

REPORT

SANITATION

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NORTH CAROLINA FOOD WASTE POLICY GAP ANALYSIS AND INVENTORY

pac-mac

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Table of Contents

Glossary of Terms 4	È
Introduction	í
Policy Gap Analysis Approach and Applications5	6
North Carolina Food Waste Policy Gap Analysis12	2
North Carolina Food Waste Policy Inventory14	Ė
Food Waste Reduction Policy Gap Analysis Rubric	È

Glossary of Terms

Food rescue. This term refers to donation or recovery of surplus food for feeding hungry people.

Food waste reduction. This term encompasses all tiers of the food recovery hierarchy: prevention, donation, animal feed, composting, and anaerobic digestion.

Source-separated organics (SSO). This term references organic material separated for processing and may encompass food scraps as well as yard waste.

GAP ANALYSIS COLOR CODING

No Policy
Weak Policy
Moderate Policy
Strong Policy

Introduction

This report comprises a gap analysis and detailed inventory of food waste-related policies in North Carolina. Whereas the inventory provides an overview of existing state policies, the gap analysis identifies policy opportunities for furthering food waste reduction. Categories were chosen to represent areas across the food recovery hierarchy and include: organics disposal bans and recycling laws; date labeling; food donation liability protections; tax incentives for food rescue; organics processing infrastructure permitting; food safety policies for share tables; food systems plans, goals, and targets; plans targeting solid waste; climate action goals; and grants and incentive programs related to food waste reduction. The goal of this report is to equip NRDC Food Matters city partners with a comprehensive overview of their state's respective policy landscape and how it helps and/or hinders efforts to reduce food waste.

Thegap analysis can be read as a summary digest of the more detailed policy inventory. This section serves to highlight particularly strong policies that can be leveraged to further a city's food waste reduction goals, as well as advocacy opportunities where policies are weak or nonexistent. The inventory provides a more comprehensive overview of any policies, executive orders, goals, targets, or programs that exist across the ten covered categories. Users may choose to read the gap analysis to gain a basic understanding of their state's policy landscape and then reference the inventory for detailed information.

Policy Gap Analysis Approach and Applications

To provide a consistent and objective analysis, policy categories were assessed using a rubric that defines "No Policy," "Weak Policy," "Moderate Policy," and "Strong Policy" for each category. Below is the rationale and definition for each tier of the rubric for the ten policy categories, as well as examples of policies in practice for select categories. For full rubric, see Food Waste Reduction Policy Gap Analysis Rubric.

ORGANICS DISPOSAL BANS AND RECYCLING LAWS

Organics disposal bans and mandatory recycling laws are an effective means of achieving food waste reduction, including via prevention and other strategies across the hierarchy. By limiting the amount of organic waste that entities can dispose of in landfills or incinerators, organics disposal bans and waste recycling laws compel food waste generators to explore more sustainable practices like waste prevention, donation, composting, and anaerobic digestion (AD). A Strong Policy applies to all commercial generators (and possibly individuals at the household level) and is actively enforced. A Moderate Policy is similarly enforced but imposed only on select commercial generators, and Weak Policies are ones that provide several exemptions from the law's applicability, such as exemptions based on distance from a processing facility or the cost of processing. It is quite common for states to start with a Weak Policy and gradually strengthen it as the marketplace evolves and impacted stakeholders are educated and gain the resources to comply.

Policy in Action

While there are no states in the Southeast that have organics disposal bans or mandatory recycling laws, elsewhere they have received a lot of attention in recent years as an increasing number of states and localities have adopted this policy approach. In many cases, other actions were taken in the years leading up to the legislation or regulation that enabled it to get political and practical traction. For example, in Massachusetts, one of the first states to ban food waste, the state made incremental changes during the years ahead of the ban's effective date, including:

- Modernizing the permitting structure for composting and AD facilities;
- Investing in infrastructure through grants and low-interest loan programs;
- Providing regulatory relief from other waste ban materials if supermarkets diverted food waste through an innovative partnership with the Massachusetts Food Association called the Supermarket Recycling Program Certification; and
- Developing RecyclingWorks in Massachusetts, a no-cost technical assistance program to help businesses comply.

New York State has taken similar steps by providing grants for infrastructure, supporting food donation networks, and establishing business assistance in advance of its legislation. New York is also an example of a state where a major city (New York City) enacted a waste ban ahead of the statewide law.

Bans and Beyond: Designing and Implementing Organic Waste Bans and Mandatory Organics Recycling Laws, a resource produced by the Harvard Law School Food Law and Policy Clinic and the Center for EcoTechnology, provides further detail on these policies, including their development and structure, for cities and states that are considering this policy option.¹

DATE LABELING

Date labels affixed to food products are a major driver of food waste and an obstacle to food donation. There is currently no federal system regulating the use of date labels such as "sell by," "best by," and "use by" on foods. Instead, each state individually decides whether and how to regulate date labels. Manufacturers often have broad discretion over how the dates on foods are selected. These dates typically reflect quality and taste rather than safety, yet businesses, individuals, and even state regulators frequently misunderstand the dates and interpret them to be indicators of when food is no longer safe to eat.

Standardization of date labeling is a cost-effective solution to food waste. By educating consumers about the meaning of date labels on products sold within the state and eliminating bans on the donation or sale of past-date foods, states can make date labels comprehensible to consumers and avoid the systematized waste of safe and wholesome foods. A Strong Policy requires that manufacturers or retailers who choose to affix date labels to foods use one of two prescribed standard date labels, a quality label or a safety label. In addition, a Strong Policy expressly permits the donation of food after the quality date. A Moderate Policy requires date labels for certain foods but does not prohibit or limit the sale or donation of food after its label date. A Weak Policy—and potentially a detrimental one—requires date labels for certain foods and prohibits or limits the sale or donation of food after its label date. Federal guidance recommends the use of the phrase "BEST If Used By" to indicate a food's quality. Federal legislative proposals as well as industry efforts have recommended the same, and further recommend the phrase "USE By" to indicate safety concerns. States should align their standards with these efforts.

Policy in Action

Southeast states generally have not established a dual date labeling system for quality and safety. Many states in the region have conflicting or unnecessarily restrictive date labeling requirements. With a lack of clear guidelines, food manufacturers and processors have largely created their own labeling schemes. In some cases, decisions on how these dates are determined can be driven by business interests, and the labels often have a wide range of wording that increases confusion. Further, even where state date labeling regulations exist, they often are not based on science-backed food safety concerns. As a result, consumers or businesses often dispose of food when it reaches the label date, even though it may be safe to eat. Thus, date labels are an important part of any policy strategy to prevent food waste, and one that cities can encourage states to pursue. Until federal legislation or regulations standardizing date labels are adopted, states can remove problematic components of their own date labeling policies using guidelines recommended in this analysis, and even help pave the way for federal standardization.

FOOD DONATION LIABILITY PROTECTIONS

Restaurants, retailers, and other food businesses are often hesitant to donate food because they fear being held liable for harm caused by the donated food. While the federal Bill Emerson Good Samaritan Food Donation Act provides robust liability protection for both food donors and food rescue organizations, state liability protections can strengthen this and encourage food donation by further reducing liability risks for those participating in food rescue. A Strong Policy provides liability protection for donations directly to individuals, allowing restaurants and food service organizations to donate small amounts of food that may be cost-prohibitive to transport or store; it also offers protection for donations supplied to the final consumer for a small fee, thereby extending protection to innovative food rescue models like social supermarkets. A Moderate Policy is broader than federal-level protections and may provide protections for donations directly to individuals or donations made for a small fee. A Weak Policy provides protections that are no broader than federal-level ones, or only protects one party, such as the donor or food rescue organization.

Tools to Support Policy

Legal fact sheets or guidance documents can serve as a beneficial tool in communicating legal protections and considerations for potential donors. These documents can relay legal language using easily understood terms that help clarify requirements for protection to apply and alleviate concerns related to donation. The Harvard Law School Food Law and Policy Clinic has created many of these state-specific food donation fact sheets (including on the topic of liability protection for food donation) and a number of other useful documents; these can be found in the organization's online resource library.

