

ACHIEVING ZERO FOOD WASTE

A State Policy Toolkit: Other Governmental Action to Address Food Waste

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 **ZERO
FOOD
WASTE**
COALITION

This is a product of the Zero Food Waste Coalition. ZFWC brings consumers, businesses, and government together to build momentum and alignment on food waste policy.

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About the Harvard Law School Food Law and Policy Clinic FLPC serves partner organizations and communities in the United States and around the world by providing guidance on cutting-edge food system issues, while engaging law students in the practice of food law and policy. FLPC is committed to advancing a cross-sector, multi-disciplinary and inclusive approach to its work, building partnerships with academic institutions, government agencies, non-profit organizations, private sector actors, and civil society with expertise in public health, the environment, and the economy. FLPC's work focuses on increasing access to healthy foods, supporting sustainable and equitable food production, reducing waste of healthy, wholesome food, and promoting community-led food system change. For more information, visit www.chlpi.org/FLPC.

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About ReFED ReFED is a national nonprofit working to end food loss and waste across the food system by advancing data-driven solutions to the problem. We leverage data and insights to highlight supply chain inefficiencies and economic opportunities; mobilize and connect supporters to take targeted action; and catalyze capital to spur innovation and scale high-impact initiatives. Our goal is a sustainable, resilient, and inclusive food system that optimizes environmental resources, minimizes climate impacts, and makes the best use of the food we grow. To learn more about solutions to reduce food waste, please visit www.refed.org.

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This report is one of six sections from *Achieving Zero Food Waste: A State Policy Toolkit*. The full version of the report is available at <https://zerofoodwastecoalition.org/state-toolkit/>. The chart below includes the full list of the policies in the master report, with the policies contained within this report highlighted.

Policy	Model State
<i>Building and Broadening Organic Waste Bans and Beyond</i>	
Organic Waste Bans	Vermont
Food Donation Requirements	California, New York
Mandatory Reporting	NRDC model legislation
Disposal Surcharge Fees	ILSR model legislation
<i>Opportunities to Promote Food Donation</i>	
Liability Protection	New Jersey
Tax Incentives	California
Food Safety	Texas
<i>Supporting Organic Waste Processing Infrastructure</i>	
Permitting and Zoning Composting Facilities	Maryland, Ohio
Animal Feed	—
<i>Developing End Markets for Compost</i>	
Compost Procurement	Washington
Compost Application	California
<i>Preventing Food Waste Upstream</i>	
Date Labeling	—
<i>Other Governmental Action to Address Food Waste</i>	
K-12 Schools	Rhode Island, Maryland
Climate and Solid Waste Plans	New Jersey
Other Government Support	—

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INTRODUCTION

Approximately 38% of food in the United States goes unsold or uneaten.¹ The mountain of wasted food totals 91 million tons annually,² which is equivalent to the weight of approximately 219 Empire State Buildings.³ Most of this wasted food goes to landfills, incinerators, or sewers or is left on farm fields to rot.⁴ Households, food producers, and other businesses in the United States spend \$444 billion each year to grow, process, transport, and dispose of food that ultimately is never eaten.⁵

Food is wasted at all levels of the food system—in farms, grocery stores, restaurants, and homes—and this waste has serious environmental and societal consequences. Producing food that ends up uneaten consumes 22% of all freshwater, 19% of all fertilizer, and 16% of all cropland in the United States.⁶ Food waste generates about 270 million metric tons of CO₂ equivalent greenhouse gas emissions each year, roughly equivalent to the annual emissions from 58 million passenger vehicles.⁷ But the negative consequences of wasting food extend beyond the environmental impacts and loss of resources that could have been otherwise allocated. More than 1 in 10 Americans suffer from food insecurity despite the abundance produced by our farms and factories.⁸

With the Nation's goal of cutting food waste by 50% by the year 2030,⁹ state leaders are at the vanguard of the movement, crafting policies to address food waste and reaping the environmental, social, and economic benefits. Further, though the federal government can take many vital steps to reduce food waste through regulations and funding, state governments, as the primary regulators of municipal solid waste, have at their disposal several unique policy

options which would be difficult to implement under federal law.

State governments have sought to address food waste by banning organic waste from landfills, mandating or promoting surplus food donation, supporting food recovery and composting infrastructure, and re-evaluating how schools handle food waste. States that have implemented these policies have done so through processes of identifying local problems and rigorous experimentation to craft effective and innovative solutions. While the methods employed by states vary, they provide an array of experiences with food waste reduction upon which other states and the federal government can now draw.

CONTENTS OF THE TOOLKIT

State leaders are advancing efforts to tackle food waste across the United States—responding to consumer demand, creating jobs and economic opportunities, ensuring food makes it to those experiencing food insecurity, and addressing environmental harms and climate change. This toolkit seeks to similarly embolden officials and advocates from across the country to learn from others' successes and accelerate their own leadership and impact. To do so, this toolkit contains a range of tried and tested policy opportunities that states can use to prevent food waste and keep food out of landfills and incinerators. The target audience for this toolkit is state policy-makers and advocates—whether their interest stems from concerns around climate change and environmental sustainability, financial responsibility, increasing food rescue, or finding opportunities to support local farmers,

all of which can be achieved through policies described in this toolkit. While this toolkit was drafted with this audience in mind, it may also be helpful to a wide range of individuals and

groups interested in enacting legislation to tackle food waste at the local, state, or federal level (see Federal Actions on Food Waste text box below for recent federal activity around food waste).



