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For a thriving New England

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April 26, 2019

Dear Chair Sheldon and Members of the House Committee on Natural Resources, Fish & Wildlife:

Thank you for the opportunity to provide testimony in support of Senate Bill No. 113. My name is Jen Duggan, and I am Vice President and Director of Conservation Law Foundation (CLF) Vermont. CLF is a nonprofit, member-supported, environmental organization working to conserve natural resources, protect public health, and build healthy communities in Vermont and throughout the New England region. CLF's Zero Waste Project aims to reduce waste and protect communities from unsafe and unsustainable plastic pollution and waste disposal.

CLF strongly supports Senate Bill No. 113, which prohibits food service establishments from providing single-use plastic carryout bags and certain expanded polystyrene food service products to customers; limits the distribution of single-use plastic straws to those customers that request a straw; and imposes a charge on single-use paper bags of 5 cents per bag. The bill also establishes a working group to identify future opportunities to reduce plastic pollution. This bill is an important step forward in protecting Vermont communities and the environment from dangerous plastic pollution.

## I. Plastics pose a serious risk to public health, increase dangerous carbon emissions, and harm wildlife.

Plastic create dangerous pollution at every life cycle stage.[1] They are made from fossil fuels, which is often sourced from fracked gas in the United States.[2] The extraction process releases toxic substances into the air and water, posing serious health risks to nearby communities.[3] Over 170 different chemicals used to frack cause harmful impacts to health, including "cancer, neurotoxicity, immune system effects, changes in body weight and blood chemistry, liver and kidney toxicity, and reproductive and developmental toxicity."[4]

Refining and plastic manufacturing operations also put workers and communities in harm's way.[5] Air emissions from these plants contain "hazardous air pollutants," which are chemicals that "are known to cause cancer, reproductive and birth defects, or other serious adverse human

[1] *See, e.g.*, David Azoulay et al., *Plastic & Health: The Hidden Costs of a Plastic Planet* (Feb. 2019), available at https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf [hereinafter Plastic & Health].
[2] *Id.* at 11.
[3] *Id.* at 12-14.
[4] *Id.* at 14.
[5] *Id.* at 17.

and environmental effects," and "catastrophic industrial fires, explosions, and chemical releases are surprisingly common."[6]

Contact with plastics and chemicals added to plastics in consumer products is another pathway for exposure to toxic chemicals.[7] For example, styrene, the monomer for polystyrene, is a carcinogen and may leach from food packing.[8] Brominated flame retardants, phthalates, and lead compounds are common plastic additives.[9] These chemicals can cause neurotoxic effects, adversely impact thyroid function, and cause birth defects, cancer, and hormonal impacts.[10] Other dangerous chemicals like per- and polyfluoroalkyl substances (PFAS) may be added to food packaging.[11] Humans are exposed to plastics and the other toxic contaminants associated with plastic when these chemicals leach from food packaging into food or a drink,[12] or through contact with other consumer products.[13]

Most plastic is never recycled.[14] These plastic products continue to pose a risk to human health and wildlife after it is discarded. "Plastic disperses readily throughout marine, freshwater, and terrestrial environments into air, soils, rivers, lakes, and the ocean."[15] Scientists estimate that there will be more plastic in the ocean than fish by 2050,[16] "and it has even been found in the deepest parts of the ocean, the 7-mile deep Mariana trench in the Western Pacific."[17] Seabirds, sea turtles, seals, and other marine mammals can be killed after ingesting plastic or getting entangled in it. In addition, plastics break down into microplastics, which are now ubiquitous in the environment and pose a serious risk to humans and other living organisms.[18] Humans are exposed to microplastics by breathing in or ingesting these dangerous particles, which may also be a carrier for other toxic chemicals and bacteria.[19] "A recent review of potential health risks of