TAX INCENTIVES FOR FOOD RESCUE

Donating food can be expensive, because it requires money to harvest, package, store, and transport food that would otherwise be discarded. Tax credits or deductions can help offset those expenses and offer an economic incentive for food donations. A federal tax incentive exists, but certain businesses struggle to utilize it. State-level tax incentives for food donation can help support the agricultural economy and food producers, strengthen ties between local businesses and consumers, reduce the amount of wasted food, and improve the healthy options available to state residents who use emergency food outlets. A Strong Policy is one in which tax deductions or credits fully offset the costs associated with food donation, including transportation. A Moderate Policy provides a tax incentive for food donation, but the incentive does not fully offset the associated costs.

Policy in Action

States and cities may issue tax incentives that help promote food rescue. None of the states in the Southeast have tax incentives for food rescue, and none of the states or jurisdictions reviewed in the Mid-Atlantic or Great Lakes regions have a Strong Policy designation in this category. However, Philadelphia provides an example of a policy enacted at the local level that helps to incentivize food donation. The city implemented a sustainable business tax incentive that allows businesses who meet certain sustainability criteria—including participating in food donation—to receive a tax credit of up to \$4,000 on the Business Income & Receipts Tax (BIRT). As another example, Maryland, a state with a Moderate Policy in this category, offers a tax credit only for food donation by qualifying farms and farm businesses. These businesses can claim up to 50 percent of the value of the donation for conventional products, and up to 75 percent of the value of certified organic produce donations to charitable organizations.

ORGANICS PROCESSING INFRASTRUCTURE PERMITTING

Strong processing infrastructure policies actively facilitate the development and permitting of organic waste processing facilities—including both composting and anaerobic digestion facilities and small-scale composting operations—and are in sync with current best practices for organics processing. A Strong Policy includes a regulatory tier for source-separated organics (SSO) and provides opportunities for market development. Further, a Strong Policy minimizes barriers to entry, is aligned with best management practices for composting SSO, and offers a separate permitting process for anaerobic digestion of SSO. A Moderate Policy similarly offers a dedicated regulatory tier for SSO and considerations for market development, but it may have the same composting requirements for SSO as for mixed solid waste, may negatively impact economic viability by limiting the quantity or site acreage, or may include vague language for handling SSO through anaerobic digestion. A Weak Policy still includes a regulatory tier for SSO, but two of the drawbacks noted above (e.g., limitations on site acreage) are present. No Policy refers to locales with no processing tier for SSO, no acknowledgement of anaerobic digestion of SSO, and no exemption tier for small quantities of SSO.

A commitment to recycled organics market development is another mechanism to bolster organics processing infrastructure. Examples of market development mechanisms include procurement or bidding mandates that require developers to use compost products or recycled organic materials in their development projects.

States with strong policies for diversion to animal feed do not regulate feeding food scraps to animals or have minimal restrictions on such activity; they may also offer education and guidance on relevant laws and regulations and/or encourage collaboration with local farms.

An Evolution of Infrastructure Permitting

Permitting for organics processing infrastructure has evolved over the decades in response to the unique characteristics of different feedstocks, including biosolids, leaf and yard waste, and now, increasingly, food waste. In the 1980s, the U.S. Environmental Protection Agency (EPA) promulgated regulations codified at 40 CFR 503 that established pathogen and vector attraction reduction requirements and pollutant limits for biosolids recycling, including composting. Those requirements are included in most state solid waste regulations for composting, such as PFRP, the process to further reduce pathogens (e.g., maintaining temperature of 55 °C for three days in aerated static piles or 15 consecutive days in windrows). Later in the 1980s and into the 1990s, about two dozen states passed bans on landfill disposal of leaves, grass, and/or brush. This was in response to a perceived shortfall in landfill capacity and led to the creation of composting facilities specifically for yard trimmings in many states. To facilitate the development of yard trimmings processing capacity, states created a "permit by rule" approach (essentially a notification) to facility permitting or established an exemption. Permit-by-rule was an early example of a tiered permitting approach to composting regulations.

Interest in composting of source-separated food scraps grew throughout the 1990s. On-site composting of food scraps, for example, was enabled by in-vessel systems on the market. State solid waste agencies, recognizing that on-site food scrap composting poses minimal threats to public health and the environment, began adopting on-site composting exemptions. Some states also created exemptions for composting food scraps on farms during this time. In some instances, farms were not allowed to sell the compost but instead were required to use it all for their own agricultural operations.

Permit-by-rule, on-site exemptions, and on-farm composting exemptions are the foundation of a tiered approach to regulating composting facilities that process source-separated organic waste streams, including food scraps. Site and operational requirements for processing SSO tend to be less restrictive at smaller volumes and then become more restrictive, e.g., more stringent storm water management and pad requirements, as the quantities of feedstock increase. Tiered approaches reduce barriers to entry for SSO composting, which is why this regulatory approach was prioritized in this report's policy rubric. As reflected in the rubric structure, it is generally acknowledged that a tiered approach to permitting facilitates development of food scrap processing facilities. This is especially the case for existing yard trimmings composting operations that can move from a permit-by-rule status to a registration or permitting fees, site improvement costs, etc.). What typically changes are the operating procedures, such as requiring that food scraps be incorporated into the composting process soon after their arrival. PFRP temperature requirements must also be met, especially when meat, dairy, and shellfish are included in the food scraps stream.

To date, regulation of anaerobic digestion facilities receiving food scraps (codigestion) varies by state. In Pennsylvania, for example, the state solid waste agency has a permit for codigestion on dairy farms; however, oversight of codigestion at wastewater treatment plants is done by the water/wastewater division (and by the EPA in some cases, in terms of discharge permits). In Ohio, the state solid waste agency defers permitting of digesters taking food scraps to the air and water quality divisions. The organics processing permitting infrastructure inventories illustrate these variations among states.

Policies in the Southeast Region

Georgia, North Carolina, and Tennessee have either exemptions or a permit-by-rule allowance for small-scale composting of food scraps. The Tennessee Department of Environmental Conservation (TDEC) adopted an exemption for sites composting no more than 100 cubic yards (cy) per year of food scraps or similar material using an in-vessel composting method, or no more than 50 cy per year using other methods (windrows, aerated static piles, etc.) when it promulgated its new rules in 2016. Georgia amended its composting rule in 2018 to establish a permit-by-rule tier for food scrap composting; it applies to community-scale operations that receive food scraps from off-site sources (e.g., nearby households and small businesses). In 2019 North Carolina clarified its criteria for determining small versus large composting facilities and expanded the types of operations that are exempt from permitting, primarily small-scale food waste composting. The new category allows up to 100 cy of material on site at any one time (not including finished compost). In correspondence, Robert Wadley, environmental specialist with TDEC's Division of Solid Waste Management, Materials Management Program, noted: "I am happy with the size limitations we set. It has covered all community gardens and community composting facilities of which I am aware. It has also allowed small-scale composters to 'get their feet wet' before they scale up."

FOOD SAFETY POLICIES FOR SHARE TABLES

Share tables in schools can promote food rescue efforts and also teach children about food waste and rescue. While the U.S. Department of Agriculture (USDA) provides guidance on establishing share tables in schools, a Strong Policy at the state level goes above and beyond this guidance by encouraging share tables and developing state-specific guidelines or instructions about food safety as it relates to donation. A Moderate Policy allows share tables but provides only limited guidance. A Weak Policy also allows share tables but provides no guidance or offers more restrictive rules and guidance than the federal government does.

From a broader food policy perspective, food donors and food rescue organizations must also comply with food safety regulations. These regulations often do not directly address food donation specifically and can be difficult to navigate for food donors and health inspectors alike. To facilitate increased food rescue, state and local actors can create better and more consistent food safety regulations, produce guidance on food safety regulations for food donation, and prepare health inspectors to serve as food donation advocates. While many of the states analyzed for this project have produced guidance on implementing share tables in schools, very few have promulgated clear, science-based food safety regulations for food donations or offered food safety guidance for food donation more broadly. Given this gap, an opportunity remains for policymakers and advocates at the state and local levels to push for the following changes: regulations that explicitly state what foods can be donated; state-wide uniformity among regulations that apply to donated foods; clarifying guidance on food safety for food donation to support potential food donors; and trainings for local health inspectors on safe food donation.

