



New Hampshire Food Waste Generation Study

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Executive Summary

The New Hampshire Food Waste Generation Study and Infrastructure Analysis provides a detailed assessment of how food loss and waste (FLW)¹ is generated, managed and disposed of across New Hampshire, as well as strategic opportunities to advance sustainable waste management practices and strengthen compliance with the state's [food waste disposal ban](#) for Affected Entities (AEs). Conducted for the New Hampshire Department of Environmental Services (NHDES) through funding from the U.S. Environmental Protection Agency's (EPA) Solid Waste Infrastructure for Recycling (SWIFR) grant program, the study was completed by Resource Recycling Systems (RRS), the Center for EcoTechnology (CET) and New Hampshire Food Alliance.

[New Hampshire's 2024 Waste Characterization Study](#) found that food waste is a significant portion of the state's waste stream, totaling an estimated 121,608 tons, or 19% of all disposed municipal solid waste (MSW) in 2023. This total included unpackaged (11.4%) and packaged (7.4%) food waste. To address this, NHDES, along with organizations such as the New Hampshire Food Alliance and CET, provides guidance, technical assistance and resources to support food waste diversion across public and private sectors.

To provide a comprehensive picture of FLW generation and management, as well as key actions to support diversion from landfill, the study consists of three analytical components:

- The generator analysis quantifies FLW sources, volumes and concentrations across 17 major food generation sectors.
- The infrastructure analysis evaluates existing FLW processing capacity and identifies gaps.
- The climate impact analysis estimates greenhouse gas reductions under three diversion scenarios.



Figure 1: Composting of food scraps offers one pathway for diverting organic waste from landfills.

This study used a combination of quantitative analysis, stakeholder engagement, infrastructure mapping and emissions impact modeling to evaluate FLW generation, diversion and disposal practices among AEs in New Hampshire. A statewide inventory of AEs was developed using commercial business data, state records, supplemental research and sector-specific generation factors to estimate annual FLW generation and disposal rates. Interviews with FLW generators and service providers were conducted to validate assumptions, better understand operational practices, diversion activities and barriers to compliance with the state's food waste disposal ban. The study also included an infrastructure analysis to inventory food waste management facilities, hauling capacity and diversion pathways across New Hampshire and neighboring states. Finally, the EPA's Waste Reduction Model (WARM) was used

¹ Food loss and waste are used broadly throughout this report. "Food loss" generally refers to losses occurring before a product reaches the consumer (such as during post-harvest transportation and storage), while "food waste" typically occurs at the retail, food service and household levels.

to evaluate the potential greenhouse gas impacts of different diversion and compliance scenarios, including increased source reduction, donation, composting and anaerobic digestion.

To quantify FLW generation, a statewide inventory was developed using commercial business data, state records and supplemental research. This process identified 888 AEs subject to the disposal ban, categorized across 17 distinct sectors. [Figure 2](#), below, illustrates the breakdown by sector. Sector-specific generation factors were established based on a thorough review of other relevant studies, to estimate that approximately 222,220 tons of FLW is generated annually by AEs. This total encompasses all FLW managed through diversion and disposal pathways. Food processors and manufacturers account for the largest portion of FLW at 155,570 tons, followed by grocery stores at 32,294 tons and restaurants at 10,860 tons.

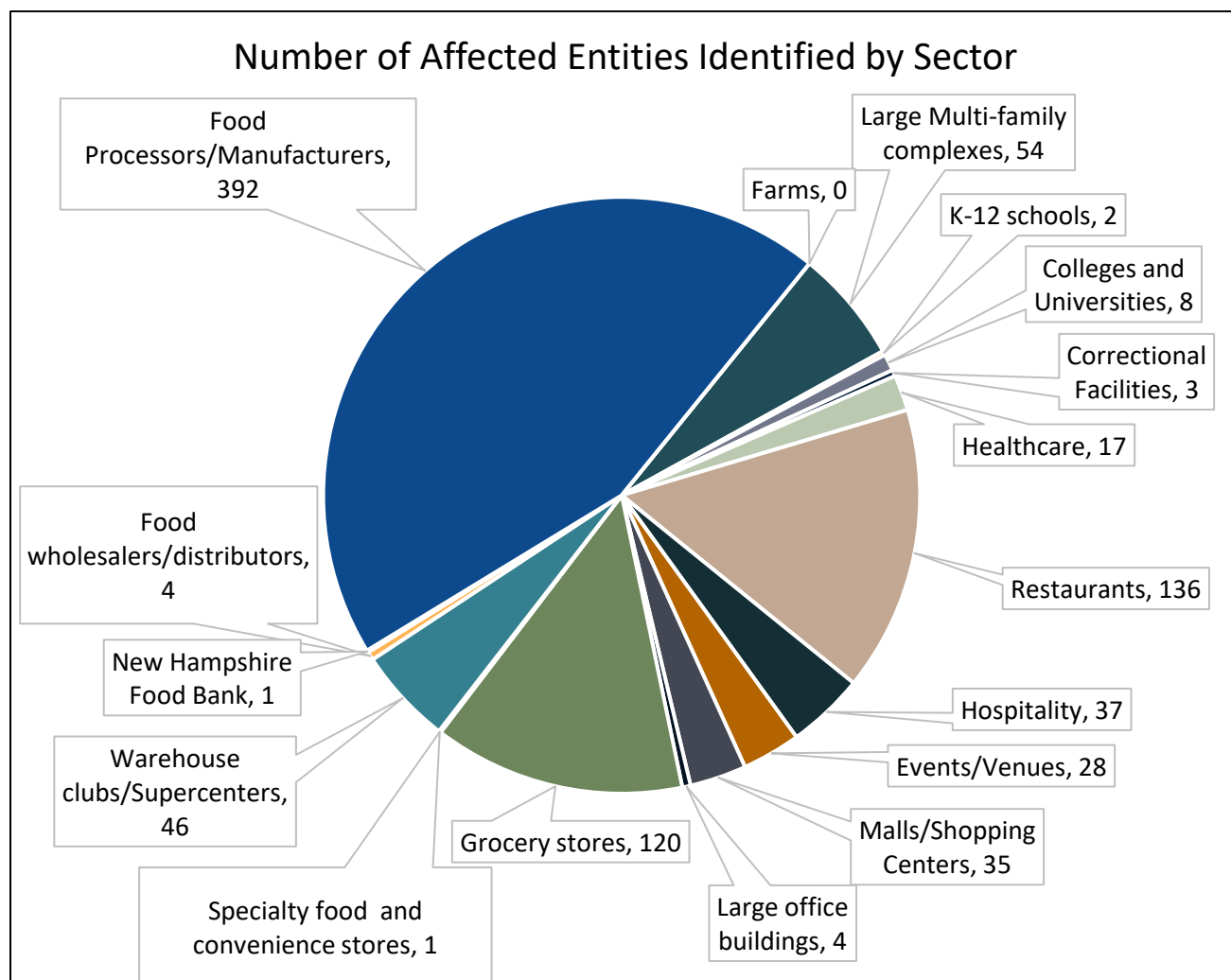


Figure 2: Number of affected entities identified by sector.

Of the total tons of FLW generated by AEs (222,220 tons), 154,883 tons are estimated to be diverted through donation, animal feed, compost or anaerobic digestion (AD) and 67,338 tons are estimated to be disposed of through landfill or incineration. Diversion estimations are based on modeling current diversion by sector (informed by ReFED's Insight Engine for the State of New Hampshire), information obtained through direct interviews, and prior experience

and industry knowledge of sector and regional food waste diversion efforts. The methodology used for estimating FLW diversion is discussed in more detail in Appendix E: Methodology for Impact Modeling.

Stakeholders were engaged to collect primary data and validate findings from the Project Team's literature review. A total of 38 interviews were conducted with FLW generators to understand operational practices, confirm generation assumptions and identify existing reduction or diversion strategies. Grocers and manufacturers were identified as the most common contributors to food donation, animal feed, composting and AD programs. Overproduction and plate waste were noted as the most common causes of FLW across most sectors. Although food processors and manufacturers constituted the largest population of AEs and greatest estimated FLW (70%), the majority of FLW from this sector is currently diverted primarily to animal feed but also to donation and composting.

An infrastructure analysis was conducted to compile a detailed inventory of food waste management facilities aligned with New Hampshire's Waste Management Hierarchy ([Figure 3](#)) established in [RSA 149-M:3](#) and the U.S. EPA's Wasted Food Scale ([Figure 4](#)).

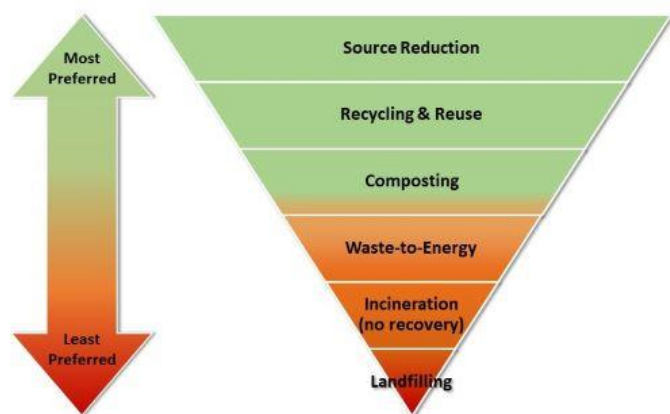


Figure 3: New Hampshire Waste Management Hierarchy



Figure 4: EPA's Wasted Food Scale

The analysis identified 19 composting facilities, one food bank, 379 food pantries, 11 haulers and two anaerobic digestion facilities that process food waste in the state and within a 20-mile radius of the state border. Collectively, in-state and out-of-state facilities have an estimated processing capacity of 101,596 tons per year (TPY), including 5,055 tons of confirmed excess capacity. Confirmed excess capacity includes additional operational capacity available, verified by each facility, but does not exceed permitted capacity. The study did not include municipal transfer stations managing food waste because they are not required to accept commercial waste under New Hampshire's food waste disposal ban established in [RSA 149-M:27](#). Given the estimated disposal of AEs in the state and the limited excess capacity, there is a significant infrastructure gap in the food system, presenting the state with opportunities to expand source reduction and donation efforts and increase processing capacity of food waste management facilities to fill this gap.

Interviews with ten service providers (including composting facilities, AD facilities, haulers and a food bank) revealed concerns about contamination as more AEs begin composting. Service providers emphasized the need for targeted education and training, stronger connections with AEs and other generators and higher customer density to support efficiency and economic viability. The study identified additional gaps, including limited awareness of the state's food waste disposal ban, lack of support for composters and deficient infrastructure. Service providers highlighted several

successes, including effective composting operations, beneficial use of finished compost and strong educational resources available to the public.

The emissions impact analysis, conducted using the EPA's Waste Reduction Model (WARM), compared baseline greenhouse gas emissions from current disposal rates with three alternative diversion scenarios: a combined source reduction and diversion scenario, a high source reduction and donation scenario and a high diversion to composting scenario. This analysis indicated that full compliance with New Hampshire's food waste disposal ban could reduce emissions by approximately 33,000 to 101,000 metric tons of carbon dioxide equivalent (MTCO₂e) annually depending on how the compliance is achieved. The greatest benefit (100,192 MTCO₂e per year) is achieved when waste prevention and donation are maximized with the remainder going to compost instead of landfill. Most of the climate benefit comes from the avoidance of food production when food waste is prevented or donated with additional gains from composting and avoided landfill disposal emissions. The lower bound of environmental benefit (32,835 MTCO₂e/year) represents no additional food waste prevention or donation, but all food waste currently generated would be diverted to composting.

The study found that AEs generally have strong interest in increasing food diversion and are willing to comply, but real challenges remain. Gaps in infrastructure and limited access to clear guidance are bigger obstacles than a lack of motivation. Meeting the goals of the state's 2022 Solid Waste Management Plan, the New Hampshire Food & Agriculture Strategic Plan and the food waste disposal ban will require enforcement along with investments in capacity and technical support.

The following recommendations convert the key insights into targeted actions for NHDES, the New Hampshire Legislature, food rescue organizations, food waste management facilities and other stakeholders. The recommendations are organized around five strategic priorities and will assist NHDES to establish a strong framework for food waste diversion that supports the state's environment, economic and community goals.

1. **Compliance assistance:** Entities expressed willingness to comply with the state's food waste disposal ban, but face uncertainty about eligibility, acceptable diversion methods, documentation requirements and what to do if/when facilities or haulers are unavailable. Compliance is likely to succeed if NHDES is seen as an implementation partner, not solely as a regulator and provides a clear, consistent compliance framework along with clarity on the food waste disposal ban, while using the AE inventory to drive proactive implementation.
2. **Technical assistance:** Lack of staff time and know-how or confidence are primary barriers for entities to comply. Interview respondents identified financial support and in-person technical assistance as the most helpful resources for expanding diversion. Technical assistance is one of the most effective levers NHDES can deploy including funding technical assistance resources and ensuring alignment between technical assistance and enforcement strategy.
3. **Actively support food donation and source reduction:** Impact analysis conducted for this study shows source reduction and donation will deliver the largest GHG benefits of any diversion pathway. However, donation is constrained by food safety requirements, shelf-life logistics, labor and limited food rescue capacity. Many AEs default to composting because it is operationally simpler, even though it produces less environmental benefit. Strengthening food rescue and donation infrastructure can create improved diversion pathways and increase impact.
4. **Address infrastructure and hauling gaps that limit compliance:** Composting and anaerobic digestion capacity is concentrated in southern New Hampshire and neighboring states. Northern and rural regions lack overlapping coverage of generators, haulers and facilities. The 20-mile rule creates uneven compliance

potential across the state and informal animal feed diversion is widespread but largely invisible to regulators. Leveraging the information in this study will assist NHDES with targeting infrastructure investment and expanding support to the hauler market and composters. Additionally, clarification of the role of animal feed and on-farm pathways is necessary.

