D/Wood Used in Landfills - Waste From Other States</i>	16,847	Table 4B
<i>C&D Disposed - VT Waste</i>	69,835	Table 4
<i>C&D Disposed - Waste From Other States</i>	16,774	Table 4
<i>Wood Burnt</i>	68	Table 2 Worksheet, Table 3
<i>C&D Unaccounted - Diverted or Disposed (Estimated)¹</i>	102,984	
TOTAL C&D/WOOD:	192,750	
OTHER SOLID WASTE (Does Not include Biosolids)		
<i>Other Used in Landfills - VT Waste</i>	27,984	Table 4B
<i>Other Used in VT Landfills - Waste From Other States</i>	7,418	Table 4B
<i>Other Disposed - VT Waste</i>	10,829	Table 4A
<i>Other Disposed - Waste From Other States</i>	25,180	Table 4A
TOTAL OTHER:	71,411	
Biosolids		
<i>Beneficial Reuse</i>	17,165	Table 6
<i>Used in Landfills - VT Biosolids</i>	7,157	Table 4B
<i>Used in Vermont Landfills - Biosolids From Other States</i>	-	Table 4B
<i>Landfilled, Incinerated - Vermont Biosolids</i>	21,574	Table 4A, Table 6
<i>Disposed in VT Landfills - Biosolids From Other States</i>	31,962	Table 4A
TOTAL BIOSOLIDS:	70,701	
TOTAL SOLID WASTE GENERATED (tons) :		
	926,994	

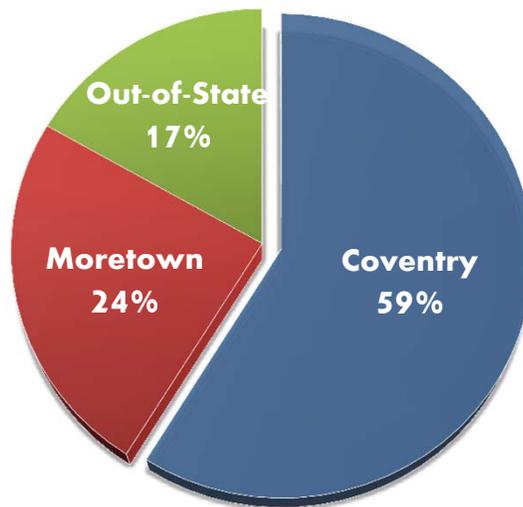
¹ Difference between C&D tonnages reported and estimated annual C&D Waste Generation of 192,750 tons (approx. 1.7 lbs per person per day). Source: 2007 Massachusetts Construction and Demolition Debris Industry Study DSM Environmental Services May 16, 2008.



2012 MSW Disposal and Diversion by Material Category



Percentage of Vermont-generated MSW Disposed by Destination, 2012



*Chart does not include the 0.16% MSW sent to two small permitted landfills in Addison County in

TABLE 1

**2012 VERMONT GENERATION , DIVERSION AND DISPOSAL
MUNICIPAL SOLID WASTE**

	1987 ^[1]	1994 ^[1]	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Generation	350,000	474,800	570,750	563,564	576,797	597,811	612,279	604,442	644,327	614,519	606,276	648,347	627,811	600,872	587,127	632,084	592,132
Diversion	42,000	164,830	195,930	199,301	189,401	182,562	184,149	186,407	189,047	183,289	192,003	206,648	207,854	213,626	205,156	218,567	208,088
Disposal	308,000	309,970	374,820	364,263	387,396	415,249	428,130	418,035	455,281	431,230	414,273	441,699	419,957	387,246	381,971	413,517	384,044
Population	535,000	583,836	600,416	604,683	609,909	612,225	615,250	617,101	618,794	619,736	620,778	621,254	621,270	621,750	625,741	626,592	625,953 ^[2]
Per Capita MSW Generation (Tons/Year) (Pounds/Day)	0.65 3.58	0.81 4.46	0.95 5.21	0.93 5.11	0.95 5.18	0.98 5.35	1.00 5.45	0.98 5.37	1.04 5.71	0.99 5.43	0.98 5.35	1.04 5.72	1.01 5.54	0.97 5.32	0.94 5.14	1.01 5.53	0.95 5.18
Per Capita MSW Diversion (Tons/Year) (Pounds/Day)	0.08 0.43	0.28 1.55	0.33 1.79	0.33 1.81	0.31 1.70	0.30 1.63	0.30 1.64	0.30 1.66	0.31 1.67	0.30 1.62	0.31 1.69	0.33 1.82	0.33 1.83	0.34 1.92	0.33 1.80	0.35 1.91	0.33 1.82
Per Capita MSW Disposal (Tons/Year) (Pounds/Day)	0.58 3.15	0.53 2.91	0.62 3.42	0.60 3.30	0.64 3.48	0.68 3.72	0.70 3.81	0.68 3.71	0.74 4.03	0.67 3.66	0.67 3.66	0.71 3.90	0.68 3.70	0.62 3.40	0.61 3.34	0.66 3.62	0.61 3.36