[6] *Id.* at 17, 21.
[7] *Id.* at 27-36.
[8] *Id.* at 28, 30-31.
[9] *Id.* at 29.
[10] *Id.*
[11] *Id.* at 32.
[12] *Id.* at 31.
[13] *Id.* at 35-36.
[14] Laura Parker, *We Depend On Plastic. Now We're Drowning in It*, National Geographic (June 2018), available at https://www.nationalgeographic.com/magazine/2018/06/plastic-planet-waste-pollution-trash-crisis/ (noting that 6.3 billion tons out of the 6.9 billion tons of plastic waste generated since World War II was not recycled).
[15] Plastic & Health, 51.
[16] Wearden, G. (January 19, 2016). *More plastic than fish in the sea by 2050, says Ellen MacArthur*, The Guardian, https://www.theguardian.com/business/2016/jan/19/more-plastic-than-fish-in-the-sea-by-2050-warns-ellen-macarthur.
[17] Plastic & Health, 51.
[18] Plastic & Health, 54-59; Perelman, J., *Pesky Plastic: The True Harm of Microplastics in the Ocean*, National Geographic (Apr. 4, 2016), https://blog.nationalgeographic.org/2016/04/04/pesky-plastic-the-true-harm-of-microplastics-in-the-oceans/.
[19] Plastic & Health, 54, 56.

microplastic particles listed concerns that microplastics entering the human body could lead to inflammation (linked to cancer, heart disease, inflammatory bowel disease, rheumatoid arthritis, and more), genotoxicity (damage to the genetic information within a cell causing mutations, which may lead to cancer), oxidative stress (leading to many chronic diseases such as atherosclerosis, cancer, diabetes, rheumatoid arthritis, post-ischemic perfusion injury, myocardial infarction, cardiovascular diseases, chronic inflammation, stroke), apoptosis (cell death associated with a wide variety of diseases including cancer), and necrosis (cell death associated with cancer, autoimmune conditions, and neurodegeneration). Over time, these effects could also lead to tissue damage, fibrosis, and cancer."[20]

Even if discarded plastic does not end up in the environment, plastic that is landfilled or incinerated presents its own set of public health challenges. While landfills may contain waste in the short term, inevitably they release plastic and other contaminants into the environment.[21] And "[e]xtensive evidence demonstrates the harmful short- and long-term effects" of burning plastic and other trash.[22] These plants emit toxic air emissions, generate dangerous ash that must be disposed of, and threaten the health of workers and nearby communities.[23] Landfills and incinerators, along with refineries and plastic manufacturers, are often located in "communities of color and low-income and marginalized communities. As such, they are generally viewed as areas of least resistance, where it is likely that people will not have the ability and resources to challenge industry, even when those industries are likely to negatively impact their environment and health."[24]

The plastics pollution problem is also a serious climate problem. Plastics are created using fossil fuels, and the "'chemical and petrochemical sector is by far the largest industrial energy user, accounting for roughly 10 percent of total worldwide final energy demand and 7 percent of global [greenhouse gas] emissions[.]'"[25] As we work to curb carbon emissions from the electric and other sectors, the fossil fuel and petrochemical industries are focused on expanding the production of plastic.[26] In the U.S. alone, the petrochemical industry has invested over $200 billion in 333 new projects and expansions since 2010, pouring millions of tons of greenhouse

[20] *Id.* at 40.
[21] Kirstie Pecci. (July 23, 2018). *All Landfills Leak, and Our Health and Environment Pay the Toxic Price*, Conservation Law Foundation, https://www.clf.org/blog/all-landfills-leak-and-our-health-and-environment-pay-the-toxic-price/.
[22] Plastic & Health, 44.
[23] *Id.* at 45-47.
[24] *Id.* at 17.
[25] Kelly, S. (October 28, 2018). *Why Plans to Turn America's Rust Belt into a New Plastics Belt Are Bad News for the Climate.* Desmogblog.com. Retrieved from: https://www.desmogblog.com/2018/10/28/petrochemical-industry-america-rust-belt-plastics-fracking-climate?fbclid=IwAR3hmco5Dy1hXsP7MvC1f86_-HP4i1v-QndYpwrVYglbyrmh5KstzgKxEME.
[26] *Id.*

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gas emissions into the atmosphere.[27] Most of this capacity will be used to manufacture plastic.[28] In addition to emissions associated with the production of plastic, methane and ethylene—two greenhouse gases—are emitted when plastics degrade in the environment.[29]

We cannot recycle our way out of the plastic pollution problem. Increasing recycling rates is critical, but it is not enough. Many plastics cannot be recycled due to their chemical make-up, are not economical to recycle, or contaminate valuable recyclables.[30] In addition, China recently stopped accepting most non-Chinese recyclables, including mixed plastic, which has helped exposed the true costs of plastic waste management.[31] Finally, the serious lifecycle costs of plastic are also not eliminated even where a plastic is recycled. Thus, the only way to solve this problem is to work towards eliminating the use of single-use plastic products, and single-use bags, straws, and expanded polystyrene food service products are the most important to tackle first.

