

February 17, 2018

RE: Support for Lincoln Bylaws to Reduce Single-Use Plastic Bag and Water Bottle Pollution

To the Lincoln Town Meeting:

The Surfrider Foundation is a nonprofit environmental organization dedicated to the enjoyment and protection of the world's ocean, waves, and beaches through a powerful activist network. Our Massachusetts Chapter is active in several coastal issues, including protecting public beach access, advancing smart coastal preservation strategies, advocating for improved water quality, and mitigating plastic marine debris. As a national organization founded in 1984 and comprising over 80 grassroots chapters and 70 youth clubs, we have considerable experience and data to share from efforts to reduce plastic bag pollution in Massachusetts and across the United States.

We strongly support restrictions on single-use plastic bags and water bottles like those currently before the Lincoln Town Meeting. Each year, ~300 plastic bags are used by an average resident of Massachusetts,¹ while 39.3 gallons of bottled water are consumed by an average American.² This corresponds to around 2 million single-use bags and another 2 million single-use bottles annually in Lincoln alone.

Single-use plastic checkout bags and water bottles are particularly egregious examples of unnecessary plastic consumption, because sustainable, economical alternatives – namely reusable bags and high-quality tap water – are readily available and already widely in use. The tens of millions of barrels of oil equivalents used and millions of tons of CO₂ emitted to produce disposable bags and bottles in the US each year are heavy costs to pay for the momentary convenience of disposable goods.³

Both plastic bags and beverage bottles are commonly littered, and are prone to being transported by winds and storm runoff from land into the ocean. This is supported by observations from the local beach cleanups that our chapter regularly organizes, as well as worldwide data from the 2017 International Coastal Cleanup showing that the 1.6 million plastic beverage bottles, and the ~890,000 grocery and other plastic bags collected were the 2nd and 3rd most common types of litter recovered from beaches.⁴

Once in the ocean, plastic pollution will remain for hundreds of years, all the while directly harming wildlife, absorbing and concentrating toxins, and disrupting critical ecosystems.⁵ It is an eyesore that hurts key industries like recreation and tourism⁶ and risks contaminating our food supply.⁷ Thin-film plastic bags are particularly problematic and costly because they can clog sewers and recycling machinery.

While techniques exist for recycling clean, dry, and carefully sorted plastic bags, recycling rates have remained dismally low, with US EPA data from 2003 to 2014 showing HDPE bag, sack, and wrap recycling rates averaging around 7%. The situation with PET beverage bottles is slightly better, but even then, nearly 7 in 10 bottles remain un-recycled.⁸

We absolutely recognize the importance of education to promote the responsible use and disposal of plastic materials. However, even dramatic increases in recovery rates would do nothing to reduce overall production of these fossil fuel-derived products, and would continue to allow an unacceptable amount of plastic pollution to enter our waterways and ocean. Combined with the fact that there are no economical or proven methods to recover significant quantities of plastic debris from the ocean, ***the only real solution is to stop plastic pollution at the source.***

Over the past 15 years, measures to limit plastic bag pollution have been adopted in countries worldwide and across the US, including the entire states of California and Hawai'i. Sixty-one other cities and towns in Massachusetts have enacted plastic bag restrictions, with the recent unanimous city council and mayoral approval in Boston exemplifying the overwhelming support such measures often carry. The results demonstrate clear decreases in both single-use carryout bag consumption and plastic litter, without placing any significant burdens on residents or businesses in these places.⁹ The time has long since passed when plastic bag bylaws to reduce pollution could be considered controversial.

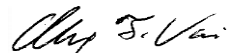
At the same time, Lincoln has a unique opportunity lead the way and join with its neighbors Concord and Sudbury in recognizing and acting on the waste and environmental threat posed by single-use water bottles.

The Surfrider Foundation Massachusetts Chapter further applauds the Lincoln-Sudbury Regional High School Environmental Club for spearheading this important effort in Lincoln. It is immensely heartening to see students not just acknowledge the significant dangers of plastic pollution now and to future generations, but to show commitment and courage in raising awareness, building consensus, and taking action in their community.

It is time for cities and towns across our entire state to recognize and act on the dangers associated with overconsumption of single-use items, and in particular, plastic carryout bags and bottled water. We are excited by the prospect that the Town of Lincoln may soon join in this effort to help protect the marine environment that we all enjoy, and upon which our collective economic and physical wellbeing depends.