FEDERAL ACTIONS ON FOOD WASTE

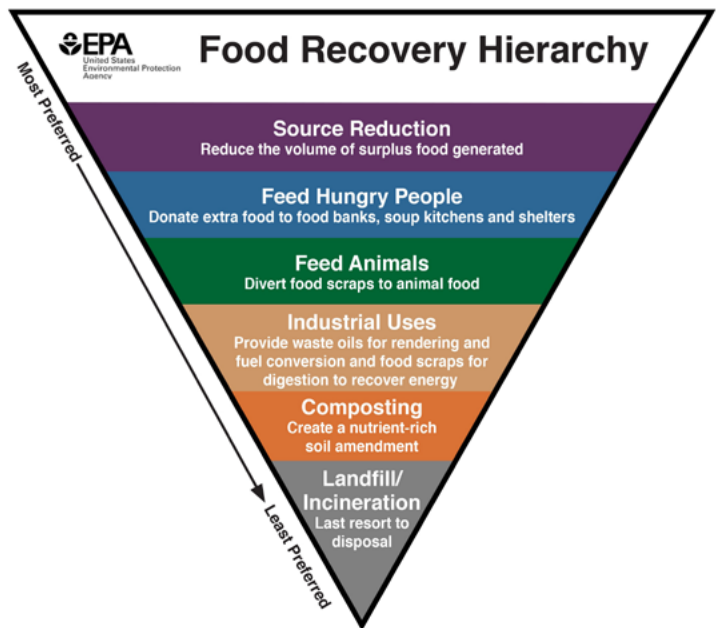
In addition to advocacy on the state and local level, the Harvard Law School Food Law & Policy Clinic (FLPC), NRDC (Natural Resources Defense Council), ReFED, and World Wildlife Fund (WWF) have done significant joint work on federal policies to prevent and reduce food waste. In April 2023, FLPC, NRDC, ReFED, and WWF formalized their partnership and created the Zero Food Waste Coalition.¹⁰ The Coalition builds momentum and alignment on food waste policy. In April 2021, the four organizations, along with many private sector supporters, local government agencies, and non-profit organizations—published the U.S. Food Loss & Waste Policy Action Plan for Congress & the Administration (Action Plan).¹¹ The Action Plan calls upon Congress and the Biden administration to take ambitious action to achieve the goal of cutting U.S. food loss and waste in half by 2030. It recommends five key policy actions ranging from investing in infrastructure and programs that measure and prevent food waste to standardizing date labeling at the federal level. For more details, please see the U.S. Food Loss and Waste Action Plan for Congress & the Administration.¹²

In April 2022, FLPC, NRDC, ReFED, and WWF followed up on the Action Plan with Opportunities to Reduce Food Waste in the 2023 Farm Bill, a report which contains 22 detailed recommendations for how the 2023 Farm Bill can curb food waste, with a focus on opportunities to prevent food waste, recover surplus food, promote food waste recycling, and enhance coordination in food waste prevention efforts. The report includes legislative priorities such as standardizing date labels, creating a national education campaign around food waste, funding policies and programs to support organic waste recycling, and funding new positions to promote food waste prevention efforts at USDA and across government agencies. Many of the recommendations in the report are federal corollaries to state policies included in this toolkit; for example, improving federal tax incentives for food donation, and incentivizing compost application. Federal, state, and local governments must work together to tackle food waste. State and local governments can work together to serve as innovators, testing initiatives on small scales and tackling policies under their control. While the federal government can legislate in areas where uniform standards are essential, as with date labeling.

HOW TO USE THIS TOOLKIT

The toolkit introduces a wide range of policies that states can implement to address food waste. For each policy, it includes background on the issue, explains the need for the policy, describes any relevant federal legislation, outlines best practices for the state policy, and offers an example of existing or proposed state law that incorporates many of these best practices. The Appendix includes model legislative language for each featured policy that states can use as a starting point to develop and pass their own policies. Some models are completely finalized, whereas others include options and comments to help guide states to tailor the policy to fit their unique circumstances while still achieving the policy goals. In some instances, our organizations have drafted the legislation together, while in other instances we have included model legislation drafted by other organizations. This toolkit was designed to enable users to jump to the sections that will be most useful to them. The toolkit makes frequent use of cross-references to refer readers to other sections of the toolkit that cover related information.

The toolkit begins with the policies that are most effective at reducing food waste disposal—organic waste bans and related policies that restrict the disposal of food waste in landfills or incinerators. Organic waste disposal bans result in significant economic, social, and environmental benefits, including the reduction of food waste generation and increase in food donation, in addition to the expected increase in organic waste recycling.¹³ While all the policies introduced in this toolkit are beneficial, policies that ban organic waste from going into landfills will likely be the most impactful at diverting food waste from disposal.



It also takes significant effort to get these policies passed and implemented, while also ensuring that compliance includes food waste prevention and food rescue and does not focus solely on organics recycling. For states that are not ready to pass organic waste bans, there are still significant steps they can take to move the needle on food waste, including promoting food donation, supporting composting infrastructure and compost end markets, and addressing food waste in schools.

While reading and using this toolkit, readers should keep the Environmental Protection Agency's (EPA) food recovery hierarchy in mind.¹⁴ The hierarchy focuses on different management strategies for food waste, starting with a base built on food waste prevention. It then moves to feeding hungry people, feeding animals, diverting food waste to industrial uses, and lastly diverting food waste for composting. Readers should consider how the hierarchy aligns with various policies and how to shape policies according to the hierarchy to maximize impact.

Each policy will have different impacts on different aspects of the food system, including environmental and social aspects. The types of impacts and outcomes of the policy will change who the natural constituencies and advocates are for a particular policy as well as the strategies for coalition building to inform and support that policy. For example, tax incentives for food donations will increase food rescue, meaning that food recovery organizations, food banks, and anti-hunger advocates are likely to be natural allies, and it will also reduce the financial costs associated with disposing of surplus food, meaning that food businesses, such as retailers, restaurants, processors, and distributors, may also support the efforts. Wherever possible, states should involve potentially affected stakeholders in crafting legislation and amending policies.

