

**TABLE 1**

**SOLID WASTE DIVERSION - 2004  
ESTIMATED BY MATERIAL TYPE & DIVERSION ACTIVITY**

MATERIAL	SOURCE OF MATERIAL						TOTAL
	Recycling Facilities	Soft Drink and Beer Distributors(1)(2) (Broker Direct)	Economic Recycling(2) (Direct to Market)	Scrap Metal Facilities	Organics Composting	Reuse Facilities & Programs(2)	
FIBERS	57,008	386	33,495	0		137	91,026
CONTAINERS	10,399	13,260	117	0		19	23,795
SCRAP METAL	(3)	0	251	34,830		159	35,240
ORGANIC WASTES	0	0	0	0	33,180	0	33,180
MISCELLANEOUS	3,625	0	14	0		2,167	5,806
<b>Total:</b>	<b>71,032</b>	<b>13,646</b>	<b>33,877</b>	<b>34,830</b>	<b>33,180</b>	<b>2,482</b>	<b>189,047</b>

2004 MSW DISPOSED (tons): 455,281

2004 MSW DIVERSION RATE: 29%

(1) Total includes 3737 tons of deposit return containers processed by recycling facilities.

(2) Data from report prepared for the Vermont Department of Environmental Conservation titled *Vermont's Municipal Solid Waste Diversion Rate 2001*, DSM Environmental Services, September 2002

(3) Included in "Scrap Metal Facilities" totals.

(4) Includes composting data for exempt facilities from *Vermont's Municipal Solid Waste Diversion Rate 2001*, DSM Environmental Services, September 2002

**TABLE 2**  
**GENERATION , DIVERSION AND DISPOSAL**  
**VERMONT MUNICIPAL SOLID WASTE**  
**1994 - 2004 (ACTUAL)**  
**2005 (PROJECTION IN ORDER TO REACH 50% DIVERSION RATE)**

MSW Generation, Diversion & Disposal - Actual & Projections (Tons) <sup>[3]</sup>									
	1994	1998	1999	2000	2001	2002	2003	2004	2005 <sup>[1]</sup>
Generation	474,800	570,750	563,564	576,797	597,811	612,279	604,442	644,327	653,992
Diversión	164,830	195,930	199,301	189,401	182,562	184,149	186,407	189,047	326,996
Disposal	309,970	374,820	364,263	387,396	415,249	428,130	418,035	455,281	326,996
Population Estimate <sup>[2]</sup>	583,836	600,416	604,683	608,827	613,090	616,408	619,107	621,394	626,614
Per Capita MSW Generation (Tons/Year)	0.81	0.95	0.93	0.95	0.98	0.99	0.98	1.04	1.04
(Pounds/Day)	4.46	5.21	5.11	5.19	5.34	5.44	5.35	5.68	5.72
Per Capita MSW Diversión (Tons/Year)	0.28	0.33	0.33	0.31	0.30	0.30	0.30	0.30	0.52
(Pounds/Day)	1.55	1.79	1.81	1.70	1.63	1.64	1.65	1.67	2.86
Per Capita MSW Disposal (Tons/Year)	0.53	0.62	0.60	0.64	0.68	0.69	0.68	0.73	0.52
(Pounds/Day)	2.91	3.42	3.30	3.49	3.71	3.81	3.70	4.01	2.86
% of MSW Waste Generation <sup>[3]</sup>									
		1998	1999	2000	2001	2002	2003	2004	2005
Generation	100%	100%	100%	100%	100%	100%	100%	100%	100%
Diversión	34.7%	34.3%	35.4%	32.8%	30.5%	30%	31%	29%	50%
Disposal	65.3%	65.7%	64.6%	67.2%	69.5%	70%	69%	71%	50%

**NOTES:**

<sup>[1]</sup> MSW generation as projected in "Characterization of Municipal Solid Waste in the United States: 1998 Update," Franklin Assoc. August 1999. Page 132, Table 39. MSW generation is projected to increase 1.5 percent per year for 2005.

<sup>[2]</sup> Vermont Population 1994, 1998, & 1999 - Table CO-EST2001-12-50 - Time Series of Vermont Intercensal Population Estimates by County: April 1, 1990 to April 1, 2000. Vermont Population 2000 & 2001 - US Census Bureau.

Vermont Population Projections 2002 - 2005 - 0.82% increase per year. based on US Census Bureau data 1990 - 2000.

<sup>[3]</sup> 1994 - 2004, actual. 2005, projected to achieve goal of 50% diversion in the year 2005.

