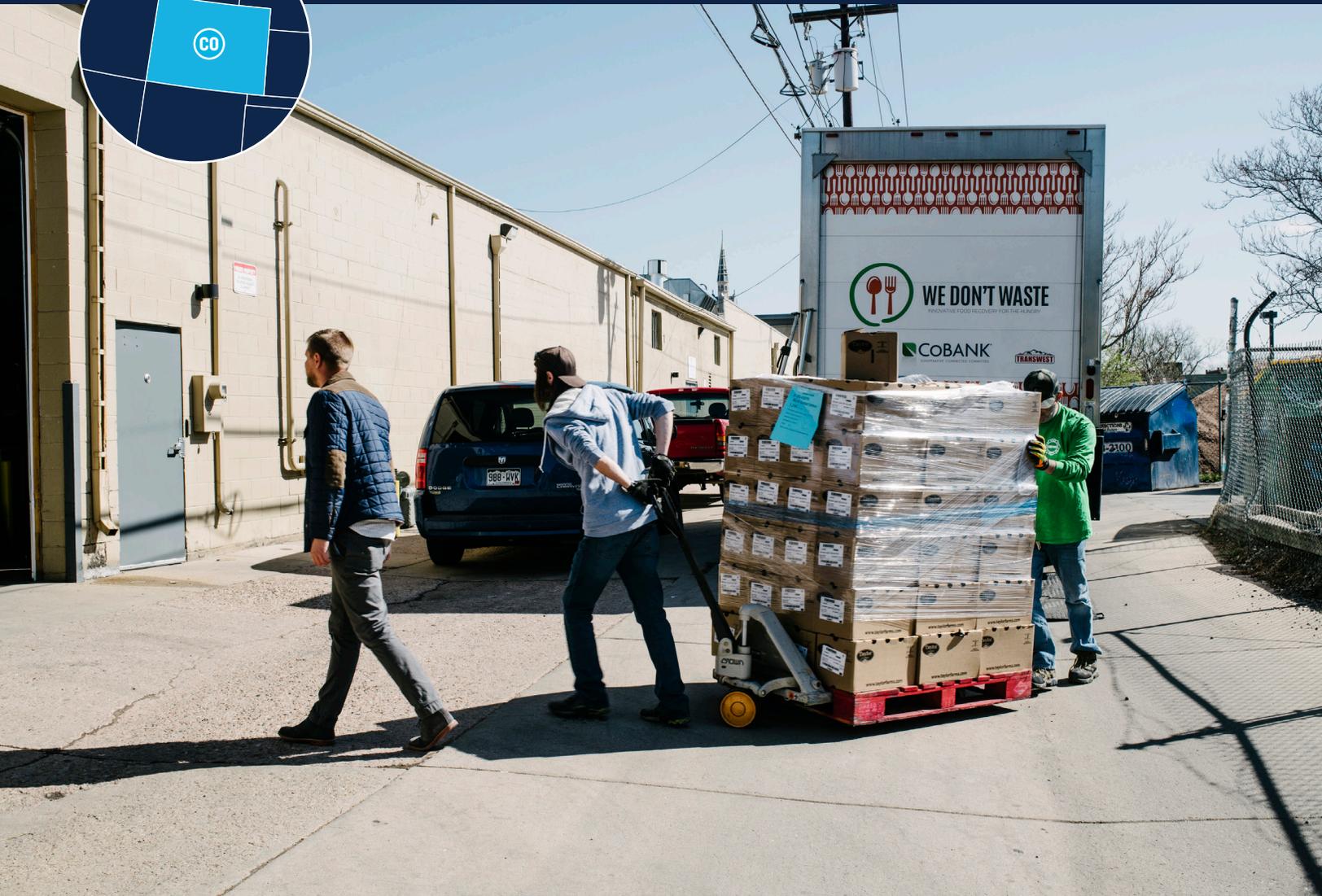


REPORT

COLORADO FOOD WASTE POLICY GAP ANALYSIS AND INVENTORY



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About NRDC

NRDC is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Montana, and Beijing. Visit us at nrdc.org.

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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 Colorado. 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; compost procurement; 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. This report follows the release of three regional reports whose goal was 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.

The gap 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 non-existent. The inventory provides a more comprehensive overview of any policies, executive orders, goals, targets, or programs that exist across the eleven covered categories. Users may choose to read the gap analysis to gain a basic understanding of the 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 eleven 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

Colorado does not have an organics disposal ban or mandatory recycling law; therefore, it is categorized as having No Policy. However, the city of Boulder, Colorado, has implemented a Universal Zero Waste Ordinance that lays groundwork by requiring that all properties in the city have separated organic waste, recycling, and trash service. This policy has increased organics recycling rates but has also increased contamination, which in turn has impacted marketability of the finished compost. In the summer of 2022, in order to reduce contamination, Boulder allowed businesses to remove front-of-house organics collection; businesses retaining customer-facing collection must demonstrate that trained staff monitor and remove contaminants from customer-facing bins before incorporation into collection containers. Additionally, Aspen has banned yard waste from disposal, a step toward a food waste recycling policy. In other communities, like Longmont, opt-in municipal hauling of organics is provided. Similarly, Durango has contracted for opt-in compost hauling.

Notably, this strategy has received a lot of attention elsewhere in recent years, with an increasing number of states and localities adopting 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 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 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

Colorado has a Weak Policy designation for date labeling, since the state has not established dual date labeling systems that clearly distinguish between quality and safety. Many states 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. In addition, 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.

Policy in Action

Colorado has a Weak Policy designation for food donation liability protection because although it has a state-specific liability protection law for food donation, its protections are no more inclusive than the federal-level liability protections. Other states have gone farther. For example, New Hampshire's liability protection law covers donations made directly to individuals, as opposed to only donations made to third parties such as food rescue organizations. New Hampshire's law also provides liability protections to donors that charge recipients a small fee necessary to cover the cost of handling and distributing food. This small additional liability protection enables the development of innovative food rescue models such as social supermarkets.

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), along with a number of other useful documents; these can be found in the organization's online resource library.² Currently no fact sheets exist for Colorado, but a similar resource could be created in the future.

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. Tax credits directly reduce the amount of taxes owed, as opposed to tax deductions, which reduce the donor's taxable income. Tax credits are particularly beneficial to small and midsize donors that operate on narrow profit margins and already have relatively low taxable incomes. 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

Colorado has a No Policy designation in this category because by the end of 2022 there will be no state tax incentives to offset costs associated with food donation. Colorado previously offered a tax credit for food donation made by qualifying C corporations. The businesses could claim up to 25 percent of either the wholesale market price or the most recent sale price for donated crops or livestock as a tax credit, up to \$1,000 per taxpayer per year. However, a state bill passed in May 2022 cuts off the credit for donations made after 2022. Colorado also previously offered a tax credit to taxpayers that donated surplus food or agricultural products to a hunger-relief charitable organization. That tax credit was available for donations made between 2015 and 2019 but has since been repealed.

Other states offer tax credits, sometimes allowing donors to recover a greater percentage of the value of their donation or setting a higher incentive cap. In addition, most states have created tax incentives that are particularly tailored to farmers and food producers, and in many cases the benefits are not limited to C corporations. For 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. Other states also offer tax incentives that offset more than the value of the food itself. For example, California offers a tax credit offsetting 50 percent of the cost of transporting donated food.

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.

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 stormwater 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 permitted status (depending on quantity of food scraps received) without significant financial hardship (in terms of 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.

Policy in Action

Colorado's regulations reflect a Weak Policy for organics processing infrastructure permitting. The Colorado Department of Public Health & Environment (CDPHE) has tiered regulations for organics processing infrastructure, last revised in 2016. Food waste and other source-separated organics are categorized as Type 2 feedstocks. The regulations have two exemption tiers—general and conditional—and three classes of composting facilities. Facilities composting Type 2 feedstocks from off site for a tipping fee fall into Class III, the most restrictive regulatory tier; this class also includes mixed municipal solid waste and biosolids, which in many states are in a separate tier from food waste and SSO. (Facilities in Class I are not allowed to process Type 2 feedstocks generated off site, and Class II facilities are not allowed to process any Type 2 feedstocks at all.) The process to obtain a Class III permit from CDPHE takes at least one year. Because Colorado is a home rule state, the Class III permit requires the facility developer to obtain zoning approval as well as a Certificate of Designation issued by a local government body. The general exemption includes backyard composting, allowing 100 cubic yards of Type 2 material to be in process at any one time. This exemption can cover Type 2 materials composting at community gardens but not community composting enterprises, according to CDPHE. The conditional exemption allows very small amounts of Type 2 feedstocks (up to 5 cubic yards if not in-vessel and less than 10 cubic yards if in-vessel at any one time). Anaerobic digestion of solid waste, e.g., food waste, is regulated under the composting rules as well as other sections of the solid waste regulations, such as Section 9 impoundment rules for storage of digestate and Section 11 covering waste-to-energy equipment components.

