

2023 Solid Waste Data Update



Solid Waste Advisory Committee

November 7, 2024

John Fischer

2022-2023 Summary

Table 2 Solid Waste Tonnage and Percent Change Summary: 2022 - 2023

			2022	2023	Tons Change	% Change
Disposal (Incl. Net Exports)			6,000,000	6,160,000	160,000	2.7%
In-State Disposal			3,420,000	3,450,000	30,000	0.9%
	Landfill		490,000	460,000	(30,000)	-6.1%
		MSW	410,000	380,000	(30,000)	-7.3%
		C&D	-	-	-	
		Other Non-MSW	80,000	70,000	(10,000)	-12.5%
	Combustion		2,930,000	2,990,000	60,000	2.0%
		MSW	2,900,000	2,960,000	60,000	2.1%
		Non-MSW	20,000	30,000	10,000	50.0%
Net Exports			2,590,000	2,710,000	120,000	4.6%
	Exports		2,890,000	3,040,000	150,000	5.2%
		MSW	1,380,000	1,610,000	230,000	16.7%
		Non-MSW	1,500,000	1,440,000	(60,000)	-4.0%
	Imports		300,000	340,000	40,000	13.3%
		MSW	230,000	270,000	40,000	17.4%
		Non-MSW	80,000	70,000	(10,000)	-12.5%

Note: % Change is calculated based on the rounded amounts in this table.

Percentages may not add exactly to 100% due to rounding.

2018-2023 Summary

Table 3 Solid Waste Disposal 2018-2023 (all data in tons)								
			2018	2019	2020	2021	2022	2023
Disposal			5,660,000	5,510,000	5,920,000	6,220,000	6,000,000	6,160,000
	Landfill		1,270,000	880,000	660,000	600,000	490,000	460,000
		MSW	1,190,000	820,000	570,000	490,000	410,000	380,000
		C&D	0	0	-	-	0	-
		Other	70,000	60,000	90,000	110,000	80,000	70,000
	Combustion		3,200,000	2,990,000	3,040,000	3,060,000	2,930,000	2,990,000
		MSW	3,180,000	2,970,000	3,020,000	3,060,000	2,900,000	2,960,000
		Non-MSW	20,000	10,000	20,000	10,000	20,000	30,000
	Net Exports		1,190,000	1,640,000	2,220,000	2,570,000	2,590,000	2,710,000
		Exports	1,820,000	1,970,000	2,470,000	2,920,000	2,890,000	3,040,000
		MSW	750,000	820,000	1,040,000	1,050,000	1,380,000	1,610,000
		Non-MSW	1,070,000	1,140,000	1,430,000	1,870,000	1,500,000	1,440,000
		Imports	630,000	330,000	250,000	360,000	300,000	340,000
		MSW	610,000	310,000	240,000	300,000	230,000	270,000
		Non-MSW	20,000	20,000	10,000	50,000	80,000	70,000

MSW & Non-MSW Summary

Table 4 MSW and Non-MSW Disposal 2018-2023

	2018	2019	2020	2021	2022	2023	% change vs 2018	% change vs 2022
Total Disposal (Tons)	5,660,000	5,510,000	5,920,000	6,220,000	6,000,000	6,160,000	9%	3%
MSW	4,510,000	4,310,000	4,390,000	4,300,000	4,460,000	4,680,000	4%	5%
Non-MSW	1,140,000	1,200,000	1,530,000	1,940,000	1,520,000	1,470,000	29%	-3%