## II. CLF strongly supports Senate Bill No. 113, which will reduce the use of three of the most ubiquitous types of single-use plastic products.

### A. Single-use Plastic Carryout Bags

Under Senate Bill No. 113, single-use plastic carryout bags could no longer be used by most Vermont stores or food establishments. Single-use paper bags would be available at a cost of 5 cents per bag, and the charge would remain with the retailer. CLF strongly supports these provisions with minor amendments discussed in Section III.

*Single-use plastic bags do not get recycled and are polluting.*

According to the U.S. Environmental Protection Agency (EPA), we use over 380 billion plastic bags in the United States every year.[32] Each bag is used for just a few minutes before being discarded to a landfill, an incinerator, or the environment. Despite the bins you might see at the grocery store, plastic bags and other filmy plastics do not get recycled in the United States for several reasons. First, most people simply don't return them to the grocery store. Second, bags that are returned aren't recycled back into new bags – the cheap cost of virgin plastic means collected plastic bags are

[27] *Id.*
[28] *Id.*
[29] *Degrading Plastics Revealed as Source of Greenhouse Gases*, Science News, Science Daily (Aug. 1, 2018), https://www.sciencedaily.com/releases/2018/08/180801182009.htm (last visited on Apr. 25, 2019).
[30] *See, e.g.*, Plastic & Health.
[31] Sara Watson, *China Has Refused to Accept the West's Plastics. What Now?*, National Public Radio (June 28, 2018), https://www.npr.org/sections/goatsandsoda/2018/06/28/623972937/china-has-refused-to-recycle-the-wests-plastics-what-now (last visited Apr. 25, 2019).
[32] Anderson, M., *Confronting Plastic Pollution One Bag at a Time,* The EPA Blog (Nov. 1, 2016), https://blog.epa.gov/2016/11/01/confronting-plastic-pollution-one-bag-at-a-time/.

downcycled into products like park benches, and virgin plastic is still needed to make new bags.[33] Finally, many U.S. residents participate in curbside single-stream recycling systems, and plastic bags represent a leading source of contamination in those single-stream systems.[34] They tangle in sorting equipment, slowing recycling processes and increasing recycling costs. Consequently, only about 1% of plastic bags are recycled each year.[35]

Our failure to recycle plastic shopping bags also means they are more likely to become litter, contributing to the growing ocean plastic pollution crisis and fouling up or rivers, lakes, and streams. According to a 2018 report from the Ocean Conservancy, plastic shopping bags are the 5th most common item collected during international beach cleanups,[36] and plastic bags are regularly a top item collected in land-based litter cleanups.[37] These cleanups are costly to taxpayers and businesses, averaging $11.5 billion each year in the United States.[38] As land-based litter, plastic bags are a threat to wildlife and eventually end up in our waterways. In the ocean, plastic bags break down into microplastics which can do long-lasting harm to living organisms (including humans) and are now ubiquitous in the environment.[39] Countless whales, sea turtles, and birds suffer slow, painful injuries and deaths from plastic bag pollution when they mistake the bags for food or get entangled.

Bags that are collected for disposal are often buried in landfills. While landfills may contain waste in the short term, inevitably they release plastic and other contaminants into the environment.[40] The rest of the bags are burned in incinerators, where the dangerous contaminants in plastic are dispersed into the air or enter the environment when the ash and filters from the incinerator are buried in a landfill.[41]

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[33] Romer, J. *Plastic Bag Recycling,* PlasticBagLaws.org, https://www.plasticbaglaws.org/get-involved/plastic-bag-recycling.

[34] Casella Waste Systems, *EPA Sustainable Materials Management Webinar: Residential Recycling Top Contaminants,* December 17th, 2015. Pp. 8, available at https://www.epa.gov/sites/production/files/2015-12/documents/cappadona_.pdf.