This toolkit is composed of six sections that each contain a range of potential policy solutions that a state could pass and implement to address food waste. While each section deals with a specific category of policies, these policies do at times intersect, and the toolkit includes cross-references to other sections to highlight this overlap.



Section I: Building and Broadening Organic Waste Bans and Beyond

This section introduces policies to eliminate food waste from landfills. These policies include organic waste bans and mandatory organics recycling laws, food donation requirements, mandatory reporting laws that require entities to report on food waste generation to help develop data to support organic waste bans or planning for recycling

infrastructure, and disposal surcharge fees that raise revenue for food waste diversion efforts like organic waste bans. This section includes:

- **Organic Waste Bans:** This subsection explores state laws that ban disposal of food scraps in landfills and incinerators, looking to Vermont as a model.
- **Food Donation Requirements:** This subsection explores state laws that ban disposal of food scraps in landfills and incinerators and require surplus food be donated as a way to reduce food waste. It looks specifically to the organic waste bans in California and New York as models.
- **Mandatory Reporting Laws:** This subsection outlines the potential for laws that require reporting by food waste generators, highlighting NRDC and the Environmental Law Institute's model legislation.
- **Disposal Surcharge Fees:** This subsection explores disposal surcharges that charge fees per ton of waste landfilled or incinerated to generate revenue for food waste diversion and other recycling efforts, relying on model legislation drafted by the Institute for Local Self-Reliance and using an introduced Maryland bill as a model.



Section II: Opportunities to Promote Food Donation

This section introduces policies that can promote and incentivize the donation of food (aside from donation requirements highlighted in Section 1), including tax incentives, liability protection, and food safety for food donation. This section includes:

- **Liability Protections for Food Donation:** This subsection describes the federal Bill Emerson Good Samaritan Food Donation Act,¹⁵ as amended by the Food Donation Improvement Act,¹⁶ which provides liability protections to food donors, and suggests methods for states to expand liability protection for food donations, using New Jersey’s law as a model.
- **Tax Incentives for Food Donation:** This subsection presents current federal tax incentives for food donors and delves into opportunities for states to expand tax incentives as a mechanism to spur food donation, looking specifically at the tax incentives adopted in California as an example.
- **Food Safety Guidance for Food Donation:** This subsection explores the complexity of food safety regulations and the roles of federal and state governments in breaking down barriers to food donation presented by unclear food safety regulations, using Texas regulations as a model policy.



Section III: Supporting Organic Waste Processing Infrastructure

This section introduces a policy that can help states support and develop composting infrastructure to ensure there is sufficient capacity to recycle food scraps. This section includes:

- **Permitting and Zoning for Composting and Anaerobic Digestion Facilities:** This subsection explores opportunities for states to improve composting infrastructure by directing regulatory agencies to streamline permitting and zoning for composting facilities, using

Maryland and Ohio EPA guidance as a model for some of the key components.

- **Recycling Food Scraps into Animal Feed:** This subsection briefly walks through the history of how this beneficial practice has become heavily regulated. This section suggests eliminating state laws that restrict or unnecessarily burden those who wish to develop businesses that repurpose food scraps into profitable animal feeds, and further recommends providing informational and monetary support to those businesses.



Section IV: Developing End Markets for Compost

This section introduces policies that can help states support end markets for finished compost products resulting from composting food scraps, to make the financial case for increased recycling of food scraps. This section includes:

- **Compost Procurement:** This subsection explores compost procurement policies where states commit to purchasing local compost for their needs in order to support the market for compost, using Washington State’s compost procurement law and the NRDC and Environmental Law Institute’s drafted model as examples.
- **Incentivize Compost Application:** This subsection highlights opportunities for states to incentivize the application of compost to improve soil health, sequester greenhouse gases, and support compost end markets, using California’s Healthy Soils Program as a model.



Section V: Preventing Food Waste Upstream

This section outlines policies to prevent food waste upstream, including reforming date labels to prevent safe, wholesome food from being thrown away due to confusion. This section includes:

- **Date Labeling:** This subsection explains what date labels mean and suggests how state governments can strengthen their date labeling laws to reduce consumer confusion and prevent food waste, using a bill introduced in Massachusetts as a model.



Section VI: Other Governmental Action to Address Food Waste

This section outlines other governmental policies and actions that states can take to reduce food waste, including food waste efforts in K-12

schools, climate and solid waste action plans, and government grants and support. This section includes:

- **Food Waste Reduction in K-12 Schools:** This subsection discusses the policies that states, municipalities, school districts, and schools can implement to decrease food waste, using Rhode Island's legislation related to food waste in K-12 schools to demonstrate legislative steps taken to enact such change.
- **Climate and Solid Waste Plans:** This subsection explores the potential to include food waste reduction targets and actions in climate action plans and solid waste management plans, using New Jersey's climate plan as a model.
- **Government Support for Food Waste Reduction:** This subsection explores federal and state government support for food waste reduction via funding and education.



SECTION VI

OTHER GOVERNMENTAL ACTION TO ADDRESS FOOD WASTE

The final section of the toolkit outlines a range of governmental policies and actions that states can take to prevent and reduce food waste. Some of these actions require legislation, whereas others are more programmatic and may not. This section covers opportunities to address food waste in K-12 schools, add food waste diversion targets and activities to climate and solid waste action plans, and support food waste reduction activities through grants and outreach campaigns. Lastly, a text box highlights opportunities for governments to lead by example, capitalizing on the fact that governments themselves are large organizations with significant purchasing power and a stake in the food system.