Import/Export Data by State

Table 6 Disposal Import/Export Data by State (tons): 2022-2023					
MSW Exported			Non-MSW Exported		
State	2022	2023	State	2022	2023
AL	226,611	180,651	ME	1,817	0
CT	43,378	38,112	NH	225,144	212,174
ME	1,709	581	NY	103,882	95,776
MI	222,520	105,395	OH	1,125,612	1,019,290
NH	365,272	292,544	VA	34,123	47,441
NY	294,089	570,582	MI		26,108
OH	118,541	184,593	RI		1560
SC	94,899	112,901	AL		34,325
VA	17,906	122,227			
TOTAL	1,384,925	1,607,586	TOTAL	1,490,578	1,436,674
MSW Imported			Non-MSW Imported		
State	2022	2023	State	2022	2023
CT	28,908	31,161	CT	13,294	8,947
ME	4,903	11,154	ME	198	301
NH	65,002	86,497	NH	51,832	48,464
NY	0	29	RI	10,649	9,502
RI	124,903	136,983	VT	6	0
VT	1,491	1,700	NJ	261	106
PA		31	PA	14	0
TOTAL	225,207	267,555	VA		255
			KY		8
			TOTAL	76,254	67,583

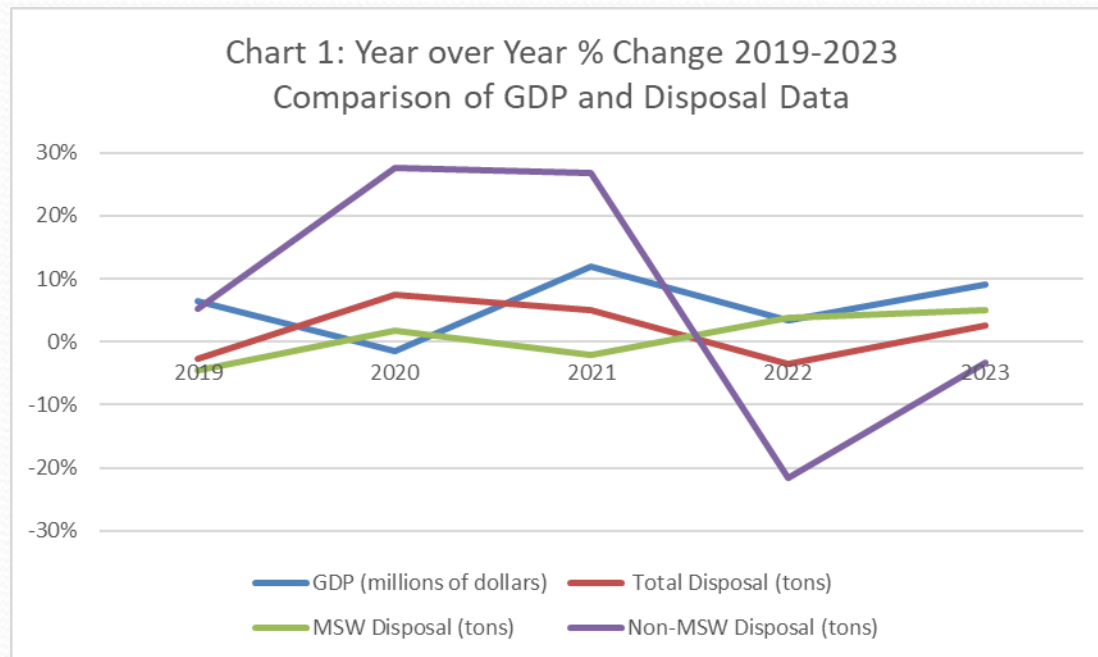
Food Waste Diversion Data

Type of Use	2016	2,017	2018	2019	2020	2021	2022	2023
Anaerobic Digestion	48,234	87,856	159,563	187,947	211,215	175,264	217,180	239,370
Compost	79,586	52,991	42,321	40,569	33,038	25,273	31,931	26,499
Animal Feed	26,250	26,777	39,593	40,014	8,828	24,719	43,033	43,820
Food Donation	22,712	25,940	26,637	27,703	30,004	23,592	22,085	24,773
Other	13,277	12,819	8,065	9,552	38,745	40,380	43,615	43,609
Rounded Total	190,000	210,000	280,000	310,000	320,000	290,000	360,000	380,000

