

2015 Solid Waste & Waste Reduction Data

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Solid Waste Master Plan

Disposal Reduction Goals and Progress

- From 2014 forward – publishing disposal data only
- Evaluating progress towards primary 2020 Solid Waste Master Plan goals

GOALS

- 30% reduction by 2020 from 2008 baseline
 - 6,550,000 to 4,550,000 tons
- 80% reduction by 2050 (to 1,310,000 tons)

PROGRESS

- 2015 disposal = 5,510,000 tons
- 16 % reduction from 2008 to 2015

Change in Data Reports

- Still conducting other data analysis and program evaluation
 - Waste characterization data and analysis
 - Fall/winter characterization to be submitted later this month
 - Will review & post in spring 2017
 - Municipal recycling and solid waste data (grant applicants)
 - Available through 2015
 - Organics diversion data
 - Gathering/analyzing 2016 data in spring/summer 2017
 - Economic impacts analysis – completed & published

Disposal 2014 - 2015

Table 2 Solid Waste Tonnage and Percent Change Summary: 2014 - 2015

| | | 2014 | 2015 | Tons Change | % Change |
|-------------------------------------|------------|------------------|------------------|------------------|---------------|
| Disposal (Incl. Net Exports) | | 5,520,000 | 5,510,000 | (10,000) | -0.2% |
| In-State Disposal | | 4,830,000 | 4,630,000 | (200,000) | -4.1% |
| | Landfill | 1,560,000 | 1,380,000 | (180,000) | -11.5% |
| | MSW | 1,380,000 | 1,260,000 | (120,000) | -8.7% |
| | C&D | 50,000 | 50,000 | 0 | 0.0% |
| | Other | 130,000 | 70,000 | (60,000) | -46.2% |
| | Combustion | 3,270,000 | 3,250,000 | (20,000) | -0.6% |
| | MSW | 3,260,000 | 3,250,000 | (10,000) | -0.3% |
| | Non-MSW | 0 | 10,000 | 10,000 | NA |
| Net Exports | | 690,000 | 880,000 | 190,000 | 27.5% |
| | Exports | 1,190,000 | 1,380,000 | 190,000 | 16.0% |
| | MSW | 460,000 | 620,000 | 160,000 | 34.8% |
| | Non-MSW | 730,000 | 760,000 | 30,000 | 4.1% |
| | Imports | 490,000 | 500,000 | 10,000 | 2.0% |
| | MSW | 460,000 | 460,000 | 0 | 0.0% |
| | Non-MSW | 40,000 | 50,000 | 10,000 | 25.0% |

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

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

Disposal 2008-2015

Table 3 Solid Waste Disposal 2008-2015 (all data in tons)

| | | 2008 | 2010 | 2011 | 2012 | 2014 | 2015 |
|-----------------|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Disposal | | 6,550,000 | 5,430,000 | 5,610,000 | 5,400,000 | 5,520,000 | 5,510,000 |
| | Landfill | 1,740,000 | 1,560,000 | 1,650,000 | 1,700,000 | 1,560,000 | 1,380,000 |
| | MSW | 1,560,000 | 1,280,000 | 1,390,000 | 1,380,000 | 1,380,000 | 1,260,000 |
| | C&D | 130,000 | 120,000 | 70,000 | 100,000 | 50,000 | 50,000 |
| | Other | 50,000 | 170,000 | 190,000 | 220,000 | 130,000 | 70,000 |
| | Combustion | 3,230,000 | 3,180,000 | 3,260,000 | 3,210,000 | 3,270,000 | 3,250,000 |
| | MSW | 3,210,000 | 3,170,000 | 3,250,000 | 3,210,000 | 3,260,000 | 3,250,000 |
| | Non-MSW | 10,000 | 10,000 | 10,000 | - | - | 10,000 |
| | Net Exports | 1,580,000 | 690,000 | 700,000 | 490,000 | 690,000 | 880,000 |
| | Exports | 1,850,000 | 1,270,000 | 1,340,000 | 1,050,000 | 1,190,000 | 1,380,000 |
| | MSW | 840,000 | 690,000 | 630,000 | 510,000 | 460,000 | 620,000 |
| | Non-MSW | 1,010,000 | 580,000 | 710,000 | 540,000 | 730,000 | 760,000 |
| | Imports | 270,000 | 580,000 | 640,000 | 560,000 | 490,000 | 500,000 |
| | MSW | 240,000 | 440,000 | 390,000 | 420,000 | 460,000 | 460,000 |
| | Non-MSW | 30,000 | 140,000 | 240,000 | 150,000 | 40,000 | 50,000 |