FOOD WASTE REDUCTION IN K-12 SCHOOLS

INTRODUCTION

Many factors can contribute to food waste in schools, including the timing of lunch, school serving patterns, need for more robust infrastructure, lack of appetizing foods in cafeterias, and apprehension about donation. While schools generally waste food at the same rate as consumers at large, they are key targets for food waste reduction given the potential to conserve public funds as well as the opportunity to educate the next generation

and frame how students think about food and food waste. Some amount of waste is inevitable, as schools may try to expose children to new healthy foods and it sometimes takes multiple exposures for kids to eat new foods. That being said, there are many opportunities to reduce school food waste—requiring measuring and tracking of food waste via waste audits, promoting donation of surplus food in schools via share tables and in the community via food donation, and composting food scraps.¹⁷ States have the ability to incentivize, encourage, fund, or mandate such practices via state-level legislation. The following section provides an overview of the federal laws and guidance around food waste and school food and then highlights best practices for state laws to reduce school food waste with a focus on Rhode Island's and Maryland's laws as models.

FEDERAL LAW

While the federal government does not regulate or enforce school food waste policy, it plays an active role in regulating school foods procured using funds under the National School Lunch Program (NSLP)¹⁸ and the School Breakfast Program (SBP),¹⁹ which provide school children lunch and breakfast during the school day. Because these programs use federal money to procure food, schools must follow federal rules regarding nutrition and the use of the food. While neither the

NSLP or SBP directly addresses food waste, the federal government has provided guidance and support for various food waste reduction and donation measures in schools. For example, the EPA in collaboration with the USDA created a resource for schools on conducting school food waste audits.²⁰ The USDA also provides guidance documents to support schools who wish to implement Offer versus Serve, a provision in NSLP and SBP that allows students to decline some food offered (the provision is mandatory at the high school level),²¹ share tables, where children may return whole food and beverage items they do not want for others to take,²² the Food Donation Program in Child Nutrition Programs,²³ and Reimbursement of Recycled Milk.²⁴

MODEL STATE LAW

While the federal government funds the school food programs and sets a regulatory floor, there is still ample opportunity for states to act to address school food waste, given their role and authority. For example, states may set stricter requirements than those mandated by the federal government around school food, and they oversee food safety, including food safety rules around share tables (more details in Food Safety for Food Donations). The lack of specific federal policy to reduce school food waste means that state legislation and state action can play an important role in spurring schools to tackle food waste. While some states, school districts, and individual schools have ad hoc projects and policies around food waste, Rhode Island is the only state with a comprehensive law addressing school food waste.²⁵ A successful school food waste law would:

- **Specify which school foods can be donated and how:** To spur schools to donate excess

food, state law can explicitly state which school foods can be donated and what requirements must be followed. For example, Oklahoma state law permits the donation of “surplus food from breakfast, lunch, snack and dinner meals,” specifically mentioning items such as whole uncut produce and packaged/unpackaged unserved food.²⁶ The law further outlines procedures related to food donation, noting that food may be distributed on site and school employees may assist nonprofits as volunteers.²⁷

- **Include liability protections for food donations:** As outlined above in Liability Protections for Food Donation, concerns about liability are a major barrier to food donations. While all states currently have state-wide liability protections for food donations, and the federal government protects direct donations to individuals, states can provide guidance to school districts explaining that the schools are protected from liability while donating school food both through nonprofit intermediaries and directly to students and their families, and that schools are protected even if food has passed its quality date.
- **Mandate share tables in K-12 schools:** State law can mandate that schools permit donation of food and drink items that are still whole and/or unopened for other students to take and eat. State law can also outline which foods can and cannot be left on share tables and other food safety practices schools must follow in operating share tables. For example, Illinois introduced legislation to require the State Board of Education to develop and implement a share table program.²⁸ Whether or not a state chooses to mandate share tables, they should promulgate guidance around share tables to support the practice and create a statewide share table standard operating procedure.

- **Mandate that schools donate surplus food and/or compost food scraps:** States should require schools to donate or compost any unserved food. Many schools rely on outside vendors for their school meals programs, and the donation or composting of unserved food is in the purview of these outside vendors. Therefore, states can also require that schools consider vendors' waste practices as part of the procurement process, prioritizing vendors that donate surplus food or compost food scraps.
- **Fund education programming and equipment upgrades:** States can also support school food waste prevention by funding educational programming and curriculum around food waste (such as engaging students to partake in food waste audits or taste tests of foods) and upgraded infrastructure that reduces food waste (such as water fountains and bulk milk dispensers).²⁹
- **Require or support food waste audits:** A school food waste audit identifies what types and how much food waste end up in a school's waste stream to understand the magnitude of food waste and identify potential solutions to prevent or reduce food waste.³⁰ States can direct relevant agencies to conduct periodic audits within time frames of their choosing. For example, Rhode Island's law requires schools to perform waste audits every three years, which are provided for free by the state's solid waste agency.³¹ States can decide to audit more frequently if it is feasible for them to do so. USDA, EPA, and the University of Arkansas made a Guide to Conducting Student Food Waste Audits that is a helpful resource.³²

Rhode Island has a comprehensive law surrounding preventing and addressing school food waste.