**TABLE 3****Vermont Solid Waste - 2004  
Disposal & Incineration**

DESTINATION	TYPE OF WASTE					Waste Used in Landfill <sup>[2]</sup>
	MSW (Tons)	C&D/Wood (Tons)	Other <sup>[1]</sup> (Tons)	Total (Tons)	% Disposed	
<b>In-State</b>						
<b>Landfill</b>	313,412	89,575	9,630	412,617	73%	29,533
<b>Incineration<sup>[3]</sup></b>		24		24	0%	
<b>Subtotal:</b>	313,412	89,599	9,630	412,641	73%	
<b>Out-of-State</b>						
<b>Landfill</b>	85,370	7,269	703	93,342	17%	8,386
<b>Incineration</b>	56,499	59		56,558	10%	
<b>Subtotal:</b>	141,869	7,328	703	149,900	27%	
<b>Total:</b>	455,281	96,927	10,333	562,541	100%	37,919

**NOTES:**

[1] Refer to Table 5A for specific wastes disposed in Vermont landfills.

[2] Waste Used In Landfills - Refer to Table 5B for specific wastes used in landfills.

[3] In previous years clean wood waste collected by Chittenden District and chipped and burnt at the McNeil Electric Generating Station was included in this table. It is now mentioned as a footnote to this table (2004 - 4,142 tons).

10/14/2005

**TABLE 4 DESTINATIONS FOR VERMONT SOLID WASTE - 2004 DISPOSAL & INCINERATION**

State	Facility	MSW (Tons)	C&D & Wood (Tons)(1)	OTHER (Tons)(2)	Total (Tons)	Waste Used In Landfill(3)	Source of data/notes
VT	Waste USA Landfill	225,610	68,911	7,297	301,818	14,322	VT Quarterly report
	WSI Landfill	86,538	8,838	1,876	97,252	13,065	VT Quarterly report, adjusted C&D by other TS reports
	2 - 1000 Ton Landfills	1,264	111	7	1,382	2,146	VT Quarterly report
	Burgess C&D Landfill		1,163	25	1,188		VT Quarterly report
	On-site Disposal - Transfer Stations & Cat.Cert Sites		10,552	425	10,977		VT Quarterly report
	On-site Burning, clean wood - Transfer Stations			24	24		VT Quarterly report
	<b>2004- Total Vermont:</b>	<b>313,412</b>	<b>89,599</b>	<b>9,630</b>	<b>412,641</b>	<b>29,533</b>	
MA	BFI	3,795			3,795		Tax Return
	ECO - Pittsfield Waste To Energy	2,757			2,757		Facility report
	<b>2004 - Total Massachusetts:</b>	<b>6,552</b>			<b>6,552</b>		
NH	Wheelabrator Waste To Energy, Claremont	21,903	59		21,962		Facility report & quarterly reports
	Lebanon Landfill	16,170		333	16,503	1,946	Facility report & quarterly reports
	North Country Landfill, Bethlehem	14,248	2,342	295	16,885		Facility report & quarterly reports
	Waste Management/Keene Transfer Station	6,337	103		6,440		Tax Reports
	Mt Carbury Landfill	1,544			1,544		Facility report
	<b>2004 - Total New Hampshire:</b>	<b>60,202</b>	<b>2,504</b>	<b>628</b>	<b>63,334</b>	<b>1,946</b>	
NY	Adirondak Waste To Energy, Hudson Falls	31,839			31,839		Facility report & Quarterly reports
	Clinton County Landfill	17,776	3,493	11	21,280		Facility report & quarterly reports
	County Waste, Clifton Park		110		110		Quarterly Reports
	ECO -/B-3 Transfer Station	917			917		Facility report
	Seneca Meadows Landfill	20,434	52	52	20,538		Facility report
	Waste Management Landfill(s)	4,149	1,169	12	5,330	6,440	Quarterly Reports
	<b>2004 - Total New York:</b>	<b>75,115</b>	<b>4,824</b>	<b>75</b>	<b>80,014</b>	<b>6,440</b>	
<b>2004 - Total Out-Of-State</b>	<b>141,869</b>	<b>7,328</b>	<b>703</b>	<b>149,900</b>	<b>8,386</b>		
<b>2004 - Total In-State &amp; Out-Of-State</b>		<b>455,281</b>	<b>96,927</b>	<b>10,333</b>	<b>562,541</b>	<b>37,919</b>	