Please do not hesitate to contact us if any details regarding our testimony would be useful to you. Thank you very much for your thoughtful consideration of this important matter.

Sincerely,



Alex T. Vai

*Volunteer Campaigns Coordinator, Surfrider Foundation Massachusetts Chapter
LSRHS, Class of 2007*

¹ "Plastic Bags." *Sierra Club Massachusetts Chapter*, <http://www.sierraclub.org/massachusetts/plastic-bags-0>.

² "Bottled Water Market." *International Bottled Water Association*. <http://www.bottledwater.org/economics/bottled-water-market>.

³ Gleick, P.H. and Cooley, H.S. "Energy implications of bottled water." *Environ. Res. Lett.*, 2009, 4, 014009.

⁴ *Together for Our Ocean: International Coastal Cleanup 2017 Report*. Ocean Conservancy, 2017.
<https://oceanconservancy.org/wp-content/uploads/2017/06/International-Coastal-Cleanup-2017-Report.pdf>.

⁵ "Plastics." *NOAA Marine Debris Program*, <https://marinedebris.noaa.gov/info/plastic.html>.

⁶ *Plastic Bag Reduction Bylaw*. Town of Wayland, 2015.



⁷ Seltenrich, N. "New Link in the Food Chain? Marine Plastic Pollution and Seafood Safety." *Environ. Health Perspect.*, 2015, 123(2), A34. <https://ehp.niehs.nih.gov/123-a34/>.

⁸ *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures*. US EPA, 2003-2012. <https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/msw99.html>; *Advancing Sustainable Materials Management: Facts and Figures*. US EPA, 2013-2014. <https://www.epa.gov/smm/advancing-sustainable-materials-management-facts-and-figures>.

⁹ "Plastic Bag Impact." Mass Green Network, <http://www.massgreen.org/plastic-bag-impact.html>.





WE WANT YOU!

BYOB&B



**BRING YOUR OWN
BOTTLES & BAGS**

Articles 32 and 33

Plastic Reduction Petitions

We are the LS Environmental Club, and we have two initiatives on the agenda for the upcoming town meeting.

One initiative bans the sale of plastic water bottles, and the other bans plastic bags. We aim to use a combination of legislation and public education to reduce the amount of plastic waste in Lincoln.

We understand that the Lincoln School Committee organizes events in Lincoln and is impacted by the local bylaws. We want to clarify the implications of these bylaws in the event that they pass, and explain why they are important.

Proposed Bag Article: reducing the source

- **Thin plastic bags with handles may not be provided by stores**
- **This does not include plastic bags used for dry cleaning, newspapers, produce, or meat**
- **Stores may provide recyclable paper or reusable bags**
- **Bring your own bag!**

Proposed Bottle Article: sales restriction

- Non-reusable water bottles 1 liter or less would *not* be sold in town
- Does not include carbonated or flavored water
- Bring your own refillable water bottle!



Environmental Impact of Plastic

- About **20,000** plastic bottles are produced **every second** around the world
- Americans use **100 billion** plastic bags a year, which require **12 million** barrels of oil to manufacture.
- Single-use plastic water bottles in the US only have a **23%** recycling rate
- Globally, **5 million-13 million tons** of plastic leaks into the oceans each year, and it is estimated that by 2050 the ocean will contain more plastic by weight than fish





← The trash outside the Brooks Middle School Gym after a basketball game

- While Lincoln *is* a very green, clean town, the issue of plastic waste still exists
- Especially after sports events, many plastic water bottles are thrown in the trash



Health Concerns

- **Chemicals such as BPA in the plastic bottles may seep into the water and can cause birth defects, higher risks of cancer, & other medical issues**
- **Tap water is regulated by the EPA and tested multiple times a day -- bottled water is not as strictly regulated**