5. **Improve data collection, reporting and adaptive management:** NHDES will need consistent, high-quality data to assess whether the ban is working as intended, where diversion is occurring and where infrastructure gaps remain. Without reliable measurement tracking, NHDES will not be able to target investments, evaluate program effectiveness, or make the case for continued funding. Establishing specific reporting requirements will enable NHDES to measure the impact of implementation and refine policy and program design.

The recommendations will need to be considered in stages, building on existing partnerships and scaling investment as the program matures. To maintain momentum and sequence effort realistically, the following timeframe is suggested.

NEAR TERM



In the next two years, NHDES should focus on actions that do not require a statutory change or significant resources beyond what is available. These include conducting the AE-to-facility spatial overlay using the study inventory, publishing compliance guidance, launching or expanding technical assistance, initiating outreach to large AEs, coordinating with DHHS and food banks to clarify donation requirements and disseminating existing partnership case studies.

MID-TERM



In subsequent years, NHDES should pursue actions needing resources unavailable today, involving coordination with other agencies, or requiring legislative action. Infrastructure grants could target regions lacking access or capacity, expansion of hauler networks or hub-and-spoke collection.

LONG TERM



Over time, NHDES should take the data and relationships developed early on and refine enforcement priorities and compliance tactics based on actual diversion performance as understood through robust reporting and feedback mechanisms. Beyond capacity, end markets for compost and digestate are likely to need bolstering and there will be opportunity to incorporate organics diversion goals into broader state goals related to solid waste or climate action planning.

Overall, AEs in New Hampshire are generally willing to comply. With improved infrastructure, targeted guidance and ongoing coordination, AEs can achieve measurable results towards compliance with the food waste disposal ban.

Terminology and Acronyms

The literature on FLW includes a wide range of definitions and interpretations. To ensure clarity and consistency, this report adopts the definitions outlined below. These definitions establish how key terms are used throughout the study and generally align with their predominant usage in established literature.

Affected Entity (AE): For the purpose of this study, affected entities are food waste generators that meet the threshold of generating at least one ton of food waste per week. In practice, whether or not an entity is required to comply with New Hampshire's food waste disposal ban would be contingent on whether the entity is also located within 20-miles of a food waste management facility, which has capacity to manage excess food, per [RSA 149-M:27](#).

Anaerobic Digestion (AD): A biological process that breaks down organic materials, such as food waste, agricultural residues and wastewater, in the absence of oxygen to produce biogas and nutrient-rich digestate. This process is carried out by a diverse group of microorganisms that thrive in oxygen-free environments and work together to decompose organic matter.

Composting: A form of organic material recycling through controlled aerobic (requiring oxygen) biological decomposition of these materials by microorganisms. This managed process creates compost, a nutrient-rich soil amendment. Common composting methods include aerated static piles, windrows and in-vessel systems.

Diversion: The management of solid waste by methods other than landfilling or incineration. Diversion includes reuse, donation, diversion to animal feed, composting and energy recovery not involving combustion, as defined in [Env-Sw 100](#). Diversion does not include use of materials for alternate daily cover at landfills or the incineration of solid waste to produce energy.

Food donation: The collection of edible, uneaten or unsold food from farms, retailers, or restaurants and distributing it to food rescue organizations, like food banks, pantries and shelters to feed people.

Food loss: The decrease in quantity or quality of food resulting from decisions and actions by food suppliers in the value chain prior to retail, including agricultural production, post-harvest handling and storage, processing and manufacturing and distribution up to but not including retail. This aligns with the [Environmental Protection Agency's characterization of food loss](#). By-products of manufacturing and processing are also included in this category.

Food waste: The organic residues generated by the handling, preparation, storage, sale and serving of foods and beverages. This includes pre-consumer and post-consumer organic residues, food scraps and non-petroleum oils used for food preparation generated in the retail, food service and consumer stage of the value chain. This definition is adopted from [NH RSA 149-M:4](#).

Food Loss and Waste (FLW): An overarching term to describe food that was not used for its intended purpose and is managed in a variety of ways, such as source reduction, donation to feed people, creation of animal feed, composting, anaerobic digestion, or disposal in landfills or combustion facilities. Examples include unsold food from retail stores, plate waste, uneaten prepared food, or kitchen trimmings from restaurants, cafeterias and households; or by-products from food and beverage processing facilities. The term FLW is used to be inclusive of both food loss and food waste.

Food Waste Management Facilities (Management Facilities): This includes facilities that manage food waste in accordance with EPA's Wasted Food Scale and New Hampshire's Waste Management Hierarchy, including food banks and pantries, composting facilities, anaerobic digestion facilities and facilities that utilize FLW to produce animal feed.

Generation hotspots: Concentrations of AEs by county or region with prominent levels of FLW generation.

Generation factor: A numerical value that represents the typical amount of material produced per unit of a measurable characteristic such as tons of FLW per employee, per dollar of sales or per square foot.

Greenhouse Gases (GHGs): The release of gases that trap heat (the greenhouse effect) in the atmosphere. The primary GHGs are carbon dioxide, methane and nitrous oxide which are released into the atmosphere from human activities such as burning fossil fuel, deforestation, agriculture and landfilling. The common unit for reporting GHG emissions is in metric tons of carbon dioxide equivalents (MTCO₂e).

Incineration: A lower-tier management strategy where solid waste is burned. While it can reduce volume and, when applicable, recover energy, it is less preferred than other waste management methods, because it destroys nutrients and is inefficient due to the high moisture content of food waste.

Landfill Gas (LFG) emissions: A byproduct of the decomposition of organic material in landfills. LFG is composed of roughly 50 percent methane (the primary component of natural gas), 50 percent carbon dioxide (CO₂) and trace amounts of non-methane organic compounds.

Municipal Solid Waste (MSW): Catch-all term for a variety of solid waste generated by households, businesses and institutions and discarded as trash or garbage destined for disposal at a landfill or incinerator. MSW consists of everyday items that are discarded as part of routine consumer activities.

NAICS Codes: North American Industry Classification System Codes (NAICS) are standardized classification systems used to categorize businesses and industries in North America.

Solid waste: Any abandoned or discarded material, including solid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations and from community activities. This definition is adapted from [NH RSA 149-M:4](#).

Solid Waste Management Plan (SWMP): A state planning document, required by [NH RSA 149-M:29](#), that outlines goals, strategies and actions for reducing and managing solid waste that is generated, reused, recycled or disposed of in New Hampshire.

Source reduction: Involves reducing FLW at the source by purchasing, preparing and serving only what is needed. This is the highest priority on EPA's Wasted Food Scale and a form of waste prevention. Examples include better inventory management, proper storage, smaller portion sizes and menu planning to prevent edible food from entering the waste stream.

Surplus food: Food that is wholesome and safe, but that is unsold or unused by a business, or food that is not eaten at home. Surplus food includes edible food that could be redistributed for human consumption, fed to animals or repurposed to other products.

Table of Contents

EXECUTIVE SUMMARY	1
TERMINOLOGY AND ACRONYMS	6
TABLE OF CONTENTS	8
<i>List of Tables</i>	<i>9</i>
<i>List of Figures</i>	<i>10</i>
BACKGROUND & PURPOSE	12
<i>Current State Efforts.....</i>	<i>13</i>
METHODOLOGY	16
GENERATION ANALYSIS	18
<i>Identification of Sector Entities</i>	<i>18</i>
<i>Generation Factors.....</i>	<i>21</i>
<i>Food Loss and Waste Generation.....</i>	<i>21</i>
<i>Key Findings by Sector</i>	<i>22</i>
<i>Geospatial Analysis of Food Loss and Waste Generation.....</i>	<i>29</i>
INFRASTRUCTURE ANALYSIS	32
<i>Food Waste Management Capacity</i>	<i>36</i>
<i>Geospatial analysis of Food Waste Management Facilities</i>	<i>37</i>
GAP ANALYSIS OF INFRASTRUCTURE AND CAPACITY	41
<i>Regional Distribution of Food Waste Generation and Disposal</i>	<i>43</i>
<i>Access to Processing Capacity in the State</i>	<i>43</i>
<i>Regional Infrastructure Gaps and Capacity Demand</i>	<i>46</i>
<i>Capacity Expansion and Infrastructure Planning</i>	<i>48</i>
EMISSIONS IMPACT ANALYSIS	49
SUMMARY OF KEY INSIGHTS	52
RECOMMENDATIONS	53
NEXT STEPS AND PRIORITIZATION.....	61
APPENDIX A: METHODOLOGY AND DETAILED ASSESSMENT OF GENERATION FACTORS	63
APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR	81
APPENDIX C: METHODOLOGY FOR IDENTIFYING POTENTIAL AFFECTED ENTITIES PER NEW HAMPSHIRE’S FOOD WASTE DISPOSAL BAN	102
APPENDIX D: METHODOLOGY FOR CONDUCTING INFRASTRUCTURE ANALYSIS	109
APPENDIX E: METHODOLOGY FOR IMPACT MODELING	114
APPENDIX F: METHODOLOGY FOR ESTIMATING CURRENT DISPOSAL OF FOOD LOSS AND WASTE BY SECTOR	122
APPENDIX G: CITATIONS	124

LIST OF TABLES

<i>Table 1: Food Loss and Waste Generation Categories, Sectors, Definitions and Data Sources</i>	<i>18</i>
<i>Table 2: Number of Interviews Conducted by Service Provider Type</i>	<i>33</i>
<i>Table 3: Confirmed Food Waste Management Facility Processing Capacity.....</i>	<i>37</i>
<i>Table 4: Food Waste Management Facilities in New Hampshire and within 20-Mile Radius</i>	<i>39</i>
<i>Table 5: Current In-State Processing and Excess Capacity in TPY by County</i>	<i>43</i>
<i>Table 6: New Hampshire Food Waste Management Facilities and Capacity Relative to Affected Entities within a 20-Mile Radius.....</i>	<i>46</i>
<i>Table 7: Summary of Greenhouse Gas Emissions from 3 Different Food Loss and Waste Diversion Scenarios</i>	<i>51</i>
<i>Table 8: Summary of Sector FLW Generation Factors</i>	<i>64</i>
<i>Table 9: Food Waste Generation Estimates in TPY by Sector and Affected Entities.....</i>	<i>65</i>
<i>Table 10: Summary of Generation Factor Sources for Large Multifamily Complexes</i>	<i>67</i>
<i>Table 11: Summary of Generation Factor Sources for K-12 Schools</i>	<i>68</i>
<i>Table 12: Summary of Generation Factor Sources for Colleges and Universities</i>	<i>70</i>
<i>Table 13: Summary of Generation Factor Sources for Correctional Facilities.....</i>	<i>71</i>
<i>Table 14: Summary of Generation Factor Sources for Healthcare.....</i>	<i>72</i>
<i>Table 15: Summary of Generation Factor Sources for Restaurants</i>	<i>73</i>
<i>Table 16: Summary of Generation Factor Sources for Hospitality</i>	<i>74</i>
<i>Table 17: Summary of Generation Factor Sources for Events and Venues</i>	<i>75</i>
<i>Table 18: Summary of Generation Factor Sources for Large Office Buildings</i>	<i>76</i>
<i>Table 19: Summary of Generation Factor Sources for Grocery Stores.....</i>	<i>76</i>
<i>Table 20: Summary of Generation Factor Sources for Specialty Food Retail/Convenience Stores</i>	<i>77</i>
<i>Table 21: Summary of Generation Factor Sources for Supercenters/Warehouse Clubs</i>	<i>77</i>
<i>Table 22: Summary of Generation Factor Sources for Food Wholesalers/Distributors.....</i>	<i>78</i>
<i>Table 23: Summary of Generation Factor Sources for Food Manufacturers/Processors</i>	<i>79</i>
<i>Table 24: Number of Interviews Conducted per Sector</i>	<i>81</i>
<i>Table 25: Definitions of Food Loss and Waste Terminology.....</i>	<i>82</i>
<i>Table 26: Target Sector Definitions and Data Sources</i>	<i>105</i>
<i>Table 27: Generation Factor Units and Descriptions</i>	<i>108</i>
<i>Table 28: Current Food Loss and Waste Disposal and Diversion Estimates by Affected Entities (Baseline).....</i>	<i>117</i>
<i>Table 29: Scenario 1: All Affected Entities Diverting to Composting.....</i>	<i>119</i>
<i>Table 30: Scenario 2: Affected Entities with Additional Source Reduction/Donation Activities.....</i>	<i>120</i>
<i>Table 31: Scenario 3: Affected Entities with Additional Source Reduction/Donation and Composting Activities.....</i>	<i>121</i>
<i>Table 32: Estimated FLW Generated and Calculated Disposal for All Sectors Studied.....</i>	<i>122</i>
<i>Table 33: Comparison of Estimated FLW Disposal with the 2024 New Hampshire Waste Characterization Study</i>	<i>123</i>

