

CONSERVATION MATTERS

CONSERVATION LAW FOUNDATION

The Climate Cost of Wasted Food



WINTER 2023

clf



Food waste tossed in the trash ends up in polluting landfills – where it hurts our climate and our communities.

IMAGE SOURCE: Shutterstock



TAKING THE BITE OUT OF FOOD WASTE

Uneaten food takes up valuable space in landfills and produces climate-damaging methane when left to rot. Here's how New England is leading the nation in solving this preventable problem.

By: Pamela Reynolds

When Nicole Carrier opened Throwback Brewery, a restaurant, brewery, and farm in North Hampton, New Hampshire, she knew from the outset that she would operate sustainably, especially when it comes to any food that goes uneaten.

For Carrier, who founded the business in 2010 with co-owner Annette Lee, a former environmental engineer, finding ways to avoid food waste was a “no-brainer.” That’s because not only does food waste in landfills damage the climate due to the methane gas it releases, but it also contributes to food insecurity since unused food could be eaten by people in need.

“It’s all intrinsically linked together,” says Carrier.

Nothing gets thrown away at Throwback, whose name references the small, locally sourced breweries common before Prohibition. When Carrier’s brewer makes beer, the spent hops are sent to Throwback’s farm, where the pigs get a satisfying meal. When the pigs are fattened and ready, they end up in the kitchen – as pork sliders, carnitas, or porky fig toast. Throwback’s farmers meet with the restaurant’s head chef daily to discuss what’s getting picked in the field so it can be included in that day’s menu. Unused produce gets donated to food banks. And, when customers can’t finish their meal, they’re supplied with compostable containers to take the leftovers home. Anything remaining on plates or in the

New Hampshire's Throwback Brewery has worked to reduce or reuse food waste for years. A just-passed law in the Granite State will ensure that other restaurants and institutions do their share to keep food out of landfills.

IMAGE SOURCE: CLF



kitchen gets scraped into a bucket for the animals. Or it gets composted right on the farm. And if, after all that, anything is left, it gets put into four 64-gallon totes that a local composting firm picks up each week.

Thanks to a new law passed last June, Carrier will soon have more company in her quest to reduce New Hampshire's food waste, which accounts for nearly 24% of the municipal solid waste dumped into the state's landfills. The law, which takes effect in February 2025, prohibits entities that produce more than a ton of organic waste each week – food wholesalers and distributors, industrial food manufacturers, hospitals, or large colleges, for example – from disposing of that waste in a landfill or waste incinerator. Instead, that establishment must follow a disposal hierarchy that begins with donation but includes sending the waste to a composting facility if one can be found within a 20-mile radius.

The law responds to one stunning fact: According to the U.S. Environmental Protection Agency, food waste is the single most common material landfilled in the country – and it is responsible for the equivalent of 55 million metric tons of carbon dioxide emissions annually. The methane produced by landfilled food waste is more potent in warming our atmosphere than carbon dioxide.

"Landfills are the third greatest human-caused source of methane emissions in the country, largely due to food waste," says Nora Bosworth, staff attorney for CLF's Zero Waste Project, which works to reduce the amount of trash produced across New England. "So, from a climate change perspective alone, food scraps diversion is a no-brainer."

INCENTIVIZING A COMPOSTING CULTURE

New Hampshire's food waste law is intended to encourage more sustainable food waste practices across the state. Sponsored by State Representative Karen Ebel and supported by CLF and our partners, the law is the latest development making New England a leader in ending food waste. Over the past dozen years, CLF has helped push five out of six New England states to prohibit institutions

creating large amounts of food waste from dumping that waste into landfills. (While Maine does not yet have a law, CLF is leading the effort to get one passed in the 2024 legislative session.) Some states, like Connecticut and Vermont, have had food waste laws in place for years (see our food waste timeline on page 5), while others have only recently come to the table. In every case, community activists, business owners, and legislators have seen the wisdom of tackling a problem that is obvious and relatively easy to solve.

"There are much better things we can be doing with food than throwing it in a landfill or burning it," says Ebel.

The New Hampshire law was modeled after Vermont's legislation, according to Ebel. It aims to empty landfills of waste that never should have been dumped there to begin with – saving taxpayers money while sparking a composting culture. The law includes \$1 million for the state's solid waste management fund, 50% of which will be used to fund projects developing strategies and infrastructure to keep food waste out of landfills. And once entrepreneurs understand there is a growing market for recycling food scraps, they're likely to jump in to create the industrial composting facilities needed to fully support the law.