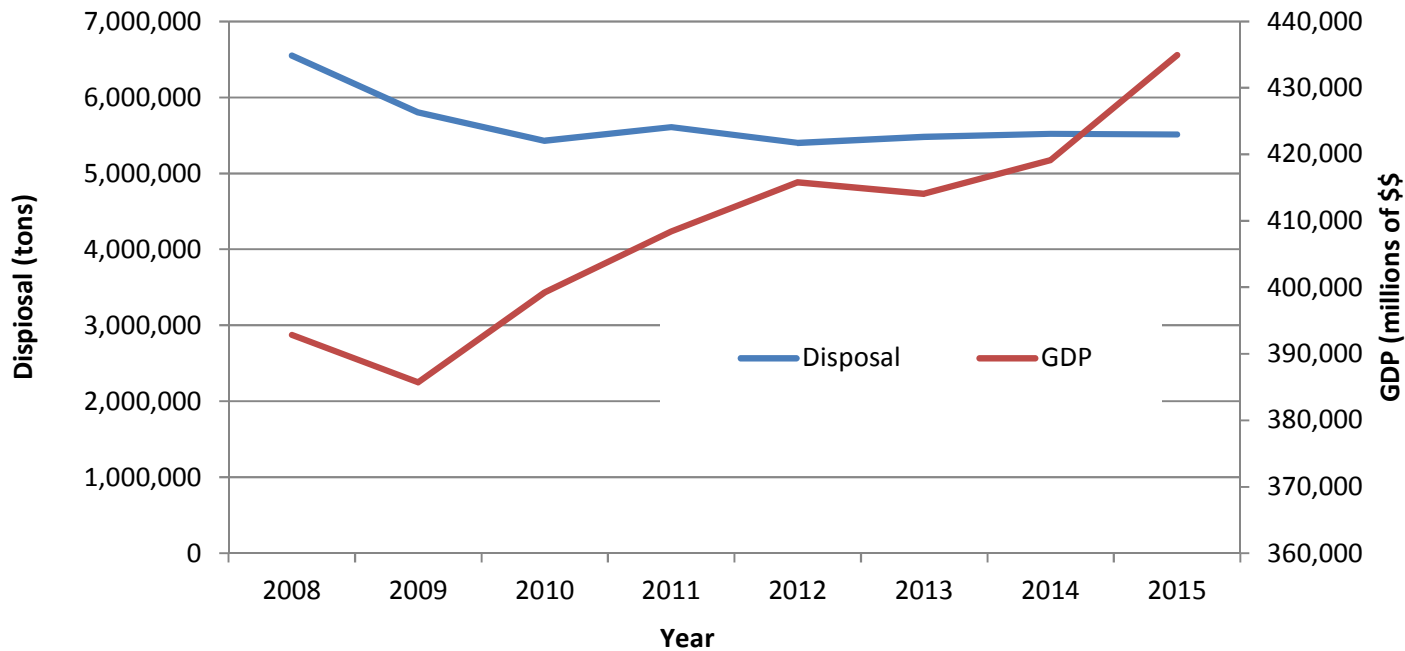
Amounts may not add exactly due to rounding.

*Non-MSW combustion was less than 5,000 tons

2009 Data is not shown in this chart

Disposal Data vs. Economic Change

Massachusetts Gross Domestic Product vs. Disposal (2008-2015)



MassDEP did not calculate disposal data for 2013.