[35] US EPA, Advancing Sustainable Materials Management 2015 Tables and Figures: *Containers and packaging generated, recycled, combusted with energy recovery and landfilled in municipal solid waste*, at pp. 59, available at https://www.epa.gov/sites/production/files/2018-07/documents/smm_2015_tables_and_figures_07252018_fnl_508_0.pdf.

[36] The Ocean Conservancy, *Building a Clean Swell*, 13 (2018).

[37] Coastal Cleanup Data, (2017). *California County Plastic Grocery Bag Litter Data Summary: 2008-2017.*

[38] Keep America Beautiful, *Key Findings: The costs of Americans littering*, January 2010, https://www.kab.org/sites/default/files/News%26Info_Research_LitterinAmerica_FactSheet_CostsofLittering.pdf.

[39] Thompson, A. (September 4, 2018). *From Fish to Humans, a Microplastic Invasion May Be Taking a Toll,* https://www.scientificamerican.com/article/from-fish-to-humans-a-microplastic-invasion-may-be-taking-a-toll/.

[40] Kirstie Pecci. (July 23, 2018). *All Landfills Leak, and Our Health and Environment Pay the Toxic Price*, Conservation Law Foundation, https://www.clf.org/blog/all-landfills-leak-and-our-health-and-environment-pay-the-toxic-price/.

[41] Global Alliance for Incinerator Alternatives, *Incinerators: Myths vs. Facts About "Waste to Energy."* (Feb. 2012), http://www.no-burn.org/wp-content/uploads/Incinerator_Myths_vs_Facts-Feb2012.pdf.

*Senate Bill No. 113 will encourage the use of reusable bags.*

One of the goals of a ban on single-use plastic bags is to reduce the number of all single-use bags. Reusable bags are better for retailers and consumers because when they are used, retailers no longer must buy single-use bags, an expense they then pass on or share with customers. Reusable bags are also better for the environment. Consistent with the Zero Waste International Alliance zero waste hierarchy, which calls for reduction and reuse to be prioritized over recycling, reusable bags are less polluting and use less energy than manufacturing recycled paper bags.[42] Reusable bags are safe and easy to use, especially when washed on a regular basis. San Francisco, which has had a bag ban since 2007, has found no noticeable change in foodborne illness over the decade the ban has been in place.[43]

An important feature of this bill requires shoppers who do not bring a bag to pay for a reusable or recyclable bag. Fees charged for bags serve two purposes: they create a small source of income for retail owners to cover the cost of bags, and they incentivize customers to purchase and make use of reusable bags. A fee is critical to changing consumer behavior and reducing the need for single-use paper bags.

*Plastic bag bans reduce litter.*

Bans on single-use plastic shopping bags are effective, successfully reducing litter and saving taxpayer money. Beach cleanup data from California showed that plastic bags fell from 7.42% of all litter to just 1.5% (a reduction from 65,736 to 11,847 bags) between 2010 and 2017,[44] after California implemented a comprehensive bag ban in 2016. In addition, estimates from litter cleanup groups show savings of $34 - $107 million in taxpayer money since California passed their bag ban.[45] Europe's recent bag bans are credited for the drastic reduction in plastic bags found in litter cleanups from the English Channel.[46] Levies on single-use plastic bags in Ireland

[42] Zero Waste International Alliance, Zero Waste Hierarchy of Highest and Best Use 7.0, http://zwia.org/standards/zero-waste-hierarchy/ (last visited Apr. 25, 2019).
[43] Wyckoff, W. B., *Bacteria may grow in reusable grocery bags, but don't fret.* National Public Radio (June 25, 2010), https://www.npr.org/sections/health-shots/2010/06/25/128105740/plastics-industry-funded-study-finds-bacteria-in-reusable-grocery-bags.
[44] California Coastal Cleanup Day – Litter Data Summary 2010-2017, https://static1.squarespace.com/static/54d3a62be4b068e9347ca880/t/5a0237d7652deae895d2df1c/1510094808473/California+Coastal+Cleanup+Data+2010.2016.2017.pdf
[45] Californian's Against Waste. *California's Statewide Plastic Bag Ban,* https://www.cawrecycles.org/the-problem-of-plastic-bags.
[46] Chow, L. *Plastic Bag Bans Actually Work, Study of European Waters Show,* EcoWatch (Apr. 5, 2018), https://www.ecowatch.com/plastic-bag-bans-uk-2556456601.html.

cut the bag's share of litter from 5% to 0.13%,[47] and the United Kingdom's 2015 levy on plastic bags is credited with the sharp decline in the percentage of plastic bags found on the seafloor around the U.K in fishing trawlers.[48] These laws help decrease litter and waste costs, improve the recycling system, and protect marine and human health.