An unsuccessful attempt to site a composting facility in Boulder in 2020 created a policy opportunity in Colorado to incentivize standardized local permitting, such as by creating a model local ordinance to facilitate siting of composting facilities scaled to the organics recycling needs of a community. Because Colorado is a home rule state, it may be more effective to adopt Washington State's new requirement that each county set aside land designated for local solid waste management.

In Colorado, the feeding of food waste to animals is covered by the state's Department of Agriculture and is limited to hog feeding.

COMPOST PROCUREMENT

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. Not only do market development mechanisms provide a broader incentive for use of compost in state projects, but they also help create an end market for finished compost, acknowledging the importance of compost sales to the sustainability of processing facilities. Some state agencies, such as departments of transportation and water quality divisions, have specifications for compost use in stormwater management and sediment and erosion control. However, no state requires through statute that compost be procured by state agencies for their use in highway and stormwater management projects. In California, Senate Bill 1383, the Short-Lived Climate Pollutants Reduction Strategy, requires jurisdictions (but not the state itself) to procure recycled organics products, including compost. Illinois's Compost-Amended Soil Construction Act requires state agencies using off-site soil for construction projects to bid for compost-amended soil if there is a facility providing such material is within 10 miles of the project. A Strong Policy requires local jurisdictions and state agencies to procure compost for a wide variety of projects and applications where its use is appropriate. A Moderate Policy requires state or local agencies to procure compost but only for specific projects, such as use by a transportation department for slope stabilization. A Weak Policy requires state agencies to consider whether compost products can be used and allows them to procure compost for that use if applicable. For all policies, specifications for compost use must include best practices and compost quality standards.

Policy in Action

Colorado has a Weak Policy for compost procurement, lacking a compost procurement program for its state or local agencies. The Colorado Department of Transportation (CDOT) has specifications for compost use in CDOT highway and bridge construction projects, but use of compost is not required. Legislation passed in 2020 (SB20-055), titled "Incentivize Development Recycling End Markets," creates the structure for a recycling market development center. Compostable organics are among the materials targeted for recycling and recycling market development. This center could help fund a procurement subsidy to increase use of compost in highway and stormwater projects in the state. Some local governments and public agencies in Colorado require owners of newly constructed premises to amend their landscapes with compost so that the soil more efficiently retains water. In the Denver Water service area, for example, this rule applies to all new residential, commercial, government, and industrial properties. Other Colorado jurisdictions with these requirements

include Fort Collins, Greeley, Boulder, Castle Rock, Colorado Springs, and Westminster. NRDC and the Environmental Law Institute have created a Model Compost Procurement Policy for municipalities that includes examples of these types of ordinances.³

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 states have produced guidance on implementing share tables in schools, 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

Colorado has established policies to provide guidance for share tables in schools, earning it a Strong Policy designation in this category. Colorado's guidance includes relevant state and federal laws and regulations related to food safety for share tables; it also outlines which foods may be redistributed and what the requirements are to operate share tables. Policy guidance along these lines can also help to increase the safe redistribution of food. 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

Colorado has a No Policy designation in this category because it lacks a regional or state food systems plan. In the absence of state-level guidance, many cities have taken a leadership role in developing their food systems plans. For example, Denver has a long-term strategic food plan, Denver Food Vision, aimed at restructuring the city's food system to be more inclusive, vibrant, healthy, and resilient. The vision has 12 key priority areas and includes a goal to reduce city-collected residential food waste by 57 percent. A number of nongovernment entities in Colorado have also engaged in food systems planning. The College of Agricultural Sciences at Colorado State University released a report, "The 2017 Colorado Blueprint of Food and Agriculture," that analyzes actors across Colorado's food systems and agriculture supply chain and

suggests a number of opportunities for Colorado to strengthen the value chain while supporting community development. Another group of Colorado stakeholders released a report titled “Colorado Blueprint to End Hunger.” The blueprint notes high national rates of food loss and waste and calls on actors in Colorado to expand the capacity of food distribution centers by partnering with food-producing entities such as hospitals and restaurants. Though these plans at least implicate food systems infrastructure, they do not represent any policy at the state level and are not comprehensive regional plans.

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.

Policy in Action: Measuring Progress

The Colorado Integrated Solid Waste and Materials Management Plan constitutes a Strong Policy, encompassing a 20-year planning period for waste management. 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. Colorado’s forthcoming Organics Management Plan could include these goals to monitor progress by collecting and showcasing data related to management of food waste.

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.

Policy in Action

Colorado's Moderate Policy designation reflects the presence of a climate action plan, but one that does not include any specific food waste recommendations. In addition to policy, state-level plans and programs can address food waste and climate action goals simultaneously. In New York, a Climate Smart Communities program was launched in 2009 to support local governments with technical assistance, funding opportunities, and a certification program.⁴ Actions that contribute to certification include developing an organics management plan or organic waste program for government buildings, distributing residential compost bins, establishing an organics recycling program for residents, and conducting renewable energy feasibility studies. Leveraging legislative policy, California's SB 1383 targets short-lived climate pollutants while setting forth methane emissions reduction goals of cutting statewide organics disposal by 50 percent by 2020 and by 75 percent by 2025, relative to a baseline of 2014 disposal rates.⁵ These goals and the subsequent diversion activity demonstrate the impact of directly connecting food waste and climate action. At the local level, the city of Charlottesville, Virginia, offers an example in its Climate Action Plan, which acknowledges the impact of food waste on climate and incorporates food waste reduction strategies among its identified key actions.⁶

Model provisions can benefit communities considering how to incorporate food waste into existing climate action efforts. The Environmental Law Institute, for instance, offers *A Toolkit for Incorporating Food Waste in Municipal Climate Action Plans* to support cities as they address these issues.⁷ These documents can provide examples of how other communities have addressed these challenges and offer insight into the language and process for pursuing climate action goals related to food waste.

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. Colorado, with a Strong Policy designation in this category, offers technical support in addition to funding for diversion efforts. For example, the Front Range Waste Diversion program makes available grants, technical assistance, and education to help entities in covered counties reduce their waste. The Recycling Resource Economic Opportunity (RREO) initiative similarly offers funding opportunities to reduce waste, including by composting. Federal grants, such as those made available through the EPA for Region 8, which covers Colorado, also provide funding for materials management. Technical assistance, which provides tailored one-on-one support to an entity to implement food waste reduction strategies, can lay the groundwork for a future waste ban or recycling mandate. With a focus on business incubation, NextCycle Colorado supports projects that address development and growth of end markets in the state, including those for compost. In the absence of 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 food 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.

Colorado Food Waste Policy Gap Analysis

Policy Category	Status	Recommendations and Potential Advocacy Opportunities
Organics Disposal Bans and Recycling Laws	<p>No Policy</p> <p>Although cities such as Aspen have enacted their own policies regarding organics recycling, the state of Colorado has not enacted a food waste disposal ban.</p>	<ul style="list-style-type: none"> ■ Enact an organic waste ban or mandatory organics recycling law for all commercial generators. ■ Introduce a solid waste disposal tip fee beyond the front range 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. <p>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.</p>
Date Labeling	<p>Weak Policy</p> <p>Colorado regulations require date labeling only for eggs, mandating a label with the date the eggs are first packed and prohibiting the sale of eggs 45 days after that pack date.⁸ There is no differentiation between quality-based and safety-based dates. The state does not prohibit or limit donation of food past its label date.</p>	<ul style="list-style-type: none"> ■ Align any updates to date labeling policy with federal guidance. ■ Enact state legislation or state regulations that require food to be labeled with one standard phrase for safety or one standard phrase for quality. ■ Establish guidelines expressly allowing the donation or the freezing of food after a quality-based date, and educate businesses about donation. ■ Remove prohibition on offering eggs 45 days past the pack date. ■ Launch education campaigns and guidance documents that promote consumer awareness and education on the meaning of date labels.
Food Donation Liability Protections	<p>Weak Policy</p> <p>Colorado provides liability protection for donors of food offered for free.⁹ Liability protection does not cover distributing nonprofits, donations directly to individuals, or donations that are eventually supplied for a small fee.</p>	<ul style="list-style-type: none"> ■ Provide liability protection beyond that offered at the federal level by the Bill Emerson Good Samaritan Food Donation Act, including: <ul style="list-style-type: none"> □ Liability protection for nonprofit organizations that receive and distribute donated food consistent with federal protections. □ Liability protection for donations sold at a low price by distributing nonprofits. □ Liability protection for certain direct donations made by food businesses directly to individuals. □ Explicit liability protection when donors provide food products past a quality-based date.
Tax Incentives for Food Rescue	<p>No Policy</p> <p>Colorado previously offered two tax credits. The first was available to C corporations for donating food before or during 2022.¹⁰ The second was available to individuals who donated edible food or agricultural products between 2015 and 2019.¹¹ The credits, which were repealed, were insufficient to offset the costs associated with donation.</p>	<ul style="list-style-type: none"> ■ Offer an additional tax incentive to cover the cost of transporting donated food. ■ Offer a tax incentive to encourage food donation by any qualifying donors (not just C corporations), similar to the previous tax credit offered to C corporations. ■ Ensure that tax incentives allow donors to claim the incentive for donating food that is supplied to the end recipient for a small fee.

