

Trash in Massachusetts: State of the State

A Brief Synopsis, with a National Report

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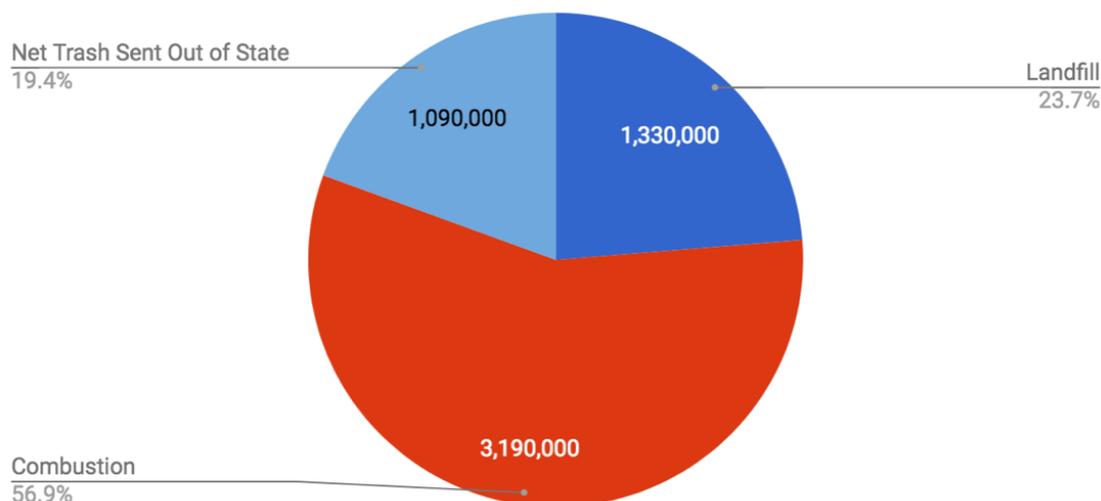
After decades of focusing on the 'recycling' part of reduce, reuse, recycle, it's time to step back and truly consider the first mandate in that mantra: Reduce. We cannot recycle our way out of all the waste we create. As the attached national report chronicles, we are trashing our health and our environment by producing too much stuff, most of which ends up in landfills, incinerators, or as litter. It's time to fully embrace the goal of zero waste here in Massachusetts and around the country. This state of the state provides a synopsis of the problems we face and the solutions we should pursue in the Commonwealth.

The Problem

1. ***There is too much stuff that is thrown away.*** In 2016, Massachusetts residents disposed of over 5.6 million tons of solid waste into landfills and incinerators,ⁱ an amount that exceeds the 5.4 million tons of solid waste disposed of in 2010,ⁱⁱ indicating that our efforts at reducing and diversion are stalling. (see Fig. 1.1 below)
2. ***Massachusetts' incinerators and landfills are old and harmful to our health.*** We have 7 active incineratorsⁱⁱⁱ and 20 active landfills^{iv} in MA. Landfills leak, as evidenced by the Casella landfill in Southbridge^v and incinerators spew pollution, such as the one in Saugus, which produces harmful toxics.^{vi}
3. ***We are missing opportunities to repurpose our trash.*** Almost 80% of what Massachusetts burned at one of its largest incinerators in 2016 could have been reused, recycled, or composted.^{vii}
4. ***We can no longer ship our problems overseas.*** China recently stopped accepting our ample contaminated waste exports^{viii} – a wake-up call driving home the fact that we simply make and toss too much stuff.
5. ***Over a quarter of our trash is food waste.***^{ix} This is a double whammy because when food waste is sent to landfills it creates greenhouse gas emissions and misses an opportunity to be consumed or used as valuable composted material.^x
6. ***Plans are made but not kept.*** The Massachusetts Department of Environmental Protection (MassDEP) has written master plans for each of the last three decades. The 2010-2020 Plan is only the most recent example in which goals have been set and not reached. For example, the 2010-2020 Plan set the goal of reducing annual disposal to 4.55 million tons in 2020, yet between 2010 and 2016 annual disposal hovered between 5.4 and 5.61 million tons.^{xi} Without stopping and reckoning with how and why those plans fall short, the cycle will continue.