Disposal & Gross Domestic Product

	2018	2019	2020	2021	2022	2023	% change vs. 2018	% change vs. 2022
GDP (millions of dollars)	567,255	604,208	595,183	665,893	688,392	750,435	32%	9%
Disposal (tons)	5,660,000	5,510,000	5,920,000	6,220,000	6,000,000	6,160,000	9%	3%
MSW Disposal (tons)	4,510,000	4,310,000	4,390,000	4,300,000	4,460,000	4,680,000	4%	5%
Non-MSW Disposal (tons)	1,140,000	1,200,000	1,530,000	1,940,000	1,520,000	1,470,000	29%	-3%
Accessed from the BEA website - https://bea.gov/regional/index.htm - June 2024								

Disposal vs. GDP



MWC Ash Management

Table 7: Municipal Waste Combustor Ash Management (2023)

Combustion Facility	Ash Disposed (tons)	Disposal Facilities	Pre-Combustion Metal Recovery (tons)	Post-Combustion Metal Recovery (tons)
Haverhill	117,439	Peabody Ash Monofill	221	19,306
Millbury	114,285	Shrewsbury	85	13,470
North Andover	94,482	Shrewsbury	6	11,903
Saugus	128,170	Saugus	1	8,770
SEMASS	179,714	Bourne, Carver/Marion/Wareham	27,785	9,805
Totals	634,090		28,098	63,254

Ash Landfills Capacity

Table 7A: Ash Landfills Anticipated Capacity	
Landfill	Projected Closure Year
Bondi's Island, Springfield	2030
Peabody	2033
Wheelabrator Saugus	2027
Wheelabrator Shrewsbury	2031

Landfill Cover Materials

Material Type	Tons
Contaminated Soil	168,133
Bottom Ash	59,997
Auto Shredder Residue/Auto Fluff	55,489
Sludge Ash	18,732
Street Sweepings	14,219
Other	13,572
Cullet (crushed glass)	10,162
Soil/Sand	6,930
Limestone/Sand	4,176
Wood Chips	3,719
Road Base	3,543
Compost	2,020
Catch Basin Cleanings	1,480
Dredge (fresh)	220
Foundry Sand	159
WWTP Grit	104
Total	362,655

Rail Transfer Capacity

Table 8: Summary of Rail Transfer Facilities

Facility Name	Region	Town	Current Status	Tons/Day	Tons/Year	Waste
Champion City Recovery	SERO	Brockton	Operating	1,000	286,000	C&D
Devens Recycling Center	CERO	Devens	Operating	1,500	390,000	MSW, C&D
Lenox Valley Waste Transfer Facility	WERO	Lenox	Operating	250	67,250	MSW, C&D
McNamara Transfer Station	WERO	Springfield	Operating	699	218,088	MSW, C&D
New England Waste Disposal	SERO	Taunton	Operating	1,650	495,000	MSW, C&D
Tri-County Recycling	WERO	Ware	Operating	750	195,000	C&D
Trojan Recycling	SERO	Brockton	Operating	500	140,400	MSW, C&D
Upper Cape Regional Transfer Station	SERO	Sandwich	Operating	286	74,360	MSW, C&D
United Materials Management of Leominster	CERO	Leominster	Operating	1,000	300,000	MSW, C&D
Western Recycling	WERO	Wilbraham	Operating	2000	312,000	MSW, C&D
Yarmouth-Barnstable Regional Rail Transfer Station	SERO	Yarmouth	Operating	530	137,800	MSW
Casella	WERO	Holyoke	Permitted	1,250	382,500	MSW, C&D
Howard Transfer Station*	NERO	Roxbury	Permitted	810	-	MSW-
Wood Recycling, Inc.*	NERO	Peabody	Permitted	1,350	-	MSW-C&D
Parallel Products of New England	SERO	New Bedford	Seeking approval	1,500	468,000	MSW, C&D
TLA Holbrook	SERO	Holbrook	Seeking Approval	1,000	260,000	MSW
Totals				16,075	3,726,398	