MSW Export for Disposal

| MSW Exported | | | | |
|---------------------|--------------|----------------|----------------|----------------|
| | State | 2012 | 2014 | 2015 |
| | CT | 6,544 | 1,327 | 14,339 |
| | ME | 182,530 | 49,970 | 52,372 |
| | NH | 148,889 | 191,192 | 332,804 |
| | NY | 49,699 | 56,578 | 30,095 |
| | OH | 120,549 | 142,515 | 181,064 |
| | RI | 0 | 2,592 | 29 |
| | VT | 0 | 13,094 | 9,206 |
| | TOTAL | 508,211 | 457,269 | 619,909 |

MSW Import for Disposal

| MSW Imported | | | | |
|---------------------|---------------|----------------|----------------|----------------|
| | State | 2012 | 2014 | 2015 |
| | CT | 93,471 | 182,092 | 189,171 |
| | ME | 0 | 2,479 | 2,182 |
| | NH | 63,292 | 52,445 | 85,217 |
| | NY | 22,854 | 24,326 | 20,357 |
| | RI | 224,482 | 194,878 | 157,274 |
| | VT | 12,326 | 1,751 | 1,202 |
| | CANADA | 12 | 0 | 0 |
| | TOTAL | 416,437 | 457,971 | 455,403 |

C&D Export for Disposal

| C&D Exported | | | |
|-------------------------|----------------|----------------|----------------|
| State | 2012 | 2014 | 2015 |
| CT | 0 | 0 | 21,630 |
| ME | 7,449 | 9,389 | 11,863 |
| NH | 9,028 | 26,683 | 14,872 |
| NY | 41,779 | 31,710 | 68,274 |
| OH | 160,417 | 284,965 | 229,708 |
| RI | 27 | 27 | 827 |
| TOTAL | 218,700 | 352,774 | 347,174 |

C&D Import for Disposal

| C&D Imported | | | | |
|-------------------------|--------------|---------------|--------------|--------------|
| | State | 2012 | 2014 | 2015 |
| | CT | 20,045 | 129 | 4 |
| | ME | 0 | 1 | 22 |
| | NH | 6,255 | 6,066 | 4,801 |
| | RI | 8,309 | 561 | 76 |
| | VT | 5 | 24 | 0 |
| | TOTAL | 34,614 | 6,781 | 4,903 |

Other Non-MSW Import and Export

- 2015 Imported = 40,000 tons
- 2015 Exported = 410,000 tons
 - 330,000 tons to NH

Projected Disposal Capacity

Table 5: Projected Disposal Capacity 2016-2021 (Tons Per Year)