LIST OF FIGURES

<i>Figure 1: Composting of food scraps offers one pathway for diverting organic waste from landfills.</i>	1
<i>Figure 2: Number of affected entities identified by sector.</i>	2
<i>Figure 3: New Hampshire Waste Management Hierarchy</i>	3
<i>Figure 4: EPA's Wasted Food Scale</i>	3
<i>Figure 5: New Hampshire Waste Management Hierarchy</i>	13
<i>Figure 6: U.S. EPA Wasted Food Scale</i>	13
<i>Figure 7: Example of methodology to estimate food loss and waste for each sector.</i>	17
<i>Figure 8: Number of Affected Entities identified by sector.</i>	22
<i>Figure 9: Generation hotspots by county based on estimated annual tons of food waste generated by affected entities in New Hampshire by county.</i>	30
<i>Figure 10: Detailed view of generation hotspots in Hillsborough county based on estimated annual tons of food waste generated by affected entities.</i>	31
<i>Figure 11: Detailed view of generation hotspots in Rockingham county based on estimated annual tons of food waste generated by affected entities.</i>	31
<i>Figure 12: Organics hauler delivering food waste to a composting facility.</i>	35
<i>Figure 13: Food waste management facilities included in this study, with 20-mile buffers around each facility.</i>	38
<i>Figure 14: Map of Food Banks and pantries in New Hampshire</i>	40
<i>Figure 15: Affected Entities located within 20 miles of a New Hampshire food waste management facility</i>	42
<i>Figure 16: Affected Entities within 20 -miles of New Hampshire food waste management facilities</i>	45
<i>Figure 17: Impact on Affected Entity processing access from four national processor locations.</i>	48
<i>Figure 18: Entity Feedback: What is your biggest motivator for improving your food loss and waste diversion program?</i>	54
<i>Figure 19: Entity Feedback: What type of support would be most helpful for implementing food loss and waste diversion programs?</i>	56
<i>Figure 20: Entity Feedback: What are the biggest barriers to reducing, donating or diverting FLW?</i>	59
<i>Figure 21: Sector Interview: Top reasons for food waste by sector</i>	83
<i>Figure 22: Sector Interview: Types of food waste generated by sector</i>	84
<i>Figure 23: Causes of surplus food generated by the residential sector in New Hampshire (ReFED, 2025)</i>	85
<i>Figure 24: Interview responses to types of food waste generated by K-12 schools</i>	86
<i>Figure 25: Interview responses for types of food waste generated by colleges and universities</i>	87
<i>Figure 26: Interview responses to types of food waste generated by correctional facilities</i>	88
<i>Figure 27: Interview responses to top reasons for food waste by correctional facilities</i>	88
<i>Figure 28: Interview responses to top reasons for food waste by healthcare facilities</i>	89
<i>Figure 29: Interview responses to types of food waste generated by restaurants</i>	90
<i>Figure 30: Interview responses to top reasons for food waste by restaurants</i>	90
<i>Figure 31: Interview responses to top reasons for food waste by hospitality establishments</i>	91
<i>Figure 32: Interview responses to types of food waste generated by events and venues</i>	92
<i>Figure 33: Interview responses to types of food waste generated by large office buildings</i>	93
<i>Figure 34: Interview responses to top reasons for food waste by large office buildings</i>	93
<i>Figure 35: Interview responses to types of food waste generated by grocery stores</i>	94
<i>Figure 36: Interview responses to top reasons for food waste by grocery stores</i>	95
<i>Figure 37: Interview responses to types of food waste generated by specialty food retail/convenience stores.</i>	96
<i>Figure 38: Interview Responses to top reasons for food waste by specialty food retail/convenience stores.</i>	96
<i>Figure 39: Interview responses to types of food waste generated by supercenters</i>	97

<i>Figure 40: Interview responses to top reasons for food waste by supercenters.....</i>	<i>98</i>
<i>Figure 41: Interview responses to types of food waste generated by food wholesalers/distributors</i>	<i>99</i>
<i>Figure 42: Interview responses to top reasons for food waste by food wholesalers/distributors</i>	<i>100</i>
<i>Figure 43: Breakdown of farm sector food loss characterization</i>	<i>101</i>
<i>Figure 44: Generation calculation example for a full-service restaurant.....</i>	<i>102</i>

Background & Purpose

According to the 2024 [New Hampshire Waste Characterization Study](#) (WCS), 637,952 tons of municipal solid waste (MSW) were disposed in landfills or incinerated in 2023. Of that total, packaged and unpackaged food waste comprised 121,608 tons, representing 19% of the aggregate MSW stream and the largest component of disposed waste. This data is consistent with waste characterizations studies in [Vermont](#) and [Maine](#) which also identify that food waste is the most prevalent material in disposed MSW.

On a tonnage basis, diversion of organics (defined as food waste, yard waste and compostable paper in the statewide WCS) would have the largest impact to reduce New Hampshire's overall waste disposed. The EPA Waste Reduction Model (WARM) shows that composting the currently disposed food loss and waste (FLW) (approximately 121,608 tons for 2023) would remove approximately 52,559 tons of carbon dioxide equivalent from the atmosphere. These estimates do not include the FLW that is generated and already diverted, nor do they estimate food loss on farms.

The New Hampshire Department of Environmental Services' (NHDES) [2022 Solid Waste Management Plan](#) (SWMP) outlines strategies to support the state in reaching its overarching solid waste disposal goal established in [RSA 149-M:2](#). The goal aims to achieve a 25% reduction in disposed MSW and Construction & Demolition (C&D) debris by the year 2030 and a 45% reduction by the year 2050. Additionally, the SWMP contains goals to reduce the quantity of solid waste generated (Goal 1) and maximize the diversion of residential, commercial and industrial solid waste from disposal (Goal 3). Given the prevalence of food waste in New Hampshire's disposed MSW, reduction and diversion of these materials represent a key opportunity to support the State's disposal reduction goal and the SWMP. Food waste disposal bans can be an effective policy tool to drive increased recovery and diversion of food waste. Neighboring states in the Northeast have enacted disposal bans, including Connecticut, Massachusetts, Maine, New Jersey, New York, Rhode Island and Vermont.

In 2023, the New Hampshire legislature adopted a food waste disposal ban under [RSA 149-M:27](#), which went into effect February 1, 2025. The ban requires entities that generate at least one (1) ton of food waste per week to divert it from landfill disposal or incineration, provided that an alternative management facility within 20 miles has adequate capacity to accept the entity's food waste. To comply with the ban, affected entities (AEs) must manage food waste using the following methods, in order of preference:

1. Reduction of the amount generated at the source.
2. Consumption by humans.
3. Consumption by animals.
4. Composting, anaerobic digestion or land application as appropriate.
5. Energy recovery not involving combustion.

In 2023, NHDES received a planning grant from the EPA's Climate Pollution Reduction Grant (CPRG) Program to develop climate action plans that describe how New Hampshire could reduce greenhouse gases (GHG) emissions. With this, NHDES developed a [Priority Climate Action Plan \(PCAP\)](#) in 2024 and must submit a [Comprehensive Climate Action Plan \(CCAP\)](#) to the EPA by July 1, 2026. The CCAP will touch on all significant GHG sources and sinks across New Hampshire's economic sectors, including Waste and Materials Management and identify strategies and measures to reduce GHG emissions in the near- and long-term.

In support of New Hampshire's SWMP, food waste disposal ban and CCAP, Resource Recycling Systems (RRS) was tasked with conducting a food waste study and infrastructure and impact analysis. Statistically reliable methods were used to evaluate FLW generation among entities in priority sectors in New Hampshire, that may be subject to the state's food waste disposal ban. Infrastructure capacity for managing AE FLW was also assessed. In addition, the

analysis evaluated the potential emissions reductions associated with increased FLW reduction and diversion. As part of the Project Team, The Center for EcoTechnology (CET) and the New Hampshire Food Alliance supported the project by contributing on-the-ground expertise and extensive knowledge of FLW in New Hampshire.

The study developed and analyzed a generator inventory to assess FLW generation across New Hampshire. Research and stakeholder interviews were also conducted to identify common food waste characteristics from priority sectors and the reasons for its generation. Existing food waste reduction and diversion programs were documented, including food donation, use as animal feed, composting and anaerobic digestion. Sector-specific food waste generation was characterized, and factors such as food type, recovery potential and diversion suitability were identified. The study also identified critical points of food waste occurrence throughout the supply chain, including root causes. These insights were used to develop recommendations for NHDES to implement the state's food waste disposal ban and promote infrastructure development.

CURRENT STATE EFFORTS

New Hampshire's Waste Management Hierarchy ([Figure 5](#)) established under [RSA 149-M:3](#), defines the state's preferred approach for managing solid waste. The hierarchy prioritizes strategies that reduce waste generation and maximize the recovery and diversion of reusable or recyclable materials from landfills and incineration. Although the hierarchy applies broadly to all waste types generated in the state, it closely aligns with the management methods prioritized in the EPA Wasted Food Scale ([Figure 6](#)) which focuses specifically on food waste prevention and diversion.

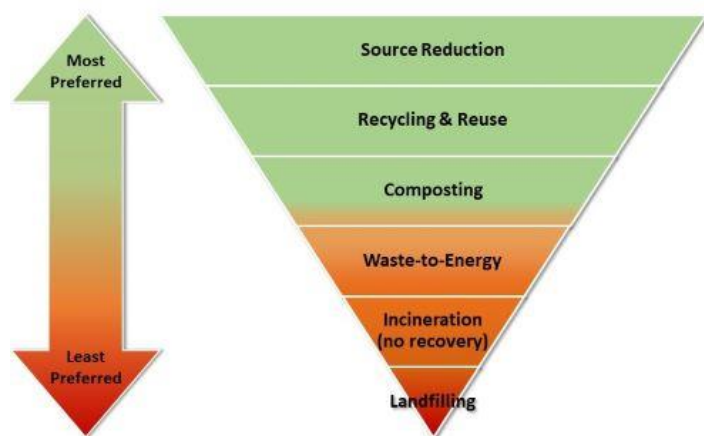


Figure 5: New Hampshire Waste Management Hierarchy



Figure 6: U.S. EPA Wasted Food Scale

To help address FLW, the SWMP and the [New Hampshire Solid Waste Working Group](#) (SWWG) both identified food waste diversion as a statewide priority. In 2023, the State legislature adopted a commercial food waste disposal ban that was supported by the SWWG. The intent of the ban is to reduce landfill disposal; increase donation, upcycling and composting of wasted food; and encourage development of the infrastructure needed to manage excess FLW generated by entities.

While additional sector-specific resources and technical assistance are needed to support implementation of the disposal ban, NHDES has already developed educational materials and outreach resources for residents and solid waste facilities. On NHDES' "[Managing My Waste](#)" webpage, residents can access a series of waste-focused blogs that provide guidance on managing materials generated in the home. The webpage's food waste resources are organized around the EPA Wasted Food Scale and include information on date labels, food storage, donation liability protections, home composting and locating food pantries. NHDES continues to expand these resources to support food waste reduction and diversion efforts statewide.

The [NHDES Solid Waste Operator Training \(SWOT\) program](#) also offers a robust curriculum to instruct solid waste operators on how to best manage the wastes that come into their facilities, including food waste. SWOT is intended for operators that work at solid waste facilities in the state, such as a transfer station or composting facility. State law requires operators at permitted solid waste facilities in New Hampshire to be certified through NHDES. While the SWOT program is designed for operators, municipal officials, committee members, residents, businesses and other interested parties can also attend classes to learn about solid waste best practices. Pre-recorded classes are publicly available online through the [GoTo Stage SWOT Channel](#) and can be viewed at any time. In addition to SWOT classes, NHDES has published several guidance documents for facilities who are interested in starting their own food scrap diversion programs.

- [Permitting Options for a Municipal Food Scrap Diversion Program in New Hampshire.](#)
- [Food Waste Training Options for Permit-by-Notification Small Food Waste Composting Facilities.](#)
- [Best Management Practices for New Hampshire Solid Waste Facilities: Composting.](#)

The New Hampshire Food Alliance spearheaded the [2025 New Hampshire Food and Agriculture Strategic Plan](#) (Strategic Plan) to provide a robust overview of the state's food system and an actionable roadmap to improve it. The Strategic Plan proposes over 140 recommendations that address 27 agricultural and food-related topics through Product, Market and Issue briefs. The greatest challenges identified in the [Strategic Plan's Wasted Food Brief](#) include:

- Limited public understanding of food waste reduction, date labels, the EPA's Wasted Food Scale and concerns with per-and polyfluoroalkyl substances (PFAS).
- Programs and organizations that address food recovery and waste diversion are decentralized, reducing effectiveness in the state. Municipalities are responsible for managing food waste and no statewide entity currently exists for the coordination of food recovery.
- Limited funding that is accessible and with low barriers for education, food recovery and waste diversion.
- Limited infrastructure, including no permitted AD facilities and on-farm composting options.

At the time this study's publication, NHDES is developing a Solid Waste Reduction and Diversion grant program, under [RSA 149-R](#), that will support some of the challenges identified in the Strategic Plan related to education, food recovery and diversion. This new, matching grant program will be available to public and private entities looking to increase their waste reduction and diversion efforts, including food waste.

