



Why Does Massachusetts Need a Bag Law?

There are too many bags. Every year, Americans discard 100 billion single-use plastic bags.¹ Without regulations, over **3.6 billion plastic bags would be used annually in the Commonwealth of Massachusetts** alone, including over 2.1 billion thin-film grocery bags.²

Momentary convenience, permanent damage. Plastic bags are used for an average of 12 minutes, but a **single plastic bag has a life expectancy of up to 1,000 years.**³

We pay for “free” bags. The plastic bag industry collects \$4 billion per year in profits from US retailers, who pass the costs on to customers.⁴ **If there were no bag laws, local retailers Massachusetts alone would spend over \$145.7 million per year on plastic bags**, including almost \$31.6 million for thin-film grocery bags.⁵

Plastic bags waste taxpayer dollars. Each month, Massachusetts produces between **100 and 125 tons of bag waste**. Plastic bags get caught in our single-stream recycling machinery, causing delay and damage, and contaminating materials that might be recovered.⁶

Plastic bags contribute to global warming. Plastic bags are created from non-renewable resources. More than 1.6 billion gallons of oil are used each year for plastic bags alone. **Shopping bags discarded in Massachusetts produce over 97,000 metric tons of CO₂ per year.**⁷

Plastic bags are a major source of litter. Even when disposed properly, bags end up in trees, gutters, roadsides, and waterways thanks to their light weight and aerodynamic qualities.⁸

Plastic bags are destroying our oceans. Approximately 8 million metric tons of plastic debris enters the world's oceans each year. **By 2050, the oceans will contain more plastic than fish.**⁹

Plastic bags entangle and are ingested by pets and wildlife. Some ocean animals, mistaking bags for food, fill their stomachs with plastic and die of starvation. As microscopic particles, plastic displaces plankton in the marine food chain. A recent study found that **25% of fish sold in supermarkets contain plastic debris.**¹⁰

80 cities and towns in Massachusetts have passed bag laws. On January 1st 2015, there were only seven bag laws in the state. Today, one out of three residents lives in a city or town that has passed a bag law. **The trend is clear: the people of Massachusetts want to stop waste.**¹¹

¹ Earth Policy Institute and Worldwatch Institute, *State of the World 2004*.

² Metrics for Massachusetts are based on a population of 6.86 million (2017) and an annual use rate of 531 bags/person. Other estimates are as high as 1,093 bags per person per year. For a discussion of usage rates, see Parsons Brinckerhoff Consulting, *Final Environmental Impact Report, Single-Use Carryout Bag Ordinance, City of Los Angeles*. State Clearinghouse No. 201209053 (May 2013), p. 166. The figure for thin-film grocery bags is from US International Trade Commission, *Polyethylene Retail Carrier Bags from China, Indonesia, Malaysia, Thailand and Vietnam*, pub. 4605 (April 2016), p.60.

³ <http://edition.cnn.com/2008/WORLD/asiapcf/07/13/eco.plasticbagwaste/index.html>.

⁴ Telis Demos, Bag Revolution, *Fortune*, May 12, 2008.

⁵ Cost based on annual number of bags, with an average cost of 4 cents/bag (which range in cost from 1.5 cents for very thin convenience bags to 10 cents and up for thick boutique bags).

⁶ Testimony of Austin McKnight, Casella Recycling, to Boston City Council, November 2016.

⁷ <https://fooddemocracy.wordpress.com/2008/07/16/plastic-bags-and-oil-consumption/>. Local figure based on a calculation of 0.04 metric tons of CO₂ per 1500 bags. See Parsons Brinckerhoff, *op cit.*, pp. 44-45. For an extended discussion see the report prepared for the Progressive Bag Alliance, a consortium of plastic bag manufacturers, by Boustead Consulting and Associates Ltd., *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper* (2007).

⁸ Brendle Group, *Triple Bottom Line Evaluation: Plastic Bag Policy Options*, City of Fort Collins, Oct 2012, 9.

⁹ World Economic Forum, *The New Plastics Economy: Rethinking the future of plastics*, Jan 2016

¹⁰ C. M. Rochman, et al, Anthropogenic debris in seafood: Plastic debris and fibers from textiles in fish and bivalves sold for human consumption, *Sci Rep* 5, 14340 (2015).

¹¹ For the current list of municipal bag laws in Massachusetts, see: <http://www.massgreen.org/plastic-bag->

Common Concerns

Isn't plastic better for the environment than paper?

No. This claim comes from a misunderstanding of life cycle analyses that do not account for the larger effects of plastic on environmental ecosystems. Plus, once people stop using plastic bags, they do not switch to paper. Instead, **people quickly grow accustomed to reusable bags.**¹²

Can't plastic bags be recycled?

In theory. But because manufacturing plastic bags is so cheap, recycling them is not cost-effective. Recycling one ton of plastic bags costs \$4,000; the recycled product can be sold for \$32. As a result, **less than 1-5 percent of plastic bags are recycled** each year.¹³

Don't reusable bags spread disease?

No. This claim comes from a ridiculous story about a norovirus outbreak among a girls' soccer team that had nothing to do with reusable bags. The story, spread by industry lobbyists, has been thoroughly debunked. **Washing reusable bags will kill any germs.**¹⁴

Won't bag laws hurt local businesses?

No. It is true that paper bags are more expensive than plastic. But multiple studies have shown that once a bag law is in place, **consumers become more conscientious and bring reusables, saving businesses money.** It was only in the 1980s that plastic checkout bags became so common. No one has ever lost customers because of a bag law.



Bag in a tree by the entrance to the Massachusetts State House
Photo by Lise Olney

Don't bag laws hurt the poor?

No. In fact, disadvantaged communities suffer disproportionately from environmental degradation, so they benefit the most from programs to cut litter. Plus, **reducing the amount of money spent on cleaning bag waste frees municipal funds for much-needed social programs.** Remember, bags aren't really free – their costs are just hidden.

Didn't Austin's bag law totally backfire?

Not at all. **Austin's law created a 75 percent bag waste reduction and removed 200 million plastic bags -- 50,000 pounds of plastic -- annually.** The problem was that some stores began distributing heavy-duty bags that were not designed for reuse, so people threw them out.¹⁵

Are bag laws really effective?

Yes, they're super effective. Without a fee, laws typically reduce bag waste by 60 to 80%. With a modest fee, **bag laws reduce both plastic and paper by more than 90 percent.**¹⁶

What will I use to pick up after my dog?

There are **plenty of alternatives for dog waste**, from newspaper, produce, and bread bags to low-cost biodegradable bags such as those from poopbags.com.

Isn't this Big Government taking away my freedom?

No. The legislature will be responding to the will of over two million people in Massachusetts who live in cities and towns that have passed bag laws. **It is up to the people to determine the standards for their commonwealth.**¹⁷

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¹² For a discussion of life cycle analyses, see <http://www.massgreen.org/plastic-is-not-greener-than-paper.html>.

¹³ <http://www.cleanair.org/Waste/wasteFacts.html>

¹⁴ See <https://myplasticfreelife.com/2012/05/dont-be-fooled-by-reusable-bag-norovirus-scare/>

¹⁵ See Rosie Newberry, "Reusable bags not fulfilling purpose in Austin," KXAN, 8/31/2015; and Asher Price, "Report: Post bag-ban Austin uses 200 million fewer plastic bags a year," *Austin-American Statesman*, 6/9/2015.

¹⁶ See the reports compiled at <http://www.massgreen.org/plastic-bag-impact.html>.

¹⁷ See John Locke on liberty and responsibility, *Second Treatise on Government* (1689), §6.