It includes many of the best practices outlined above, including:

- **Requiring and funding food waste audits:** The law requires schools to perform regular waste audits (provided for free by the Rhode Island Resource Recovery Corporation) and address recommendations that emerge from these audits.³³
- **Requiring food donation by vendors:** It also requires that schools procure food from vendors that will "donate any unserved non-perishable or unspoiled perishable food" to food banks and provides liability protection for these donations.³⁴
- **Mandating food scrap recycling:** Lastly, pursuant to Rhode Island's organic waste recycling law, certain schools must recycle food waste if they generate at least 52 tons per year (reduced to 30 tons on January 1, 2023) and are located within 15 miles of an authorized recycling facility with capacity to process the organic waste unless a cost-based waiver is granted.³⁵

Maryland's law establishes a grant program to reduce food waste and to establish composting in schools.³⁶ The program:

- **Funds school food waste initiatives:** Beginning as early as 2023, local public-school systems across the state can receive annual grant funding of up to \$195,000 per grant.³⁷ Funding can go to education projects, infrastructure support, training, and implementing specific food waste reduction activities, such as incorporating an Offer Versus Serve model in cafeterias, redistributing surplus food through share tables, and on- and off-site compost.³⁸

See Appendix M for model legislation for school food waste reduction legislation.

CLIMATE AND SOLID WASTE PLANS

INTRODUCTION

States can use planning tools like climate action plans and solid waste management plans to create goals and strategies to tackle food waste, including incorporating other policies discussed in the Toolkit.

A climate action plan sets clear targets for addressing climate change and establishes clear pathways to meet those targets. There are two policy vehicles to carry out climate action plans: legislation or executive orders. Legislation can be more effective and permanent because it demonstrates a statewide commitment to climate action, whereas executive orders can be revoked by later administrations. A climate action plan can incorporate food waste goals or targets to hit broader climate aims. Even in the absence of such explicit goals, carbon reduction targets can be leveraged to justify and drive food waste reduction activities, and plans can incorporate the contribution that food waste reduction makes toward decreasing emissions while providing economic benefits.³⁹

Similarly, solid waste management plans set targets and a framework for achieving overall materials management and waste diversion goals. While many solid waste plans are detailed with waste targets and strategies to meet them, these plans can be updated to explicitly include food waste diversion in order to demonstrate that a state actively considers the impact of food waste on materials management infrastructure. It is crucial for plans involving food waste to

include metrics that measure the progress of food diversion rates. States use different strategies to set goals and measure progress on food waste diversion, including analysis of recycling rates, waste reduction rates, or waste generation rates either overall or per capita.⁴⁰ To support implementation of the action plans and achievement of these goals, states should consider unique and innovative ways of using available grant funding programs run by USDA Rural Development, including the Solid Waste Management Grant Program which provides funding for technical assistance to improve the planning and management of solid waste sites.⁴¹ The Water and Waste Disposal Loan and Grant Program provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage and may also be a source of support.⁴²

FEDERAL LAW

While climate action plans and solid waste management plans are created and implemented at the state level, the federal government can support such laws through grant funding. Though no specific food waste reduction grant programs exist currently, the Inflation Reduction Act passed in August 2022 includes \$250 million to states for Greenhouse Gas Air Pollution Plans and Implementation grants.⁴³ These grants can be used for food waste reduction as food waste reduction projects can reduce greenhouse gas emissions.⁴⁴ Additionally, the Solid Waste Infrastructure for Recycling Grant Program (SWIFR) provides states with funding to plan for and begin implementing solid waste management plans.⁴⁵

MODEL STATE LAW

States can use climate action plans and solid waste management plans to address food waste by including food waste targets and strategies to meet those targets. For example, Michigan's Health Climate Plan addresses food waste directly with a goal to cut food waste by 50% by 2030.⁴⁶ These plans can best impact food waste when they:

- **Feature specific targets and goals around food waste:** The plans should concretely outline targets for greenhouse gas emissions reductions and waste diversion and include food waste goals as part of the broader targets. In addition to including specific goals, the plans should include recommendations for emissions reductions and diversion opportunities for food waste.
- **Stay current and updated:** Though these plans can be used for long-term planning and can set targets for decades ahead, they should be considered works in progress that are updated when targets are met (or missed), overall strategies or activities change, or new climate action legislation is passed.
- **Outline concrete recommendations:** These plans should task specific departments with actionable next steps for moving forward policies around food waste diversion. Such steps could include activities around an organic waste ban, school food waste diversion, residential and business waste reduction, raising public awareness, increasing donation, or supporting the expansion of compost-collection infrastructure.

One model that incorporates many of these best practices is New Jersey's Global Warming Response Act (GWRA) legislation⁴⁷ and the state's

resulting climate action plan, which exemplifies best practices including:

- **Mandating the plan via legislation:** The GWRA directed the New Jersey Department of Environmental Protection to develop a report that presented recommendations for reducing emissions by 80% below 2006 levels by 2050 (this report was published on October 15, 2020).⁴⁸
- **Featuring specific targets and goals around food waste:** The 80x50 Report specifically includes food waste targets and outlines a goal to reduce food waste by 50% in 2030.⁴⁹
- **Outlining concrete actions:** The report outlines actions to reduce food waste including siting food waste recycling facilities close to large food waste generators, creating guidelines for siting and permitting new composting facilities, and encouraging community programs for composting. Implementing these reform actions alone are estimated to reduce emissions from food waste by 30%.⁵⁰ To create accountability, the report assigns New Jersey Department of Environmental Protection DEP as the leading agency for food waste reduction initiatives.

Additionally, Massachusetts law requires ongoing solid waste management planning which exemplifies many of the best practices outlined above including:

- **Setting concrete targets:** Massachusetts' solid waste planning process set a target to reduce waste disposal by 30% by 2030 and 90% by 2050.⁵¹ The latest plan also includes concrete targets around food waste, aiming to reduce disposal of food and other organic materials by an additional 500,000 tons annually by 2030 based off a 2018 baseline.⁵²

- **Outlining action items:** The action plan identifies concrete policy actions as well as owners for those actions to help the state achieve its solid waste goals. In fact, Massachusetts' organic waste ban first emerged as part of its solid waste planning process and implementing regulations.⁵³ The latest iteration of Massachusetts' solid waste plan tasks Massachusetts Department of Environmental Protection with updating its solid waste regulations to reduce the threshold for the state's organic waste ban to cover entities that generate over half a ton of organic waste per week.⁵⁴
- **Requiring periodic updates:** Massachusetts law requires that the Massachusetts Department of Environmental Protection update the plan every ten years.⁵⁵

Local level climate action plans are also a great opportunity for policymakers to incorporate food waste reduction plans.⁵⁶ While this toolkit focuses on state level policies, the Environmental Law Institute has created a great toolkit that describes various municipal climate-action plans that incorporate food waste.⁵⁷ The toolkit provides municipalities and stakeholders with model provisions that will make it easier to incorporate food waste measures into municipal climate action plans.