Fig. 1.1 In 2016, Massachusetts disposed of over 5 million tons of waste.^{xii}

Solid Waste Disposal (tons) 2016



The Solution

In Massachusetts and around the country, there are many things we could do to address the problem of generating and disposing of too much waste, starting with making a commitment to zero waste as a goal. Zero waste supports a “circular” or “closed loop” economy in which we reduce what we consume, and all materials are reused, recycled, and composted in a continuous cycle. This requires:

- voluntary and legislative action to reduce waste and redirect remaining materials from disposal to recycling
- more infrastructure for collection, processing, composting, and end-use of recycled materials
- cleaner recyclables that can find their way to stable markets

Zero waste policies reduce waste, conserve resources, prevent pollution, reduce greenhouse gas emissions, and put us firmly on a path to a more sustainable economy.

Tools to get to zero waste in Massachusetts already exist; including, but not limited to:

1. **Enforce our waste bans.** Though many recyclables in Massachusetts are banned from being disposed of in landfills or incinerators, these materials account for 40% of trash in the state (excluding food waste)^{xiii} – more than 2 million tons a year.^{xiv} Enforcing the waste bans would divert most if not all of that from disposal.
2. **Expand food waste diversion.** In 2014, the MassDEP banned the disposal of commercial organic waste (such as food) by businesses and institutions that dispose of more than one ton of these materials per week. As a result, there has been a significant increase in food

rescue and diversion from disposal, with the reported diversion in 2016 about 150,000 tons more than in 2014.^{xv}

3. **Build infrastructure.** For decades, we have built and expanded landfills and incinerators. This has set us up to dispose rather than to recycle and compost. We need to turn this ship around and create the infrastructure of wide scale anaerobic digesters, curbside compost and recycling. We need to expand deposit systems that have proven to reduce waste. In 2016, more than twice as many recyclable containers without a deposit were burned in incinerators than recyclable beverage containers with a deposit.^{xvi}
4. **Ban single use plastic.** In the last thirty years there has been an explosion of single use products, such as plastics bags, that are choking our marine life, clogging sewers and drains, increasing litter, and polluting our oceans and waterways. Many cities, states, and countries have banned plastic bags, include 80 Massachusetts cities and towns,^{xvii} in order to significantly reduce that waste. Two big steps forward would be enacting statewide bans on plastic bags and single-use polystyrene (commonly called Styrofoam) across the Commonwealth.
5. **Strengthen markets for recycled materials.** We need to strengthen market infrastructure to help manufacturers utilize recyclable materials as feedstock, encourage and nurture innovative new ideas, and create a zero-waste business strategy.
6. **Ensure the right to repair.** In Massachusetts approximately 8,100 cellphones are thrown out each day, and it is estimated 40% of the heavy metals in U.S. landfills come from discarded electronics.^{xviii} The “Right to Repair” gives every consumer and small business access to the parts, tools and service information they need to repair products so we can keep things in use and reduce waste.

An Immediate Opportunity

Right now, the Massachusetts Department of Environmental Protection (MassDEP) is at the beginning stages of drafting its 2020-2030 Solid Waste Master Plan. According to the MassDEP, the plan provides “the overall framework, direction, and goals for solid waste reduction and management policy in Massachusetts.”^{xix} In order to actually make progress towards zero waste between 2020 and 2030, we need the MassDEP and our decision makers to:

1. **Rename the Solid Waste Master Plan to be the Zero Waste Master Plan.** The Zero Waste International Alliance has established a peer-reviewed, internationally accepted definition of zero waste—this is the standard we should hold ourselves to if we truly want the 2020-2030 plan to get us on the right track.
2. **Evaluate the 2010-2020 Plan.** If we do not learn from our mistakes, we are doomed to repeat them. The first step in drafting the next plan should be a robust review of the last and an assessment of which goals we are on track to meet, which we will not meet, and which we do not have the information to assess.
3. **Look at best practices around the country.** The city of San Francisco set a goal of achieving “Zero Waste by 2020” in 2002 and now diverts 80 percent of discarded materials from landfills and incinerators,^{xx} through a variety of measures. The state of Vermont passed

a Universal Recycling Law in 2012 that phases in landfill bans over a six-year period. By 2020, all recyclable and compostable materials will be banned from landfills with a goal of reducing landfill waste by 25 percent by that time.^{xxi}