Alternatives for Single-Use Plastic Water Bottles



Best Alternative
Aluminum



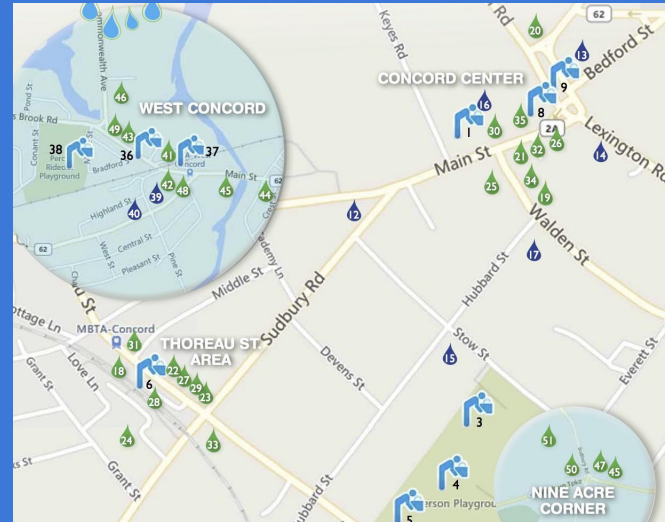
Additional Alternative
Paper



Opportunity
Reusable

Refill Stations

- **Attract more customers** by offering water at refill stations or taps
- Create a **Tap Map** that shows where bottles can be refilled--we invite businesses to participate in this positive informational campaign



Impact on Businesses

We have reached out to the manager of Crosby's in Concord and asked about the impact of the bottle ban on their business. He said that:

- Customers had mentioned the change in packaging from plastic to recyclable, but they were **still purchasing water**
- There had been **no drop in profit**
- **No drop in the number of customers** coming in

He reassured that Lincoln businesses "**have nothing to worry about**" and reiterated that the bottle ban has had **no impact** on Crosby's bottom line.

Committees, Businesses, and People Contacted/Met With

- Jim White (owner of Trails End and Lincoln Kitchen)
- Climate Justice Ministry (at St Anne's)
- Lincoln Land Conservation Trust and Rural Land Foundation
- John Snell (Green Energy Committee)
- Dan Pereira (Parks and Rec)
- Lincoln Police - notified of enforcement laws
- Donelan's - will comply with all state/town laws
- Board of Health - met on 2/28
- Council on Ageing - presented on 3/6
- Peter Von Mertens - full support
- Susan Brooks, Town Clerk - helped us with warrant article format
- Board of Selectmen - met in October and February
- Community outreach (working with St. Anne's and Mothers Out Front)
- Decordova and Country Pizza (gave them aluminum water bottles)

Local supporters

Sustainable Sudbury

Assabet NWR volunteers

Mass Green Network

Mothers Out Front (Lincoln)

First Parish of Sudbury

Casella Recycling (Sudbury Contractor)

Surfrider Foundation

Sierra Club Massachusetts

Concord On Tap Team

Humane Society of U.S.

350 Mass Metrowest

St Anne's Episcopal Church

UU Green Committee (Sudbury)

**61 Massachusetts cities and towns, about 30%
of the state's population, have passed plastic bag
regulation legislature**

Adams	Falmouth	Oak Bluffs
Amherst	Framingham	Plymouth
Aquinnah	Gloucester	Provincetown
Arlington	Grafton	Reading
Ashland	Great	Salem
Athol	Barrington	Sandwich
Barnstable	Hamilton	Shrewsbury
Bedford	Harwich	Somerville
Boston	Ipswich	South Hadley
Bourne	Lee	Stockbridge
Bridgewater	Lenox	Sudbury
Brookline	Manchester-by-t	Tisbury
Brookline	he-Sea	Truro
Cambridge	Marblehead	Wakefield
Chatham	Mashpee	Watertown
Chilmark	Melrose	Wayland
Concord	Nantucket	Wellesley
Dalton	Natick	Wellfleet
Dennis	Newburyport	West Tisbury
Duxbury	Newton	Weston
Edgartown	Northampton	Williamstown
		Yarmouth

**US Cities/Towns with Single-Use
Plastic Water Bottle Regulations**

Concord, MA
San Francisco, CA
Sudbury, MA
Brookline, MA
(and many College/University Campuses)

**Lincoln can join these towns
and cities in reducing plastic
waste...**

We hope that in the future we can use aluminum bottles, refill stations, coolers and paper cups, or any other alternative to plastic to have water available at events in town.

We know that the Lincoln School Committee plays a part in this goal, and regardless of whether or not the bylaws pass, we want to work with you on ways we can rely less on plastic as a town.

Please don't hesitate to reach out with any questions, or check out our blog at <https://lsenvironmental.wordpress.com>

**Concluding
Message...BYOB&B!**



Thank You!!