- (1) In previous years clean wood waste collected by Chittenden District and chipped and burnt at the McNeil Electric Generating Station was included in this table. It is now mentioned as a footnote to Table 1 (2004 - 4142 tons).
- (2) Refer to Table 4A for specific wastes and amounts disposed in Vermont landfills.
- (3) Refer to Table 4B for specific wastes used in landfills, amounts brought to Vermont landfills from other states and

**TABLE 4A**  
**OTHER WASTES DISPOSED IN VERMONT LANDFILLS 2004**  
 (Detailing Column E from Table 5)

	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	Transfer Stations & Cat Cert Disposal -	TOTAL TONS
Asbestos	1,058	700	141	5				1,904
Bulky Wastes			13					13
Biosolids	1,946	1,129	1,590					4,665
Contaminated Soils	275	7	3					285
Medical Waste	20		124					144
Paper Sludge	7							7
Other Wastes	2,041	114			25	7		2,187
<b>TOTAL TONS:</b>	<b>5,347</b>	<b>1,950</b>	<b>1,871</b>	<b>5</b>	<b>25</b>	<b>7</b>		<b>9,205</b>
NOTES:		NY		NH				

Prepared:10/14/05

**TABLE 4B**  
**Waste Used in Landfills (Tons) - 2004**  
**(Detailing Column E from Table 5)**

	Waste USA Landfill - VT Waste	Waste USA Landfill - Waste From Other states	WSI - VT Waste	WSI Landfill - Waste From Other states	Bristol Landfill - Waste From Other states	Salisbury Landfill - Waste From Other states	Hartford TS VT C&D to Lebanon LF	Hubbard & Castleton TSs - VT C&D to NY Landfill(s)	TOTAL TONS
<b>Cover Material:</b>									
Biosolids	8,840	489							9,329
C&D							1,946	6,440	8,386
Contaminated Soils	777		1,036						1,813
Foundary Sand			2,930						2,930
Paper Sludge	1,947		3,154	5,065	1,148	697			12,011
Other Wastes	1,224				301				1,525
<b>Road Base:</b>									
Ground C&D	937		535						1,472
Crushed Glass									-
Ground Wood Waste	108		345						453
<b>TOTAL TONS:</b>	<b>13,833</b>	<b>489</b>	<b>8,000</b>	<b>5,065</b>	<b>1,449</b>	<b>697</b>	<b>1,946</b>	<b>6,440</b>	<b>37,919</b>
<b>NOTES:</b>		NH, NY		NH,NY,MA	VT-301 tons NY-1148 tons	NY	Also 724 from NH C&D	Waste Man. Landfill(s)	

Prepared:10/14/05

**TABLE 5****Operating Solid Waste Disposal Capacity in Vermont <sup>[3]</sup>**

Status 1/1/06

Solid Waste Landfills	Remaining Capacity For Waste(tons)	Maximum Permitted Fill Rate		Permit Year (tons/year)	Remaining Years of Capacity
		(tons/day)	(tons/year)		
NEWS Landfill, <sup>[1]</sup> (Phase I, II, III)	630,000	2,500	370,000	4/1/04-3/31/05	2.1 as of 1/05
NEWS Landfill, <sup>[1]</sup> (Phase IV)	6,661,350	Under Construction	Under Construction		15.0
WSI Landfill <sup>[2]</sup> (Cell 2)	220,000	600	172,000	1/1/04-12/31/04	1.8 as of 1/05
WSI Landfill <sup>[2]</sup> (Cell 3)	1,027,500	Under Construction	Under Construction		5.0
<b>Totals</b>	<b>8,538,850</b>		<b>542,000</b>		

**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	5.0
Northwest Solid Waste District - Sheldon - Cell 1	130,000	125	20,000	Not planning to construct in near Future	6.5

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

Vermont Solid Waste Requiring Disposal (2004): 562,541 Tons

[1] NEWS=New England Waste Services, Coventry Vermont

[2] WSI = Waste Systems International, Inc., Moretown Vermont

[3] Does not include the two 1000 TPY unlined landfills operating in Bristol Town and Salisbury.

**TABLE 6**

**2004 Estimated Quantities of Biosolids Managed In and Out of State  
(As reported to RMS<sup>1</sup> from Vermont facility generators)**

Amounts are in wet tons at 15% solids<sup>2</sup>

<b>Management Option</b>	<b>In-State (wet tons)</b>	<b>Out-of-State (wet tons)</b>	<b>Total (wet tons)</b>	<b>Percent of Total</b>	<b>Percent Managed</b>
<b>Beneficial Uses:</b>					
<b>Land Application</b>	5,420	0	5,420	9%	
<b>Composted</b>	6,827	29,853	36,680	61%	
<b>Subtotal</b>	12,247	29,853	42,100		70%
<b>Non-Beneficial Uses:</b>					
<b>Landfill</b>	14,667	820	15,487	26%	
<b>Incineration**</b>	0	2,227	2,227	4%	
<b>Subtotal</b>	14,667	3,047	17,714		30%
<b>Total:</b>	26,914	32,900	59,814		100%
<b>Percent of Total In &amp; Out of State</b>	45%	55%			

<sup>1</sup>RMS - Residuals Management Section. Wastewater Management Division. (802) 241-3822

<sup>2</sup>All 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 land filled.