SUPPORT FOR FOOD WASTE DIVERSION FROM OTHER ORGANIZATIONS

There are organizations who also have programs that address the economic, societal and environmental challenge associated with FLW. These programs may include technical assistance, webinars or educational resources for residents, businesses and community groups to increase participation and support for food waste prevention and diversion. Examples of prominent efforts are mentioned below:

- The [New Hampshire Food Alliance](#) (NHFA) is a statewide network that supports sustainable local food systems by leveraging connections and relationships across four impact areas (network development, collaborative action, communications and storytelling and learning and leadership). NHFA works with the New Hampshire Department of Agriculture, Markets and Food to expand their Wholesale Producer Directory, they provide training on developing culturally connected school meals and increasing local sourcing across school districts. NHFA also coordinates network groups that contribute information, funding and other resources to support regional food systems.
- Through funding from the USDA, the [Center for Ecotechnology \(CET\)](#) provides free technical assistance to New Hampshire businesses to help implement EPA-recommended strategies for edible food donation, waste reduction and resource recovery. This includes strategies for preventing, recovering and recycling FLW. Several case studies, guides and training videos highlight their work with businesses and organizations in successfully preventing and diverting food waste. For example, [Hannaford Supermarkets implemented](#) region-wide efforts to reduce food loss through improved inventory management and expanded food donation efforts. Local businesses, such as Blue Loon Bakery and [Merrowvista Summer Camp](#), have also implemented diversion programs with the support of CET's TA. CET also assists compost facilities in establishing or expanding their operations, ultimately supporting infrastructure growth in the state.
- [NH Recycles](#) (formerly the Northeast Resource Recovery Association) provides multiple resources and insights into composting and food waste diversion in New Hampshire. This includes an [interactive composting and food waste diversion map](#) that allows residents and municipalities to find food scrap diversion options closest to their location. NH Recycles also created a [Composting Toolkit](#) that includes an informational video on how to implement a municipal food scrap composting program, as well as and other printable resources, articles, case studies and resource links. In partnership with organizations including the New Hampshire Food Alliance and University of New Hampshire (UNH) Extension, NH Recycles also contributed to the development of the "[Wasted Food](#)" [brief](#) for the 2025 New Hampshire Food and Agriculture Strategic Plan, which outlines statewide challenges and opportunities related to food waste prevention, recovery, composting and diversion infrastructure. Their interactive map identifies on-farm composting facilities, residential pick-up services, out-of-state AD facilities and municipalities that are recognized for providing organic waste recycling services throughout New Hampshire. It should be noted that several on-farm composting facilities explicitly state only accepting food waste via drop-off from residents or Community-Supported Agriculture (CSA) members.
- [Gather](#) is a nonprofit organization based in Portsmouth, New Hampshire, which works to address hunger and food insecurity through food access, recovery and community partnerships. Founded in 1816, Gather operates pantry and mobile market programs, Meals 4 Kids and cooking programs that utilize food that would otherwise go to waste. The organization distributes nutritious food throughout the Seacoast region while helping divert surplus edible food from disposal. Gather serves more than 1,100 households each month and distributes the equivalent of more than 275,000 meals annually through its food recovery and assistance programs.
- [NH Gleans](#) is a project of Gather, whose mission is to coordinate and support a statewide network of regional gleaning leaders, to collect food recovered from local producers, like farms. Recovered food is then distributed to food rescue organizations, in an effort to increase food access in communities throughout New Hampshire. In 2022, NH Gleans partnered with 112 local farms to rescue 226,312 pounds of food. Gleaning offers many benefits to farmers, the environment and to community members who face hunger.

- The New Hampshire Food Bank's [Fresh Rescue Program](#) coordinates the recovery of safe, unsold food from New Hampshire grocery stores and retailers and redistributes it to food pantries, shelters, soup kitchens and other community organizations. The program helps prevent food waste by recovering fresh, perishable surplus to feed people.

Methodology

RRS conducted a statewide study of FLW for NHDES that included building an inventory of FLW generation by sector to identify entities affected by the food waste disposal ban. The study also included an analysis of FLW management infrastructure and an emissions impact analysis to estimate potential emissions reductions resulting from full scale diversion of FLW. The methodology for each component of this study is summarized below. For additional details, the methodologies are further described in the Appendices of this report.

NHDES identified 17 priority sectors that represent significant points of potential FLW. These include:

- | | |
|---------------------------------|--|
| 1) Large multifamily complexes. | 10) Large office buildings. |
| 2) K-12 schools. | 11) Grocery stores. |
| 3) Colleges and universities. | 12) Specialty food and convenience stores. |
| 4) Correctional facilities. | 13) Supercenters and warehouse clubs. |
| 5) Healthcare. | 14) Food wholesalers and distributors. |
| 6) Restaurants. | 15) Food banks and food pantries. |
| 7) Hospitality. | 16) Food manufacturers and processors. |
| 8) Large events and venues. | 17) Farms. |
| 9) Malls and shopping centers. | |

Using a multi-method approach, the Project Team inventoried the sources, quantity, types and characteristics of FLW in New Hampshire. The first step involved identifying entities within each sector that generate FLW. As described in Appendix C: Methodology for Identifying Potential Affected Entities per New Hampshire's Food Waste Disposal Ban, this was accomplished by drawing on public, business and industry datasets, including data provided by NHDES and Data Axle. Generation factors published in existing literature, including public reports and case studies, were used to estimate FLW in tons per week for each entity. Generation factors provide an estimate of FLW based on a measurable characteristic (such as pounds per employee or pounds per unit of sales revenue) that can be applied to extrapolate FLW for an entity. Appendix A: Methodology and Detailed Assessment of Generation Factors provides a detailed overview of the generation factors considered and, ultimately, selected for each sector. Using these generation factors, an estimate of FLW generation was calculated for each entity within a sector. An example of this process is outlined in [Figure 7](#). The total sector generation was calculated by summing generation estimates for all identified entities within the sector. Generators that met the food waste disposal ban threshold of at least one ton of FLW per week were inventoried as AEs.

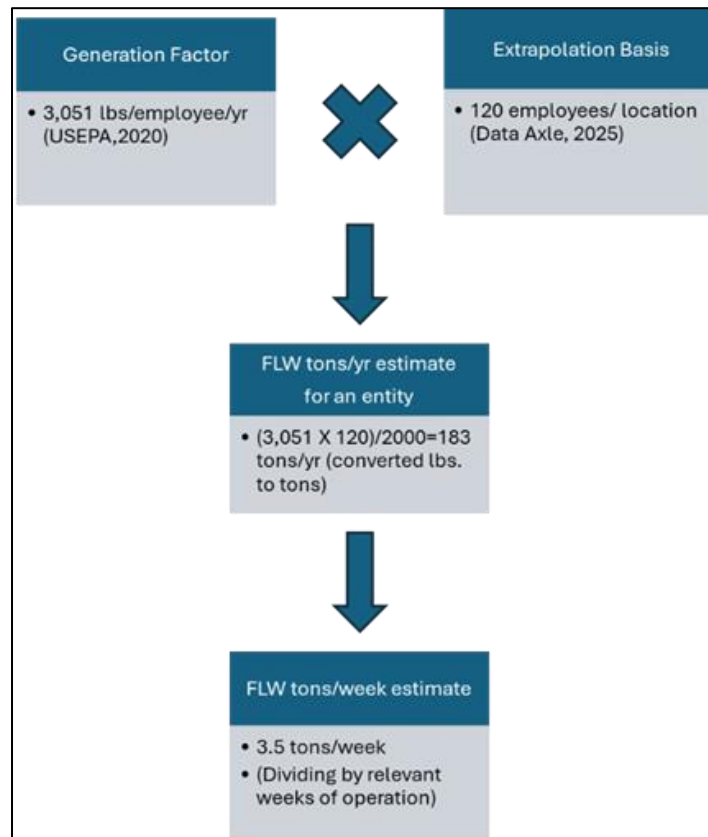


Figure 7: Example of methodology to estimate food loss and waste for each sector.

A comprehensive quality assurance process was implemented to verify and improve the accuracy of entity datasets by identifying errors or omissions across each sector. For the largest food waste generators (AEs), validation included cross-referencing with publicly available, secondary data sources (e.g., industry or trade association datasets and internet searches), as well as verification through business directories or direct outreach to local contacts. For smaller generators within each sector, cross-referencing public data and random spot-checking were used to confirm the general accuracy of location size and entity counts. Sector-specific questionnaires were developed, and representatives from a sample set of AEs were interviewed to capture qualitative and quantitative data on the types of FLW generated, quantities and current diversion strategies. These interviews were used to develop insights into operational practices and diversion barriers. Information gathered was used to supplement the inventory of AEs, strengthen statistical reliability, address information gaps and verify generation rates and characteristics.

The Project Team completed an infrastructure analysis to inventory facilities that manage FLW in New Hampshire and within 20-miles of the border, including food banks and pantries, composting facilities, anaerobic digesters, haulers and animal feed operations. Appendix D: Methodology for Conducting Infrastructure Analysis provides more detail about the infrastructure analysis methodology. Available processing capacity of composting and AD facilities in New Hampshire and within a 20-mile radius of the state was evaluated to identify needs for new and expanded infrastructure and services.

Direct interviews with eight composting facilities were conducted to understand current processing practices, capacity and the types of support required for facilities to expand operations and accept and process additional volumes of FLW.

Finally, an emissions impact analysis was conducted to evaluate the potential reductions in GHG emissions that might be obtained through enhanced food waste diversion and management practices. The emissions impact analysis involved modeling different scenarios of GHG reduction measures for FLW in the state. Appendix E: Methodology for Impact Modeling describes the process, alternative scenarios, key assumptions and provides an addendum on the EPA WARM Model estimates.

Generation Analysis

IDENTIFICATION OF SECTOR ENTITIES

The 17 priority sectors inventoried for this study, along with sources used to compile entities within each sector, are described in [Table 1](#), below. Sources include a business database (Data Axle), public records, sector-specific databases and data provided by NHDES.

For several sectors, minimum cutoff criteria were identified to reduce incorrect listings, provide a more manageable dataset and target entities most likely to be affected by the state's food waste law. This included limiting businesses to those with greater than five employees and over \$1 million in annual sales, multifamily complexes with 20 units or greater and festivals and arenas with minimum attendance thresholds. Data validation was conducted to eliminate duplicates and erroneous entities, resulting in a targeted list of sector entities likely to meet the generation threshold of the food waste disposal ban.

Table 1: Food Loss and Waste Generation Categories, Sectors, Definitions and Data Sources

CATEGORY	SECTOR	SECTOR DEFINITION	DATA SOURCES (DESCRIPTION/CITATION)
Residential	Large Multifamily Complexes	Multifamily housing that has greater than 20 units	Multifamily properties in New Hampshire that are market rate as of November 10, 2025 (NHDES Costar, 2025), 2024 Directory of Assisted Housing for rent-assisted housing in New Hampshire (New Hampshire Housing)
Institution	K-12 Schools	Educational settings which provide meals and include private, public and boarding schools	Public School Enrollment by Grade (NH Dept of Education, 2025), Private Schools in New Hampshire (National Center for Education Statistics, 2025), Boarding school enrollment and residential enrollment rates (Boardingschools.us.com)
Institution	Colleges and Universities	Higher education institutions	College Navigator (National Center for Education Statistics, 2025)
Institution	Correctional Facilities	Live-in correctional facilities (federal and state), county jails, criminal psychiatric units and transitional housing units	New Hampshire Department of Corrections Annual Report 2023 (NH Dept of Corrections, 2025), A Focus on Incarceration (NH Center for Justice and Equity, 2024)
Institution	Healthcare	Licensed health facilities which provide live-in care, including hospitals, nursing homes, supported residential care and assisted living facilities	Health Facilities Licensed Under RSA 151 (NH Dept of Health, 2025)

CATEGORY	SECTOR	SECTOR DEFINITION	DATA SOURCES (DESCRIPTION/CITATION)
Food Service	Restaurants	Food service establishments with greater than five employees and \$1 million in sales revenue (including restaurants within malls and hotels)	Database query of establishments with primary NAICS codes 722511(Full-Service Restaurants), 722513 (Limited-Service Restaurants), 722514 (Cafeterias, Grills and Buffets), 722320 (Caterers) and 722515 (Snack and Non-Alcoholic Beverage Bars) (Data Axle, 2025)
Food Service	Hospitality	Establishments providing accommodation, meals and other services for travelers and tourists with greater than five employees and \$1 million in sales revenue.	Database query of establishments with primary NAICS codes 721110 (Hotels and Motels), 721120 (Casino Hotels), 721191 (Bed-and-breakfast Inns), 721199 (Other Travel Accommodations), 7212 (RV Parks and Recreation Camps), Full-Service and Limited-Service Restaurants located in the hotels (from 722511 and 722513) (Data Axle, 2025)
Food Service	Large Events Venues and Festivals	Event spaces and sports arenas where food is served (greater than 5,000 meals per week) and festivals with greater than 6,000 visitors per week	Database query of establishments with NAICS 713110 (Amusement and Theme Parks), 561920 (Convention Center and Meeting Facilities), 711212 (Racetracks), 711310 (Stadiums Arenas & Athletic Fields), refined to threshold criteria list through desktop research (Data Axle, 2025), Large festivals (NHDES and additional desktop research to estimate weekly attendance)
Food Service	Malls and Shopping Centers	Malls and shopping centers that contain at least one food service establishments	Database query of malls and co-location of restaurants at mall locations (Data Axle, 2025)
Food Service	Large Office Buildings	Large office buildings or complexes with greater than 1,000 on-site employees	Database query of establishments with estimated greater than 1,000 on-site employees (Data Axle, 2025), Desktop research also identified several large multi-tenant office buildings, however the on-site FLW generation is uncertain, so data was inconclusive.
Retail	Grocery Store	Retail establishments that sell groceries with greater than five on-site employees and \$1 million in sales revenue	Database query of establishments with primary NAICS code 445110 (Supermarkets and Other Grocery Retailers (excluding Convenience and Warehouse retailers) (Data Axle, 2025)
Retail	Specialty Food and Convenience Stores	Specialty markets and smaller food retailers with greater than five on-site employees and \$1 million in sales revenue	Database query of establishments with primary NAICS codes 445230 (Fruit and Vegetable Retailers), 445240 (Meat Retailers), 445250 (Fish and Seafood Retailer), 445291 (Baked Goods Retailers), 445292 (Confection and Nut Retail), 445298 (All Other Specialty Food Retailers) and 445131 (Convenience Stores) (Data Axle, 2025)
Retail	Supercenters and	Warehouse and big box stores that sell food with	Database query of establishments with primary NAICS code 455211 (Warehouse Clubs and