4. **Get robust citizen input on the plan.** Getting input on the Plan is a win/win—it educates the public about zero waste, and builds investment in reaching that goal. We also need to gather the input of businesses; not just waste haulers but all businesses that generate waste, from small to large.
5. **Coordinate and cooperate between the DEP, municipalities, and state legislature.** We need a tri-lateral working group in order to reach the goal of zero waste state-wide.
6. **Enforceable goals.** The plan needs more than good data and policies to succeed. It requires a commitment by the administration and the legislature to invest in staff and programs, mechanisms for automatic enforcement, scheduled reviews of progress and reevaluations of success.
7. **Set better metrics and collect better data.** In order to track our progress towards our goal of zero waste, we must collect needed data. We need to know how much waste we generate, and then how much annually is recycled, composted, or diverted through other means. We also need to know how much waste is disposed of or materials recycled and composted by the business and industry.

There are few incentives in America’s system of consumption and waste handling to drive individuals and businesses to change their behavior. In fact, it is often beneficial for producers to make goods intended to be used once or temporarily so that consumers continually buy more. This is why we need leadership at the state level, through legislation, through corporate responsibility, through citizen participation, and from the DEP and our administration to ensure a future of zero waste in Massachusetts.

The National Report: Trash in America

To read the national report *Trash in America: Moving from Destructive Consumption to a Zero-Waste System*, please visit <https://uspig.org/sites/pirg/files/cpn/USP-041218-A10-REPORT/Trash-in-America-2018.html>.



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- ⁱ Massachusetts Department of Environmental Protection, *2016 Solid Waste Data Update*, February 2018.
- ⁱⁱ *Ibid.*
- ⁱⁱⁱ Massachusetts Department of Environmental Protection, *Active Combustion Facilities*, February 2018, 3.
- ^{iv} Massachusetts Department of Environmental Protection, *Active Landfills*, February 2018, 5.
- ^v Kirstie Pecci, Conservation Law Foundation, *Victory: Southbridge Landfill Ordered to Close All Operations in Charlton Due to Zoning Law Violation*, 11 May 2017, archived at <https://web.archive.org/web/20180710135511/https://www.clf.org/blog/victory-southbridge-landfill-ordered-close-operations-charlton-due-zoning-law-violation/>; Toxics Action Center, *Leaking Landfill Announces Closure*, accessed on 10 July 2018, archived at <https://web.archive.org/web/20180710135122/https://toxicsaction.org/leaking-landfill-announces-closure/>.
- ^{vi} Kirstie Pecci, Conservation Law Foundation, *Massachusetts Wants to Let Most Dangerous Landfill in the State Operate for Five More Years*, 17 November 2017, archived at <https://web.archive.org/web/20180710135845/https://www.clf.org/blog/saugus-ma-landfill-dangerous/>; Greta Jochem, “An Incinerator Divides a Town Near Boston,” *City Lab*, 1 February 2018, archived at <https://web.archive.org/web/20180710135846/https://www.citylab.com/environment/2018/02/a-n-incinerator-divides-a-town-near-boston/552053/>.
- ^{vii} Charles River Watershed Association, Clean Water Action, Conservation Law Foundation, Environmental League of Massachusetts, Environment Massachusetts, and Massachusetts Sierra Club, *Massachusetts Energy and Environment Report Card Year Three*, 2018, 43; Massachusetts Department of Environmental Protection, *Summary of Waste Combustor Class II Recycling Program Waste Characterization Studies (Includes 2010, 2013 & 2016 Data)*, February 2017, archived at <https://web.archive.org/web/20180802202536/https://www.mass.gov/guides/solid-waste-master-plan>.
- ^{viii} David Abel, “New China Policies Spark Disarray in region’s recycling industry,” *The Boston Globe*, 5 June 2018.
- ^{ix} Massachusetts Department of Environmental Protection, *Summary of Waste Combustor Class II Recycling Program Waste Characterization Studies (Includes 2010, 2013 & 2016 Data)*, February 2017, archived at <https://web.archive.org/web/20180802202536/https://www.mass.gov/guides/solid-waste-master-plan>.
- ^x Lillianne Brown, United States Environmental Protection Agency, *Food Waste Diversion is Key to a Sustainable Community*, archived at <https://web.archive.org/web/20180808134256/https://blog.epa.gov/blog/2014/12/food-waste-diversion-is-key-to-a-sustainable-community/>, 10 December 2014.
- ^{xi} See Note i.
- ^{xii} See Note i.
- ^{xiii} Charles River Watershed Association, Clean Water Action, Conservation Law Foundation, Environmental League of Massachusetts, Environment Massachusetts, and Massachusetts Sierra Club, *Massachusetts Energy and Environment Report Card Year Three*, 2018, 41.