Policy in Action

State-level stakeholders in the Southeast have done little to promulgate awareness of federal policy around share tables or endorse their use in schools. Developing relevant guidance could reduce food waste and feed hungry people. Connecticut offers a cautionary tale of the importance of clear communication and coordinated efforts among stakeholders. In 2017, the Connecticut State Department of Education released a memorandum noting that the state's share table regulations limit their use to foods that are packaged or unpeeled and that do not require temperature control. This caused confusion among schools who thought the regulations could also apply to external donation—and thus felt compelled to dispose of foods like untouched apples and unopened cartons of milk. State agencies subsequently endorsed a guidance document that clarifies the distinction between share tables and donation to food rescue organizations, and the different regulations for each, and it has been made widely available to schools.

FOOD SYSTEMS PLANS, GOALS, AND TARGETS

Statewide food systems plans, where goals and targets are given the support of state infrastructure, will have a much broader impact than regional or local food systems plans. However, any food systems plan that actively considers food waste reduction and sets clear targets to reduce food loss and waste demonstrates a clear commitment to improving food systems. A Strong Policy designation indicates that there is a comprehensive statewide plan with a set of clear goals and targets that also incorporates food loss and waste reduction. A Moderate Policy features regional food systems plans or a state plan in which one of the following is true: There is limited support to achieve goals, there is a failure to coordinate with other regional plans, or there is little to no consideration of food waste reduction. Weak Policies are designated where there is a regional food systems plan that does not have broader state support and does not address food waste reduction.

Policy in Action

In most of the Southeast states, cities have taken a leadership role in developing food systems plans in the absence of statelevel documents. Policies across the country, such as in Massachusetts, Rhode Island, and San Diego, have included very direct language about how reducing food waste is central to the success of the statewide food systems plan. Rhode Island's food strategy, Relish Rhody, supports a robust food system that also protects natural resources, promotes clean energy goals, and connects these goals to reducing food waste. To illustrate, one of the five integrated focus areas in Rhode Island's policy is "to minimize food waste & divert it from the waste stream."

PLANS TARGETING SOLID WASTE

Solid waste management plans set targets and a framework for achieving overall materials management and waste diversion goals. Plans that include food waste diversion demonstrate that a state actively considers the impact of food waste on materials management infrastructure, and the best ones are continuously updating their guidance to stay current. A Strong Policy features a current solid waste management plan, zero waste plan, or organics management plan that addresses food waste reduction and offers a strategy for reducing waste. A Moderate Policy highlights food waste as a diversion opportunity but has limitations or is out of date. States with a Weak Policy have plans that are more than a decade out of date and do not acknowledge the role of food waste reduction in diversion strategies.

Measuring Goals

States use a number of strategies to set goals and measure progress on food waste diversion, including analysis of recycling rates, waste reduction rates, or waste generation rates. Recycling rates compare the quantifiable amount of material generated in a territory with the amount of municipal solid waste disposed, but it can be challenging to accurately capture this data, and this approach does not account for waste reduction efforts. A waste reduction rate encompasses the information included in the recycling rate but adds consideration of waste reduction efforts. However, since it can be difficult to measure what is not created (as when food is not wasted), the calculation process can be complicated and the data provided can be less reliable than a recycling rate. A third strategy is to track the waste generation rate over time, either overall or per capita. In areas where waste handling facilities have finite capacity, this data point also helps state officials monitor infrastructure needs as they evolve.

Massachusetts is an example of a state that has evolved its goal-setting and data collection strategies over time, using each data point in different iterations of its solid waste master plan. Massachusetts arrived at using an overall waste generation rate to reduce staff labor required in monitoring goals and allow a focus on various materials reduction rates. As another example, in its Beyond Waste plan, New York took a per-capita waste generation rate approach, accounting for variations in population across the state.

CLIMATE ACTION GOALS

A climate action plan sets clear targets for addressing climate change and establishes clear pathways to meet those targets. With respect to policy vehicles, legislation ranks higher in this policy rubric because it demonstrates a statewide commitment to climate action, whereas executive orders can be revoked by later administrations. Even in the absence of explicit goals for food waste reduction, carbon reduction targets can be leveraged to justify and drive food waste reduction activities at the city and state level. Where state-level political support for climate action is lacking, cities can adopt their own plans and policies. These can incorporate the contribution that food waste reduction makes towards decreasing emissions while providing economic benefits.

Since food waste is a significant contributor to greenhouse gas emissions, a Strong Policy will incorporate a plan to reduce food waste and will identify action steps for specific departments to carry out the work outlined in the plan. A Moderate Policy features a plan that outlines climate action goals, along with supporting legislation or specific departments that have been tasked with action steps. A Weak Policy for a climate action goal is set by executive order with no legislative framework or enacted with limited legislative action and no framework to achieve goals.

GRANTS AND INCENTIVE PROGRAMS RELATED TO FOOD WASTE REDUCTION

State or local grant and incentive programs can be important catalysts for expanding food waste reduction activities across the hierarchy, from helping offset the costs of donation, to seeding startup food rescue organizations and supporting targeted infrastructure expansion, to providing technical assistance to marketplace stakeholders. A Strong Policy has a sustainable funding model to create grants and incentive programs that are explicitly aimed at food waste reduction. These programs also offer free technical assistance to support food waste reduction in an effort to lower the barriers to diversion. A Moderate Policy includes grants and funding for food waste reduction, but the funding may not be dedicated to this category or may be unsustainable, or technical assistance may not be offered. In states with a Weak Policy, grants to support food waste reduction are available, but more than one of the following is true: funding is not dedicated to this category, funding opportunities are not advertised or accessible, funding is unsustainable, or technical assistance is not provided.

Policy in Action

In addition to providing financial support, states and local entities are increasingly seeing the value and impact of educational programs and technical assistance for food waste generators. Several states, including Tennessee, provide technical assistance—tailored one-on-one support to an entity to implement food waste reduction strategies—which can lay the groundwork for a future waste ban or recycling mandate. In the absence of such legislation, a robust technical assistance program can still achieve meaningful results at all levels of the hierarchy. Complementary education and promotional campaigns allow broad outreach to constituents and can be an effective tool for raising awareness and spurring individual action. Every state and city has the opportunity to promote, and support constituents in, reducing waste.

Austin, Texas, has implemented an ordinance that requires certain businesses to rescue surplus food and source-separate food scraps for processing separate from municipal solid waste. Each covered business must submit an annual diversion plan that gives an overview of the types of material that will be recovered and the handling strategy for each of these waste streams. To support enforcement efforts, city staff may inspect hauling and recycling contracts. The city also offers a Reduction or Reuse Credit, whereby businesses can offset performance standards for organics recycling through source reduction efforts. A Zero Waste Business Rebate of up to \$1,800 is also available to support businesses that are beginning or expanding zero waste initiatives, such as composting or recycling programs. Further, Austin Resource Recovery offers direct technical assistance to entities initiating organics diversion programs.

Establishing a framework for the state's highway department or other state agencies to use compost in construction projects is another incentive program that can be pursued to support compost markets. For example, Maryland's State Highway Administration has developed a specification for compost and compost-based products and identifies compost use as a best management practice to address soil erosion, sediment control, and stormwater management. Not only does this provide a broader incentive for use of compost in state projects, but it also helps create an end market for finished compost, acknowledging the importance of compost sales on the sustainability of processing facilities.