CATEGORY	SECTOR	SECTOR DEFINITION	DATA SOURCES (DESCRIPTION/CITATION)
	Warehouse Clubs	greater than five on-site employees and \$1 million in sales revenue	Supercenters) (Data Axle, 2025), Target, Walmart and other large warehouse clubs through desktop research by Project Team
Distribution	Food Bank/Pantries	New Hampshire Food Bank and food pantries	Interviews with stakeholders by Project Team
Industrial	Food Processors and Manufacturers	Establishments that manufacture food for human consumption with greater than five employees and \$1 million in sales revenue	Database query of establishments with primary NAICS codes 3112 (Grain and Oilseed Milling), 3113 (Sugar and Confectionary Manufacturing), 3115 (Dairy Manufacturing), 3116 (Animal Slaughter and Processing), 3117 (Seafood Processing), 3118 (Bakeries and Tortilla Manufacturing), 3119 (Other Food Manufacturing) and 312120 (Breweries) (Data Axle, 2025)
Distribution	Food Wholesalers/ Distributors	Wholesalers and distributors of food with greater than five on-site employees and \$1 million in sales revenue	Database query of establishments with primary NAICS codes 424410 (General Line Grocery Merchant Wholesalers), 424420 (Packaged Frozen Food Merchant Wholesalers), 424430 (Dairy Product (excluding Dried or Canned Merchant Wholesalers), 424440 (Poultry and Poultry Product Merchant Wholesalers), 424450 (Confectionery Merchant Wholesalers), 424460 (Fish and Seafood Merchant Wholesalers), 424470 (Meat and Meat Product Merchant Wholesalers), 424480 (Fresh Fruit and Vegetable Merchant Wholesalers) and 424490 (Other Grocery and Related Products Merchant Wholesalers) (Data Axle, 2025)
Agriculture	Farms	Growers of food for human consumption, consisting primarily of fruits and vegetables (not including seed, livestock, game, fur, vacation farms and orchards)	2022 Agricultural Census Survey (USDA, 2022)

GENERATION FACTORS

Since it is not possible to obtain site-specific information on FLW from every individual entity, the Project Team used generation factors to extrapolate FLW based upon other known information such as number of employees, number or students, etc. To determine the best factor to use for each type of generator, the Project Team conducted a comprehensive review of generation factors from existing literature, such as published studies, reports and case studies. Each factor was evaluated by assessing the underlying research conducted to create the estimate.

Generation factors were selected based upon the quality of the research and relevance to New Hampshire, as described in Appendix A: Methodology and Detailed Assessment of Generation Factors. Generation factors were then validated and refined based on sector interviews conducted by the Project Team. Information from interviews completed for each sector is summarized in Appendix B: Generator Interview Results and Characterization of Food Loss and Waste by Sector.

FOOD LOSS AND WASTE GENERATION

This study estimates approximately 222,220 tons of food loss and waste is generated from 888 AEs in the state. However, not all these tons are sent for disposal, as some of this FLW is already being diverted. Estimates for how much of this material is generated and then diverted are detailed in the Gap Analysis section of this report.

AFFECTED ENTITIES

A total of 888 entities were identified as AEs, as they were estimated to generate at least one ton of FLW per week. A breakdown of the number of AEs identified within each sector is illustrated in [Figure 8](#), below. Data for total sector entities, AEs and FLW generation estimates are summarized in [Table 8 of Appendix A](#).

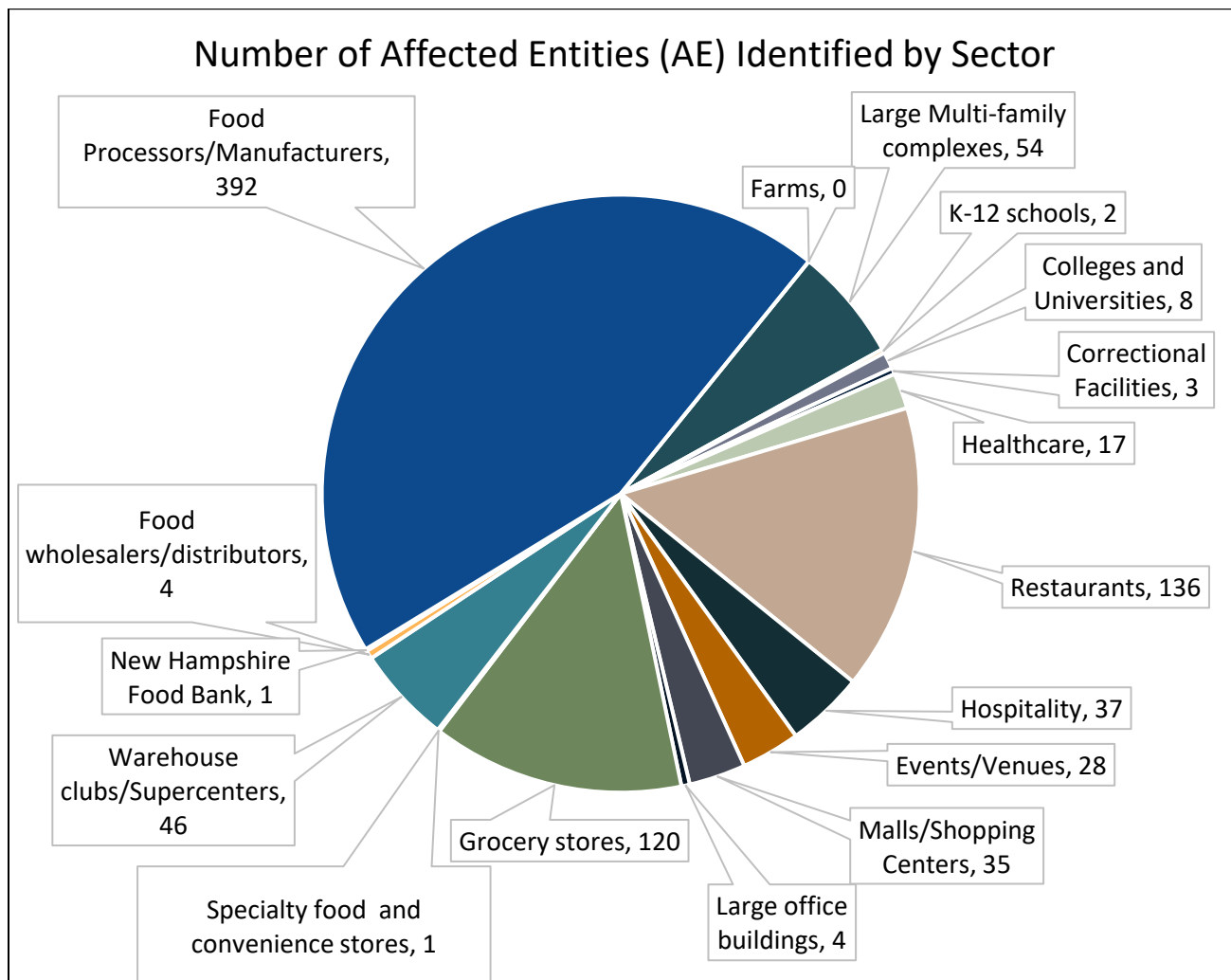


Figure 8: Number of Affected Entities identified by sector.

KEY FINDINGS BY SECTOR

This study inventoried FLW generators within the state and evaluated key findings across 17 sectors. A detailed list of affected entities (AEs) was provided to NHDES but is not included in this report. The sections below summarize the number of AEs, the estimated total tons of FLW generated and the key characteristics of that waste.

For the purpose of this study, affected entities are food waste generators that meet the threshold of generating at least one ton of food waste per week. However, whether or not an entity is required to comply with New Hampshire's food waste disposal ban would be contingent on whether the entity is also located within 20-miles of a food waste management facility that has capacity to manage excess food, per [RSA 149-M:27](#).

LARGE MULTIFAMILY COMPLEXES

The residential sector is the largest and most diverse source of food waste. Though residential food waste is not the focus of this study, multifamily complexes are businesses defined as commercial, residential rental properties with 20 units or more that often have centralized waste management. Estimates indicate that complexes with greater than 230 units will likely exceed the generation threshold and are therefore considered AEs. Based on data for market-rate and rent-assisted housing, a total of 1,028 multifamily complexes, ranging from 21 to 902 units, were identified within

the state, with an estimated total generation of 17,452 tons per year (TPY) of food waste. Of the 1,028 large multifamily complexes, 54 are estimated to generate at least one ton of food waste per week, with the majority located in Hillsborough County (29) and Rockingham County (16). In total, these 54 AEs generate a combined 4,257 TPY of food waste.

For characterizing FLW from this sector, household food waste often consists of both edible and inedible food waste. Examples of edible food waste include uneaten leftovers and food that could have been eaten but ultimately spoiled. Inedible food waste includes unavoidable waste, such as peels, bones, shells, coffee grounds and fruit pits that were never intended to be eaten. Key drivers of food waste in this sector include confusion over date labels, improper storage, portion size and inefficient meal planning. Large multifamily residential buildings can present challenges for composting food waste due to space constraints, building design and the need for coordinated participation amongst the residents and property managers or owners. This sector also faces challenges implementing composting programs because, like colleges and universities, they have many individual contributors to the waste stream, increasing the risk of compost contamination. For complexes with food scrap collection services or those that compost food scraps on-site, clear signage and educational materials can help ensure residential food waste is properly separated from other disposal streams. Inedible food waste, such as peels, bones, shells, coffee grounds and pits, is best composted on-site, at a community compost site or a municipal transfer station that accepts food waste from the community. Because this sector relies on individual participation, it can greatly benefit from prevention campaigns that engage residents in reducing food waste at home.

K-12 SCHOOLS

K-12 schools are comprised of public, private, charter and boarding schools that provide student meals, including elementary, middle and high schools, as well as mixed grade schools. A total of 635 K-12 schools were identified in New Hampshire, which generate an estimated 1,954 TPY of food waste. Of these schools, two met the generation threshold for AEs. Both AEs are boarding schools, which serve a higher number of meals per student than non-boarding schools, therefore producing larger volumes of food waste. These two schools are estimated to generate 98 TPY of food waste, with peak generation occurring over the 35-week school year.

Food waste in K-12 schools generally stems from cafeteria plate waste, as many schools limit meal preparation in their kitchen. Plate waste consists primarily of unconsumed or partially eaten edible foods, with smaller amounts of inedible scraps (e.g., cores and peels). Food waste generation varies across school types, with elementary and middle schools often producing more plate waste than high schools. Boarding schools that prepare food and serve multiple meals per day may generate less plate waste per meal but can produce more total food waste per student due to the number of meals served and on-site food preparation. Food waste per student is also associated with the number of meals provided by the school compared to meals brought from home. Key contributors to K-12 food waste include menu design, portion and nutrition requirements (that often mandate students take certain items, even if they do not intend to eat them), student behavior and meal timing and duration. Some of these factors are influenced by state or federal requirements and may be difficult to address independently.

COLLEGES AND UNIVERSITIES

Colleges and universities represent post-secondary and higher educational institutions within New Hampshire. There are 32 entities representing this sector, based on data obtained from the US Department of Education.

Colleges and universities are estimated to generate 875 tons of food waste per year. However, much of that generation occurs during 34 weeks of the year due to the academic calendar. The Project Team estimated that eight colleges and universities meet the weekly tonnage criteria for AE FLW generation, accounting for 660 tons annually.

College and university food waste consists of both edible and inedible food waste. The amount of food waste generated is influenced by the number of meals served, extent of on-site preparation and dining formats (e.g., offer vs. serve vs. buffet styles). Schools with higher percentages of residential students tend to serve more meals. Greater on-site meal preparation can contribute to a higher prevalence of inedible waste. In addition, buffets and all-you-can-eat formats tend to drive higher plate waste. Narrower breadth of choices, proper food storage and meal prep planning can reduce back-of-house food waste. Meanwhile, careful design of grab-and-go items and catered event planning can reduce student plate waste. Additionally, there may be ways for universities to structure their meal plans to allow food service staff to better predict how much food they need to prepare for each meal. If student residences and/or dorms implement food waste diversion programs, contamination should be monitored due to the number of individual participants and the variety of items generated in these facilities. Colleges and universities often partner with food rescue organizations to donate their surplus, edible food to students on campus.