Policy Category	Status	Recommendations and Potential Advocacy Opportunities
Organics Processing Infrastructure Permitting	<p>Weak Policy</p> <p>Colorado has separate tiers for food waste composting. Its less restrictive tiers (exemptions and Class I) facilitate backyard and small-scale composting at community gardens (100 cubic yards or less at any one time), as well as generators that compost their own food waste on site. Facilities that receive food waste from off-site generators fall into Class III, the most restrictive tier, which requires both state and local approval. Class III does not have an established limit on the quantity of food waste allowed. Anaerobic digestion (AD) of food waste is regulated as solid waste management, but there is no section in the rule specifically covering AD.</p>	<ul style="list-style-type: none"> ■ Create a new regulatory tier that puts less onerous restrictions on composting food waste generated off site. Include a quantity limit and restrictions similar to those for current Class II facilities. ■ Add limits for inert contaminants to existing compost quality requirements. ■ Develop a separate permitting pathway for anaerobic digestion of source-separated food waste that includes, where applicable, requirements similar to those imposed on composting source-separated food waste. ■ The Colorado Department of Public Health & Environment (CDPHE) could consider coordinating with the Colorado Department of Agriculture to make information about feeding food waste to animals more accessible on the CDPHE website. Also, consider expanding types of livestock (beyond hogs) that can be fed food waste, such as chickens. ■ Promote standardized local permitting, such as creating a model local ordinance to facilitate siting of composting operations that are scaled to the organics recycling needs of a community.
Compost Procurement	<p>Weak Policy</p> <p>Colorado does not have a compost procurement program for its state or local agencies. The Colorado Department of Transportation (CDOT) has specifications for compost use in CDOT highway and bridge construction projects, but use of compost is not required. CDOT requires that only compost certified by the U.S. Composting Council's Seal of Testing Assurance (STA) Program be used, which limits the quantity of compost available for CDOT projects. Finally, two Colorado Department of Agriculture initiatives for healthy agricultural soil practices do not include compost in their program language.</p>	<ul style="list-style-type: none"> ■ Establish a compost procurement program that requires use of compost by CDOT and other state agencies in projects where compost use is appropriate. ■ Allow composts that are not STA-certified, but require a definition of compost based on STA testing and certification standards or equivalent in procurement policy in CDOT projects. ■ Incorporate compost use as a healthy soils practice in the Colorado Department of Agriculture's (CDA) Saving Tomorrow's Agricultural Resources Program and new Soil Health Initiative. ■ Establish compost use demonstration sites around the state as part of the Soil Health Initiative. ■ Facilitate CDPHE/CDA coordination to assist in development of agricultural and rangeland use of compost; minimize contamination for this application via best practices and compost quality standards.
Food Safety Policies for Share Tables	<p>Strong Policy</p> <p>Colorado has established safety guidance for food donation and share tables.¹² However, it does not explicitly encourage the adoption of share tables.</p>	<ul style="list-style-type: none"> ■ Amend existing guidance to explicitly encourage the adoption of share tables. ■ Promote opportunities for schools to increase food rescue through share tables and other methods.
Food Systems Plans, Goals, and Targets	<p>No Policy</p> <p>Although municipalities such as Denver have created food systems plans, no regional or statewide plans exist.¹³</p>	<ul style="list-style-type: none"> ■ Develop a comprehensive, statewide food systems plan with clear goals and targets to build a local, sustainable food system and support local farmers. This plan should include considerations for food waste reduction. ■ Establish a statewide framework and support system to achieve those targets. ■ Support regional plans, which provide the opportunity to set goals and targets for supporting food systems and promoting food waste reduction strategies.
Plans Targeting Solid Waste	<p>Strong Policy</p> <p>The Colorado Integrated Solid Waste and Materials Management Plan encompasses a 20-year planning period, recommending opportunities for waste diversion, including organics management strategies.</p>	<ul style="list-style-type: none"> ■ Continue to maintain the existing plan and encourage local participation in the process. ■ Local solid waste management plans can be modified to incorporate a stronger focus on food waste reduction, including by establishing a timeline for achieving diversion goals.

Policy Category	Status	Recommendations and Potential Advocacy Opportunities
Climate Action Goals	<p>Moderate Policy</p> <p>While Colorado has passed a law to adopt climate action goals and assigned agencies with actionable next steps, none of these actions directly address food waste.</p>	<ul style="list-style-type: none"> ■ Incorporate climate action planning that sets forth specific recommendations for 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. ■ Use compost procurement as a tool to promote carbon sequestration and water retention in compost-amended soils.
Grants and Incentive Programs Related to Food Waste Reduction	<p>Strong Policy</p> <p>Funding opportunities, such as those offered through the Front Range Waste Diversion (FRWD) Program and the Recycling Resources Economic Opportunity Program, may support food waste reduction. Additionally, efforts such as NextCycle Colorado, FRWD, and the Colorado Green Business Network offer technical assistance that can further diversion in the state.</p>	<ul style="list-style-type: none"> ■ Continue to fund existing grant programs that advance food waste management activity. ■ As an additional near-term, incremental option, consider implementing an incentive program to encourage businesses to divert food from the waste stream through donation or other measures. This could come in the form of government recognition, certification, or other encouragement.

Colorado Food Waste Policy Inventory

ORGANICS DISPOSAL BANS AND RECYCLING LAWS

There are currently no statewide disposal bans or recycling laws in Colorado that address organics. In 2015, however, the city of Boulder adopted a Universal Zero Waste Ordinance requiring all properties in the city to have separated organic waste, recycling, and trash service.¹⁴ The ordinance went into force in 2017 and requires both residential and commercial property owners to subscribe to organic waste, recycling, and trash service. Additionally, under this ordinance, businesses are required to provide suitable collection containers, specific signage, and employee training on proper sorting. In the summer of 2022, in order to reduce contamination, Boulder allowed businesses to remove front-of-house organics collection; businesses retaining customer-facing collection must demonstrate that trained staff monitor and remove contaminants from customer-facing bins before incorporation into collection containers. Similarly, in 2016 Fort Collins passed a Community Recycling Ordinance that requires food stores to source-separate and divert food scraps for recycling if they generate more than 96 gallons of the material each week, starting December 31, 2017.¹⁵ In January 2023, Denver plans to implement volume-based pricing for trash collection, charging according to trash cart size, and to begin offering recycling and compost collection to further support waste reduction.¹⁶ Additionally, in November 2022, ballot measure 306 was approved by Denver voters; the newly-passed ordinance requires all businesses and permitted events to offer collection services for recycling and compost as well as trash.¹⁷ Notably, several Colorado municipalities, like Louisville and Lafayette, include compost collection services in their unified hauling contracts.

DATE LABELING

Colorado regulations currently require a pack date for eggs. Eggs cannot be offered for sale more than 45 days after the pack date. If an egg container includes a voluntary “sell-by” date, it cannot be more than 30 days after the pack date. There are no restrictions on donations after the labeled date on food items.

Citation	Summary & Key Elements	Source
8 Colo. Code Regs. § 1202-10:3.0-4.0 (2021)	Title: Labeling Requirements Summary: Every container of eggs must include the date the eggs are first packed (“pack date”). Key Elements: <ul style="list-style-type: none">■ Eggs may not be sold more than 45 days after the pack date.■ Egg containers may, but are not required to, have a “sell-by” date, which must be no more than 30 days after the pack date.	https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=9560&fileName=8%20CCR%201202-10

FOOD DONATION LIABILITY PROTECTIONS

Colorado law provides civil and criminal liability protection for food donation to a broad range of food donors and distributing nonprofits.