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



**TABLE 7 - SUMMARY OF 2003 VERMONT HHW/CEG HAZARDOUS WASTE PROGRAM ACTIVITY**

TOWN/DISTRICT	COLLECTION EVENTS	HH UNITS	PARTICIPANTS	BUSINESSES	REPEAT PARTICIPANTS	% REPEAT PARTICIPANTS	% TOTAL PROGRAM PARTICIPATION	PROGRAM COST	\$/PART	POUNDS OF WASTE	POUNDS OF WASTE PER PARTICIPANT	MERCURY-ADDED PRODUCTS/DEBRIS	POUNDS OF ELEMENTAL MERCURY	FLUORESCENT LAMPS (FT)	ELECTRONICS
1 Addison County SWMD	20	12706	920	29	564	61.30	7.24	\$84,591.58	\$91.95	37872	40	15	100	37434	112098
2 Bennington CRC	2	6575	197	8	89	45.18	3.00	\$16,564.12	\$84.08	14088	69	5	0	800	0
3 Central Vermont SWMD	9	27751	392	30	120	30.61	1.41	\$41,501.64	\$105.87	24291	58	11	3.5	5462	36894
4 Chittenden SWMD	248	62358	9268	386	0	0.00	14.86	\$442,111.00	\$47.70	535061	55	418	0	211409	90620
5 Greater UVSWMDC(GUV) *	2	9462	288	4	173	60.07	3.04	\$14,888.00	\$51.69	17632	60	20	9	3491	22600
6 Solid Waste Alternative Committee	4	6546	224	0	0	0.00	3.42	\$18,906.64	\$84.40	10801	48	0	0	2668	6929
7 Lamolle RSWMDC	6	12780	397	20	187	47.10	3.11	\$23,369.12	\$58.86	25582	61	31	0	24551	24280
8 Londonderry Group *	2	2806	126	5	10	7.94	4.49	\$13,108.06	\$104.03	20445	156	40	0	2640	0
9 Mad River SWA	2	8111	315	34	190	60.32	3.88	\$20,621.00	\$65.46	25168	72	93	0	4060	11730
10 NE Kingdom SWMD	93	12154	1103	29	138	12.51	9.08	\$37,775.29	\$34.25	44200	39	21	0	11228	22791
11 Northwest SWMD *	15	13758	487	30	0	0.00	3.54	\$20,899.38	\$42.91	33676	65	0	0	8456	26000
12 Rutland County SWMD	250	22500	774	73	0	0.00	3.44	\$82,927.30	\$107.14	39920	47	0	34	23347	54122
13 S. Wind/Windham SWMD	2	20104	228	4	114	50.00	1.13	\$21,013.00	\$92.16	4836	21	8	5	934	0
14 White River Alliance	2	4769	104	3	0	0.00	2.18	\$7,903.94	\$76.00	8800	82	3	0	3084	0
15 Windham SWMD	1	19468	128	11	64	50.00	0.66	\$16,064.00	\$125.50	28960	208	240	0	29100	102420
16 Waste USA (NEK) *	2	10831	319	0	0	0.00	2.95	\$29,130.87	\$91.32	13920	44	0	0	128	0
17 Georgia	2	1654	140	0	106	75.71	8.46	\$6,155.50	\$43.97	7520	54	0	2	267	0
18 Highgate/Franklin	2	2111	57	0	22	38.60	2.70	\$3,302.69	\$57.94	2800	49	0	0	600	0
19 Randolph, Braintree & Brookfield	2	3074	204	2	0	0.00	6.64	\$15,291.36	\$74.96	11200	54	0	0	152	0
20 St. Albans Town	2	2257	242	0	168	69.42	10.72	\$10,439.00	\$43.14	12080	50	0	30	2000	0
21 St. Johnsbury	2	3482	196	19	111	56.63	5.63	\$11,894.00	\$60.68	12193	57	62	0	2984	0
22 Salisbury	3	628	60	2	30	50.00	9.55	\$6,248.10	\$104.14	1863	30	4	0	1308	0
23 Shaftsbury/Pownal	4	3137	200	0	0	0.00	6.38	\$14,738.75	\$73.69	9797	49	0	0	1700	0
24 Swanton	2	2689	137	3	100	72.99	5.09	\$5,626.56	\$41.07	4920	35	1	0	0	0
<b>TOTALS</b>	<b>679</b>	<b>271711</b>	<b>16506</b>	<b>692</b>	<b>2186</b>	<b>13.24</b>	<b>4.19</b>	<b>\$965,070.90</b>	<b>\$73.46</b>	<b>947625</b>	<b>63</b>	<b>972</b>	<b>183.5</b>	<b>378403</b>	<b>510484</b>