North Carolina Food Waste Policy Gap Analysis

Policy Category	Status	Policy Recommendations and Potential Advocacy Opportunities	
Organics Disposal Bans and Recycling Laws	No Policy North Carolina currently has no organics disposal ban for food waste.	 Enact an organic waste ban or mandatory organics recycling law for all commercial generators. Introduce a solid waste disposal tip fee that would help incentivize waste diversion while generating a revenue stream to fund food waste prevention and diversion programs. Cities or counties may be able to enact their own organic waste bans for food waste or establish incentive programs for food donation or waste diversion because they have the power to develop their own solid waste disposal plans. Incentive programs can come in the form of recognition, certification, or regulatory relief. Note: Progress on the recommendations below, particularly in the areas of Liability Protection, Tax Incentives, Organics Processing Permitting, Food Systems Plans, and Solid Waste Management Plans, can help make food waste reduction more common, which can lower barriers to implementing policies like a disposal ban. 	
Date Labeling	Moderate Policy North Carolina imposes date labeling requirements (date shucked or sell-by date) only on shellfish. ² The date labeling laws neither explicitly prohibit nor expressly allow past-date food donation.	 Establish guidelines expressly allowing the donation or the freezing of food after the quality-based date, and educate businesses about donation. Launch education campaigns and guidance documents that promote consumer awareness and education on the meaning of date labels. Capitalize on the number of legislative enactments and resolutions related to the prevention of food waste to issue new date labeling regulations, in alignment with federal guidance. 	
Food Donation Liability Protections	Moderate Policy North Carolina provides liability protection for donors and distributors of donated food and includes a presumption of good faith. ³ Liability protection seems to cover donations that are eventually supplied for a small fee: The law does not mandate that food donations be distributed for free, though it does not explicitly allow sale for a small fee. Liability protections do not cover food donated directly to needy individuals.	 Provide liability protection for certain "direct donations" made by food businesses to those in need. Provide explicit liability protection for donations of food products past their quality-based date. Provide explicit liability protection for donations sold by distributing nonprofits at a low price (either through legislation or through clarifying guidance). 	
Tax Incentives for Food Rescue	No Policy North Carolina offers no tax deductions or credits for the donation of food.	 Offer tax incentives to offset the costs of food donation, including the cost of transporting donated food. Offer a tax credit for donation by farmers. 	
Organics Processing Infrastructure Permitting	Strong Policy North Carolina has a regulatory tier that includes source-separated food and an exemption from permitting for small-scale and/or community composting operations. The state also has a separate permitting pathway in solid waste regulations for anaerobic digestion of source-separated food waste. ⁴	 Ensure that permitting requirements are kept up-to-date with best practices for composting. Bolster the market for finished compost by enacting procurement requirements for commercial developers and/or government agencies (e.g., mandatory consideration of a bid for use of compost). 	
Food Safety Policies for Share Tables	Moderate Policy North Carolina has established safety guidance for food donation and share tables but does not explicitly encourage the adoption of share tables. ⁵	 Amend existing guidance to explicitly encourage the adoption of share tables. Promote opportunities for schools to increase rescue through share tables and other methods. 	

Policy Category	Status	Policy Recommendations and Potential Advocacy Opportunities
Food Systems Plans, Goals, and Targets	Moderate Policy North Carolina has robust regional food systems plans that consider food waste, and it is in the process of developing a state food systems plan. ⁶ No framework yet exists to achieve the targets to be identified.	Once the Center for Environmental Farming Systems releases its report on North Carolina food resiliency, the state could create opportunities to coordinate with existing regional food system stakeholders and establish state infrastructure to support the goals of the report.
Plans Targeting Solid Waste	No Policy North Carolina does not have a current solid waste management plan or waste diversion goals. ⁷ The state has developed a 2020 Organics Recycling Study. ⁸	 Develop a statewide solid waste management plan and provide updated specific waste diversion goals and recommendations for management of food waste through prevention, donation, rescue, and/or processing through composting or anaerobic digestion. As a near-term action, develop an organics management plan to address food waste while a comprehensive solid waste management plan is being developed.
Climate Action Goals	Moderate Policy North Carolina has a climate action plan, established through executive order, that calls for 40 percent emissions reductions below 2005 levels by 2025. ⁹	 The 2020 Climate Risk Assessment and Resilience Plan recommends improving efficiency in the food system and reducing food waste as a component of climate action.¹⁰ To strengthen this policy, consider tasking specific departments with actionable next steps for advancing emissions reductions in the context of reducing food waste. Pass local climate action goals and plans to draw the connection between emission reductions and food waste reduction and to advance local efforts.
Grants and Incentive Programs Related to Food Waste Reduction	Moderate Policy North Carolina offers grants and a special tax treatment of recycling and resource recovery equipment and facilities. ^{II} It also offers tax exemptions that include recycling equipment. Although support for food rescue is included, it is limited or subsumed by other waste programs. Additionally, free business support is offered through a Recycling Business Assistance Center. ¹²	Explicitly provide funding and grant opportunities for food loss and waste prevention and for promotion of food rescue.

ORGANICS DISPOSAL BANS AND RECYCLING LAWS

There are no organics disposal bans or recycling laws in North Carolina.

DATE LABELING

The only food item that requires date labeling is shellfish. There are no restrictions on foods to be sold or donated after the date that is labeled. However, food can be deemed misbranded if the sell by date has been altered. The sale, delivery, holding, or offering of any misbranded food is prohibited. This may result in food being wasted.

Citation	Summary & Key Elements	Source
N.C. Gen. Stat. Ann. § 106-130 (15)	 Title: Food Deemed Misbranded Summary: A food item will be deemed misbranded if the sell-by date label has been removed, obscured, or altered by any person other than the customer. Key Elements: If the label provided by the manufacturer, packer, distributor, or retailer contains a sell by-date or another date related to the last day of sale that has been removed, obscured, or altered, then this food is deemed misbranded. 	https://www.ncleg.net/enactedlegislation/ statutes/html/bychapter/chapter_IO6.html
	 This pertains to meat, meat products, poultry, and seafood. Food that has been repackaged or relabeled must not have a new date labeled on it that is later than the original package's date. This does not pertain to the relabeling of meat, meat products, poultry, or seafood that has been frozen, cooked, or gone through another process that extends its shelf life. 	
I5A N.C. Admin. Code I8A.0614	 Title: Sanitation of Shellfish Summary: Containers with shucked shellfish must have either the date shucked or the sell-by date labeled, depending on the size of the container. Key Elements: Sell-by date refers to a date conspicuously placed on a container that informs the consumer of the latest date the product will remain suitable for sale. Containers with a capacity of 64 ounces or more that contain shucked shellfish must be labeled with the date shucked. Containers with a capacity of less than 64 ounces that contain shucked shellfish must be labeled with a sell-by date. 	http://reports.oah.state.nc.us/ncac/title%20 I5a%20-%20environmental%20quality/ chapter%2018%20-%20environmental%20 health/subchapter%20a/I5a%20ncac%20 I8a%20.0614.pdf

FOOD DONATION LIABILITY PROTECTIONS AND TAX INCENTIVES FOR FOOD RESCUE

There are currently no tax incentives for food rescue. North Carolina provides liability protection, both criminal and civil, for donors and distributors that donate food, unless an injury is caused by gross negligence, recklessness, or intentional misconduct.

Citation	Summary & Key Elements	Source

N.C. Gen. Stat. Ann. § 99B-10	Title: Immunity for Donated Food Summary: Donors and distributors of donated food are not liable for civil damages or criminal penalties resulting from the nature, age, condition, or packaging of donated food.	https://www.ncleg.gov/EnactedLegislation/ Statutes/PDF/BySection/Chapter_99B/ GS_99B-10.pdf
	Key Elements:	
	Donors include, but are not limited to, sellers, farmers, processors, distributors, wholesalers, and retailers of food who donate food to a nonprofit for use or distribution.	
	 Distributors include any nonprofit organizations or nonprofit corporations that use or distribute food donated for this use. 	
	This protection is null if there is an injury resulting from gross negligence, recklessness, or intentional misconduct of the donor or distributor.	

ORGANICS PROCESSING INFRASTRUCTURE PERMITTING

In November 2019, the North Carolina Department of Environmental Quality's (NCDEQ) Division of Waste Management (DWM) Solid Waste Section completed a full review of its composting rules promulgated in 1996 and readopted them, with updates and some revisions. It clarified criteria for determining small versus large composting facilities and expanded the types of operations that are exempt from permitting, primarily small-scale food waste composting.¹³ Provisions were added for regulating anaerobic digestion (AD) of solid waste, covering areas of an AD facility that manage solid waste. The DWM Solid Waste Section created a user-friendly website to navigate to its organics recycling regulations.¹⁴ The site includes a resource page, permit application guidance, and a summary of the readopted rule.¹⁵ In January 2021, NCDEQ's Division of Environmental Assistance and Customer Service released an updated report, North Carolina Organics Recycling Study, Materials Managed 2011–2020 and Food Recovered 2019.¹⁶ The report includes detailed organics processing infrastructure data as well as food recovery data.