"There's this chicken and egg issue," says Ebel, "because you need the facilities to accept the waste. But the thing is that businesses are very unlikely to put facilities in place unless they know that they have the source product: the food waste stream."

Policymakers have laid the groundwork to make that easier on both a large and a small scale. In March 2022, New Hampshire's Department of Environmental Services rewrote its composting regulations to encourage a broader range of facilities to process all food scraps, including meat and dairy, in a simpler permitting process. Those new regulations allow small-scale food waste drop-off sites and community composting facilities to collect and store up to one cubic yard of food waste, enabling food co-ops and other community centers to function as collection points without needing a solid waste facility permit.

Ebel also hopes the new law will educate the public about the importance of composting, laying out the food recovery hierarchy so evident at Throwback Brewery. That hierarchy states that excess food should be donated to people first, then offered to animals, and lastly, get composted or anaerobically digested. None of it should ever end up in a landfill.

“This is a tangible thing,” reflects Ebel. “You take your food scraps, you put them in a bucket, and you can make soil out of them. For grocery stores and restaurants and places like that, anything you can do to help get more food to the hungry is crucial. It’s something people can do and believe that the ultimate result will be what they hope and expect it to be. The less we can be putting in landfills, the better.”

LEADING THE WAY IN VERMONT

New Hampshire is the latest state to join the food waste ban movement, but states in which food waste laws have been in place for years provide a salient example of how a composting culture can catch on. Vermont’s Universal Recycling Law, passed in 2012, is now the most comprehensive of any state in the region. Between 2014 and 2017, when the law applied only to food businesses and institutions, food donations nearly tripled. In 2020, the regulations extended to residential homes, and residents

have gotten into the habit of separating their food scraps into buckets and either using either local food waste drop-offs or curbside haulers to take it away. Many Vermonters now compost in their backyards.

CLF’s Bosworth says that what Vermont started so many years ago will one day become standard across the country. Similar laws have already been passed in New York and California, and CLF aims to see every New England state follow suit. The food waste issue, she says, “is starting to be recognized on both a state and a national level.” And that’s critical, she says, if we are going to end the region’s dependence on massive landfills that pollute our air, water, and climate.

Meanwhile, in New Hampshire, large institutions that had developed wasteful habits will be joining Throwback Brewery to make sure nothing goes to waste. And more residents, too, may also take notice and begin composting at home or through a curbside service.

“You would spend less on composting if you did a better job on the front end,” says Carrier. Her commitment to what she calls a “circle of sustainability” has become so central to her business model that her ethos has even made it onto the establishment’s t-shirt: “Drink a beer, feed a pig.”

THE FOOD WASTE HIERARCHY

The food waste hierarchy offers guidelines for the most effective ways to reduce waste – starting with preventing food waste in the first place. The inverted pyramid structure emphasizes that sending food waste to landfills should be the last option considered, given the harm it does to people and the environment. However, the reality of today’s waste systems is that too often landfilling is the first and only option.

Policymakers frequently point to the food waste hierarchy in state-level waste management plans as proof that they are addressing this escalating problem. But a colorful chart on paper does not always translate to policy in action. That’s why CLF and its partners are working to make the principles of the food waste hierarchy a reality – for the sake of our climate and our communities.



NEW ENGLAND FOOD WASTE LAWS: WHERE WE STAND

In Massachusetts alone, one million tons of food waste end up in regional landfills every year – that’s a huge waste of a valuable resource that could feed people, animals, and the soil. New England has become a leader in diverting organic waste from landfills, with five of six states now having laws on the books banning large institutions and restaurants from trashing food. CLF is working to make it six out of six.

2011

CONNECTICUT. The legislature passes a law requiring wholesalers, manufacturers, supermarkets, and conference centers to separate organic materials. In January 2022, the state passes the Commercial Organics Recycling Law. Any commercial or industrial enterprise that generates a projected annual volume of 26 tons or more of source-separated organic materials and that is located within 20 miles of an authorized composting facility must comply with this law.

2012

VERMONT. The Universal Recycling Law passes, with an initial ban on food waste by those generating more than two tons a week. That food waste ban expands to smaller generators over time until, in July 2020, food scraps are banned from landfills entirely. Disposal should prioritize food donation to people in need, animal feed, composting, or anaerobic digestion.

2014

MASSACHUSETTS. The state Department of Environmental Protection establishes a ban on food waste from businesses and institutions disposing of one ton or more per week. In November 2022, the Commercial Organic Materials Waste Ban expands those restrictions to facilities that generate more than one-half ton of these materials per week.