CORRECTIONAL FACILITIES

Correctional facilities consist of live-in federal and state correctional facilities, county jails, criminal psychiatric units and transitional housing. This sector consists of 20 total entities servicing about 3,800 inmates. Total sector food waste generation was estimated at 620 tons of food waste per year. Three facilities met the generation tonnage threshold, one federal prison and two state prisons. These AEs were estimated to generate 367 tons of food waste per year.

Correctional facilities also generate edible and inedible food waste. The food served at these facilities is highly centralized and controlled, which creates more predictable waste streams but offers limited flexibility. Like K-12 schools, meals at correctional facilities must meet nutrition and calorie standards. However, the concerns about the quality and desirability of the food served at correctional facilities have been well documented. Centralized procurement and bulk purchasing can also lead to increased inventory spoilage risks. Opportunities for food recovery or donation are often limited due to security concerns. Correctional facilities with on-site farm programs, which use land for agricultural purposes or vocational training, are well-suited to start an on-site composting program to manage their food waste.

HEALTHCARE

Healthcare facilities are defined as those that provide live-in care, including hospitals, nursing homes, supported residential care, assisted living facilities and residential substance abuse care facilities. The healthcare sector consists of 174 facilities in New Hampshire. This sector is estimated to generate a total of 5,418 tons of food waste per year. Seventeen (17) facilities were identified as AEs, with an estimated annual generation of 1,391 tons of food waste.

Healthcare food waste includes both edible and inedible food. Variability in admissions and discharges, clinical food restrictions (e.g. NPO “nothing by mouth” orders) or patient appetite can make planning for patient meals challenging. Providing food service for patients, staff and visitors is subject to similar challenges facing cafeterias or restaurants. Food safety concerns make reuse or donation options less desirable. Improving menu planning and meal forecasting and downstream diversion to food waste management facilities are the most promising options for reduction and diversion for this sector.

RESTAURANTS

Restaurants are broadly defined as food service establishments. These included businesses primarily sourced from Data Axle. Restaurants contained in hotels, malls or shopping centers were removed from this category and moved to their respective sectors to avoid double counting. The cut-off criteria of greater than five employees and greater than

\$1 million in revenue was applied and 970 entities were identified to comprise the sector. Of these, 136 meet the AE generation threshold and are responsible for an estimated 10,860 tons of food waste per year.

Restaurant food waste consists of both edible and inedible food. There is variability between “back-of-house,” which consists of food scraps and trimmings, prep waste, overproduction (i.e., too much food being prepared), spoiled ingredients, or improperly prepared items and “front-of-house,” which consists of plate waste and buffet waste, if applicable. Variance in restaurant types, including the sale of grab-and-go items or buffet-style meals, contributes to additional food waste. “Back-of-house” waste due to overproduction or incorrect orders, has the greatest opportunity for food recovery and donation.

HOSPITALITY

This sector is comprised of establishments within New Hampshire that provide accommodation, meals and additional services for travelers and tourists. This includes hotels, motels and inns. A cut-off threshold of greater than five employees and greater than \$1 million in revenue was applied. Restaurants or event spaces within hotels were consolidated into this sector.

A total of 586 hospitality businesses were identified with 37 being identified as AEs. The total sector generation is estimated to be 12,322 tons of food waste per year, with 5,198 tons generated from the AEs. Hospitality food waste consists of both edible and inedible food. Although “back-of-house” and “front-of-house” food waste is generated, hospitality sectors vary depending on whether they offer continental breakfast (which has predictable plate waste and buffet waste), room service, grab-and-go or catering for events (which can generate large amounts of prepared food waste). Like restaurants, hospitality establishments that generate “back-of-house” waste due to overproduction or incorrect orders, have the greatest opportunity for food recovery and donation.

LARGE EVENTS AND VENUES

The events and venues sector consists of large events, arenas or amusement venues with greater than 5,000 attendees per week. A Data Axle query along with a list of festivals obtained from NHDES was supplemented with desktop research to identify entities that met the threshold.

A total of 43 venues and events were identified and estimated to generate approximately 1,737 tons of food waste. Of that total, 28 qualify as AEs, generating an estimated 1,710 tons. The food waste from large events and venues generally comes from concession stands, buffets and catering. Therefore, both edible and inedible food are generated, consisting of unsold prepared food, plate waste and overproduction. Event venues that allow outside caterers or host multiple vendors are at higher risk for contamination in food waste diversion, as outside vendors may be less familiar with separating food scraps for recycling or food recovery efforts. This risk can be mitigated with clear signage, outlining requirements in vendor contracts and educational efforts such as waste disposal orientations for staff. At large events, providing and monitoring separate bins for food waste, recycling and landfilling can be costly and logistically challenging. In contrast, smaller local events and venues are often more open to implementing waste separation and diversion programs when provided with guidance and appropriate infrastructure. Depending on the capabilities of local food recovery organizations, edible surplus food from these venues can be suitable for donation.

MALLS AND SHOPPING CENTERS

Malls and shopping centers are defined as retail shopping spaces that contain food service establishments with centralized waste management. This sector includes aggregated restaurants contained within malls and shopping centers. The cut-off threshold of greater than five employees and greater than \$1 million in sales revenue was applied for each individual food service entity within a mall. This means that restaurants that did not meet the cut-off

threshold were omitted, even though, when taken in aggregate, the total number of restaurant employees in the mall may be greater than the threshold.

A total of 83 malls and shopping centers met the cut-off threshold, generating approximately 5,182 TPY of food waste. Of that, 35 are identified as AEs, accounting for 4,110 TPY of food waste. Food waste generated in malls generally comes from food courts, concession stands and restaurants. The type of food waste generated is often similar to the type generated at restaurants (plate waste, kitchen prep scraps, etc.). Monitoring and managing food waste at malls and shopping centers can be challenging as the businesses preparing and selling food may be managed independently but share on-site waste collection infrastructure and waste disposal services. Therefore, engaging property managers who maintain waste hauling contracts is critical to assisting malls and shopping centers as they implement food waste diversion programs. In addition, reducing portion sizes and leveraging existing platforms that facilitate the distribution of discount meals and prepackaged surplus food, such as [Too Good To Go](#), could be well suited for reducing this sector's food waste.

LARGE OFFICE BUILDINGS

Large office buildings are defined as those with greater than 1,000 employees at the location. These can include a variety of businesses spanning professional, manufacturing and wholesale entities where employees may regularly eat lunches on-site. The Project Team identified 11 entities in the state generating a total of 643 tons of food waste per year, with four identified as AEs generating 339 tons of food waste per year.

Large office buildings may have kitchens for employees to prepare lunches or cafeterias and cafes where employees can purchase coffee, snacks and meals. A large source of food waste comes from employees who may pack their own meals from home or catered office parties, resulting in plate waste and spoiled food, if left out. Cafeterias in office buildings generally offer buffet-style food service, resulting in predictable edible and inedible food waste, including overproduction and plate waste. Single-served items through grab-and-go programs also contribute to prepared and packaged food waste. Because food waste is often unpackaged plate scraps or spoiled leftovers, diversion to food waste management facilities is often best suited to this sector.

GROCERY STORES

This sector consists of grocery stores that met the cut-off threshold of greater than five employees and \$1 million in revenue. The sector consists of 126 entities, of which 120 are AEs. The grocery sector is estimated to generate 32,542 tons of food waste annually, with 32,294 tons coming from AEs.

Grocery stores generate substantial amounts of edible food waste and, in cases where food is prepared on-site, inedible food waste as well. Fresh, prepared, frozen and packaged food waste are generated at grocery stores. Unsold products contribute to a significant amount of avoidable food waste at grocery stores due to overstocking, market quality standards, food safety policies and confusion about date labels. The majority of date labels (e.g., "best by," "used by," "sell by") are unregulated and not based on specific food safety standards. Due to market quality standards and policies, many grocery stores have large quantities of edible food that can no longer be sold but are still suitable for donation. Although liability protections exist for food recovery efforts, grocery stores, health departments and wholesalers often have internal policies that may prevent them from donating food. They may also lack a clear understanding of how the liability protections apply to them. Interviews and CET's prior technical assistance with grocery stores highlight that many have implemented programs to donate their recoverable food to the New Hampshire Food Bank but recognize that additional financial benefits would come with expanding their source reduction and donation programs.

SPECIALTY FOOD AND CONVENIENCE STORES

Specialty food and convenience stores include specialty markets and smaller food retailers like bakeries, cheese shops, delis or butchers. There were 454 specialty food stores identified in this sector with an estimated FLW of 3,961 tons annually. Of these, only one was identified to be an AE, estimated to be generating 55 tons of FLW per year.

Specialty food and convenience stores typically carry a unique and limited selection of food products that are sold at a premium or predominately packaged items for convenience (e.g., artisanal cheeses, ethnic foods, gourmet items, imported goods). The food waste they generate often resembles the packaged waste seen in traditional grocery stores. Overstocking or food safety requirements are the primary contributors to waste. Convenience stores, including mini-marts and small-format retailers, offer a narrow range of products. While most of their inventory consists of packaged foods, some locations also sell prepared items. These foods are often produced off-site, may arrive frozen and have short shelf lives once placed for sale. While this sector does not comprise a substantial fraction of AEs, donation programs can be cost-effective and applicable considering the nature of the products offered at these stores (shelf stable, packaged goods, etc.). Many of these types of stores currently utilize [Too Good To Go](#) to manage overstocked food products that must be removed to make space for incoming orders.

SUPERCENTERS AND WAREHOUSE CLUBS

Supercenters include warehouse clubs and big box stores that sell food. This sector includes stores like Target, Walmart, Sam's Club or Costco. There were 46 supercenters and warehouse clubs identified in this sector. After the cut-off threshold for employees and revenue was applied, the Project Team determined that all 46 are AEs and generate 4,211 tons of food waste per year.

Warehouse clubs and supercenters produce similar types of food waste as grocery stores but may do so in larger quantities due to bulk sales. Therefore, fresh, prepared, frozen, packaged and both edible and inedible food waste are generated. The bulk-sale nature of warehouse clubs and supercenters contributes to greater food waste by customers at home, since items may spoil if not consumed on time. There are abundant opportunities to donate recoverable food since it is often provided in bulk and ready for distribution.

WHOLESALE AND DISTRIBUTORS

There were 77 wholesalers identified in this sector with an estimated 1,652 tons of FLW annually. Of these, four are AEs and generate approximately 970 tons of food waste per year.

Food loss by wholesalers and distributors primarily occurs due to logistical, handling and inventory errors. Damaged packaging, such as dented cans or labeling errors, may result in products not being suitable for sale, although the food is still edible and fit for consumption. Policy and food safety requirements can also lead to food waste. For example, products that are not stored or transported at proper temperatures may be required to be discarded in accordance with food safety protocols, even if they are otherwise edible. Wholesalers and distributors vary in the types of food they stock, but they typically generate packaged, frozen food waste, as well as limited amounts of inedible waste (if food preparation occurs on-site). These entities are well suited to expand their donation programs as their products are readily viable for redistribution to food banks and food pantries. Packaged products not suited for recovery will need to partner with food waste management facilities that can accept larger quantities of packaged materials in addition to organics.

FOOD BANKS AND FOOD PANTRIES

This sector quantifies FLW generated by food banks and food pantries in New Hampshire. A food bank is defined as a non-profit or community-based facility that serves as a point of distribution for donated, surplus or rescued food items. A food pantry is a local site where people go to receive food, often distributed by the food bank and supplemented with additional donations or purchases made by the pantry. Food banks and pantries are unique in that they are both management facilities, because they receive food donations that would otherwise have been destined for landfill or composting, as well as potential AEs because they also generate food waste as some donations may be deemed unfit for human consumption.

The only food bank in New Hampshire is an AE, generating approximately 130 TPY; but of the approximate 420 food pantries² receiving recoverable food, none were estimated to be AEs. This is because food pantries typically receive smaller quantities of food to begin with and, after distributing what they can to the community, have even less waste to manage. However, food pantries serve an important role in the FLW system, as outlets for AEs that have edible surplus food. A food bank's main source of food may come from donations made by grocery stores, warehouse clubs and supercenters, and wholesalers and distributors primarily from overstocking. As a result, most of the donations will arrive as edible produce or close-to-expiration package foods. During the interview process, the food bank reported that refrigeration and storage capacity are not issues and they rarely reach capacity. Spoiled food is the primary reason for food waste at their facility, primarily due to food that is already spoiled, or close to spoiling upon receipt by the food bank. Training staff at businesses on food handling, inventory rotation and expiration monitoring can help minimize this spoilage. Food waste generated from the food bank is sent to composting facilities and pig farms where possible. Some pantries may use animal feed diversion pathways for their inedible food as well, as noted in the interview.

FOOD MANUFACTURERS AND PROCESSORS

This sector is made up of companies that transform raw ingredients into marketable food and beverage products. There were 25 categories of food and beverage manufacturing in New Hampshire, 74% can be grouped as beverage manufacturers, 8% bakeries, 4% meat and seafood slaughter and processors, 1% dairy processing and 13% other miscellaneous. Brewers represent the largest both in terms of number of entities (328) and annual sales revenue (over \$3.5B). FLW in this sector consists of processing losses (e.g. peels, skins, bones or trimmings) and losses due to cleaning and changeover of equipment as well as off spec or damaged products, expired ingredients and production overruns or quality control rejects. By-products of the manufacturing process, such as brewer's spend grains, coffee husks or dairy whey also contribute to FLW.