Disposal Facility Projections

Table 9: Projected Disposal Capacity 2024-2030 (Tons Per Year)											
Municipality	Permitted Capacity	End of current permitted capacity	Lifetime of LF	2024	2025	2026	2027	2028	2029	2030	
Active Landfills											
Bourne	30,000	2024	2040	30,000	219,000	219,000	219,000	219,000	219,000	219,000	
Dartmouth	115,000	2024	2028	115,000	115,000	115,000	115,000	115,000	0	0	
Middleborough	60,000	2031	2031	60,000	60,000	60,000	60,000	60,000	60,000	60,000	
Nantucket	26,000	2029	2029	26,000	26,000	26,000	26,000	26,000	26,000	0	
Westminster	538,200	2030	2030	538,200	538,200	538,200	538,200	538,200	538,200	538,200	
Total Permitted Landfill Capacity				769,200	958,200	958,200	958,200	958,200	843,200	817,200	
Adjusted Total Landfill Capacity				611,138	761,301	761,301	761,301	761,301	669,932	649,275	
Municipal Waste Combustors											
Haverhill	602,250			602,250	602,250	602,250	602,250	602,250	602,250	602,250	
Millbury	529,575			529,575	529,575	529,575	529,575	529,575	529,575	529,575	
North Andover	547,500			547,500	547,500	547,500	547,500	547,500	547,500	547,500	
Rochester	1,250,000			1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	
Saugus	547,500			547,500	547,500	547,500	547,500	547,500	547,500	547,500	
Total Permitted Combustion Capacity				3,476,825	3,476,825	3,476,825	3,476,825	3,476,825	3,476,825	3,476,825	
Adjusted Total Combustion Capacity				3,018,041	3,018,041	3,018,041	3,018,041	3,018,041	3,018,041	3,018,041	
TOTAL POTENTIAL INSTATE DISPOSAL CAPACITY				3,629,179	3,779,341	3,779,341	3,779,341	3,779,341	3,687,972	3,667,315	
KEY:											
Permitted Capacity	Number without shading										
Potential Additional Capacity	Number with shading										
79% of permitted LF capacity used and 87 % of available potential combustion capacity used for purposes of projecting capacity.											
Actual combustion varies per year, has never reached total permitted capacity											
MWC permitted capacity is not a fixed tonnage amount, but rather a function of the facility's air permit and may vary slightly.											
2023 % Landfill Capacity used	79%										
2023 % Permitted Combustion Capacity Used	87%										
Note: Bourne 189,000 of 219,000 tons of annual capacity dedicated to SEMASS ash disposal through 2024.											

Capacity & Net Export Projections

Table 10: Waste Management Capacity Projections: 2024-2030							
	2024	2025	2026	2027	2028	2029	2030
Total Disposal (baseline)	6,156,847	6,156,847	6,156,847	6,156,847	6,156,847	6,156,847	6,156,847
Total Disposal (reduced)	5,788,668	5,442,505	5,117,043	4,811,044	4,523,344	4,252,848	3,998,528
Combustion Capacity	3,018,041	3,018,041	3,018,041	3,018,041	3,018,041	3,018,041	3,018,041
Potential LF Capacity	611,138	761,301	761,301	761,301	761,301	669,932	649,275
In-state Disposal Capacity	3,629,179	3,779,341	3,779,341	3,779,341	3,779,341	3,687,972	3,667,315
Net Disposal Export (baseline disposal)	2,527,668	2,377,506	2,377,506	2,377,506	2,377,506	2,468,875	2,489,532
Net Disposal Export (reduced disposal)	2,159,489	1,663,164	1,337,702	1,031,703	744,003	564,875	331,212
Assumptions for Annual Percent Change:							
Baseline Disposal Tonnage	0.0%						
Decreased Disposal Tonnage/year	5.98%						

For More Information

- <https://www.mass.gov/guides/solid-waste-master-plan#-solid-waste-data-updates->