Citation	Summary & Key Elements	Source
<p>Colo. Rev. Stat. Ann. § 13-21-113 (2020)</p>	<p>Title: Donation of Items of Food—Exemption from Civil and Criminal Liability</p> <p>Summary: Outlines civil and criminal liability protection for food donors.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Offers civil and criminal liability immunity for organizations donating food to nonprofit organizations that distribute the food free of charge. ■ Extends coverage to food donors, including nonprofits, that transfer food to another nonprofit for distribution. ■ Extends coverage to farmers who allow gleaners to collect excess produce from their farm. ■ Excludes protection for willful, wanton, or reckless acts of donors that result in injury to recipients of donated foods, or willful or wanton acts or omissions by farmers that result in injury to gleaners. ■ Defines donors as including farmers, retail food establishments, correctional facilities, school districts, hospitals, processors, distributors, wholesalers, and retailers of food. 	<p>https://advance.lexis.com/documentpage/?pdmfid=1000516&crd=-702f4a34-5d4d-4326-baa5-d862dedc-33cb&config=014FJAAyNGJkY2Y4ZilMn-jgyLTRkN2YtYmE40S03NTYzNzYzOTg00-GEKAFBvZENhdGFsb2d592qv2Kywlf8caKqY-ROP5&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A61P5-WRNI-DY-DC-J08G-00008-00&pdcontentcomponentid=234176&pdteaserkey=sr0&pditab=allpods&ecomp=vss_kkk&earg=sr0&prid=e-75elc6d-5fa5-43ed-9713-9b326470ad1b</p>
<p>Colo. Rev. Stat. Ann. § 39-22-301(3)(d)(V) (2022)</p>	<p>Title: Corporate Tax Imposed</p> <p>Summary: Outlines civil and criminal liability protection for food donors.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Offers civil and criminal liability immunity for taxpayers that donate food to nonprofit organizations for use or distribution. ■ Excludes protection for willful, wanton, or reckless acts of donors that result in injury to recipients of donated food. 	<p>https://advance.lexis.com/documentpage/?pdmfid=1000516&crd=de1d09d4-6b23-4cb7-9a7c-4470f2aea99&config=014FJAAyNGJkY2Y4ZilMn-jgyLTRkN2YtYmE40S03NTYzNzYzOTg00GEKAFBvZENhdGFsb2d592qv2Kywlf8caKqYROP5&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A65HR-4IR3-GXF6-810X-00008-00&pdcontentcomponentid=234176&pdteaserkey=sr0&pditab=allpods&ecomp=vs65kkk&earg=sr0&prid=5113c904-b4d6-4e03-8a02-2153b466a9e3</p>

TAX INCENTIVES FOR FOOD RESCUE

Colorado used to provide tax credits to C corporations that donate crops or livestock. However, pursuant to recent legislation, this provision will expire after 2022. Thus, it is available only for donations made through tax year 2022 and is available for carry-forward credits only through January 1, 2029.¹⁸ Colorado also previously provided a tax credit to individual taxpayers for the donation of edible food or agricultural products, though that provision expired January 1, 2020 and is available for carry-forward credits only through January 1, 2025.

Citation	Summary & Key Elements	Source
<p>Colo. Rev. Stat. Ann. § 39-22-536 (2014)</p>	<p>Title: Credit for Food Contributed to Hunger-Relief Charitable Organizations</p> <p>Summary: A tax credit was offered to taxpayers who donated edible food or agricultural products to a hunger-relief charitable organization from January 1, 2015 through December 31, 2019.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Allows eligible taxpayers to claim up to 25 percent of either the wholesale market price or most recent sales price for edible food or agricultural crops. ■ Sets a maximum tax credit of \$5,000 per taxpayer per year. ■ Is available for income tax years commencing on or after January 1, 2015, but before January 1, 2020. Is currently unavailable for any new credits, but taxpayers that previously received a credit can carry credit forward over the next five income tax years. ■ Will be repealed effective January 1, 2025. 	<p>https://advance.lexis.com/documentpage/?pdmfid=1000516&crd=2e899df3-b068-436e-9519-edcd1272c54e&nodeid=ABPAACAACAABAAGACB&nodepath=%2FROOT%2FABP%2FABPAAC%2FABPAACAAC%2FABPAACAACAAB%2FABPAACAACAABAAG%2FABPAACAACAABAAGACB&level=6&haschildren=&populated=false&title=39-22-536.+Credit+for+food+contributed+to+hunger-relief+charitable+organizations+definitions+repeal.&config=014FJAAyNGJkY2Y4ZilMNgylTRkN2YtYmE40S03NTYzNzYz0Tg00GEKAFBvZENhdGFsb2d592qv2Kywlf8caKqYROP5&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A6IP5-WYKI-DYDC-J4XH-00008-00&ecomp=vgl_9kk&prid=deb052ee-97fa-4448-9438-4400f49d41b7</p>
<p>Colo. Rev. Stat. Ann. § 39-22-301 (2022)</p>	<p>Title: Corporate Tax Imposed</p> <p>Summary: A tax credit was offered to C corporations donating crops or livestock to tax-exempt charitable organizations that do not charge end recipients. This tax credit was available only for donations made through December 31, 2022.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Allowed eligible C corporations to claim up to 25 percent of either the wholesale market price or most recent sales price for donated crops or livestock as a tax credit. ■ Set a maximum tax credit of \$1,000 per taxpayer per year. 	<p>https://advance.lexis.com/documentpage/?pdmfid=1000516&crd=e2b3c774-d525-40db-8c7d-79fed-aab96a2&nodeid=ABPAACAACAABAEEAABAAC&nodepath=%2FROOT%2FABP%2FABPAAC%2FABPAACAAC%2FABPAACAACAAB%2FABPAACAACAABAEEAAB%2FABPAACAACAABAEEAABAAC&level=7&haschildren=&populated=false&title=39-22-301.+Corporate+tax+imposed.&config=014FJAAyNGJkY2Y4ZilMNgylTRkN2YtYmE40S03NTYzNzYz0Tg00GEKAFBvZENhdGFsb2d592qv2Kywlf8caKqYROP5&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A6IP5-WYKI-DYDC-J4TC-00008-00&ecomp=vgl_9kk&prid=deb052ee-97fa-4448-9438-4400f49d41b7</p>

ORGANICS PROCESSING INFRASTRUCTURE PERMITTING

The Colorado Department of Public Health & Environment (CDPHE) administers the state’s regulations that oversee organics recycling. The current set of rules was adopted in 2016 and is incorporated into CDPHE’s solid waste regulations. CDPHE used the U.S. Composting Council’s Model Compost Rule Template as the basis for its current rules.¹⁹ Section 14 of the regulations covers composting. Anaerobic digestion of solid waste, such as food waste, is regulated under the composting rules as well as other sections of the solid waste regulations, including Section 9 impoundment rules for storage of digestate and Section 11 that covers waste-to-energy equipment components. Food waste and other source-separated organics (SSO) are categorized as Type 2 feedstocks. Section 14 has two exemption tiers—general and conditional—and three classes of composting facilities. The general exemption includes backyard and small-scale composting, for instance at community gardens, allowing 100 cubic yards of Type 2 material to be in process at any one time (this does not cover community composting enterprises). The conditional exemption allows very small amounts of Type 2 feedstocks (up to 5 cubic yards if not in-vessel and up to 10 cubic yards if in-vessel at any one time). The Class I tier allows composting of food waste and SSO if it is done on the site where it was generated. Class II does not allow any Type 2 materials. Class III, the most restrictive regulatory tier, covers Type 2 feedstocks; this class also includes mixed municipal solid waste and biosolids, which in many states are in a separate tier from food waste and SSO. The process to obtain a Class III permit from CDPHE takes at least one year. Because Colorado is a home rule state, the Class III permit requires the facility developer to obtain a Certificate of Designation issued by a local government body as well as zoning approval. Local governments vary in terms of restrictions that are added to the Class III permit obtained from CDPHE. Because of the limited regulatory options for composting food waste and SSO (i.e., either an exemption or the highest level of permitting), the new Colorado Statewide Organics Management Plan—as referenced under *Plans Targeting Solid Waste*—discusses consideration of a new tier that would be less restrictive in terms of requirements but still protective of public health and the environment. In Colorado, the feeding of food waste to animals is regulated by the state’s Department of Agriculture.