Further, states can join collaborations to work towards food waste reduction goals. Regional collaborations can be a form of climate action plans that allow states to work across borders to reduce emissions. For example, California, Oregon, and Washington, along with many cities and private actors, have formed the Pacific Coast Collaborative to work together towards the common goal of reducing greenhouse gas emissions.⁵⁸ These states have committed to a series of specific, ambitious goals to reduce greenhouse gas emissions. One of

the commitments includes reducing food waste 50% by 2030 across the region.⁵⁹

See Appendix N for model legislation for climate action plans.

GOVERNMENT SUPPORT FOR FOOD WASTE REDUCTION

INTRODUCTION

Beyond legislative action, there are a variety of ways in which state governments can support food waste reduction. State governments can fund programs and infrastructure supporting surplus food recovery, organics recycling, upcycling food into human food products, or recycling food scraps into animal feed. Upcycled foods are foods that “use ingredients that otherwise would not have gone to human consumption, are procured and produced using verifiable supply chains, and have a positive impact on the environment.”⁶⁰ For example, an apple that would otherwise go to waste that is dehydrated and sold as apple chips would be upcycled.

Governments can support recycling efforts by, for example, helping to expand composting capacity and anaerobic digestion collection and processing capacity and assisting food recovery organizations with equipment needs. Governments can support upcycling food into human food products and recycling food into animal feed by providing funding for infrastructure, research, and development of new technologies. Grant and incentive programs are strongest when there is a sustainable source of funds, the programs are explicitly aimed at food waste reduction, they are well-advertised and

accessible, and technical assistance is available for applicants and recipients.⁶¹

In addition to funding, states can also support food waste reduction via technical assistance and education for food waste generators and the public as a whole. Several states provide technical assistance to businesses to help them understand their current food waste practices and implement reduction strategies.⁶² States can also increase food waste reduction through educational campaigns, which raise overall awareness and can spur individual and industry-wide action. To raise awareness, states can use their websites, educational seminars and conferences, training sessions, and media campaigns.

FEDERAL LAW

The federal government offers funding for food waste reduction work. As noted above, the 2018 Farm Bill included up to \$25 million per year for localities to conduct compost or food waste reduction projects.⁶³ In June 2021, the USDA announced an investment of up to \$100 million in food recovery infrastructure grants for food assistance organizations, particularly those that reach underserved areas. The grants can be used for efforts such as developing storage and refrigeration capacity, which helps organizations rescue more food.⁶⁴ In February 2023, the USDA announced an additional \$10 million in funding for Composting and Food Waste Reduction Pilot Projects.⁶⁵ The EPA also runs the Food Recovery Challenge, which is a voluntary incentive program that generators like universities, businesses, and others can join to reduce their food waste. Participants are required to set baseline goals and annually report the amount of diverted food waste.⁶⁶

MODEL STATE LAW

There is significant space for states to create funding opportunities and provide technical assistance. Best practices for government support include:

- **Creating grants for infrastructure and overhead costs associated with food recovery efforts:** Rather than lump food waste reduction into other environmental efforts, states should create a grant program dedicated to preventing food waste and recovering surplus food. To be most effective, this grant program should have a sustainable source of funding. For example, CalRecycle administers the Food Waste Prevention and Rescue Grant Program to reduce the amount of food going to disposal and overall greenhouse gas emissions.⁶⁷ The program is funded via money collected through the greenhouse gas cap-and-trade program, and awarded \$2.85 million in grants during fiscal year 2021.⁶⁸ Similarly, Maryland recently passed SB 124, which creates a grant program to fund food waste initiatives in schools.⁶⁹ As part of this grant funding, states should tailor funding to the needs of small food recovery organizations with less resources, such as by providing consistent, accessible funding not only for the purchase of equipment and other infrastructure, but also to cover on-going overhead costs such as staffing and warehouse space. Continuous financial support to cover overhead costs, as opposed to one-off funding opportunities, is rarely provided but often needed by food recovery organizations.
- **Creating grants for infrastructure, product development, and market development costs associated with recycling and upcycling food:** States should provide funding for

actors that are upcycling surplus food into new human food products and recycling food scraps into animal feed, taking advantage of food that would otherwise go to waste. For example, states could offer funding for the same types of activities offered in the USDA's Agriculture Innovation Center Program.⁷⁰ Though that program provides funding for value-added agricultural products, which would not necessarily fund recycling or upcycling projects, the types of activities it funds includes business and market development, product development, and value

chain coordination.⁷¹ Providing similar funding for recycling and upcycling organizations and businesses would support innovative food waste technologies. To strengthen this funding opportunity even further, grant funding should also be available for upfront infrastructure costs and research and development.