% of MSW Waste Generation																	
	1987	1994	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Generation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Diversion	12%	34.7%	34.3%	35.4%	32.8%	30.5%	30%	31%	29%	30%	32%	32%	33%	36%	35%	35%	35%
Disposal	88%	65.3%	65.7%	64.6%	67.2%	69.5%	70%	69%	71%	70%	68%	68%	67%	64%	65%	65%	65%

NOTES:

^[1] Table 1.1, 2001 State of Vermont Revised Solid Waste Management Plan

^[2] 2012 Population Estimate, Vermont. U.S. Census. <http://census.gov>

TABLE 2
2012 SOLID WASTE DIVERSION
ESTIMATED BY MATERIAL TYPE & DIVERSION ACTIVITY

MATERIAL (in tons)	SOURCE OF MATERIAL						TOTAL (Tons)
	Recycling Facilities	Soft Drink, Beer, Liquor Distributors ⁽¹⁾ (Broker Direct)	Economic Recycling ⁽²⁾ (Direct to Market)	Scrap Metal Facilities	Organics Composting	Reuse Facilities & Programs ⁽²⁾	
SINGLE STREAM	13,722 ⁽³⁾						13,722
FIBERS	54,034		33,495			137	87,666
CONTAINERS	13,214	17,800	117			19	31,150
SCRAP METAL			251	34,830		159	35,240
ORGANIC WASTES					34,660		34,660
MISCELLANEOUS	3,469		14			2,167	5,650
Total:	84,439	17,800	33,877	34,830	34,660	2,482	208,088

2012 MSW DISPOSED (tons):

2012 MSW DIVERSION RATE:

Estimate for containers diverted through Vermont's Bottle Bill program from report titled *Systems Analysis of the Impact of Act 148 on Solid Waste Management in Vermont*, DSM Environmental Services, October 2013.

⁽²⁾ Data for containers from report titled *Analysis of Vermont's Bottle Bill: Costs, Impacts and Expansion*, Northbridge Environmental Management Consultants, December 2006. Data for fibers from report titled *Vermont's Municipal Solid Waste Diversion Rate 2001*, DSM Environmental Services, September 2002

⁽³⁾ Single stream recyclables that left the Vermont solid waste system to out-of-state Materials Recovery Facilities: 1,241 tons to Sierra Fibers in Albany, NY; 532 tons to Northeast Waste Services, Lebanon, NH; and 171 tons to Keene MRF, NH.

2012 Table 2 Worksheet

Compiled from 2012 Quarterly Reports; grouped by containers, fibers, single stream, and other (tons)

¹ Materials Recovery Facility (MRF), a type of recycling plant that sorts, packages, and sells various recyclables.

² Transfer Station (TS), a state-certified facility that collects, stores, and transfers waste materials and recyclables.

³ Out-of-state materials processed at a Vermont MRF are not included in Vermont's annual diversion data; only Vermont generated materials are included.

RECYCLING

MATERIALS DIVERTED FROM MUNICIPAL SOLID WASTE STREAM						CONTAINERS
Material Code	Material	MRF ¹ Total (tons)	TS ² Direct to Market (tons)	Out-of-state materials included in VT MRF totals ³	Total Diverted 2012 (tons)	
AC	Aluminum Cans					
CN	Cans	1,021	216	4	1,233	
CT	Containers, co-mingled	1,834	41		1,875	
GL	Glass	6,212	368		6,580	
HD	HDPE (#2)	808	85		893	
PE	PETE (#1)	905	88		993	
PO	Other plastics	1,093	547		1,640	
RE	Redemption Bags				0	
TC	Tin Cans				0	
	TOTAL:	11,873	1,345	4	13,214	
Material Code	Material	MRF Total (tons)	TS Direct to Market (tons)	Subtract materials from other states into VT MRF system	Total diverted 2012	FIBERS
BK	Books	43	78		121	
BX	Boxboard/Paperboard	32	77		109	
CC	Corrugated Cardboard	23,686	6,306	24	29,968	
FC	Fibers, co-mingled	3,400	140	560	2,980	
MA	Magazines	99	57		156	
NP	Newspapers	14,452	1,409	12	15,849	
OP	Mixed Paper	2,035	2,816		4,851	
PA	Paper Co-mingled					
WP	White Office Paper					
	TOTAL:	43,747	10,883	596	54,034	