Citation	Summary & Key Elements	Source
6 Colo. Code Regs. § 1007-2: 14 (2016)	<p>Title: Regulations Pertaining to Solid Waste Sites and Facilities, Section 14, Composting</p> <p>Summary: Section 14 categorizes organic wastes into Types I–3 and has two exemption tiers and three classes of composting facilities (Class I–III). Facilities that receive source-separated organics (SSO) or food residuals from off site fall into Class III, the most restrictive tier. Facilities in Classes I–III must submit annual reports to CDPHE that include the quantity and types of feedstocks composted and the quantity of compost distributed the previous calendar year. Section 14 includes very detailed guidance and requirements for all three classes of composting facilities, covering all elements of the composting process, including feedstock receiving.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Definitions of food residuals and SSO: <ul style="list-style-type: none"> □ <i>Food residuals</i> means pre- and postconsumer food discards from households and the commercial/institutional sector, including but not limited to vegetables, fruits, grains, dairy products, meats, and compostable food service ware or packaging that may be commingled. □ <i>Source-separated organics</i> means compostable material that has been separated from non-compostable material at the point of generation, including but not limited to yard waste, food residuals, vegetative waste, woody materials, and compostable products. ■ Compost feedstock types: <ul style="list-style-type: none"> □ Type 1: Vegetative waste and other materials determined by the department to pose a low risk to human health and the environment. □ Type 2: Animal waste, manure, source-separated organics, food residuals, and food processing vegetative waste. □ Type 3: Biosolids, mixed solid waste, processed solid waste and sludges and food processing residuals not covered in Type 2, fats, oils, greases, dairy manufacturing wastes, dissolved air flotation skimmings, paunch, and any other compostable material not covered in Type 1 or Type 2. 	<p>https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8857&fileName=6%20CCR%201007-2%20Part%20I</p>

Citation	Summary & Key Elements	Source
<p>6 Colo. Code Regs. § 1007-2: 14 (2016)</p> <p><i>Continued</i></p>	<ul style="list-style-type: none"> ■ General exemption: Includes backyard composting (defined as composting on a residential property utilizing Type 1 and 2 feedstocks but with no more than 100 cubic yards in process at one time), composting only agricultural wastes and registered with the Colorado Department of Agriculture, and biosolids composting at wastewater treatment plants. ■ Conditional exemption: Includes small-quantity composting operations with up to: (1) 100 cubic yards of Type 1 feedstock on site or in process; (2) 100 cubic yards of Type 1 feedstock and up to 5 cubic yards of Type 2 feedstock on site or in process; or (3) 100 cubic yards of Type 1 and up to 10 cubic yards of Type 2 feedstock on site or in process when composted in-vessel. ■ Class I composting facilities (Sec. 14.2) are allowed to compost only Type 2 food residuals/SSO that are generated on site, such as at a university. Quantity is limited to a total volume of no more than 5,000 cubic yards of SSO on site at any one time (finished, qualified product does not count toward this total), and the composting area must be no larger than two acres. Also allowed in Class I are facilities composting less than 50,000 cubic yards on site at any one time of Type 1 feedstocks only. ■ Class I facilities are required to submit a written composting plan that includes site maps, property boundaries, location of structures, and other details. In addition, Class I facilities (as well as Classes II and III) must: <ul style="list-style-type: none"> □ Design, construct, and maintain stormwater and contact water controls that prevent flow onto the facility during peak discharge from a 25-year, 24-hour storm event; and control and collect the on-site runoff water volume resulting from a 25-year, 24-hour storm event; □ All stormwater/contact water containment structures must be constructed of a minimum of 18 inches of compacted soil or in-situ earthen material or other low-permeability materials (e.g., geomembrane) to achieve a hydraulic conductivity of less than or equal to 1 x 10⁻⁶ cm/sec. ■ Class II composting facilities (Section 14.3) must compost less than 50,000 cubic yards of Type 1 feedstocks and manure at any one time. Class II facilities cannot compost Type 2 feedstocks, including food residuals and SSO. ■ Class III composting facilities (Section 14.4) include any persons, local governing authorities, or municipalities composting Type 1, Type 2, and/or Type 3 feedstocks or other materials accepted from off-site generators approved by CDPHE. There is no limit in the Class III rules on the quantity of feedstocks that may accepted. There are more design and operating requirements for Class III facilities composting food residuals and SSO than for Class I facilities composting those feedstocks. Some highlights in the Class III rules: <ul style="list-style-type: none"> □ Class III facilities must have an approved engineering design and operations plan (EDOP) prior to commencing composting or feedstock storage. The EDOP must include detailed descriptions of the site and of how the operator will control for environmental and public health impacts from facility operations, including feedstock receiving and processing and surface water containment. □ Class III facilities may need to use a low-permeability work pad area to manage contact water generated from composting operations. Site-specific conditions, operational practices, feedstock, bulking material, and liquid wastes are evaluated to determine the need for a low-permeability work pad and low-permeability liquid mixing pad/basin. 	<p>https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8857&fileName=6%20CCR%201007-2%20Part%20I</p>

Citation	Summary & Key Elements	Source
6 Colo. Code Regs. § 1007-2: 14.6 (2016)	<p>Title: Sampling of Finished Compost and Soil Amendments</p> <p>Summary: Section covers compost standards, pollutant limits, pathogen and vector attraction reduction, sampling frequency and methodology, and product distribution.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Pollutant and biological limits in Table I are based on U.S. EPA 40CFR Part 503 limits, which are used in many states' composting regulations. CDPHE does not include limits on physical contaminants. ■ Finished compost must be sampled and tested, either annually or once per every 10,000 cubic yards of compost produced, whichever is more frequent. ■ Compost that satisfies the levels specified in Table I and all other parameters identified by the department per Section 14.6 is determined by these criteria to be finished compost and acceptable for unrestricted use. 	<p>https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8857&fileName=6%20CCR%201007-2%20Part%201</p>
Colo. Rev. Stat. § 35-52-113 (2016)	<p>Title: Title 35, Agricultural Livestock, Article 52: Hogs</p> <p>Summary: Section 35-52-113 regulates "garbage cooking" for feeding hogs. The Colorado Department of Agriculture regulates the feeding of livestock in Colorado.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Definitions <ul style="list-style-type: none"> □ <i>Garbage</i> means waste consisting in whole or in part of animal waste resulting from handling, preparing, cooking, and consuming food, including the offal from animal carcasses or parts thereof, but excluding such waste from ordinary household operations that is fed directly to swine on the same premises. □ <i>Cooked garbage</i> means garbage that has been heated throughout to boiling or equivalent temperature for a period of 30 minutes or heated according to any other method specifically approved by the department. ■ Garbage fed to animals must be heated throughout to boiling or equivalent temperature for 30 minutes or heated according to a method specifically promulgated by the state agricultural commission; this requirement does not apply to an individual who feeds to his own animals only the garbage obtained from his household. ■ Garbage to be fed to swine within Colorado must be cooked or heated by one or more of the following methods: wet steaming or boiling in an open vat; dry steaming or boiling in a jacketed kettle; steaming in a pressure cylinder; heating in a steam boiler; or direct heating. 	<p>https://leg.colorado.gov/sites/default/files/images/olls/crs2017-title-35.pdf</p>

COMPOST PROCUREMENT

The Colorado Department of Transportation (CDOT) has specifications for use of compost in road and bridge construction projects. Applications where compost is specified include erosion control logs, seeded blankets, soil conditioners, and planting. The specifications state that any compost used in CDOT projects must be certified by the U.S. Composting Council’s Seal of Testing Assurance (STA) program.²⁰ An official with the Colorado Department of Public Health & Environment noted, “Based on the availability of STA-certified compost around the state, it would likely be difficult [for CDOT projects] to source product in many areas.” The Colorado Department of Agriculture has two healthy soil initiatives incentivizing agricultural practices that improve soil health. Its Saving Tomorrow’s Agricultural Resources (STAR) Program establishes a framework that allows farmers and ranchers to evaluate their current production system, identify areas for improvement, document their progress, and share their successes using a suite of practices proven to improve soil health, water quality, and water availability.²¹ STAR Plus provides financial and technical assistance to producers as they implement new practices on one field over three years and consider adopting them across their operation. The STAR Program began offering grant funding to farmers and ranchers in 2022; authorization and funding for the program was established in 2019 by the state legislature. The STAR Rating system assigns points for management activities annually, and scores are converted to a 1- to 5-star rating, with 5 indicating the most ambitious commitment. Compost use is not specifically mentioned in the STAR Program but is a component of soil health practices. The Colorado Soil Health Initiative is a separate program designed to help agricultural producers improve the productivity and resilience of their land.²² It is a collaboration between state and federal soil and water conservation programs (including the U.S. Natural Resources Conservation Service and state soil and water conservation districts). Compost use is not mentioned in the program description.