| Municipality | Permitted Capacity | End of current permitted capacity | Lifetime of LF | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|------------------------|-----------------------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Active Landfills | | | | | | | | | |
| Bourne | 219,000 | 2017 | 2024 | 219,000 | 219,000 | 219,000 | 219,000 | 219,000 | 219,000 |
| Carver | 620,500 | 2018 | 2021 | 620,500 | 620,500 | 620,500 | 620,500 | 620,500 | 620,500 |
| Chicopee | 365,000 | 2017 | 2018 | 365,000 | 365,000 | 91,250 | 0 | 0 | 0 |
| Dartmouth | 115,000 | 2018 | 2026 | 115,000 | 115,000 | 115,000 | 115,000 | 115,000 | 115,000 |
| Middleborough | 60,000 | 2020 | 2031 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 |
| Nantucket | 26,000 | 2020 | 2030 | 26,000 | 26,000 | 26,000 | 26,000 | 26,000 | 26,000 |
| Southbridge | 405,600 | 2017 | 2018 | 405,600 | 280,600 | 305,600 | 0 | 0 | 0 |
| Taunton | 120,120 | 2019 | 2020 | 120,120 | 120,120 | 120,120 | 120,120 | 120,120 | 0 |
| Westminster | 390,000 | 2017 | 2024 | 390,000 | 390,000 | 390,000 | 390,000 | 390,000 | 390,000 |
| Municipal Waste Combustors | | | | | | | | | |
| Agawam | 131,400 | | | 131,400 | 131,400 | 131,400 | 131,400 | 131,400 | 131,400 |
| Haverhill | 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 |
| North Andover | 460,500 | | | 460,500 | 460,500 | 460,500 | 460,500 | 460,500 | 460,500 |
| Pittsfield | 84,000 | | | 84,000 | 84,000 | 84,000 | 84,000 | 84,000 | 84,000 |
| Rochester | 1,250,000 | | | 1,250,000 | 1,250,000 | 1,250,000 | 1,250,000 | 1,250,000 | 1,250,000 |
| Saugus | 460,500 | | | 460,500 | 460,500 | 460,500 | 460,500 | 460,500 | 460,500 |
| | 5,839,445 | 3,518,225 | | | | | | | |
| TOTAL PERMITTED CAPACITY | | | | 5,839,445 | 5,714,445 | 4,856,695 | 3,724,345 | 3,604,225 | 3,578,225 |
| TOTAL POTENTIAL CAPACITY | | | | 5,839,445 | 5,714,445 | 5,465,695 | 5,068,845 | 5,068,845 | 4,948,725 |
| KEY: | | | | | | | | | |
| Permitted Capacity | Number without shading | | | | | | | | |
| Potential Additional Capacity | Number with shading | | | | | | | | |
| ESTIMATED TOTAL POTENTIAL AVAILABLE CAPACITY | | | | 4,894,859 | 4,820,726 | 4,673,201 | 4,437,843 | 4,437,843 | 4,366,604 |
| 67% of potential for LFs and 100 % of combustion capacity actual combustion amount will vary slightly year to year | | | | | | | | | |
| Total Potential Landfill Capacity | | | | 1,376,634 | 1,302,501 | 1,154,976 | 919,618 | 919,618 | 848,379 |
| Actual 2015 disposal for MWCs is actual tonnage burned minus post combustion metal recovery. | | | | | | | | | |
| MWC disposal capacity is not a fixed tonnage amount, but rather a function of the facility's air permit and may vary slightly. | | | | | | | | | |
| 2015 % Landfill Capacity use | 59% | | | | | | | | |

Waste Management Capacity Projections

Table 6: Waste Management Capacity Projections: 2016-2021

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|-----------|-----------|------------------|-----------|-----------|-----------|-----------|
| Total Disposal (baseline) | 5,506,259 | 5,506,259 | 5,506,259 | 5,506,259 | 5,506,259 | 5,506,259 | 5,506,259 |
| Total Disposal (reduced) | 5,506,259 | 5,332,811 | 5,164,828 | 5,002,136 | 4,844,569 | 4,691,965 | 4,544,168 |
| Combustion Capacity | 3,253,021 | 3,518,225 | 3,518,225 | 3,518,225 | 3,518,225 | 3,518,225 | 3,518,225 |
| Potential LF Capacity | 1,376,634 | 1,376,634 | 1,302,501 | 1,154,976 | 919,618 | 919,618 | 848,379 |
| In-state Disposal Capacity | 4,629,655 | 4,894,859 | 4,820,726 | 4,673,201 | 4,437,843 | 4,437,843 | 4,366,604 |
| Net Disposal Export (baseline disposal) | 876,604 | 611,400 | 685,533 | 833,058 | 1,068,415 | 1,068,415 | 1,139,654 |
| Net Disposal Export (reduced disposal) | 876,604 | 437,952 | 344,102 | 328,935 | 406,725 | 254,121 | 177,563 |
| Assumptions for Annual Percent Change: | | | 2016-2021 | | | | |
| Baseline Disposal Tonnage | | | 0.0% | | | | |
| Decreased Disposal Tonnage | | | -3.2% | | | | |
| 2015 data shows actual figures. | | | | | | | |
| Combustion Capacity is projected to remain level from 2016 through 2021 based on permit limits. | | | | | | | |
| Future landfill capacity is calculated to be 59% of total potential based on 2015 acceptance rate. | | | | | | | |

Contact Information

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<http://www.mass.gov/dep/recycle/priorities/dswmpu01.htm>