Material Code	Material	MRF Total (tons)	TS Direct to Market (tons)	Subtract materials from other states into VT MRF system	Total diverted 2012	SINGLE STREAM
1S	Contain.&Fibers	22,952	1,503*	10,283	13,722	
		* Primarily single stream materials sent to an out-of-state MRF				
Material Code	Material	MRF Total (tons)	TS Direct to Market (tons)	Subtract materials from other states into VT MRF system	Total diverted 2012	OTHER MATERIALS
AB	Automobile Batteries	11	77		88	
AF	Antifreeze		12		12	
BA	Batteries		9		9	
BL	Ballast		1			
EL	Electronics	291	1,497		1,788	
EX	Waste Exchange / Reuse		78		78	
FL	Florescent Bulbs	10	41		51	
HG	Mercury Products		1			
LY	Leaf and Yard				0	
OR	Other Recyclables					
OT	Other Waste					
PB	PCB Devices		1		1	
PP	Propane Tanks	1	14		15	
PT	Paint		61		61	
TX	Textiles	44	179		223	
UF	Used Oil Filters	6	7		13	
UO	Used Motor Oil		424		424	
WG	Wood, clean - ground		704		704	
WW	Stumps, Brush, Wood				0	
	TOTAL:	363	3,106		3,469	
					84,439	

MATERIALS DIVERTED FROM INDUSTRIAL OR OTHER WASTE STREAMS

Material Code	Material	MRF Total (tons)	TS Direct to Market (tons)	Subtract materials from other states into VT MRF system	Total diverted 2012	MIXED MATERIALS
DW	Dry Wall (sheet rock)		39		39	
CR	Con/Demo Debris Recycling		1,197		1,197	
IN	Inerts- Concrete, Masonry etc.					
RB	Road, Bridge or Highway Debris		22,572		22,572	
NF	Non-ferrous Metals					
SA	Salvage					
TI	Tires	220	1,163		1,383	
UO	Used Oil - burning	13	25		38	
WG,WG,LY	Burning- McNeil		2,760		2,760	
LY,WW	On-site burn				0	
UO	Use Oil Burnt					
ME	Scrap metal, appliances & wg's	216	6,091		6,307	
Total VT Other Waste Diverted:					34,296	

COMPOSTING

MATERIALS DIVERTED FROM MUNICIPAL SOLID WASTE STREAM

Material Code	Material	Total (tons)	% Reported in C.Y.*
CF	Food Waste	3,735	11%
CP	Paper	26	100%
WG	Wood waste	917	4%
LY	Yard Waste	4,754	6%
OC,OT,PA	Other compostable materials	438	
Total Categorical and Full Certification:		9,869	
	Backyard Composting (Estimate):	23,925	
	Exempt (2005 estimate):	866	
	Total VT MSW Diverted:	34,660	

MATERIALS DIVERTED FROM INDUSTRIAL OR OTHER WASTE STREAMS

Material Code	Material	Total (tons)	% Reported in C.Y.*
CI	Ice Cream waste	18	
CW,CS	Liquid Food Waste		
DA	Dead animal remains	162	54%
MN	Manure/Bedding	3,899	39%
	Total Other Waste Diverted:	4,079	

*For materials that were reported in cubic yards (c.y.), conversion factors were utilized to approximate the tonnage of material composted. Conversion factors were acquired from the New Mexico Environment Department, and New Jersey Department of Environmental Protection.

TABLE 3

2012 SOLID WASTE DISPOSAL & INCINERATION

DESTINATION	TYPE OF WASTE					Waste Used in Landfill ^[2]
	MSW (Tons)	C&D/Wood (Tons)	Other ^[1] (Tons)	Total (Tons)	% Disposed	
In-State						
Landfill	325,460	69,835	31,119	426,414	84.97%	38,397
Incineration ^[3]		68		68	0.01%	
Subtotal:	325,460	69,903	31,119	426,482	84.98%	
Out-of-State						
Landfill	27,542	2,803		30,345	6.05%	
Incineration	30,513			30,513	6.08%	
Transfer Stations	528	13,972		14,500	2.89%	
Subtotal:	58,584	16,774	0	75,358	15.02%	
Total (tons):	384,044	86,677	31,119	501,840	100%	38,397

NOTES:

^[1] Refer to Table 4A for specific wastes *disposed* in Vermont landfills, including some wastes from other states.