2014

RHODE ISLAND. The General Assembly adds food waste to its Refuse Disposal Laws. The ban, which goes into effect in January of 2016, applies only to organic waste-producing institutions generating more than 104 tons per year (two tons per week) if a composting facility is located within 15 miles.

2023

NEW HAMPSHIRE. The Granite State’s new law mandates that “any person” generating one ton of food waste or more per week cannot dispose of that waste in a landfill or incinerator if a facility authorized to manage food waste is located within 20 miles of the point of generation.

2024

MAINE, RHODE ISLAND, CONNECTICUT. CLF advocates will work with partners to pass or strengthen laws that divert food waste from landfills.

5 QUESTIONS FOR...

BRITTENY JENKINS

CLF's new vice president for environmental justice brings a wealth of expertise in policy and advocacy to the organization.



You just moved to New England. What excites you most about the region?

The environmental community! There are so many opportunities and so many people here who are really invested and excited to do the work. Environmental work can seem big and daunting to navigate. New England is a large area, yet intimate enough that you feel like you can really drive positive change. That excites me.

What does environmental justice mean to you?

Environmental justice starts by acknowledging that the way we've historically pushed development, energy, and environmental policies in the U.S. has been plagued with racism – from the placement of landfills to where we build highways.

From this perspective, environmental justice means asking the right questions to help us see beyond “quick-fix” solutions. We must certainly fight pollution and electrify our transit. But we must lead by asking: “How can we move these solutions forward without repeating the wrongs of the past?” We can take that a step further: “What are we doing so that communities historically impacted by the racism built into our environment – living and physical – also benefit from these solutions?”

What is your top goal as head of CLF's Environmental Justice program?

When it comes to passing environmental policies and creating climate solutions, New England is already leading the way.

A big goal for me is to build upon that leadership and take it a step further. We want to set an example for the rest of the country of how to create change in a just way. That also means holding polluters accountable so that we can begin to address past wrongs that have left marginalized communities overburdened with environmental hazards like dirty air and toxic water.

How have your experiences working in government shaped your career?

Working alongside influential figures like Representatives Elijah Cummings and Rashida Tlaib exposed me to the real-world impact of environmental policy on communities. Those experiences have defined my perspective of what giving power to the people means. It's not just about holding a position. It's about using that position to uplift those who, for far too long, have not had a seat at the table – even though their lives are most affected.

What challenges do you foresee in advancing environmental justice in New England?

Like in many other regions across the country, we here in New England are reaching a critical moment for action in many spaces. We have bad air quality, we have a lot of trash, and we are already experiencing the impacts of climate change. But when we talk about fixing these issues, it's easy to fall into the bad habit of wanting to fix these issues expeditiously – even if impacted communities don't get to have meaningful input as part of the solution. But that's a slippery slope where we are repeating past wrongs that could lead to more harm than good.

PROTECTING THE CANYONS AND SEAMOUNTS

By: Sarah White

IMAGE SOURCE: NOAA Ocean Exploration, 2021 North Atlantic Stepping Stones: New England and Corner Rise Seamounts

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With our ocean in peril from the climate crisis, protected areas like the Northeast Canyons and Seamounts are more important than ever.

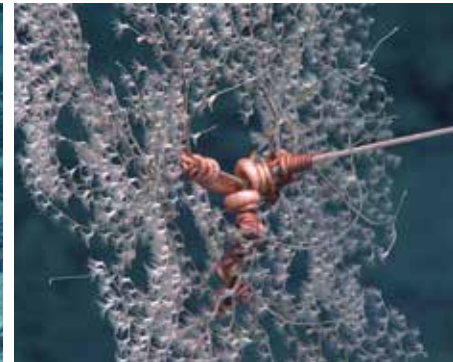
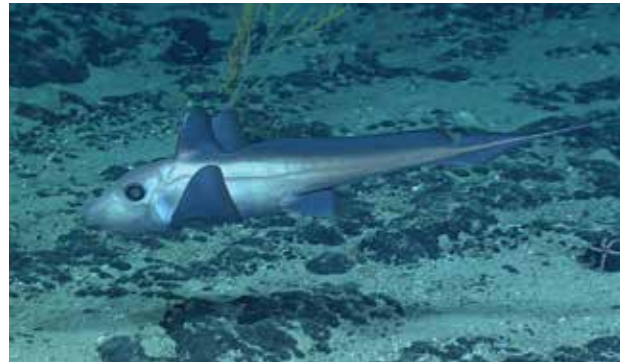
- JENNIFER FELT,
OCEAN CAMPAIGN
DIRECTOR

THE PROBLEM

Recent decades have seen a steady decline in New England's ocean's health due to threats that include overfishing, climate change, and habitat degradation. Iconic species like Atlantic cod are becoming depleted, beloved New England whales are facing increased threats, and warming waters are shrinking marine life habitats. Whether you turn to the water for recreation or your livelihood, New Englanders agree that protecting the ocean is vital.