Food waste can be diverted to feed swine under certain conditions, such as if the waste is heat treated first.

Citation	Summary & Key Elements	Source
15A N.C. Admin. Code 13B.14011410 (Last updated November 2019)	Title: Solid Waste Compost Facilities Summary: All composting facilities must have a permit issued by NC DWM and meet the general provisions and the siting, design, application, operational, distribution, reporting, and closure requirements in the rule, which was revised and readopted in 2019. Solid waste compost facilities are classified into seven categories based on the types and amounts of materials to be composted. Permits are issued for periods of 10 years.	https://edocs.deq.nc.gov/ WasteManagement/0/edoc/I360808/ NC%20Compost%20Rules%20 I5A%20NCAC%20I3B%20.I400. pdf?searchid=d9e36lba-c7e7-43fe- aa45-54edd58c29e6
	Key Elements:	
	Type 2 and Type 3 facilities are carved out for source-separated food waste (Type I facilities process yard trimmings and woody waste, which can be accepted at Types 2 and 3).	
	Type 2 may receive pre-consumer meat-free food processing waste, vegetative agricultural waste, source-separated paper, and other source-separated specialty wastes that are low in pathogens and physical contaminants.	
	Type 3 may receive manures and other agricultural waste, meat, postconsumer source- separated food wastes, and other source-separated specialty wastes that are low in physical contaminants but may have high levels of pathogens.	
	Type 4 facilities may receive industrial solid waste, non-solid waste sludges functioning as a nutrient source or other similar compostable organic wastes, or any combination thereof. Waste acceptable for a Type I, 2, or 3 facility may be composted at a Type 4 facility.	
	Sec1402, (6) <u>Small facilities</u> :	
	(A) Small Type I facilities have an operations area less than 2 acres in size and are limited to no more than 6,000 cubic yards (cy) material on site at any given time, including finished product.	
	□ (B) Small Type 2, 3, and 4 facilities have an operations area less than 2 acres in size and are limited to no more than 1,000 cy material on site at any given time.	
	■ Sec1402, (7) <u>Large facilities</u> .	
	 (A) Large Type I facilities have an operations area of two or more acres in size or have more than 6,000 cy material on site at any given time. 	
	 (B) Large Type 2, 3, and 4 facilities have an operations area of two or more acres in size or have more than 1,000 cy material on site at any given time. 	
	Operations areas of Type I, 2, and 3 facilities must have one of the following:	
	(i) a soil pad with a soil texture finer than loamy sand. For a Type I or 2 facility, the depth to the seasonal high water table must be maintained at least I2 inches. For a Type 3 facility, the depth to the seasonal high water table must be maintained at least 24 inches; or	
	$\Box~$ (ii) a pad in accordance with Part C (pad with a linear coefficient of permeability no greater than I x 10 ⁻⁷ cm/sec).	
	Compost produced from Type 2, 3, and 4 facilities must be sampled and analyzed (specifics are given in Sec. 1407).	
	 Facility owners and operators must file annual reports and maintain records for at least five years. 	

Citation	Summary & Key Elements	Source
I5A N.C. Admin. Code I3BI402(f) and (g)	 Title: General Provisions for Solid Waste Compost Facilities Summary: Readopted rule includes new permitting exemption for small compost facilities accepting Types I, 2, and 3 feedstocks, provided specific conditions are met. The exemptions apply primarily to small food waste composting facilities. Key Elements: Facilities must notify the DWM prior to operation and on an annual basis of its location, type and amount of wastes received, composting process, and intended distribution of the finished product. Facilities must also provide a letter from the unit of government having zoning jurisdiction over the site stating that the proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval or permit has been obtained. Feedstocks that can be received are limited to food waste, compostable dinnerware, manure, vegetative agricultural waste, yard and garden waste, land-clearing debris, untreated and unpainted wood waste, and/or source-separated paper. The volume of material on site, not including finished compost, cannot exceed IOO cy at any given time. This amount includes feedstock storage, active composting, and curing composting. DWM estimates the size of a 100-cy pile, in the shape of one long windrow, would be approximately 8 feet wide, 5 feet high, and 100 feet long (shape can vary). Weight of 100 cy of compost is approximately 55 tons. Size of the operations area must be less than 	https://edocs.deq.nc.gov/ WasteManagement/0/edoc/I360808/ NC%20Compost%20Rules%20 I5A%20NCAC%20I3B%20.I400. pdf?searchid=d9e36Iba-c7e7-43fe- aa45-54edd58c29e6
	I acre. Operations area is sum of areas for feedstock storage, unloading, grinding, mixing, composting, and curing. Does not include finished compost storage, roads, or buffer areas.	
15A N.C. Admin. Code 13B.1409	 Title: Alternative Procedures, Vermicomposting, and Anaerobic Digestion Requirements Summary: Sec1409 adds provisions for regulating AD facilities, including permitting and operating requirements. Key Elements: A solid waste management permit is required for the areas of an AD facility that manage solid waste, including incoming waste receiving area, digestate handling area, digestate final disposition area, and any other areas of the operation where solid waste is exposed to the environment. A facility that takes food-type waste, including food waste slurry, of more than 50 percent by volume is permitted by DWM. The actual quantity is not a limiting factor. 	https://edocs.deq.nc.gov/ WasteManagement/0/edoc/I360808/ NC%20Compost%20Rules%20 I5A%20NCAC%20I3B%20.I400. pdf?searchid=d9e36Iba-c7e7-43fe- aa45-54edd58c29e6
15A N.C. Admin. Code 13B.1401-1410	 Title: Operational Requirements for Solid Waste Compost Facilities Summary: The readopted rule added odor control and operator training requirements. Key Elements: The Odor Corrective Action section adds a protocol for the enforcement of odor compliance requirements in rules. Compost training requirements are established for operators and staff of Large Type I, Large Type 2, all Type 3, and all Type 4 facilities. 	https://edocs.deq.nc.gov/ WasteManagement/0/edoc/I360808/ NC%20Compost%20Rules%20 I5A%20NCAC%20I3B%20.1400. pdf?searchid=d9e36Iba-c7e7-43fe- aa45-54edd58c29e6
NC DENR Division of Water Quality GENERAL PERMIT NO. NCG240000	 Title: To Discharge Stormwater and Process Wastewater Under the NPDES For Compost Facilities Summary: This is a water quality permit for composting facilities. Key Elements: Applies to surface water runoff at facilities not enclosed in a building, and indicates that these types of operations "will most likely require a stormwater and/or wastewater permit." Issued to all owners or operators (i.e., permittees) as evidenced by receipt of a Certificate of Coverage by the Environmental Management Commission to allow the discharge of stormwater and process wastewater to the surface waters of North Carolina or to a separate storm sewer system conveying discharges to surface waters. 	General Stormwater Permit: http:// portal.ncdenr.org/c/document_library/ get_file?uuid=5547f619-22bd-4fe9- 813a-0bbb195332f8&groupId=38364 Stormwater Manual For Composting Facilities: https://files.nc.gov/ncdeq/ Environmental%20Assistance%20 and%20Customer%20Service/ Composting/DRAFT%20-%20 Composting%20Facility%20 Stormwater%20BMPs%20 Informational%20Manual%20-%20 Sep%202015.pdf

Citation	Summary & Key Elements	Source
N.C. Gen. Stat. Ann. §§ 106-405.1 - 405.9	Title: Part IO: Feeding Garbage to Swine Summary: Any person feeding garbage to swine must obtain a permit first, and the garbage must be heated before being fed to swine.	https://www.ncleg.net/ enactedlegislation/statutes/html/ bychapter/chapter_106.html
	Key Elements:	
	 Garbage is defined as animal waste resulting from cooking, handling, preparing, or consuming food. 	
	A person who feeds garbage to swine must obtain a permit from the North Carolina commissioner of agriculture.	
	This does not pertain to someone who feeds their own household garbage to their own swine.	
	All garbage must be heated to at least 2l2 degrees F for at least 30 minutes or treated in some other manner that will be effective to protect animal and human health.	