Citation	Summary & Key Elements	Source
Colorado Department of Transportation Standard Specifications for Road and Bridge Construction (2022)	<p>Summary: The standard specifications are established for use by CDOT contractors bidding on road and bridge construction projects. Updated annually, specifications for use of compost for specific types of projects are included.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Specifications where using compost is an option include erosion control logs with a compost-wood chip blend, soil conditioners, spray-on mulch blankets, and backfill on projects involving planting. ■ Requires that the compost manufacturer is a “participating member of the US Composting Council’s Seal of Testing Assurance (STA) Program” and the compost is STA-certified. The Contractor shall provide a participation certificate and test data on a Compost Technical Data Sheet. ■ Allows weed-free, organic compost derived from a variety of feedstocks including agricultural, biosolids, forestry, food, leaf and yard trimmings, manure, and tree wood with no substances toxic to plants. ■ Must contain <1% human-made inerts on a dry weight basis. 	<p>https://www.codot.gov/business/designsupport/cdot-construction-specifications/2022-construction-specifications/2022-specs-book/2022-standard-specifications-book</p>

FOOD SAFETY POLICIES FOR SHARE TABLES

Colorado Department of Education has issued a Standard Operating Procedure document which supplies Colorado-specific food safety guidance complementing the general recommendations of the USDA regarding share tables.

Citation	Summary & Key Elements	Source
Standard Operating Procedure (SOP): Redistribution of Returned Food/Share Tables (2016)	<p>Summary: The Colorado Department of Education has produced a standard procedure for share tables in schools.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Quotes relevant state and federal laws and regulations, stating that foods not requiring time/temperature control may be redistributed if the packaging is unopened and the food is in sound condition. ■ Allows the redistribution of whole pieces of fruit that can be washed or that have peels. ■ Allows the redistribution of unopened milk if food safety criteria are met. ■ Requires schools implementing share tables to create plan outlining how they will maintain the safety of food served to students. ■ Requires monitoring to ensure that food is being handled and redistributed correctly and discarded at its safe food expiration date. ■ Requires recordkeeping of shared items, temperature logs, and food safety documentation and requires approval from the designated governing body. 	https://www.cde.state.co.us/nutrition/sharetablessop

FOOD SYSTEMS PLANS, GOALS, AND TARGETS

No statewide food systems plan has been developed for Colorado. Denver created a food systems plan that focuses on improving access to healthy food and locally grown produce, reducing food insecurity, growing Denver’s food economy, and reducing food waste.

Citation	Summary & Key Elements	Source
Denver Food Action Plan (2018)	<p>Summary: Outlines actions and projects led by the city and public partners to advance the Denver Food Vision.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Sets a long-term strategic plan for more inclusive, healthy, vibrant, and resilient Denver with 12 key priority areas for implementation, along with specific strategies to achieve 12 goals by 2030. ■ Creates a goal to reduce city-collected residential food waste by 57 percent. ■ Focuses on underserved and/or low-income neighborhoods. ■ Describes how the City and County of Denver partnered with NRDC on a two-year pilot project that aimed to reduce food waste by: <ul style="list-style-type: none"> □ Supporting consumer education surrounding food waste. □ Encouraging businesses to reduce food waste and donate more surplus food. □ Expanding residential and commercial composting. 	https://www.denvergov.org/content/dam/denvergov/Portals/771/documents/CH/Food%20Action%20Plan/DenverFoodActionPlan.pdf
2017 Colorado Blueprint of Food and Agriculture (2018)	<p>Summary: Assesses and suggests opportunities to strengthen Colorado’s food systems and agriculture supply chain.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Summarizes the agriculture value chain in Colorado. ■ Highlights the need for efficient infrastructure across the food system as an investment opportunity for Colorado. 	https://foodsystems.colostate.edu/wp-content/uploads/2018/02/Executive-Summary.pdf

Citation	Summary & Key Elements	Source
Colorado Blueprint to End Hunger	<p>Summary: Sets five goals to achieve the ultimate vision of ensuring all Coloradans have access to affordable and healthy food.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Establishes a goal of increasing food assistance and supporting community-level access efforts. ■ Calls on community actors to coordinate partnerships between food-producing entities and food rescue organizations. 	https://static1.squarespace.com/static/5f5a576d6deec24c3172c98e/t/5f5a9c8b-59de80166e8e9d5d/1599773849203/Colorado%2BBlueprint%2Bto%2BEnd%2BHunger%2BFinal.pdf

PLANS TARGETING SOLID WASTE

The Integrated Solid Waste and Materials Management Plan, published in 2016, comprehensively evaluates Colorado’s existing waste disposal and materials management practices, including those for organic waste, and recommends sustainable waste diversion options that include composting and anaerobic digestion. This plan encompasses needs for solid waste disposal over the next 20 years. Colorado’s Revised Statutes of 2020 include a requirement that county departments collect data on recycling and solid waste diversion, implicating food waste diversion tracking in the law. In the same year, a bill was passed, tasking the Colorado Department of Public Health and Environment (CDPHE) and the Colorado Department of Agriculture (CDA) with creating an organics management plan that makes recommendations regarding organic waste management to encourage compost use on state soils; the resulting plan, Colorado Statewide Organics Management Plan: A Framework for Regional Organics Opportunities, was released in 2022.

Citation	Summary & Key Elements	Source
Integrated Solid Waste and Materials Management Plan (2016)	<p>Summary: Provides a comprehensive evaluation of the current state of Colorado’s waste disposal and materials management practices, including those for organic waste, and presents recommendations for cost-effective and environmentally protective waste diversion solutions on the state and local levels.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Reviews the existing transfer and disposal system and network of facilities, the state of solid waste collection, and the diversion system of recycling and processing infrastructure. ■ Outlines strategies for increasing and supporting solid waste diversion activity, with approaches grouped by short- and long-term strategies at the local and state levels. <ul style="list-style-type: none"> □ Includes organic waste diversion as a key focus area, recommending increased education around this topic, state encouragement of food waste diversion program adoption, and cost-effective waste prevention strategies. □ Highlights Oregon for its ambitious organic waste diversion goals and underlines in-state policy and program successes, including those in Louisville, Boulder, Denver, Summit County, and Pitkin County. ■ Draws attention to the resources spent to grow and produce food that is wasted, acknowledges businesses’ reluctance to donate surplus food, and offers a solution in the Bill Emerson Good Samaritan Act, a federal liability protection for businesses that donate food. ■ Evaluates how the state can begin to transition away from disposal and toward a materials management approach for solid waste, including food waste, which makes up 15–20 percent of the content in Colorado’s landfills. ■ Identifies the needs, gaps, opportunities, and funding for waste diversion activity. ■ Exemplifies a collaborative effort by incorporating a public stakeholder process with feedback and input from regions of the state. 	https://cdphe.colorado.gov/Integrated-Solid-Waste-Materials-Mgmt-Plan

Citation	Summary & Key Elements	Source
<p>Colo. Rev. Stat. § 30-20-122 (2020)</p>	<p>Title: Colorado Revised Statutes 2020 Title 30: Additional Duties of the Department—Data Collection on Recycling, Solid Waste, and Solid Waste Diversion</p> <p>Summary: Requires solid waste entities to collect information and data on recycling, solid waste, and solid waste diversion.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Encompasses data about type of material, quantity, and processing outlet or end site for each material. ■ Calls for state and local waste reduction to be achieved through recycling and composting. ■ Requires that the proportion of solid waste diverted from disposal be tracked in order to calculate a recycling rate. 	<p>https://leg.colorado.gov/sites/default/files/images/olls/crs2020-title-30.pdf</p>
<p>HB20-1047 (2020)</p>	<p>Title: Develop a Statewide Organics Management Plan</p> <p>Summary: Tasks the Colorado Department of Public Health and Environment and the Colorado Department of Agriculture with creating an organics management plan that makes recommendations regarding organic waste management practices to encourage compost use on state soils.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Plan should include conducting a statewide organics management study to address the need for organics processing infrastructure expansion and increased compost utilization. ■ Plan should outline strategies that municipal and commercial source-separated postconsumer organic waste collectors and processors can use to reduce contamination, citing educational outreach programs as a possible strategy. 	<p>https://leg.colorado.gov/sites/default/files/documents/2020A/bills/2020a_1047_ren.pdf</p>
<p>Colorado Statewide Organics Management Plan: A Framework for Regional Organics Opportunities (2022)</p>	<p>Summary: Developed in response to HB20-1047, this plan outlines opportunities for state and local municipalities to pursue organics diversion efforts.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Highlights the state's estimated current capacity to process an additional 127,000 to 157,000 tons of organics without substantial changes to current infrastructure.²³ ■ Identifies opportunities for additional composting operations to meet generation rates. ■ Indicates that there is a potential for rescuing more food with investment in infrastructure and partnerships. ■ Reviews opportunities for further utilization of finished compost in numerous applications, such as landscaping, construction, agriculture, and government operations. 	<p>https://cdphe.colorado.gov/hm/statewide-organics-mgmt-plan</p>

CLIMATE ACTION GOALS

In 2015 the Colorado Climate Plan was created to recommend policies and actions to mitigate greenhouse gas emissions, which included anaerobic digestion as a renewable energy generation strategy. An executive order given by Governor John Hickenlooper in 2017 committed the state to a 26 percent reduction in greenhouse gas emissions by 2025, and the Colorado Climate Plan was amended accordingly to support this reduction goal and highlight progress that had been made already. In 2021 a Greenhouse Gas Pollution Reduction Roadmap established further emissions reduction targets and committed to stronger waste diversion efforts, indicating that CDPHE would focus on organic waste as the largest material contributor to landfills. Updated climate preparedness roadmaps and strategic plans will be created every three years. Additionally, several municipalities and counties have incorporated waste reduction measures into their climate and sustainability plans.