CLF IN ACTION

Because a thriving ocean is crucial to a thriving New England, CLF helped lead the charge to create the Atlantic Ocean's first monument, the Northeast Canyons and Seamounts Marine National Monument. The nearly 5,000 square miles of restricted sea make up a small percentage of New England's ocean but are rich in unique habitats and diverse plant and marine life.



The Northeast Canyons and Seamounts Marine National Monument provides a haven for species both common and rare. Recent expeditions have revealed [clockwise, from top] whales (NOAA) a colony of bamboo coral with crinoids on Mytilus Seamount (NOAA Ocean Exploration, Northeast U.S. Canyons Expedition 2013), a chimaera rabbit fish at a depth of 5,659 feet (NOAA Ocean Exploration, 2021 North Atlantic Stepping Stones), and coral with an entwined snake star – the only coral of the Metallagorgia species seen during NOAA's 2021 expedition to the Monument (NOAA Ocean Exploration, 2021 North Atlantic Stepping Stones).

CLF fought for the Northeast Canyons and Seamounts to be shielded with robust regulations, and we won. In 2016, after extensive campaigning, dedicated advocacy by a broad coalition, and a petition created with partners that received more than 300,000 signatures, President Obama officially designated the irreplaceable area as a marine national monument. When President Trump tried to roll back protections, we fought back and won again. In the years since the Monument was designated, marine life within its borders has begun to rebound.

PROGRESS

While the Monument's waters are currently improving, it's vital that we continue to strengthen its protections against the growing threats that the ocean faces. That's why the recent release of the first draft management plan by the Fish and Wildlife Service is an exciting first step in ensuring the future of the Monument. If implemented, the draft management plan will put into place guidelines to safeguard the future of the Monument from threats like commercial fishing, industrialization, and pollution.

CLF helped encourage more than 580 members and constituents to provide public comment on this plan.

NEXT STEPS

While the draft management plan is a first step, this fight isn't over until robust, comprehensive regulations are implemented to protect the Northeast Canyons and Seamounts.

Safeguarding the Monument is both popular and possible. A recent public opinion poll by CLF found that more than 80% of people in New England want to permanently protect parts of the ocean, with key goals like sheltering endangered species, safeguarding key habitats, and restoring depleted marine life populations.

STAY UP TO DATE

CLF member support was crucial in helping to reach this milestone. Sign up for CLF emails to get the latest news on the Northeast Canyons and Seamounts and other work to protect New England's ocean treasures. [clf.org/email](https://www.clf.org/email)

DONOR SPOTLIGHT



I worry about what our planet will be like for future generations. We can't give in to despair because distress drives inaction.

'WHY I GIVE' FEATURING SHANIKA AMARAKOON

Portsmouth, New Hampshire | Donor since 2022 | New Hampshire State Advisory Board Member 2020–present

My friend told me about her involvement with Conservation Law Foundation. When she introduced me to Tom Irwin, Vice President of CLF New Hampshire, I was impressed with the range of work that CLF did and how it centered its work around climate and environmental justice.

I was inspired to donate and join the New Hampshire State Advisory Board because I had a clear sense of where the funding was going, especially in places such as Manchester, where CLF has staff on the ground working to ensure that every resident and family can live in a safe and healthy community. I knew that I could really make a difference here.

As a parent, I worry about what our planet will be like for future generations. I appreciate that CLF also shares

that concern coupled with the view that we can't give in to despair because distress drives inaction. CLF uses this idea to take on tough challenges like holding Big Oil accountable.

With my fellow board members, CLF advocates, and the community, I hope to raise awareness and increase engagement on climate and environmental justice issues, leading to solutions that are impactful, equitable, and inclusive for every person living in New Hampshire.

HEAR MORE FROM OUR SUPPORTERS

Our donors inspire us to never give up because so much is at stake. Hear more from CLF supporters at clf.org/whywegive.



DOUBLE YOUR DONATION

Does your employer have a matching gift program? Many companies support causes their employees care about. That means they will match your donation to CLF. Some even match gifts made by spouses and retirees – so your support for CLF can go twice as far.