*Bag bans have passed across the U.S and in New England.*

As of September 2018, approximately 349 cities have banned or taxed plastic bag use.[49] California banned the use of single-use plastic bags in 2016, and every county in Hawaii has banned single-use plastic bags. In addition, there are statewide bag bans under consideration in all six New England states this session. A plastic bag ban was also recently passed in New York, with an opt-in allowing cities and counties to charge a fee.[50]

Here in Vermont, Brattleboro was the first town to ban single-use plastic bags in 2017.[51] Montpelier, Burlington, Middlebury, and Manchester are all moving forward with local bag bans.

In Massachusetts, 96 cities and towns (including Boston), covering about 40% of the state's population, have plastic bag bans.[52] By the end of the year, it is estimated that about 150 cities and towns will have passed bag bans in Massachusetts.[53] Seven communities in Connecticut have banned single-use plastic bags.[54] In Maine, twenty communities restrict single-use plastic bags. In Rhode Island, nearly one quarter of communities have passed single-use bag bans.[55]

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[47] Institute for European Environmental Policy, *Plastic Bag Levy in Ireland,* December 2016, https://ieep.eu/uploads/articles/attachments/0817a609-f2ed-4db0-8ae0-05f1d75fbaa4/IE%20Plastic%20Bag%20Levy%20final.pdf?v=63680923242.

[48] Gabbatiss, J. (April 5, 2018). *Decline in plastic bags on seabed suggests measures to tackle waste are working,* https://www.independent.co.uk/environment/plastic-bag-uk-seas-seabed-waste-pollution-ocean-reduce-environment-a8288526.html.

[49] Trevor Nace, *Here's A List of Every City in the U.S. to Ban Plastic Bags, Will Your City Be Next?*, Forbes (Sep. 20, 2018), https://www.forbes.com/sites/trevornace/2018/09/20/heres-a-list-of-every-city-in-the-us-to-ban-plastic-bags-will-your-city-be-next/#4633cb183243 (last visited Apr. 25, 2019).

[50] McKinley, J. (March 28, 2019). *Plastic Bags to be Banned in New York; Second State, After California.* The New York Times, https://www.nytimes.com/2019/03/28/nyregion/plastic-bag-ban-.html.

[51] Mays, C. (October 10, 2018). *Bag ban 'smooth and successful.'* The Brattleboro Reformer. https://www.reformer.com/stories/bag-ban-smooth-and-successful,552805.

[52] Mass Green Network (April 3, 2019). *Plastic Bag Legislation,* http://www.massgreen.org/plastic-bag-legislation.html.

[53] Brad Verter, testimony given to the Environment, Natural Resources and Agriculture Council of the Massachusetts State Legislature, April 2, 2019.

[54] Duffield, G. (March 1, 2019). *Single-Use Plastic Bag Ban Passes 9-2.* New Canaan Advertiser, https://ncadvertiser.com/137173/single-use-plastic-bag-ban-passes-9-2/.

[55] Moses, A. (April 3, 2019). *Stemming the tide of single-use plastics in the Ocean State.* Conservation Law Foundation, https://www.clf.org/blog/stemming-single-use-plastics-in-ocean-state/.

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### B. Expanded Polystyrene Food Service Products

Under Senate Bill No. 113, no person is allowed to sell expanded polystyrene food service products or sell food or beverages in these products. The law would not prohibit a person from storing or packaging a food or beverage in an expanded polystyrene food service product for distribution out of state. CLF strongly supports these provisions: expanded polystyrene is toxic, is not recyclable, and contaminates valuable materials that can be recycled.