Citation	Summary & Key Elements	Source
<p>Colo. Rev. Stat. § 24-20-III (2013)</p>	<p>Title: Climate Change Position Created—Duties—Report</p> <p>Summary: Calls for the development of a state climate plan that sets forth a strategy to address climate change and reduce greenhouse gas emissions while taking into account previous state actions and efforts.</p> <p>Key Elements:</p> <p>Creates a position in the executive branch responsible for assessing issues related to climate change in the state.</p> <p>Requires the development of an annual report that addresses the impacts of climate change in the state as well as actions to reduce greenhouse gas emissions and proposals for climate resiliency.</p>	<p>https://advance.lexis.com/documentpage/?pdmfid=1000516&crd=e16daed6-6609-44ce-8fc4-7db2332e5466&nodeid=AA YAADAABAABAAM&nodepath=%2FROOT%2FAAY%2FAAYAAD%2FAAYAADAAB%2FAAYAADAABAAB%2FAAYAADAABAABAAM&level=5&haschildren=&populated=false&title=24-20-III.+Climate+change+position+created+-+duties+-+report.&config=014FJAAyNGJkY2Y4ZilMnjyLTrkN2YtYmE40S03NTYzNzYzOTg00GEKAFBvZENhdGFsb2d592qv2Kywlf8caKqYROP5&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A6IP5-WVFI-DYDC-JI3Y-00008-00&ecomp=vgf59kk&prid=fa9b8c12-f0aa-4f02-891f-39d8b86d38f1</p>
<p>Colorado Climate Plan—State Level Policies and Strategies to Mitigate and Adapt (2015)</p>	<p>Summary: Recommends policies and actions to mitigate greenhouse gas emissions and support Colorado’s climate preparedness.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Addresses strategies in the areas of water supply and quality, public health, energy generation, agriculture, tourism and recreation, ecosystems, and community efforts. ■ Includes a sidebar on how anaerobic digestion helps mitigate carbon emissions in the agricultural sector. <ul style="list-style-type: none"> □ Highlights the potential of co-digesting manure from dairy farms and food waste using a study conducted by the University of Colorado. The study found that 30 dairy farms in Colorado have the potential for on-site digesters with co-digestion capabilities and could therefore divert approximately 363,000 tons of food waste per year. □ Draws attention to the Heartland Biogas Project in Weld County, one of the country’s largest digesters. 	<p>https://www.codot.gov/programs/environmental/Sustainability/colorado-climate-plan-2015</p>
<p>Executive Order 2017-015 (2017)</p>	<p>Summary: Supports Colorado’s transition to clean energy.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Through participation, the state commits to: <ul style="list-style-type: none"> □ Reducing greenhouse gas emissions by more than 26 percent by 2025. □ Monitoring and report progress toward this goal. □ Supporting locally led climate goals and resilience solutions through partnerships with local governments. ■ The order does not directly mention food waste reduction strategies. 	<p>https://drive.google.com/file/d/140LX75zXN8JBMOv4k3zjKl_27f1WN8rB/view</p>

Citation	Summary & Key Elements	Source
Colorado Climate Plan 2018 Update: State-Level Policies and Strategies to Mitigate and Adapt (2018)	<p>Summary: Incorporates additional comments on climate action as laid out in Governor Hickenlooper’s 2017 executive order, including a stronger emphasis on diversion of materials, such as organic waste, from landfills.</p> <p>Key Element:</p> <ul style="list-style-type: none"> ■ Incorporates a new section on Landfill Diversion that highlights the importance of composting as a sustainable materials management and carbon emissions reduction strategy. 	https://dnrweblink.state.co.us/cwcb/0/doc/205387/Electronic.aspx?searchid=4fdc6e80-96ca-44b1-911c-57fe7793e3f6
House Bill 19-1261 (2019)	<p>Title: Climate Action Plan to Reduce Pollution</p> <p>Summary: Establishes statewide greenhouse gas pollution reduction goals.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ States Colorado’s goals to reduce 2025 green-house gas (GHG) emissions by at least 26 percent, 2030 GHG emissions by at least 50 percent, and 2050 GHG emissions by at least 90 percent, relative to 2005 levels. ■ Encourages increased renewable energy generation but does not include direct references to food waste or anaerobic digestion. 	https://leg.colorado.gov/sites/default/files/2019a_1261_signed.pdf
Colorado Greenhouse Gas Pollution Reduction Roadmap (2021)	<p>Summary: Outlines a pathway to meet the state’s GHG reduction targets of 26 percent by 2025, 50 percent by 2030, and 90 percent by 2050.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Outlines key steps to achieving 2030 targets, which include a continued transition away from coal to renewable electricity and reductions in methane emissions from landfills, wastewater, and other sources. ■ Commits to the continued acceleration of waste diversion efforts. <ul style="list-style-type: none"> □ Mentions that the Colorado Department of Public Health and Environment (CDPHE) and the Colorado Department of Agriculture were collaborating on a 2021–22 fiscal year study and plan to manage organic waste and promote compost use. ■ Notes that organic waste, including food and yard waste, is the most abundant component in Colorado landfills. <ul style="list-style-type: none"> □ Indicates that the CDPHE has placed an emphasis on reducing organic waste and finding beneficial ways to use this material. ■ Mentions that methane capture from landfills and wastewater treatment facilities offers an opportunity to mitigate emissions in this sector but does not include a direct reference to anaerobic digestion. ■ Highlights that in 2019, recycling and composting reduced state greenhouse gas emissions by 1.92 million metric tons of CO₂e, equivalent to removing 407,000 cars from the road for a year. 	https://drive.google.com/file/d/1jzLvFcrDryhhs9ZkT_UXkQM_OLiiYZfq/view
Colo. Rev. Stat. § 24-38.8-103 (2022)	<p>Title: Development of Statewide Climate Preparedness Roadmap</p> <p>Summary: A long-term, statewide climate preparedness strategic plan and roadmap must be developed and published every three years, starting no later than December 1, 2023.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ States that the plan should align with state GHG reduction goals and GHG roadmap and climate mitigation strategies. <ul style="list-style-type: none"> □ Mentions the importance of natural and working lands, land use development, water quality and quantity, and transportation sectors to the state. Does not include direct reference to the waste sector. ■ Does not directly mention food waste reduction strategies. 	https://leg.colorado.gov/sites/default/files/documents/2022A/bills/2022a_206_rer.pdf

GRANTS AND INCENTIVE PROGRAMS RELATED TO FOOD WASTE REDUCTION

In addition to assistance offered through the Colorado Green Business Network (CGBN), Front Range communities can receive grants and technical assistance for organics recycling and waste reduction efforts through the Front Range Waste Diversion Program. The Recycling Resources Economic Opportunity (RREO) Program provides funding for food waste recycling technologies and infrastructure including composting and anaerobic digestion. Using funds from RREO, NextCycle Colorado provides opportunities for technical support and networking for businesses and organizations engaged in innovative projects in composting and recycling. The 2020 Incentivize Development Recycling End Markets Act includes tax reimbursements to small businesses that recycle organic waste and lays the framework for a statewide education campaign to inform Colorado residents about recycling practices, including those for organics.