OTHER WAYS TO GIVE

Want to give a one-time donation? Or give an honorary or gift membership? Or learn about planned giving? You can do it all in a few clicks.

So come visit us online and make your donation today.

clf.org/donate



CONTACT US

Contact us today to learn more about giving to CLF.

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AROUND CLF

○ MASSACHUSETTS

In a win for the cities of Everett and Chelsea, CLF and ExxonMobil have settled the organization's landmark lawsuit against the oil giant over operations of its Everett oil terminal. In settling the case, CLF obtained an enforceable prohibition on the property ever being used for polluting bulk fossil fuel storage. With Exxon now selling the property to a developer, CLF will remain vigilant to ensure the site is made safe for the community.

○ NEW HAMPSHIRE

CLF worked with Manchester officials to secure a \$2.2 million federal grant to expand street trees in the city. The funds, described by city officials as a "game changer," will enable the city to plan for, plant, and sustain trees throughout center city neighborhoods. Urban trees reduce heat and improve air quality; the city's downtown neighborhoods lack this vital resource.

○ VERMONT

CLF is pushing back against a proposal to build an anaerobic digester, a system that uses liquified livestock manure to manufacture "renewable" natural gas, on the state's largest dairy farm. Instead of stopping the methane emissions damaging our climate, "renewable" natural gas produced by industrial agriculture emits more of it as Big Agriculture profits. We're pushing officials to deny this proposal.

○ MAINE

After a push from CLF, Maine Governor Janet Mills has signed a law that will expand and modernize the state's bottle bill, a vital tool in increasing recycling and reducing plastic pollution. Bottle and can redemption systems are a proven way to reduce plastic pollution and ensure that these materials are recycled into new products, resulting in a cleaner environment and less litter.

○ RHODE ISLAND

With our partners, CLF is urging Rhode Island officials to adopt new standards requiring car and truck manufacturers to boost the number of zero-emission electric vehicles sold in the state. Emissions from transportation are the largest source of climate pollution in New England. So far, Massachusetts and Vermont have adopted the new standards. The goal is to phase out the sale of gas-powered vehicles by 2035.

○ CONNECTICUT

CLF and First Transit have settled a lawsuit regarding violations of anti-idling laws and the Clean Air Act. CLF sued the company after its buses were seen idling excessively in New Haven and Wethersfield, spreading dangerous air pollution into neighborhoods. First Transit will make payments totaling \$725,000 to Gather New Haven and the Connecticut Coalition for Environmental Justice as part of the settlement. The company must also take steps to reduce bus idling.



Cutting carbon pollution from cars and trucks will also create cleaner air in cities like Providence.

IMAGE SOURCE: EcoPhotography





LETTER FROM THE PRESIDENT



As much as I enjoy having friends over for dinner, there is always a moment in the aftermath of a great evening when I am struck by the amount of food waste that even a fairly simple meal can

generate. As communities across New England face the loss of open space and toxic threats from landfill expansions and proposed incinerators, I want to be sure my leftovers and other food waste get used and, if not used, composted.

What happens once the table gets cleared is more than just my own domestic concern. In the U.S. alone, we send millions of tons of food waste to landfills each year, where that waste produces methane emissions rivaling those from industrial sources. Most of that waste is generated by supermarkets, restaurants, food wholesalers and distributors, and other institutions that have found it easier to send unused food to a landfill or incinerator than to donate it to a food bank or send it for composting.

Fortunately, New England is leading the way when it comes to combating this problem. Over the last decade, CLF has helped secure food waste bans in five out of six New England states, prohibiting businesses and institutions from dumping large quantities of food into landfills. The bans compel businesses to reduce their

food waste and better manage what they can't eliminate by donating it, composting it, or through anaerobic digestion.

But the solution set includes more than regulation. More and more cities and towns are collecting residential food waste from the curb, which can reduce trash volumes going to landfills and incinerators by more than 20%. And as CLF supports farm and food entrepreneurs to build our region's capacity to produce food locally, we can help reduce the appalling volumes of food waste created during its transport from far-flung states and countries.

I'm proud that New England leads the country in this work. It's another example of how your support has enabled CLF to work regionwide to model solutions on a national level. And the next time you go grocery shopping or eat out, I hope you'll take some satisfaction in knowing that here in New England, we've begun a movement to transform our wasteful ways into sustainable practices that not only reduce climate-damaging emissions but also protect the health and landscapes of communities most burdened by the failings of our waste systems.

Gratefully,

Bradley Campbell, CLF President

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