There were 412 food manufacturers and processors identified in this sector with a total estimated FLW of 156,434 tons annually. A total of 392 (nearly 99%) were estimated to be AEs generating 155,570 tons of FLW per year.

Due to the steady quantity and homogeneous nature of this material, along with financial incentives for manufacturers and producers, this FLW exhibits a high rate of diversion to animal feed or land application. Some FLW from this sector may also be diverted to AD facilities. However, a small percentage is still sent to landfill or incineration. Disposal often occurs due to variable generation (e.g., high seasonal surges), a lack of diversion outlets, economic factors that favor landfill over the cost of transporting to a diversion outlet and contamination or liability concerns that prevent human or animal consumption. Many food manufacturers produce packaged products, which can pose challenges when depackaging infrastructure is not available to facilitate diversion to composting. At the time this study is published, there are no depackaging facilities in New Hampshire or within 20-miles of the border.

² Encompasses all food pantries in the NH Food Bank network, including mobile food pantries and out of state food pantries.

However, interviews with manufacturers indicated that sending FLW to animal feed operations is common in New Hampshire. Interviewees noted these are predominately informal partnerships with local animal feed operations not identified in this study. Valorization of common by-products into nutrients or nutraceuticals is also common in this sector.

FARMS

This section quantifies FLW generated by farms that grow food for human consumption in New Hampshire. This analysis includes farms that grow produce, including vegetables, fruits (including berries), nuts and seeds. Farms producing crops to feed animals or livestock-related waste such as manure and animal mortality are excluded. The methodology is consistent with ReFED's (2024) approach, which includes both pre-harvest and post-harvest FLW in estimating total FLW generation. However, food loss that is managed on-site, such as produce that is tilled into fields or composted on the farm, are considered diverted rather than disposed for purposes of this study. This approach aligns with the broader goal of the study which is to identify large food waste generators impacted by the state's food waste ban.

New Hampshire is estimated to have 1,329 farms producing fruits and vegetables for human consumption, including 522 farms growing market vegetables, 371 orchards and 436 berry farms. Using the USDA Census Survey data, ReFED estimated that these farms generated approximately 6,130 tons of food loss in 2024 from produce that was never sold as intended or remained on the farm. This equates to an average of approximately 0.08 tons of FLW generated per farm per week.

This estimated FLW is composed of unharvested produce,³ post-harvest handling and packing losses and unsold produce due to buyer rejection or lack of demand. ReFED's analysis estimates that more than 99% of the estimated FLW generation remains on the farm, with most unharvested (71%) or going to feed animals (19%), about 7% is left untreated and 1% donated. As discussed above, for the purposes of this study, food sent for animal feed, donated or unharvested is all considered diversion. Based on this, only an estimated 49 tons of FLW generated by farms statewide is sent to landfill or incineration annually.

Data on FLW on individual farms is not readily available and would be difficult to obtain. While the very low average farm FLW may not guarantee that any single farm does not meet the generation criteria of being an AE, it does suggest that they collectively send very little FLW to landfill or incineration.

GEOSPATIAL ANALYSIS OF FOOD LOSS AND WASTE GENERATION

The AE inventory was used to develop visualizations illustrating the distribution and concentration of FLW generation statewide. This spatial analysis identified priority regions with strong potential for increased diversion and regulatory compliance. [Figure 9](#) shows that the highest concentration of FLW is in Hillsborough and Rockingham counties with 51,090 and 68,820 tons FLW generated respectively. However, counties such as Merrimack and Grafton still have concentrated generation of FLW and thus need food waste management facilities to support diversion.

³ Does not include crops not grown for human consumption or parts of the plant that are not edible.

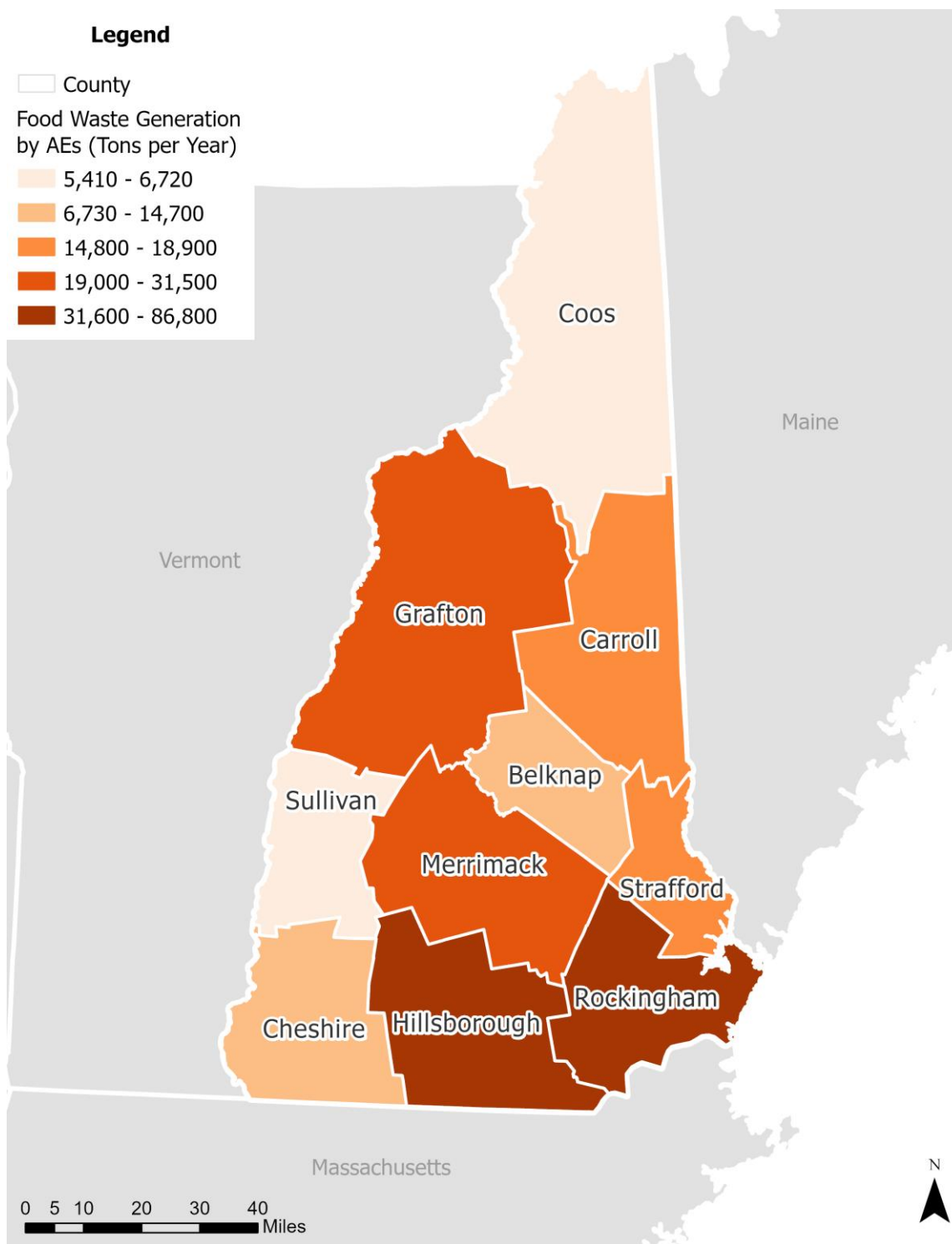


Figure 9: Generation hotspots by county based on estimated annual tons of food waste generated by affected entities in New Hampshire by county.

More detailed generation patterns within these counties are shown in [Figure 10](#) and [Figure 11](#), below, illustrating generation hotspots of FLW by town. These figures indicate Londonderry, Manchester, Nashua and Portsmouth have the largest concentration of FLW generation. These generation hotspots highlight the opportunity to expand diversion efforts in the southeastern part of the state.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - GENERATION ANALYSIS

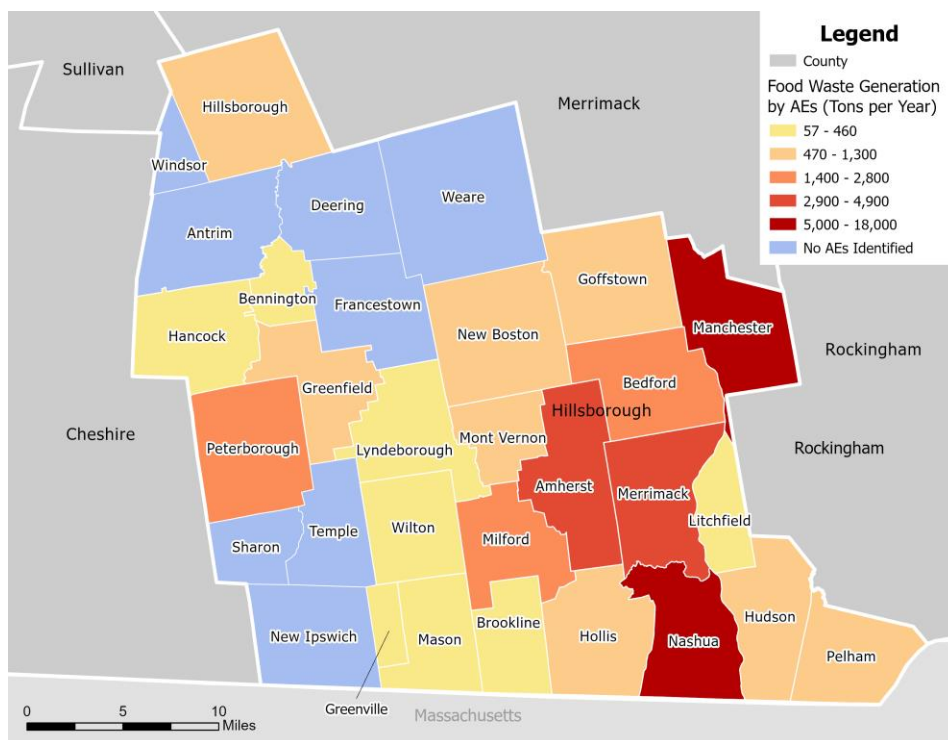


Figure 10: Detailed view of generation hotspots in Hillsborough County based on estimated annual tons of food waste generated by affected entities.

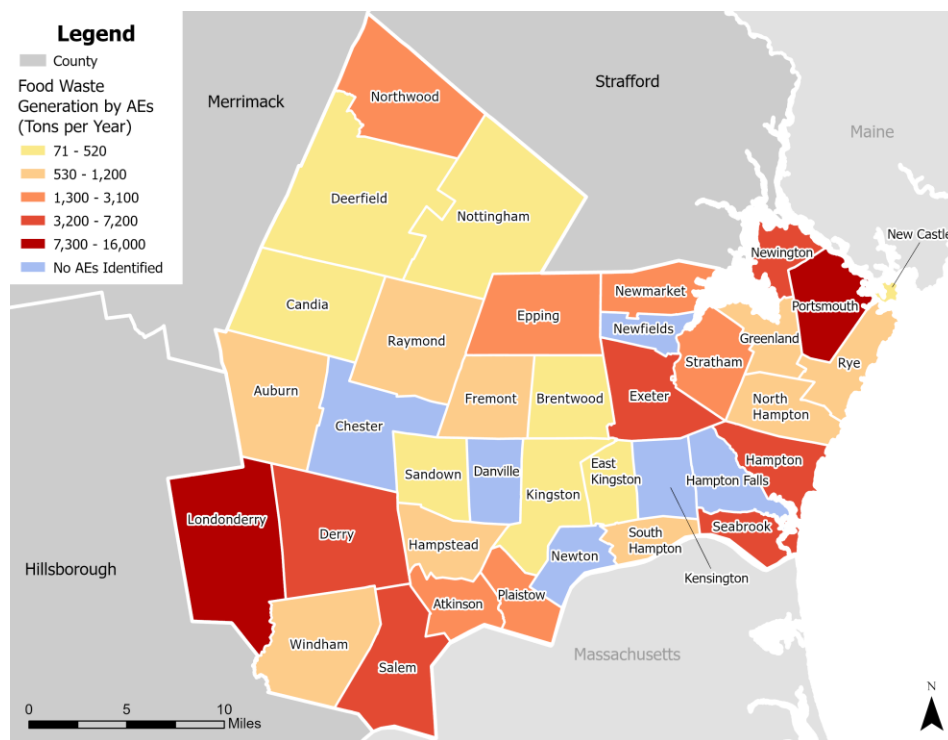


Figure 11: Detailed view of generation hotspots in Rockingham County based on estimated annual tons of food waste generated by affected entities.

Infrastructure Analysis

There are currently a variety of management facilities and haulers that handle FLW in New Hampshire and neighboring states. Management facilities include composting facilities, AD facilities, animal feed operations, food banks and food pantries. Some of those management facilities also provide hauling services. The capabilities and capacity of management facilities and haulers, specifically, in New Hampshire were assessed through a mix of direct interviews, self-reported surveys, review of annual facility reports (AFRs) for permitted composting facilities and online research. The capabilities and capacity of management facilities in neighboring states within a 20-mile radius of the New Hampshire border were also assessed through direct interviews, self-reported surveys and online research. While there are currently no AD facilities processing food waste within the state, there are two AD facilities in Massachusetts that fall within the 20-mile radius of New Hampshire.