FOOD SAFETY POLICIES FOR SHARE TABLES

North Carolina's Division of Public Health within the Department of Health and Human Services has issued guidance on which food items may be donated and the rules that food establishments must follow when donating food. North Carolina considers food intended to be donated regulated food that must meet all the requirements set forth in Rules Governing the Food Protection and Sanitation of Food Establishments and the *North Carolina Food Code Manual*. Only packaged items that are not subject to time/temperature control for safety (TCS), whole fruit, or food meeting the requirements in N.C. Food Code Manual Section 3-306.14(B)(1)&(2) can be donated. Food provided on "sharing tables" or in other types of collection containers or equipment must meet these requirements as well.

Citation	Summary & Key Elements	Source
N.C. Public Health Position Statement on Donated Food, pursuant to N.C. Gen. Stat. 130A-248; N.C. Admin. Code 18A.2600. December 15, 2016.	Title: Position Statement on Donated Food Summary: Food intended to be donated must meet all requirements set forth in the Rules Governing the Food Protection and Sanitation of Food Establishments and the <i>North Carolina Food Code Manual</i> . Key Elements:	https://ehs.ncpublichealth.com/docs/ position/DonatedFood-PositionStatement- Dec2016.pdf
	Only unserved food can be donated.	
	Time/temperature control for safety (TCS) food cannot be donated.	
	 Served food is food that has come in contact with the customer or is transferred from direct supervision and oversight by employees of the food establishment. This food cannot be returned to the food establishment to be donated. 	
	 Only packaged non-TCS, whole fruit, or food meeting the requirements in N.C. Food Code Manual Section 3-306.14(B)(I)&(2) can be donated. Food provided on "sharing tables" or in other types of collection containers or equipment must meet these requirements as well. 	
	N.C. Food Code Manual Section 3-306.14(B) (1) &(2) allows containers of food that are not potentially hazardous (TCS food) to be re-served from one consumer to another if the food is in unopened, original packaging or maintained in sound condition; or the food is dispensed so that it is protected from contamination and the dispensing container is closed between uses, such as a narrow-neck bottle containing catsup or wine.	

FOOD SYSTEMS PLANS, GOALS, AND TARGETS

The Center for Environmental Farming Systems, a partnership among North Carolina State University, North Carolina Agricultural and Technical State University, and the North Carolina Department of Agriculture and Consumer Services, has put together a comprehensive plan for improving food resiliency and food systems in North Carolina. The plan focuses on improving access to healthy food and locally grown produce, supporting traditionally underrepresented farming communities, and supporting education initiatives. Other regional plans support similar goals.

Citation	Summary & Key Elements	Source
North Carolina Food Resiliency Plan, Center for Environmental Farming Systems (2020)	Title: North Carolina Food Resiliency Plan Summary: Study in progress to improve North Carolina food system resilience and address disparities in health, wealth, and opportunity that disproportionately affect Black, Indigenous, and other people of color as well as rural communities.	https://cefs.ncsu.edu/food-system- initiatives/nc-food-resiliency-plan/
	 Key Elements: Partnership among North Carolina State University, North Carolina Agricultural and Technical State University, and the North Carolina Department of Agriculture and Consumer Services. 	
	 Will deliver short- and long-term recommendations to root out causes of inequity and contribute to food system resilience. 	
	Process and impacts will be informed by COVID-19, but the report will address food system needs beyond the pandemic.	
	 Will capture longer-term investment opportunities, led by the communities most impacted by historical and current inequities. 	
Triangle Farms for Food: Strategy + Action Plan, Conservation Trust for North Carolina and Community Food Lab	Title: Triangle Farms for Food: Strategy + Action Plan Summary: Three-year regional plan for the Triangle region (Chatham, Durham, Johnston, Orange, and Wake Counties), focused on farmland preservation and agricultural development strategy.	https://ctnc.org/wp-content/ uploads/2019/06/2017-11-29-F4F-FINAL_revI. pdf
(November 2016)	Key Elements:	
	Prioritizes farmland protection areas in the Triangle.	
	Identifies strategies to conserve farmland, assist farmers, and support local food production through community economic development.	
Action Plan for Food	Title: Action Plan for Food Systems Improvement	http://www.connectourfuture.org/wp-
Connect Our Future	Summary: Action guide for 14 counties, covering both North Carolina and South Carolina, to build and support local and regional food systems. Key Elements:	content/uploads/2015/01/CONNECT-FS- Action-Plan-for-Food-Systems-Improvement. pdf
	 Build "community capital" through community food systems. 	
	 Develop networks, including food policy councils, to strengthen community food systems. 	
	Bring food system issues to the forefront of local government by looking for opportunities to educate elected officials and decision makers.	
Resilience Initiative: Counties Strengthening	Title: Resilience Initiative: Counties Strengthening North Carolina's Food Ecosystem	http://www.ncacc.org/825/Resilience- Initiative
Carolina Association of	Summary: In 2020–2021 the Association of County Commissioners is leading an	
County Commissioners	Kev Elements:	
	 Results forthcoming, but the goal of the initiative is to identify how counties can ensure that all North Carolinians have access to high-quality, affordable food and that local producers are able to meet this need. 	

Citation	Summary & Key Elements	Source			
From Farm to Fork: A Guide to Building North Carolina's Sustainable Local Food Economy, Center for Environmental Farming Systems (April 2010)	Title: From Farm to Fork: A Guide to Building North Carolina's Sustainable Local Food Economy Summary: On the basis of surveys of more than 1,000 North Carolinians, the	https://www.ednc.org/wp-content/ uploads/2015/02/stateactionguide2010farm- to-fork.pdf			
	Center for Environmental Farming Systems identified nine major issue areas to address through food system planning.				
	Key Elements:				
	 Engage decision makers in strategic food systems planning and implementation and in coordinating food systems policies across different regulatory agencies. 				
	 Grow access to affordable land, working capital, and risk-management strategies, particularly for underrepresented farming communities. 				
	Expand local market opportunities and cultivate community gardens statewide.				
	 Address public health and food access disparities while increasing consumer education and outreach, promoting farm-to-school programming, and engaging youth. 				

PLANS TARGETING SOLID WASTE

The state's 10-year Solid Waste and Materials Management Plan has yet to be finalized, and the state does not maintain formal goals for waste reduction at this time. A Solid Waste Management Act, passed in 1989, outlines a framework for overseeing materials management efforts in North Carolina.

Citation	Summary & Key Elements	Source
Chapter 784 Senate Bill III	Title: Solid Waste Management Act of 1989	https://www.ncleg.net/enactedlegislation/
§ 130A-309	Summary: Establishes goals to manage solid waste in the state while promoting alternatives to landfill disposal.	56551011aw5/11111/1303-1330/511303-704.11111
	Key Elements:	
	 Directs the North Carolina Department of Environment and Natural Resources (DENR) to create a solid waste management plan and to develop a grant program for recycling and materials management initiatives. 	
	 Encourages municipalities to plan and develop strategies to reduce solid waste generation and disposal, requires the implementation of local recycling programs, and encourages composting program development. 	
	 Outlines a hierarchy of preference for handling materials, promoting waste reduction, recycling, and reuse and composting before incineration for energy production, incineration, and disposal in landfills. 	
	Mandates that municipalities identify and report the cost of solid waste management in their service area annually.	
	Empowers DENR to establish criteria and rules as standards for compost production.	
	Creates a Solid Waste Management Trust Fund to promote waste reduction, recycling and other activities related to solid waste management. Funding is provided by the General Assembly, by contributions from public or private sources, and through IO percent of proceeds from a scrap tire disposal fee.	
	 Requires that state agencies and local government procure compost for use in a variety of programs whenever practicable, including highway and erosion control projects. 	

CLIMATE ACTION GOALS

The North Carolina Department of Environmental Quality maintains a website that shares links to a number of current plans and strategies that the state is pursuing to reduce greenhouse gas emissions.¹⁷ The state currently maintains a Climate Change Interagency Council that oversees efforts. Additionally, the state has produced a Clean Energy Plan, Zero Emission Vehicle Plan, Motor Fleet Zero Emission Vehicle Plan, and Clean Energy and Clean Transportation Workforce Assessment. Several of these reference the impact of reducing food waste on emissions reductions.