*Polystyrene is one of the most toxic plastics used to make food packaging products.*

Out of the large array of plastics sold on the market, polystyrene is one of the most dangerous. Styrene (also known as Vinyl Benzene)—a carcinogen—is a building block of polystyrene and is released during manufacture and incineration, exposing workers and communities to dangerous toxic chemicals.[56] "It . . . can [also] migrate into food (and then be ingested) from polystyrene packaging. Limited exposure to styrene can cause irritation of the lungs, eyes, nose, and skin. High exposure can cause changes in vision, slowed reaction times, problems maintaining balance, and even cancer."[57]

Styrene is a monomer that is polymerized to form expanded polystyrene food packaging.[58] Polystyrene food packaging can leach styrene into food.[59] Polystyrene in food packaging is one of the most hazardous plastics with respect to the potential for carcinogenic releases.[60]

In addition, polystyrene quickly breaks down into small particles that are widely dispersed in the environment due to its light weight. These microplastics cause physical and neurological toxicity in smaller organisms[61] and can have adverse impacts on humans when ingested.[62]

*Polystyrene food service products cannot be recycled and contaminates valuable recyclables.*

Polystyrene food service products cannot be recycled on a large scale even if it is recyclable in theory because it must be clean (i.e. no food residue) and even clean polystyrene food service

[56] Plastic & Health, 19, 36.
[57] *Id.* at 19.
[58] *Id.* at 28.
[59] *Id.*
[60] *Id.*
[61] Lili Lei et al., *Polystyrene (nano)microplastics cause size-dependent neurotoxicity, oxidative damage and other adverse effects in Caenorhabditis elegans*, Environmental Science (July 2018).
[62] *See, e.g.*, Plastic & Health, 40.

products cannot be collected curbside because it crumbles into small pieces.[63] It is not economically feasible to recycle polystyrene food service products.[64] In addition, because it breaks during the sorting process, polystyrene food service products contaminates valuable recyclables.[65]

After extensive research, consultation with a recycling expert and economist, and stakeholder engagement, the Commissioner of the New York City Department of Sanitation issued a report in 2017 that concluded that polystyrene food packaging can not be recycled in an environmentally effective or economically feasible manner.[66] Specifically, the Commissioner concluded:

> For 30 years, attempts to recycle Food-Service Foam—both subsidized and non-subsidized attempts—have failed at each step in the recycling process. The municipalities researched by DSNY tell this exact story: Food-Service Foam is not capable of being recycled in an environmentally effective or economically feasible manner.
>
> The municipalities found that Food-Service Foam compacts in collection trucks, breaks into bits, and becomes covered in food residue, making it worthless when it arrives at the MRF. It then blows throughout the MRF, is missed by manual sorters, mistakenly moves with the paper material and contaminates other valuable recycling streams, namely paper, which can be the most consistently valuable commodity in a recycling program. Food-Service Foam is too costly to clean and process compared to virgin material. If some is sorted successfully, the light-weight foam must be stored for months, waiting for enough material to economically ship.
>
> If any Food-Service Foam makes it over these hurdles, the process grinds to a stop due to the struggle to find a buyer. With no buyer, municipalities get stuck and ultimately send the remaining amount of Food-Service Foam that escaped being landfilled after the compacting stage or after the sorting stage to a landfill.
>
> This has been the experience of the largest municipalities researched by DSNY—the same municipalities that Dart suggested DSNY research—and

[63] *See, e.g.*, Commissioner Kathryn Garcia, NYC Dep't of Sanitation, Determination on the Recyclability of Food-Service Foam 38 (May 12, 2017).
[64] *Id.* at 41 (concluding that "Food-Service Foam has no viable market and it is not being made into new and marketable products").
[65] *Id.* at 42.
[66] *Id.* at 2.

> several other small and large municipalities that also attempted to recycle Food-Service Foam. After designating Food-Service Foam, numerous municipalities end up sending the material to a landfill at each step in the recycling process.[67]

Notably, the New York County Supreme Court denied a petition from Dart and other polystyrene industry groups that challenged the Commissioner's determination.[68] Specifically, the court did not find Dart's arguments persuasive and concluded that the Commissioner's determination "was a painstakingly studied decision . . . ."[69] Thus, the polystyrene food service products that are banned by Senate Bill No. 113 cannot be recycled on a large scale.