- **Providing free technical assistance around food waste:** In addition to funding a grant or incentive program, states should also offer free one-on-one technical assistance to support. In addition to passing policies that incentivize



LEAD BY EXAMPLE

or mandate food system actors to target their food waste, governments can tackle their own food waste issues. Leading by example, states can incorporate programs that address food waste within their own buildings and operations (and contractors' operations) and thereby demonstrate the feasibility and benefits of food waste reduction for the broader food system. For example, in 2010, the Los Angeles City Council passed an ordinance advising city departments and contractors to donate surplus food.⁷² Recognizing the building momentum behind food waste reduction efforts and the need for additional guidance, in 2018, the council required Los Angeles Sanitation & Environment and the City Attorney to promulgate guidelines for city departments and contractors.⁷³ States could follow Los Angeles and similarly lead by example by implementing some or all of the following practices:

- Procure compost for relevant projects (see Compost Procurement);
- Measure food waste generated by government agencies and contractors;
- Require that agencies and contractors donate surplus food;
- Require that agencies and contractors recycle food scraps, including providing organics collection bins in government offices and cafeterias; and
- Incorporate food waste measurement requirements and food waste reduction practices into the food vendor procurement process, to create a values-based procurement process that prioritizes vendors proactively tackling food waste.

businesses and other food waste generators who are interested in addressing food waste. For example, Tennessee's Get Food Smart Program provides free technical assistance to food waste generators including educational workshops, food waste audit planning, food waste reduction strategy assistance, on-site composting training, and more.⁷⁴ Additionally, the Massachusetts Department of Environmental Protection and the Center for EcoTechnology collaborate to operate RecyclingWorks MA, which provides guidance on state laws around food waste and technical assistance to businesses aiming to reduce food waste.⁷⁵

- **Recognizing businesses for their efforts:** In addition to providing funding and technical assistance, states can support efforts to reduce food loss and waste through challenges, certifications, recognition, and encouragement. For example, the Get Food Smart TN Recognition Program acknowledges participants taking voluntary waste-conscious actions in their operations. The goal of the program is to highlight and encourage replication of best practices.⁷⁶
- **Raising awareness via campaigns:** Lastly, states can raise awareness through broad outreach and educational campaigns. For example, the South Carolina Department of Health and Environmental Control collaborates with the public and private sectors to conduct a "Don't Waste Food S.C." outreach campaign.⁷⁷ The campaign aims to educate consumers, businesses, and communities about food waste.⁷⁸ Baltimore's "Make Food Matter" campaign uses culturally appropriate resources to increase awareness about food waste in the city.⁷⁹



APPENDICES

MODEL STATE LEGISLATION

Note on definitions: throughout this document we use different definitions based on the models we pulled from and the implications of different words in different contexts. Of course, it is within the discretion of states using this toolkit to opt for different definitions or more standardized definitions as they see fit.

APPENDIX M: FOOD WASTE REDUCTION IN K-12 SCHOOLS

Section 1. Definitions

- a. “Department” means the *[insert state education agency]*.
- b. “Educational entity” or “educational entities” means all *[insert state]* school districts, including a single school district, regional school district, multiple school districts, any public or private school grades kindergarten through twelve (K-12), any charter public school, or any career and technical high school.
- c. “Food waste reduction” incorporates preventing food from going to waste, donating surplus food, and recycling food scraps.
- d. “Nonprofit organization” means an incorporated or unincorporated entity that:
 1. Is operating for religious, charitable, or educational purposes; and
 2. Does not provide net earnings to, or operate in any other manner that inures to the benefit of, any officer, employee, or shareholder of the entity.
- e. “Offer versus serve” is a provision in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) that allows students to decline some of the food offered.
- f. “Safety and safety-related labeling” means a marking intended to communicate information to a consumer related to a food product’s safety.
- g. “Share tables” means tables or stations to which students may return whole or unconsumed food or beverage items, allowing those food and beverage items to then be made available for students who may want additional servings or otherwise donated to nonprofit organizations for distribution to needy individuals.
- h. “Waste audit” means an analysis of a facility’s waste stream. The audit can identify what types of recyclable materials and food waste a facility generates; how much of each category is recovered for recycling or discarded for disposal; and what materials can be composted.

Section 2. Waste audit/report

- a. Within one year after enactment and every *[insert feasible number of years to allow between audits. Rhode Island allows three.]* years thereafter, every educational entity shall coordinate and cooperate with the *[insert environment or solid waste management agency]* for the purpose of conducting school waste audits. These audits shall produce waste management reports that shall be collected, maintained, and delivered to the educational entity. The waste audits shall be performed at every educational entity.
- b. Waste audits and any reports required herein shall include guidelines and strategies on minimizing food waste, promoting recycling (including organics recycling), and donating food to local communities that shall be incorporated into the educational entity's operations.
- c. Educational entities, using the guidelines and strategies pursuant to subsection (b), shall design and implement a waste collection system in accordance with applicable state law for the diversion of surplus foods.
- d. Notwithstanding any other provision of law, any waste audit conducted pursuant to this section shall be provided free of charge by the *[insert solid waste management agency]* or its designee.

Section 3. Food donation and liability protection

- a. It shall be the policy of the state, the Department, and any educational entity to donate unserved nonperishable food to individuals either directly or through nonprofit organizations and to require that any request for proposal (RFP) to select a vendor to provide food services to an educational entity will mandate such donations.
- b. Vendors required to donate nonperishable and unspoiled perishable food to nonprofit organizations or individuals shall make arrangements to carry out the provisions of this section.
- c. Except for injury resulting from gross negligence or intentional misconduct in the preparation or handling of donated food, no educational entity, person, or vendor that donates food that is fit for human consumption at the time it was donated, as required by subsection (a), shall be liable for any damage or injury resulting from the consumption of the donated food.
- d. The donation of food that is fit for human consumption, but that has exceeded the labeled shelf-life date recommended by the manufacturer, is an activity covered by the exclusion from civil or criminal liability under subsection (c) if the person that distributes the food to the end recipient makes a good faith evaluation that the food to be donated is wholesome.
- e. The nonprofit organization that, in good faith, receives and distributes food without charge, pursuant to subsection (a), that is fit for human consumption at the time it was distributed is not liable for any injury or death due to the food unless the injury or death is a direct result of the gross negligence or intentional misconduct of the organization.