Citation	Summary & Key Elements	Source
Executive Order 80 (October 29, 2018)	Title: North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy	https://files.nc.gov/ncdeq/climate-change/ E080NC-s-Commitment-to-Address-
	Summary: Establishes goals to achieve the following by 2025:	Climate-ChangeTransition-to-a-Clean-
	 Reduce greenhouse gas emissions 40 percent below 2005 levels. 	Energy-Economy.pdf
	 Register at least 80,000 zero emission vehicles (ZEVs). 	
	Reduce state building energy consumption to at least 40 percent below FY 2002–2003 levels.	
	Key Elements:	
	 Requires Cabinet agencies to adopt climate change mitigation practices through operations and encourages businesses, institutions, and governments in the state to do the same. 	
	Creates a North Carolina Climate Change Interagency Council to monitor and maintain climate action programs, engage stakeholders, and develop related plans and assessments. This council provides an annual status report.	
	 Requires the development of a North Carolina Clean Energy Plan and a North Carolina ZEV Plan by October I, 2019. 	
	 Directs the Department of Environmental Quality to create a Comprehensive Energy, Water, and Utility Use Conservation Program by February I, 2019. 	
	 Mandates the creation of a North Carolina Climate Risk Assessment and Resiliency Plan by March I, 2020. 	
North Carolina Clean	Title: North Carolina Clean Energy Plan: Policy and Action Recommendations	https://files.nc.gov/governor/documents/
Energy Plan (October 2019)	Summary: This plan, developed by the Department of Environmental Quality, sets forth policy and action steps for accomplishing the goals identified in Executive Order No. 80.	files/NC_Clean_Energy_Plan_OCT_2019pdf
	Key Elements:	
	Includes considerations for biogas capture from anaerobic digestion and an acknowledgement that this can have a meaningful impact on statewide emissions.	
	Identifies swine waste, food and solid waste, and wastewater treatment plans as having the potential to increase biogas production while reducing emissions and supporting the rural economy.	
	Estimates that by 2030, agricultural and waste management sector emissions will equate to about 50 percent of the state's electricity sector emissions, representing an opportunity for renewable natural gas projects that reduce emissions from these sectors.	
	Notes that a study is underway to locate and quantify biogas resources in the state and project related emissions reductions through biogas.	
	 Recommends that the Energy Policy Council's Energy Infrastructure Subcommittee conduct a study to identify opportunities to capture and utilize renewable natural gas in North Carolina. 	

Citation	Summary & Key Elements	Source
Climate Risk Assessment and Resilience Plan (June 2020)	Title: North Carolina Climate Risk Assessment and Resilience Plan Summary: Developed as a result of Executive Order No. 80, this plan evaluates the state's vulnerability to climate change and identifies strategies to build resilience against this risk.	https://files.nc.gov/ncdeq/climate-change/ resilience-plan/2020-Climate-Risk- Assessment-and-Resilience-Plan.pdf
	 Key Elements: Acknowledges the importance of planning for waste management as a strategy for resilience. 	
	 Recommends: Improving efficiency in the food system and reducing waste, including through initiatives such as gleaning, donation tax credits, support of farm-to-food-bank efforts, and identifying opportunities to redirect food to animal feed or compost efforts. Expanding waste reduction programs to maintain landfill capacity to be able to accommodate storm-related debris. Increasing opportunities to reuse and recycle materials from communities 	
	Increasing opportunities to reuse and recycle materials from communities impacted by natural disasters.	

GRANTS AND INCENTIVE PROGRAMS RELATED TO ADVANCING FOOD WASTE REDUCTION

North Carolina offers a variety of grant funding programs in addition to potential tax credits to support diversion initiatives in the state. Additionally, a Recycling Business Assistance Center helps materials management businesses find available loan programs.

Citation	Summary & Key Elements	Source
Community Waste Reduction and Recycling (CWRAR) Grant Program	Title: 2021 Community Waste Reduction and Recycling Grant Program Summary: Supports local governments in implementing waste reduction and recycling programs that provide lasting capacity expansion or raise public awareness.	https://files.nc.gov/ncdeq/Environmental%20 Assistance%20and%20Customer%20Service/ Financial%20Assistance%20-%20Local%20 Government/2021-CWRAR-RFP.pdf
	Key Elements:	
	 Offers two categories in 2021: Priority Project Grants (up to \$40,000 per project) and Standard Project Grants (up to \$30,000 per project). 	
	Included in priority projects for 2021 are initiatives to divert food waste through backyard composting and programs targeting the residential and commercial sectors.	
	A 20 percent cash match is required for the program. Excludes funding for salary, administrative costs, work with consultants, and collection fees from a contractor.	
	The project period for the grant cycle is July I, 2021 through June 30, 2022, and applications were due February 18, 2021.	

Citation	Summary & Key Elements	Source
Recycling Business Develop-ment Grant	 Title: 2021 Recycling Business Development Grants Summary: Aims to minimize solid waste that is delivered to disposal facilities and support materials recovery. Key Elements: Supports recycling businesses in North Carolina that are offering effective strategies to expand recovery. Typically funds investments in equipment and infrastructure to increase recycling capacity. Funds cannot be used for labor, general operating, or processing contracts. Funding has been awarded in the past to support organics processing and diversion efforts. 	https://files.nc.gov/ncdeq/Environmental%20 Assistance%20and%20Customer%20Service/ RBAC/Grants/202IRecBusGrantRFP.pdf
	 Offers up to \$40,000 for standard projects and \$60,000 for priority projects. Initiatives to expand collection, donation, or recycling of food waste were included in the list of priority projects for the 2021 funding cycle. Application period for 2021 closed November 5, 2020. 	
Backyard Composting Grant Program	 Title: Backyard Composting Grant Summary: Offers municipalities funding to design and implement on-site composting for residents. Key Elements: Funding of up to \$20,000 is available for local governments, with a requirement of at least a 20 percent cash match. Application period for recent round of funding ended October 20, 2020. Funds can be used for purchasing and distributing backyard composting bins, hosting backyard composting workshops, education outreach, and any other projects that promote and develop food waste reduction through backyard composting. 	https://files.nc.gov/ncdeq/Environmental%20 Assistance%20and%20Customer%20Service/ Financial%20Assistance%20-%20Local%20 Government/Backyard-Composting-Grant- RFP.pdf
N.C. Gen. Stat. § 105- 164.13, 105-164.3 (241)	 Title: Exemptions and Exclusions: Retail Sales and Use Tax Summary: Provides a sales and use tax exemption when procuring recycling equipment. Key Elements: N.C. General Statute 105-164.13 outlines qualifying purchases, which include equipment, fuel, piped natural gas, and electricity purchased by recyclers. Secondary metals recycler is defined in N.C. General Statute 105-164.3(241) as an individual that "gathers and obtains metals and products that have served their original economic purpose and that converts them." According to the North Carolina Department of Revenue, the phrase in italics expands coverage to recyclers of any material.¹⁸ 	https://www.ncleg.net/EnactedLegislation/ Statutes/HTML/BySection/Chapter_105/ GS_105-164.13.htmlhttps://www.ncleg.net/ enactedlegislation/statutes/html/bysection/ chapter_105/gs_105-164.3.html
15A N.C. Admin. Code 13B.1501; N.C. Gen. Stat. § 105-275(8)	 Title: Standards for Special Tax Treatment of Recycling and Resource Recovery Equipment and Facilities Summary: Provides a tax exemption per N.C. Gen. Stat. § 105-275(8) for equipment and facilities used solely for resource recovery and recycling. Key Elements: Exempt facilities include resource recovery buildings; equipment used for obtaining material or energy resources from solid waste; and facilities used to collect, sort, or otherwise prepare solid waste for reuse or recycling. 	https://files.nc.gov/ncdeq/Waste%20 Management/DWM/SW/Field%200perations/ Tax%20Certification/SW%20Tax%20Cert%20 .1500%20Rules.pdf https://www.ncleg.gov/EnactedLegislation/ Statutes/PDF/ByArticle/Chapter_105/ Article_12.pdf
Recycling Business Assistance Center	 Title: Recycling Business Assistance Center Summary: Connects businesses with resources for supporting operations, including tax incentives, research on recycling markets, and one-on-one technical assistance. Key Elements: Offers a listing of loan programs that are offered through external sources, which may support materials management businesses. 	https://deq.nc.gov/conservation/recycling/ recycling-business-assistance-center