^{xiv} This calculation is based on the fact that between 2008 and 2016 MA has disposed of more than 5 million tons of trash yearly, and 40% of 5 million is 2 million; Massachusetts Department of Environmental Protection, *2016 Solid Waste Data Update*, February 2018.

^{xv} Charles River Watershed Association, Clean Water Action, Conservation Law Foundation, Environmental League of Massachusetts, Environment Massachusetts, and Massachusetts Sierra Club, *Massachusetts Energy and Environment Report Card Year Three*, 2018, 42.

^{xvi} In 2016, the average % composition of waste combusted in the six largest incinerators in MA of the following items was:

PET Beverage Containers (non-MA deposit containers)”	.6%
Aluminum Beverage Containers (non-MA deposit containers)	.1%
Glass Beverage Containers (non-MA deposit containers)	.5%
Plastic MA Deposit Beverage Containers	.1%
Aluminum MA Deposit Beverage Containers	.1%
Glass MA Deposit Beverage Containers	.3%

Total average % composition of waste combusted of plastic, aluminum, and glass beverage containers without a deposit was 1.2%, and the total average % composition of waste combusted of plastic, aluminum, and glass beverage containers with a deposit was .5%. 1.2% is more than double .5%.

Massachusetts Department of Environmental Protection, *Summary of Waste Combustor Class II Recycling Program Waste Characterization Studies (Includes 2010, 2013 & 2016 Data)*, February 2017.

^{xvii} Sierra Club, *Plastic Bags*, accessed 21 June 2018, archived at <http://web.archive.org/web/20180621193446/https://www.sierraclub.org/massachusetts/plastic-bags-0>.

^{xviii} Nathan Proctor, US PIRG, *Recharge Repair*, February 2018.

^{xix} Massachusetts Department of Environmental Protection, *Solid Waste Master Plan*, accessed 21 June 2018, archived at <http://web.archive.org/web/20180621160241/https://www.mass.gov/guides/solid-waste-master-plan>.

^{xx} San Francisco Department of the Environment, *Zero Waste – Frequently Asked Questions*, 26 January 2018, archived at <http://web.archive.org/web/20180126205825/https://sfenvironment.org/zero-waste-faqs>; Mayor’s Office of Communications and San Francisco Department of the Environment, *Mayor Lee Announces San Francisco Reaches 80 Percent Landfill Waste Diversion, Leads All Cities in North America* (press release), accessed on 8 August 2018, archived at <https://web.archive.org/web/20180803145148/https://sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america>.

^{xxi} Vermont Department of Environmental Conservation, *Vermont’s Universal Recycling Law Status Report*, December 2016; Vermont Agency of Natural Resources, *Composting Just Got Easier* (press release), accessed on August 8 2018, accessed at <http://anr.vermont.gov/news/2017-recycling-just-got-easier>.