^[2] Refer to Table 4B for specific wastes *used* in landfills, including some wastes from other states.

^[3] On site clean wood burn at transfer stations.

TABLE 4 DESTINATIONS FOR VERMONT SOLID WASTE DISPOSAL & INCINERATION, 2012

State	Facility	MSW (Tons)	C&D, Wood Waste (Tons)	OTHER (Tons) ⁽¹⁾	Total (Tons)	Vermont Waste Used In Landfill ⁽²⁾
VT	Waste USA Landfill	229,764	57,442 [†]	19,080	306,286	18,781
	WSI Landfill	95,068	10,939	9,720	115,727	19,517
	1 - 1000 Ton Landfill (AD080)	341	0	1		
	2 - 1000 Ton Landfill (AD720)	287	72	3	362	
	Burgess C&D Landfill		55	0	55	99
	On-site Disposal - Transfer Stations & Cat.Cert Sites		1,327	2,315	3,462	
	On-site Burning, clean wood - Transfer Stations		68		68	
	Total Vermont (tons):	325,460	69,903	31,119	426,482	38,397
MA	Eco/Pittsfield Incinerator	2,062			2,062	
	South Hadley Landfill	9,472	5		9,477	
	Total Massachusetts (tons):	11,534	5		11,539	
NH	Lebanon Landfill	12,710			12,710	
	North Country Env Services (NCES) Landfill	4,288	1,733		6,021	
	Mt. Carbury Landfill	939	500		1,439	
	Wheelabrator (Claremont) Incinerator	16,161			16,161	
	Labombard Transfer Station		4,123		4,123	
	Gobin Disposal Systems/Casella Transfer Station	242	6,356		6,598	
	Witcher Transfer Station	286	281		567	
	Total New Hampshire (tons):	34,626	12,993		47,619	
NY	Adirondack Resources Incinerator, Hudson Falls	12,291			12,291	
	Fort Edward C&D Landfill		404		404	
	Clinton County Landfill	0	161		161	
	Seneca Meadows Landfill	133			133	
	Fort Ann Transfer Station		3,212		3,212	
	County of Franklin SW Authority Transfer Station	0			0	
	Total New York (tons):	12,424	3,777		16,200	
Total Out-Of-State (tons):	58,584	16,774		75,358		
Total In-State & Out-Of-State (tons):		384,044	86,677	31,119	501,840	38,397

(1) Refer to Table 4A for specific wastes disposed in Vermont landfills.

(2) Refer to Table 4B for specific wastes used in landfills.

† This tonnage is an estimate, because C&D was included in MSW tonnage; based on C&D percentage of MSW of prior years.

TABLE 4A
OTHER WASTES DISPOSED IN VERMONT LANDFILLS, 2012

All units are in tons.

	Waste USA Landfill - VT Waste	Waste USA Landfill - Waste From Other states	WSI - VT Waste	WSI Landfill - Waste From Other states	Burgess Bros. Landfill	1000 Ton Landfills - Salisbury and Bristol	Transfer Stations & Cat Cert Disposal - On-site Disposal	TOTAL TONS
Asbestos	922	10,817	150					11,889
Bulky Wastes						4		3
Biosolids ³	16,088	12,761	4,202	19,201				52,252
Contaminated Soils	759	2,679	3,409	379				7,226
Medical Waste	96							96
Paper Sludge	387							387
Other Wastes	828	10,266 ⁽¹⁾	1,959	1,039			2,315 ⁽²⁾	16,407
TOTAL TONS:	19,080	36,523	9,720	20,619		4	2,315	88,261

¹ Does not include 7,765 tons of C&D waste from C&D recycling facility in NH.

² Does not include 197 tons of agricultural liming material disposed on-site at OMYA.

³ See Table 6 for more data on septage and biosolids management in Vermont.

**TABLE 4B
OTHER WASTES USED IN VERMONT LANDFILLS, 2012**

All units are in tons.