Section 4. School Share Tables Program

- a. The Department shall develop and implement a School Share Table Program, providing guidelines for the use of share tables in schools. The Program shall be implemented as part of any educational entities' school-based child nutrition program administered by the Department.

Section 5. Offer Versus Serve

- a. To the maximum extent practicable, and in compliance with federal law, educational entities should use the offer versus serve model for meals or snacks provided as part of the school-based child nutrition program administered by the Department for all grades kindergarten through grade twelve, following the guidance manual published by the U.S. Department of Agriculture.

Section 6. Food Waste Grant Program

- a. Subject to appropriation *[may need to adjust for how your state addresses funding in legislative language]*, the Department shall create and administer a grant program for schools to prevent food from going to waste, donate surplus food, and compost food scraps with *[\$500,000 or whatever amount you decide to designate to this grant program]* in funds annually.
- b. The purpose of the Food Waste Grant Program is to award grants to public school boards and other educational entities to develop and implement programs for reducing food waste and composting of organic materials, including food scraps.
- c. An educational entity may apply for a grant under this section, following an application process created by the Department.
- d. A project is eligible for a grant if it is submitted by an educational entity and will:
 1. Educate students, staff, and parents on the connection between food waste, climate, environment, and hunger;
 2. Support school infrastructure to measure food waste and food waste reduction;
 3. Train and educate students and staff on food waste reduction; and
 4. Include at least one of the following activities:
 - A. Transitioning to offer versus serve model (as outlined in section 5)
 - B. Developing processes for surplus food to be served during after school activities or the following day, or to be taken home to student families;
 - C. Replacing single-serve milk cartons with bulk milk dispensers;
 - D. Establishing share tables (as outlined in section 4) *[if share tables are not already mandatory as outlined in Section 4; or alternatively, if they are mandatory, and Section 4 is adopted, funds could go to schools that demonstrates need]*;

- E. Packaging and distributing surplus food to local nonprofit organizations to support local communities and to students and their families;
 - F. Establishing any other program or activity that prevents and reduces food waste in educational entities;
 - G. Contracting with a commercial composter or anaerobic digester or municipal or county agency to recycle in-school organic waste; or
 - H. Establishing on-site composting bins.
- e. Grant awards shall be prioritized for:
- 1. Projects that meaningfully incorporate student leaders;
 - 2. Educational entities with high numbers of students who receive free and reduced-price meals; and
 - 3. Programs that will contract with small-and mid-sized businesses as well as minority- or veteran-owned businesses.
- f. A public-school board or educational entity that receives a grant through the Food Waste Grant Program shall report to the Department on program outcomes including:
- 1. The amount of food waste disposed in landfills or incinerators, surplus food donated, and food scraps composted or digested; and
 - 2. Improvement in student and staff education on food waste reduction best practices.

Section 7. Regulations

- a. The Department is authorized to promulgate rules and regulations as required to implement Sections 2 through 6.

APPENDIX N: CLIMATE ACTION PLAN WITH A FOOD WASTE REDUCTION GOAL

Section 1. Purpose

- a. Due to the threat posed by global warming, the legislature declares that it is in the public interest to establish a greenhouse gas emissions reduction program that includes a comprehensive strategy to reduce short-lived climate pollutants and to limit the level of statewide greenhouse gas emissions to reduce those emissions to 50 percent below the 2005 level by the year 2050.*
- b. To pursue and achieve that goal, the legislature also commits to reducing food loss and waste by 50 percent by the year 2030.

**States can select different greenhouse gas emissions reductions goals. The suggested goal is based off the Biden Administration's stated goal.*

Section 2. Definitions

- a. “Department” means *[define this as needed for your state and include the state agency responsible for environmental protection. This could be an agency, department, commission, etc. If you change this term, you will need to replace the term throughout the statute, in areas indicated via brackets.]*
- b. “Greenhouse gas” means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and any other gas or substance determined by the Department to be a significant contributor to the problem of global warming.
- c. “Short-lived climate pollutant” means a pollutant that has a relatively short lifespan in the atmosphere, from a few days to a few decades, and has a warming influence on the climate that is greater than that of carbon dioxide and includes, but is not limited to, fluorinated gases, and methane.

Section 3. Climate Action Plan

- a. No later than 18 months after the effective date of this section, the *[Department]* shall develop a comprehensive strategy to reduce emissions of greenhouse gases and short-lived climate pollutants in the state. In developing the strategy, the Department shall:
 1. Complete an inventory of sources and emissions of greenhouse gases and short-lived climate pollutants in the state based on available data;
 2. Identify research needs to address any gaps in the data;
 3. Identify existing and potential new control measures to reduce emissions;
 4. Identify opportunities to reduce food waste in order to reduce emissions;

5. Prioritize the development of new measures to reduce greenhouse gasses and short-lived climate pollutants that offer co-benefits by improving water quality or reducing other air pollutants that impact community health and benefit marginalized communities;
 6. Outline specific actions for the state to take to reduce emissions and assign those tasks to the relevant state agencies; and
 7. Coordinate with other state agencies and local government units to develop, implement, and evaluate measures identified as part of the strategy.
- b. The *[Department]* shall revisit and reassess the strategy annually to determine progress towards goals outlined in section 1 and shall periodically update the strategy as needed.
 - c. The *[Department]* must submit annual reports regarding the implementation of the Plan, with the first such report due no later than *[2 years after enactment]*. The Department shall make these reports publicly available on its website.

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