Citation	Summary & Key Elements	Source
Colorado Green Business Assistance	<p>Summary: Offers sustainability assessments that include technical assistance for waste reduction.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Free program that encompasses energy efficiency, water conservation, waste reduction, and corporate social responsibility. ■ Component of the Colorado Green Business Network (CGBN), a voluntary program that aims to support organizations across the state. ■ CGBN also coordinates a recognition program that offers networking opportunities and awards. 	<p>https://cdphe.colorado.gov/co-green-business-assistance</p>
Front Range Waste Diversion (FRWD) Program	<p>Summary: Provides grants and technical assistance to Front Range communities to increase recycling, composting, and waste reduction.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Along with grants and technical assistance, offers outreach and education for Front Range communities in the areas of recycling, composting, and waste reduction. <ul style="list-style-type: none"> □ Lists organic waste, including food scraps, as a focus area for project applicants. ■ Is funded by an increase in user fees at Front Range landfill. ■ The project period for the grant cycle is May 2, 2022 to January 9, 2023. <ul style="list-style-type: none"> □ Letters for intent were due June 20, 2022, and full applications for invited applicants were provided on August 31, 2022. ■ Showcases the three most recent FRWD grant recipient groups: Awards of \$745,000, \$750,000, and \$6 million were distributed to organizations doing projects in organics management, compost education, commercial composting, compost infrastructure upgrades, and more.²⁴ 	<p>https://cdphe.colorado.gov/front-range-waste-diversion</p>
Recycling Resources Economic Opportunity (RREO) Program	<p>Summary: Provides funding that promotes economic development through the management of materials that would otherwise be landfilled.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ States that funds are available to projects that support recycling, composting, anaerobic digestion, source reduction, and beneficial use/reuse. ■ The most recent grant project, which took place over the 2021–22 fiscal year, received \$981,419 to expand postconsumer recycled plastic processing at Direct Polymers' Denver facility. ■ Lists past waste diversion award recipients, which include recycling companies and organizations, municipalities, landfills, and more, on the state website.²⁵ 	<p>https://cdphe.colorado.gov/sustainability-programs/recycling-grants-support/recycling-resources-economic-opportunity</p>

Citation	Summary & Key Elements	Source
NextCycle Colorado	<p>Summary: Business accelerator that challenges businesses, organizations, nonprofits, universities, and entrepreneurs to pursue innovative projects that develop new or improve existing recycling and composting end markets in the state.</p> <p>Key Elements:</p> <ul style="list-style-type: none"> ■ Teams that apply and are accepted into the program may receive: <ul style="list-style-type: none"> □ No-cost consulting support. □ The chance to attend a multi-day business-planning focused boot camp. □ Participation in a pitch competition. □ Access to support from the Technical Advisory Committee, which includes experts in material processing, infrastructure, manufacturing, finance, risk assessment, partnerships, and market development. □ The opportunity to compete in grant rounds administered by CDPHE. ■ Eight companies were selected for the 2022 cohort, including two compost operations that divert residential and commercial food waste from landfills. ■ Funding is provided by existing grant fund dollars through RREO. 	https://cdphe.colorado.gov/next-cycle-colorado
SB20-055 (2020)	<p>Title: Incentivize Development Recycling End Markets</p> <p>Summary: Creates the structure for a recycling market development center, provides property tax reimbursements to small businesses that recycle, and lays the framework for a statewide education campaign to further inform Colorado residents about recycling while specifying organics as a targeted material for recycling.</p> <p>Key Element:</p> <ul style="list-style-type: none"> ■ Businesses located outside of the Front Range that reclaim or recycle materials are eligible for property tax reimbursements. 	https://leg.colorado.gov/sites/default/files/2020a_055_signed.pdf

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	Compost Procurement	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 POLICY										
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.	<p>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.</p> <p>There is no acknowledgment of anaerobic digestion of source-separated organics from the municipal solid waste stream.</p> <p>No exemption tier exists for small quantities of source-separated food waste.</p>	<p>No policies exist, and the following is true:</p> <ul style="list-style-type: none"> There is no language in state agency documents, such as those issued by a state department of transportation, about using compost in public projects that require soil amendments, where compost is an appropriate material, such as road construction, slope stabilization, landscaping, building construction, and other applications. Pilot projects and educational efforts may exist, but these have not led to the establishment of a policy. 	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	Compost Procurement	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										
<p>Organics disposal bans or mandatory organics recycling laws have been enacted but are ineffective due to exemptions, limited scope, and/or lack of guidance.</p>	<p>The state requires date labels for certain foods and prohibits or limits the sale or donation of food after its label date.</p>	<p>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.</p>	<p>N/A</p>	<p>There is a regulatory tier that includes source-separated organics, but at least two of the following are true:</p> <ul style="list-style-type: none"> ■ 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. 	<p>Practices are underway to promote compost procurement, and one or more of the following is true:</p> <ul style="list-style-type: none"> ■ State agencies are required to consider whether compost products can be used in government-funded projects and may procure compost if applicable but are not required to. ■ Compost is listed as an option in state agency documents referencing projects using soil amendments, and specifications for compost products are included (e.g., compost quality standards and application rates). ■ Cost differential is cited as a barrier to specifying compost instead of a standard product for erosion and sediment control and stormwater management projects, but no procurement subsidy for compost is available. 	<p>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.</p>	<p>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.</p>	<p>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).</p>	<p>Climate action goals exist, but one of the following is true:</p> <ul style="list-style-type: none"> ■ 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. 	<p>Grants, incentives, or funds for food waste reduction are available, but more than one of the following is true:</p> <ul style="list-style-type: none"> ■ 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	Compost Procurement	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
MODERATE 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.	<p>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:</p> <ul style="list-style-type: none"> ■ 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. 	<p>Practices are underway to promote compost procurement, and one or more of the following is true:</p> <ul style="list-style-type: none"> ■ Compost procurement is required for local jurisdictions or state agencies, but not both, or required for both local jurisdictions and state agencies but only for specific projects (like transportation projects). ■ Compost is included—but not required by law to be utilized—in state specifications and best practices for any project where compost is a suitable material; and the state uses an established standard for compost quality, such as the U.S. Composting Council's Seal of Testing Assurance Program. ■ Compost procurement specifications include a procurement subsidy to address a higher cost for compost than for a standard product for the same application (e.g., using a compost erosion control blanket instead of hydroseeding for slope stabilization). 	Share tables are allowed, and the state provides share table guidance, though that guidance is limited.	<p>Robust regional food systems plans or state food systems plans exist, but one of the following is true:</p> <ul style="list-style-type: none"> ■ 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.	<p>Climate action goals exist, and one of the following is true:</p> <ul style="list-style-type: none"> ■ Legislated climate action planning sets forth recommendations for reducing food waste. ■ Specific departments have been tasked with actionable next steps for moving policy forward. 	<p>Grants, incentives, or funds for food waste reduction are available, and one of the following is true:</p> <ul style="list-style-type: none"> ■ 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	Compost Procurement	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
STRONG POLICY										
<p>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).</p>	<p>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.</p>	<p>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.</p>	<p>The state offers tax deductions or tax credits for donating food that offset the costs associated with donation, including transportation.</p>	<p>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:</p> <ul style="list-style-type: none"> ■ 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. 	<p>Practices are underway to promote compost procurement, and one or more of the following is true:</p> <ul style="list-style-type: none"> ■ Compost procurement is required for local jurisdictions and state agencies and applies to a wide variety of projects and applications (e.g., transportation, municipal stormwater management, healthy soil practices, improvements in infiltration into soil during rain events, and protection of endangered species in waterways). ■ Compost is included in state and local specifications and required by law to be used by all agencies involved in landscaping, construction, sediment and erosion control, stormwater management, and other soil-disturbing activities where its use is appropriate. Also, compost specifications utilize an established standard for compost quality, such as the U.S. Composting Council's Seal of Testing Assurance Program, and follow current best practices for compost use for sediment and erosion control, stormwater management, and soil health practices. ■ Compost procurement specifications include a procurement subsidy to address a higher cost for compost than for a standard product for the same application (e.g., using a compost erosion control blanket instead of hydroseeding for slope stabilization). 	<p>Share tables are allowed and encouraged, and the state provides state-specific guidelines or instructions about food safety as it relates to donation.</p>	<p>The state has developed comprehensive, statewide food systems plans, and both of the following are true:</p> <ul style="list-style-type: none"> ■ 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. 	<p>Solid waste management plan, zero waste plan, or organics management plan is kept current, and it outlines waste diversion goals and recommendations for diversion, including reduction of food waste (via prevention, rescue, donation, and/or processing through composting or anaerobic digestion).</p>	<p>Climate action goals exist, and both of the following are true:</p> <ul style="list-style-type: none"> ■ Legislated climate action planning sets forth recommendations for reducing food waste. ■ Specific departments have been tasked with actionable next steps for moving policy forward. 	<p>Grants, incentives, or funds for food waste reduction are available, and all of the following are true:</p> <ul style="list-style-type: none"> ■ 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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