*States and cities and towns across the U.S. have passed bans on polystyrene foam in food packaging products.*

The Maine and Maryland legislatures have recently voted to ban polystyrene foam.[70] Colorado, Oregon, and New Jersey are not far behind.[71] In addition, hundreds of cities and towns across the U.S. have banned this dangerous plastic, including 16 towns in Maine, 31 towns in Massachusetts,[72] New York City and several other cities in New York, Portland, Seattle, Minneapolis, San Francisco and many other cities and counties in California, Washington, DC, and others.[73]

### C. Straws

Senate Bill No. 113 would make straws available only upon the request of customers. Individuals that who need or want a straw would still be able to get one, but the use and disposal of most single-use plastic straws would be avoided. CLF strongly supports these provisions and recommends minor amendments discussed in Section III.

Single-use plastic straws are a significant source of plastic pollution. More than 500 million plastic straws are used in the United States each year. Since straws are too small for recycling equipment, single-use plastic straws end up in a landfill, incinerator or the environment. By

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[67] *Id.* at 38.
[68] *Restaurant Action Alliance v. The City of New York*, N.Y. Sup. Ct. (100734/2015) (June 5, 2018).
[69] *Id.* at 10.
[70] Environment America, Maryland, Maine, Colorado, Oregon, New Jersey Among Those Vying to Pass First-in-the-Nation Policy (Apr. 24, 2019), https://environmentamerica.org/news/ame/several-states-are-just-steps-away-banning-foam-containers (last visited Apr. 25, 2019).
[71] *Id.*
[72] Mass Green Network (April 3, 2019). *Polystyrene Legislation,* http://www.massgreen.org/polystyrene-legislation.html.
[73] Diane MacEachern, Styrofoam Bans Are Sweeping the Nation, https://storyofstuff.org/blog/styrofoam-bans-are-sweeping-across-the-nation/ (last visited Apr. 25, 2019).

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quantity, plastic straws placed 7th on the Ocean Conservancy's list of collected waste from worldwide beach cleanups in 2018.[74] As ocean and land-based pollution, single-use plastic straws pose a danger to wildlife – many animals mistake them for food, causing injury, starvation or suffocation. Straws played a significant role in elevating plastic as a global issue after a viral video of a sea turtle with a straw stuck in its nose circulated on the internet in 2015.[75] As with all ocean plastic pollution, straws break down into microplastics which can do long-lasting harm to humans and other living organisms and are now ubiquitous in the environment.[76]

Senate Bill No. 113 will reduce the use and disposal of single-use plastic straws. Requiring customers to request straws helps them make small but impactful changes in their consumption and disposal patterns, cutting down on the millions of straws entering New England's environment each year. Legislation on single-use plastic straws compliments expanding voluntary efforts from Vermont restaurants and bars to reduce plastic pollution. California passed a bill requiring straws only be provided on request in September of 2018, and similar bills have been filed in all six New England states.

## III. CLF Recommends Minor Amendments to Senate Bill No. 113 to Protect Public Health and the Environment.

CLF recommends the following minor amendments to the plastic bag and straw provisions:

- Increase fee for single-use paper bags to 10 cents per bag to incentivize use of reusable bags and fund the distribution of reusable bags to Vermonters with limited resources and address pollution;
- Clarify the definitions of "reusable carryout bag" and "single-use paper carryout bag" to encourage the use of reusable bags; and
- Allow food service establishments to provide straws that are not plastic.

We have recommended specific amendments in track changes in Attachment A to this document.

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[74] The Ocean Conservancy, *Building a Clean Swell* (2018), https://oceanconservancy.org/wp-content/uploads/2018/07/Building-A-Clean-Swell.pdf.

[75] Cuda, H. S., Glazner, E. (November 11, 2015). *The turtle that became the anti-plastic straw poster child.* Plastic Pollution Coalition. Retrieved from: https://www.plasticpollutioncoalition.org/pft/2015/10/27/the-turtle-that-became-the-anti-plastic-straw-poster-child.

[76] Thompson, A. (September 4, 2018). *From Fish to Humans, a Microplastic Invasion May Be Taking a Toll.* Retrieved from: https://www.scientificamerican.com/article/from-fish-to-humans-a-microplastic-invasion-may-be-taking-a-toll/.

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With the passage of Senate Bill No. 113, Vermont will take an important step forward in protecting public health and the environment from toxic plastic pollution by dramatically reducing the use and disposal of single-use plastic carryout bags, straws, and polystyrene food service products. We urge you to move forward with approval of this bill with our recommended amendments.

Thank you for your consideration.

Respectfully submitted,

/s/ Jen Duggan

Jen Duggan
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