	Waste USA Landfill - VT Waste	Waste USA Landfill - Waste From Other states	WSI - VT Waste ⁽¹⁾	WSI Landfill - Waste From Other states	Salisbury Landfill - VT Waste	Salisbury Landfill - Waste From Other states	Hartford TS - VT C&D to Lebanon LF	Hubbard & Castleton TSs - VT C&D to NY Landfill(s)	Burgess	TOTAL TONS
Biosolids	7,157									7,157
C&D	3,092	488					632	1,137	99	5,448
Contaminated Soils	6,975	5,912	12,402	303						25,592
Foundary Sand			3,353							3,353
Paper Sludge			1,842							1,842
Ground Wood Waste			65	16,359						16,424
Other Wastes	1,557	1,203	1,855							4,615
TOTAL TONS:	18,781	7,603	19,517	16,662					99	62,662

TABLE 5
Operating & Permitted Solid Waste Disposal Capacity in Vermont as of May 2013^[3]

Solid Waste Landfills	Remaining Capacity For Waste (tons)	Capacity Estimate Based on	Maximum Permitted Fill Rate		Permit Year
			(tons/day)	(tons/year)	
NEWSVT Phase IV cells 1,2,3, and 4	4,500,000		5,000	600,000	2015
WSI Landfill ^[2] Cell 3A & 3B	0		0	0	
Burgess C&D Landfill	0		0	0	
Totals	4,500,000		5,000	600,000	

Maintains ANR Solid Waste Certification:					
Greater Upper Valley Solid Waste District Hartland - Phase 1 North	250,000		200	50,000	Not planning to construct in near Future
Northwest Solid Waste District - Sheldon - Cell 1	130,000		125	20,000	Not planning to construct in near Future

Designing New Landfill and preparing application for submittal to ANR: Chittenden Solid Waste District – Williston

^[1] Waste USA Landfill. Coventry, Vermont. Also called NEWS (New England Waste Services) Landfill or Coventry Landfill.

^[2] Moretown Landfill. Moretown, Vermont. Previously called WSI Landfill.

^[3] Does not include the two 1000 TPY unlined landfills operating in Bristol Town and Salisbury and a C&D landfill in Bennington .

TABLE 6

2012 Estimated Quantities of Biosolids Managed In and Out of State
(As reported to RMS¹ from Vermont facility generators)

Amounts are in wet tons at 15% solids²

Management Option	In-State (wet tons)	Out-of-State (wet tons)	Total (wet tons)	Percent of Total	Percent Managed
Beneficial Uses:					
Land Application	9,430	0	9,430	14.2%	
EQ Biosolids	6,361	1,374	7,735	11.6%	
Subtotal	15,791	1,374	17,165		25.8%
Non-Beneficial Uses:					
Landfill	47,963	0	47,963	72.2%	
Incineration ³	0	1,284	1,284	1.9%	
Subtotal	47,963	1,284	49,247		74.2%
Total:	63,754	2,658	66,412	100%	100%
Percent of Total In & Out of State	96.0%	4.0%			

¹RMS - Residuals Management Section. Wastewater Management Division. (802) 490-6187.

²All amounts of biosolids reported to DEC are converted to dry tons. Then the dry tons are converted to wet weight assuming 15% solids, which is generally the percent solids that can qualify to be landfilled. To convert wet tons to dry tons, multiply wet tons X 0.15.

³Please note that nearly all biosolids sent to incinerators are in liquid form and the actual weight is greater than that in this table.

2012 Actual Quantities of Septage Managed In and Out of State⁴
(As reported to RMS¹ by All Septage Haulers Operating in Vermont)

Amounts are in gallons

Management Option	In-State (gallons)	Out-of-State (gallons)	Total (gallons)	Percent of Total	Percent Managed
Beneficial Uses:					
Land Application ⁵	7,706,122	385,300	8,091,422	18.6%	
EQ Biosolids ⁶	2,889,145	389,070	3,278,215	7.5%	
Subtotal	10,595,267	774,370	11,369,637		26.1%
Non-Beneficial Uses:					
Landfill ⁷	227,500	0	227,500	0.5%	
Incineration	0	6,299,324	6,299,324	14.4%	
WWTF	24,067,015	1,642,400	25,709,415	59.0%	
Subtotal	24,294,515	7,941,724	32,236,239		73.9%
Total:	34,889,782	8,716,094	43,605,876	99%	100%
Percent of Total In & Out of State	80.0%	20.0%			

⁴Includes all septage generated in Vermont regardless of where disposed, and all septage disposed in Vermont regardless of where generated. It is estimate that <1% of the total volume is generated out-of-state and disposed in Vermont.

⁵Includes septage that is directly land applied or which is disposed at a WWTF that manages biosolids via land application.

⁶Includes septage that is directly treated in an EQ process or disposed at a WWTF that produces EQ biosolids.

⁷Includes solids from dewatered septage that are disposed at a landfill.

2/13/2014