- <sup>1</sup> Includes Underhill.
- <sup>2</sup> Includes Upper Valley Lake Sunapee, Corinth, Fairlee, Hartford and some NH wastes
- <sup>3</sup> Includes the town of Mount Holly for 1 collector
- <sup>4</sup> Includes the towns of North Hero and Grand Isle
- <sup>5</sup> Includes the following towns: Albany, Barton, Brownington, Burke, Charleston, Coventry, Glover, Greensboro, Irasburg, Jay, Lowell, Newport Town, Newport City, Troy, and Westfie
- <sup>6</sup> Includes the towns of Arlington, Dorset, Manchester, Rupert, Sandgate, and Sunderland

**SUMMARY**

The following 2003 HHW/CEG Hazardous Waste Collection Data was tabulated from Solid Waste Districts, Alliances and Municipalities representing 92% of Vermont households. These statewide collections cost approximately \$965,000, served approximately 16,500 participants and collected approximately 474 tons of Hazardous waste, 180 pounds of mercury, 970 pounds of mercury-added products/debris and 378,000 linear feet of fluorescent lamps. In comparison, 2002 saw 95% of Vermont Households represented, cost approximately \$819,000, served approximately 18100 participants and collected approximately 511 tons of Hazardous Waste, 168 pounds of mercury, 1740 pounds of mercury-added products/debris and 338,000 linear feet of fluorescent lamps. The following is a comparison of the 2003 and 2002 collection years.

1. Average statewide cost per participant in 2003 was approximately \$73.46. This is an increase from 2002 when the average cost per participant was \$71.92. In addition, the total cost for statewide collections in 2003 was approximately \$146,000 more than 2002 (\$965,000 vs. \$819,000). This can be attributed to the rising cost of HHW/CEG collection and disposal, as well as the limited numbers of Hazardous Waste contractors available to provide these services. 2003 when compared to 2002 saw an increase in the hazardous waste collected (474 tons vs. 511 tons).
2. 2003 Statewide participation saw a decrease in the total number of participants (16,500 vs. 18,100) in comparison to 2002, and a decrease in the average statewide participation (4.19% vs. 5.19%). Of the participants for 2003, 692 were businesses and 2186 were repeat participants (repeat participants accounted for an average of 13% of the total 2003 participants). Fixed facilities, seasonal collections and some single-day collection events had higher than the state average participation rates (4.49%- 14.86%).
3. The amount of waste collected per participant stayed the same when compared with 2002 (63 pounds).
4. The number of collection events available statewide increased in 2003 compared to 2002 (679 vs. 609).
5. Approximately 180 pounds of elemental mercury, 970 pounds of mercury-added products/debris and 378,000 linear feet of fluorescent lamps was collected in 2003. In comparison, 2002 was approximately 168 pounds of mercury, 1740 pounds of mercury-added products/debris and 338,000 linear feet of fluorescent lamps collected.

Household estimates were derived from the US Census Bureau: *Population, Housing Units, Area and Density: 2000*.  
 Conversion factors used were 8 pounds per gallon, 400 pounds per 55-gallon drum, Gaylord or pallet and .15 pounds per linear foot of fluorescent lamps.

This information is a collection of Household Hazardous and Conditionally Exempt Generator (HHW/CEG) Waste surveys completed by various Solid Waste Districts, Alliances and Municipalities throughout the State of Vermont. Every attempt has been made to provide accurate information on Vermont's Household Hazardous Waste and Conditionally Exempt Generator waste collections. Multi-entrty collections and districts that provide collection services for other districts or municipalities have reported their collection numbers only (to help prevent any double counting). Any questions, suggestions or corrections, please feel free to contact , Thomas A. Benoit, Sr at (802) 241-3472 or e-mail at thomas.benoit@anr.state.vt.us.

Revised May 7, 2004