Food Waste Reduction Policy Gap Analysis Rubric

Organics Disposal Bans and Recycling Laws	Date Labeling	Food Donation Liability Protections	Tax Incentives for Food Rescue	Organics Processing Infrastructure Permitting	Food Safety Policies for Share Tables	Food Systems Plans, Goals, and Targets	Plans Targeting Solid Waste	Climate Action Goals	Grants and Incentive Programs Related to Food Waste Reduction
				NO P	OLICY				
No organics disposal bans or mandatory organics recycling laws for food waste have been enacted, and there is no financial incentive structure to encourage food donation or food waste diversion.	There are no laws pertaining to date labels on food products.	There is no state-based liability protection for donated food.	There are no tax incentives for food donation.	Solid waste regulations have no separate streamlined tier for processing source-separated organics. That is, food waste composting is considered solid waste composting, and this presents a barrier to entry for small composters. There is no acknowledgment of anaerobic digestion of source-separated organics from the municipal solid waste stream. No exemption tier exists for small quantities of source-separated food waste.	N/A	No regional or statewide food systems plans exist. Some local plans may exist.	No solid waste management plan or organics management plan exists at the state level.	No climate action goals exist.	No state plans, programs, or policies allocate funding or incentives to support food waste reduction.

Organics Disposal Bans and Recycling Laws	Date Labeling	Food Donation Liability Protections	Tax Incentives for Food Rescue	Organics Processing Infrastructure Permitting	Food Safety Policies for Share Tables	Food Systems Plans, Goals, and Targets	Plans Targeting Solid Waste	Climate Action Goals	Grants and Incentive Programs Related to Food Waste Reduction
				WEAK	POLICY				
Organics disposal bans or mandatory organics recycling laws have been enacted but are ineffective due to exemptions, limited scope, and/or lack of guidance.	The state requires date labels for certain foods and prohibits or limits the sale or donation of food after its label date.	State-based liability protections for food donation exist but are no broader than the federal-level protections or cover either food donors or food rescue organizations, but not both.	N/A	There is a regulatory tier that includes source-separated organics, but at least two of the following are true: ■ Requirements for composting source- separated organics are the same as those for composting mixed solid waste, creating significant barriers to opening a facility. ■ Quantity or acreage limitations for source- separated organics tier (s) negatively impact economic viability of operation. ■ Regulations include language about anaerobic digestion of source-separated organics but are vague or have no language addressing what is allowed.	Share tables are allowed, but the state provides no resources or guidance on food donation safety, OR the state's share table rules are more restrictive than federal guidance.	Some regional food systems plans exist, but they do not have the support of the state and do not adequately consider food waste reduction in food systems planning.	Solid waste management plans exist but are out of date (more than 10 years old) and do not highlight food waste as a diversion opportunity (via prevention, rescue, donation, and/or processing through composting or anaerobic digestion).	Climate action goals exist, but one of the following is true: Goals are in the form of executive orders, with no legislative framework. There has been limited legislative action but no real framework or actionable next steps to achieve targets.	Grants, incentives, or funds for food waste reduction are available, but more than one of the following is true: Funding is not explicitly allocated for food waste reduction work as opposed to other diversion strategies. Funding opportunities are not made known to or accessible to relevant applicants. Available funding is unsustainable or insufficient to support desired activities (includes the issuance of one-time grants but does not include funding on pause due to COVID-19). No technical assistance is available to food service waste generators to support food waste reduction efforts.

Organics Disposal Bans and Recycling Laws	Date Labeling	Food Donation Liability Protections	Tax Incentives for Food Rescue	Organics Processing Infrastructure Permitting	Food Safety Policies for Share Tables	Food Systems Plans, Goals, and Targets	Plans Targeting Solid Waste	Climate Action Goals	Grants and Incentive Programs Related to Food Waste Reduction
				MODERAT	TE POLICY				
Organics disposal bans or mandatory recycling laws are imposed on select commercial generators, with few exemptions.	The state requires date labels for certain foods but does not prohibit or limit the sale or donation of food after its label date.	State-based liability protections cover donations directly to individuals or donations that are supplied for a small fee, or are otherwise slightly more expansive than the federal-level protections.	The state offers a tax incentive for donating food, but the incentive does not fully offset the costs associated with donation, including transportation.	There is a regulatory tier that includes source-separated organics, and the state may have committed to market development for recycled organic materials, but one of the following is true: Requirements for composting source- separated organics are the same as those for composting mixed solid waste, creating significant barriers to opening a facility. Quantity or acreage limitations for source- separated organics tier (s) negatively impact economic viability of operation. Regulations include language about anaerobic digestion of source-separated organics but are vague or have no language addressing what is allowed.	Share tables are allowed, and the state provides share table guidance, though that guidance is limited.	Robust regional food systems plans or state food systems plans exist, but one of the following is true: Framework or support to achieve targets is limited. There is no coordination with other regional food systems plans (if no state plan exists). Plans' consideration of food waste reduction is inadequate.	Solid waste management plans and/or organics management plans exist and highlight food waste as a diversion opportunity (via prevention, rescue, donation, and/or processing through composting or anaerobic digestion) but are out of date (more than 10 years old) or have limitations.	Climate action goals exist, and one of the following is true: • Legislated climate action planning sets forth recommendations for reducing food waste. • Specific departments have been tasked with actionable next steps for moving policy forward.	Grants, incentives, or funds for food waste reduction are available, and one of the following is true: Funding is not explicitly allocated for food waste reduction work as opposed to other diversion strategies. Available funding is unsustainable or insufficient to support desired activities. No technical assistance is available to food service waste generators to support food waste reduction efforts.

Organics Disposal Bans and Recycling Laws	Date Labeling	Food Donation Liability Protections	Tax Incentives for Food Rescue	Organics Processing Infrastructure Permitting	Food Safety Policies for Share Tables	Food Systems Plans, Goals, and Targets	Plans Targeting Solid Waste	Climate Action Goals	Grants and Incentive Programs Related to Food Waste Reduction
				STRONO	POLICY				
Organics disposal bans or mandatory recycling laws for food waste have been enacted and are enforced for all commercial generators (and potentially for individuals at the household level).	The state maintains a standardized, mandatory date labeling policy that clearly differentiates between quality-based and safety-based labels; the state does not prohibit or limit the sale or donation of food after its label date; and the state has issued clear permission to donate after the quality-based date.	State-based liability protections are more expansive than the Bill Emerson Good Samaritan Food Donation Act and apply to donations directly to individuals as well as donations that are supplied to the final consumer for a small fee.	The state offers tax deductions or tax credits for donating food that offset the costs associated with donation, including transportation.	The state has a regulatory tier that includes source- separated organics and has committed to market development for recycled organic materials, and all of the following are true: Policy reduces barriers to entry for composting source- separated organics, such as through simplified permitting for the addition of food scraps at existing yard trimmings composting facilities or via exemption from permitting for small- scale and/or community composting operations. Restrictions imposed on facility design and operation are in sync with best management practices for composting of source separated organics. There is a separate permitting pathway in solid waste regulations for anaerobic digestion of source-separated food waste that includes, where applicable, requirements similar to those imposed on composting source separated food waste—for example, contaminant limits on digestate that are similar to limits imposed on compost.	Share tables are allowed and encouraged, and the state provides state- specific guidelines or instructions about food safety as it relates to donation.	The state has developed comprehensive, statewide food systems plans, and both of the following are true: There is a robust framework or support to achieve clear goals and targets. Reduction of food loss and waste is a major component of food systems plans.	Solid waste management plan, zero waste plan, or organics management plan is kept current, and it outlines waste diversion goals and recommen-dations for diversion, including reduction of food waste (via prevention, rescue, donation, and/or processing through composting or anaerobic digestion).	Climate action goals exist, and both of the following are true: • Legislated climate action planning sets forth recommendations for reducing food waste. • Specific departments have been tasked with actionable next steps for moving policy forward.	Grants, incentives, or funds for food waste reduction are available, and all of the following are true: - Funding is explicitly allocated for food waste reduction work as opposed to other diversion strategies. - Available funding is sustainable and sufficient to support desired activities. - Free technical assistance is available to food service waste generators to support food waste reduction efforts.

ENDNOTES

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