Context on the current landscape of food waste management facilities available at the time of this study were obtained through research and direct interviews with ten management facilities and haulers, including eight composting facilities, three haulers and one food bank, as shown in [Table 2](#), below. Two of the composting facilities interviewed also provide hauling services. As a result, information was collected separately on both facility operations and hauling services for these entities, causing the total number of in-state and out-of-state direct interviews shown in Table 2 to exceed 10. While interviews primarily focused on in-state management facilities and haulers, interviews were also conducted with three management facilities and haulers located in Maine, Massachusetts and Vermont.

These interviews were used to better understand current processing capacity, service areas, barriers to expanding capacity, technical assistance needs and other forms of support that could facilitate capacity expansion. Management facilities and haulers that were not interviewed directly were provided with a self-reporting survey to collect similar information and desktop research was used to address any remaining information gaps. The self-reporting survey received three responses: one from a hauler, one from a composting facility and one from a food pantry. Among entities interviewed directly, 90% were aware of the food waste disposal ban; however, awareness of the specific requirements of the ban and its potential business impact varied.

Food waste management facilities expressed concern about contamination as AEs begin diverting food waste to composting programs for the first time. These facilities emphasized the need for targeted education and training to help generators successfully implement FLW diversion programs. Facilities also expressed interest in more opportunities to connect with AEs in their service areas and conduct targeted outreach to support diversion efforts, reduce contamination and expand their customer base.

Interviewees identified a need for the following forms of assistance to support capacity expansion:

- Funding or grants for equipment or infrastructure.
- Networking or partnership opportunities.
- Funding for staffing and other operational costs.

Table 2: Number of Interviews Conducted by Service Provider Type

TYPE OF SERVICE PROVIDER	NUMBER OF DIRECT IN-STATE INTERVIEWS CONDUCTED	NUMBER OF DIRECT OUT-OF-STATE INTERVIEWS CONDUCTED	NUMBER OF SELF-REPORTED IN-STATE SURVEYS	NUMBER OF SELF-REPORTED OUT-OF-STATE SURVEYS
Composting Facilities	5	3	0	0
Haulers	1	2	0	1
Food Banks and Pantries	1	0	1	0
Anaerobic Digestion Facilities	Not Applicable	0	Not Applicable	0
TOTAL	7	5	1	1

COMPOSTING FACILITIES

New Hampshire currently has four permitted composting facilities that accept commercial food waste, with one additional facility working toward obtaining a permit.⁴ There are also 14 composting facilities within a 20-mile radius of the state border. Eight of these facilities are in Massachusetts, four are in Vermont and two are in Maine. Composting facilities in New Hampshire that accept commercial food waste exist in three out of ten counties: two in Grafton, two in Rockingham and one in Sullivan counties. Belknap, Carroll, Cheshire, Coos, Hillsborough, Merrimack and Strafford lack composting facilities to process commercial food waste. There are several municipal transfer stations located throughout New Hampshire that accept food waste, but these sites primarily serve residents and accept limited to no commercial food waste and were not included in this study. There are also permit-exempt community composting facilities in some areas of the state, which are authorized to manage up to five cubic yards of food waste per month without the need for a permit. Due to the small scale of these facilities, they were not considered to provide significant capacity for commercial food waste management and were therefore excluded from this study.

All permitted composting facilities in New Hampshire currently operate under a [permit-by-notification](#) and are allowed to receive up to ten (10) tons of source-separated food waste per day, averaged monthly. This permit allows for composting facilities to accept all types of food waste, including meat and dairy products. Interviews identified that many composting facilities vary in actual processing capacity, compared to what they are permitted to intake and vary in the types of materials they accept.

All in-state composting facilities were interviewed to gather information on current processing capacity, excess capacity, challenges to increasing capacity and needed support or funding. The most common challenges faced by composting facilities when accepting or processing food waste include contamination of incoming material and limited operational capacity. Composters noted issues with contaminated feedstock, particularly food service products like utensils and plates. High turnover in food service staff was noted as a leading cause as to why contamination continues to be an issue in the food service industry, highlighting the need for continual staff training to ensure clean feedstock. Composting facilities also reported challenges securing buy-in from generators that are willing to pay for services. They noted some generators may hesitate to pay for food waste diversion in addition to traditional disposal services or may perceive that composting facilities will accept food waste at no cost. Operational constraints such as equipment limitations, staffing shortages and hauling availability were also identified as

⁴ While Meadowstone Farm has stated operational capacity to accept food waste from commercial entities, at the time of this study, they are working with NHDES to obtain proper authorization.

challenges. The high capital costs associated with purchasing and maintaining equipment, along with the limited availability of organics haulers to transport food waste in certain regions, pose significant logistical and financial challenges for composting facility operations.

However, composting facilities expressed that there is robust demand for finished compost, meaning extensive end markets already exist for using the product. None of the composting facilities who were interviewed reported challenges in selling, distributing finished compost or using it on-site.

FOOD BANKS AND PANTRIES

There is one food bank located in New Hampshire. The [New Hampshire Food Bank](#) (NHFB) received 20,194,118 pounds (10,097 tons) of donated food and distributed 19,736,862 pounds (9,868 tons) of food to their 420 partner agencies in 2025. The NHFB accepts non-perishable foods, prepared foods (such as sandwiches, salads, etc.), produce, packaged goods, frozen goods, dairy products, meats and bakery items. Restaurant surplus is currently difficult to accept at the NHFB due to a lack of nutritional labeling and shelf-life requirements for prepared food. Donated surplus food often comes from manufacturers, grocers and wholesalers. Edible surplus food is then distributed to partner agencies (food pantries, soup kitchens, homeless shelters, rescue organizations). A persistent challenge food banks and pantries face when accepting donated food is ensuring the foods' remaining shelf life is sufficient to reach the consumer. The NHFB requires a minimum of five days of shelf life for donated food; however, food may sometimes arrive at food pantries spoiled, or spoil quickly after delivery. This creates undue burdens for food pantries, such as decreased food supply, wasted staff time and additional disposal costs.

Distribution efforts of the NHFB are supported by a 60,000 square foot facility in Manchester and a fleet of 26-foot trucks, including refrigerated trucks. The facility contains 30,000 square feet of storage and a 5,000 square foot freezer. When interviewed, the NHFB reported that both refrigerated and dry storage is not an issue and they rarely reach capacity. Food distributed from the NHFB to partner agencies comprises an estimated 60% of food they receive. The Project Team was only able to gather direct information from one food pantry; however, refrigeration and freezer capacity is a common issue for food pantries, which was also noted in the interview. While the NHFB has access to sufficient training through [Feeding America](#), training generators on best practices for recovering food in a timely manner would be beneficial to increasing food recovery and donation efforts, as reported in the interview.

To address the issue of spoiled food donations and assist AEs to comply with the food waste disposal ban, the NHFB developed their [Fresh Rescue Program](#) (program). The program works in two ways: some donations are brought back to the NHFB for sorting, while other donations are collected directly by local partner agencies, allowing food to reach communities even faster. AEs in food retail sectors (grocers, supercenters, specialty food stores, etc.) can sign up to be a Fresh Rescue Retail Partner and receive free support, including:

- Full program setup and coordination.
- In-store training and program implementation.
- Verified compliance of 501(c)(3) organizations.
- Food safety and handling compliance.
- Dedicated support with one point of contact.
- Impact reporting and recognition.

This program presents an opportunity for AEs to donate more of their surplus food to comply with the food waste disposal ban. According to the NHFB, the program provides retailers with a trusted, compliant and documented pathway to meet ban requirements without adding operational burden to stores. Since implementing the program, the NHFB has seen an increase in food retail partners and considerably less spoiled food because each donation is

checked for freshness by NHFB or partner agency staff, and spoiled donations are rejected for quality assurance. This ensures that food retailers stay on track with their donations and fresh food gets to people who need it.

HAULERS

Interviews with three organics haulers in New Hampshire indicate that commercial food waste collection services are concentrated primarily in the Southern and Southeastern regions of the state, while Northern and rural regions have limited access to hauling services. A total of eleven organics haulers operate in New Hampshire, but some are based in neighboring states. Service areas often align with high population density and a greater concentration of institutional and commercial generators capable of sustaining collection routes that are economically feasible.

During the interviews, haulers and compost facilities both revealed a lack of coverage for organics hauling in the central, western and northern regions of the state, particularly in rural areas. Haulers primarily limit their collection service radius to approximately one hour drive from their operating facility or destination food waste management facility, with few exceptions. Distance and low customer density were reported as significant barriers in expanding service areas for haulers. However, those interviewed reported the potential to expand service area if generator density increased outside of their current service areas or if more transfer stations supporting organics were established. This growth would make hauling greater distances more economically feasible.

Several haulers discussed the need for establishing transfer stations for organics and drop-off networks as viable pathways to increasing route efficiency. They also noted that improving generator outreach, reducing contamination at the source and aligning hauler collection capacity with the processing capacity of composting facilities will be critical to expanding collections across underserved regions of New Hampshire.

ANAEROBIC DIGESTION (AD) FACILITIES

There are no permitted, food waste AD facilities currently operating in New Hampshire.⁵ However, Vanguard Renewables has two on-farm AD facilities located within 20 miles of the state border; one in Haverhill and one in Deerfield, Massachusetts. Both AD facilities are currently processing [36,500 tons of food waste per year](#), for a combined, reported processing capacity of 73,000 TPY. Vanguard Renewables was unavailable for an interview or survey; therefore, the facility's excess processing capacity was unavailable and could not be evaluated as part of this study. It is also important to note that additional AD facilities located beyond the 20-mile radius currently serve generators in New Hampshire. However, these facilities were not evaluated because New Hampshire's food waste disposal ban focuses on large food waste generators within a 20-mile radius of a food waste management facility.



Figure 12: Organics hauler delivering food waste to a composting facility.

⁵ At the time of this study, a public hearing was held pertaining to a proposed AD facility and co-located depackaging plant in Londonderry, New Hampshire.

ANIMAL FEED OPERATIONS AND OTHER DIVERSION

The New Hampshire Department of Agriculture does not publicly list animal feed operations within the state. Without the ability to verify the status of and obtain contact information for animal feed operations in the state, none were specifically identified. However, interviews with generators and the NHFB revealed that several pig farms located throughout New Hampshire have formed longstanding, informal partnerships with local generators to accept food waste. These partnerships specifically with pig farms are likely a result of [RSA 435:32-40, which permits feeding garbage to swine](#) under license from the Department of Agriculture. This law only pertains to feeding food waste to pigs, but it is likely that farms throughout the state feed food waste to other types of livestock as well. While data was unable to be quantified and tracked, interviews with management facilities and generators revealed that some farmers will offer to pick up food waste for free, reducing the financial burden of hauling and managing food waste for generators. Farmers may benefit financially as well; by sourcing food waste to feed their pigs they reduce the need to purchase feed. NHDES should consider partnering with the New Hampshire Department of Agriculture, New Hampshire Business and Industry Association and agricultural networks, like New Hampshire Food Alliance, to identify, understand and publicize this network to support this diversion pathway.

Other industry byproducts have well established supply chains to feed animals and are not reported. For example, brewer's spent grains are commonly diverted to feed cows. More than 70% of the food manufacturers/processors identified for New Hampshire had the primary NAICS code 208201 designating them as brewers, estimated to generate approximately 113,000 tons of FLW annually. Brewer Spent Grains (BSG) are the dominant solid waste generated from this sector and are commonly diverted to feed animals. Project Team correspondence with University of New Hampshire cooperative extension dairy expert suggests that much of this is also common practice in New Hampshire⁶. Data on land applications was not readily available; however, interview respondents confirmed that it is a common practice by food manufacturers and some wholesalers. Additional diversion from the food processing sector may be an opportunity, particularly for smaller brewers of food processors.

FOOD WASTE MANAGEMENT CAPACITY

The Project Team assessed the capacity of in-state management facilities and facilities located within 20 miles of the New Hampshire border. The assessment focused on processing facilities, including composting and AD facilities. Other management pathways, such as animal feeding operations and food pantries, were excluded due to limited availability of reliable capacity data.

Management facilities were evaluated for permitted (maximum) processing capacity, current processing and excess capacity. Permitted capacity refers to the maximum amount of material a facility is authorized to process under its permit. Current processing refers to the amount, or throughput, of food waste the facility is currently managing. Excess capacity represents the additional food waste a facility could accept beyond its current throughput and was calculated by comparing current tons processed to permitted capacity. Capacity information was confirmed through direct interviews with management facilities and supplemented with desktop research using publicly available information on permitted capacity and current throughput, where available. All in-state management facilities confirmed their permitted and excess processing capacities during interviews.

At the time this study was conducted, all four permitted composting facilities in New Hampshire operate under a permit-by-notification structure, with one additional compost facility that is currently working with NHDES to obtain a permit-by-notification. Three out-of-state management facilities were also interviewed to confirm operational and

⁶ Email correspondence with Dr. Peter Erickson, professor of Agriculture, Nutrition and Extension Dairy Specialist at the University of New Hampshire College of Life Sciences and Agriculture, April 14, 2026.

excess processing capacities. However, processing capacity could not be confirmed for all out-of-state facilities because some facilities did not participate in interviews and publicly available data was limited.

[Table 3](#), below, highlights the maximum processing capacity, current processing and confirmed excess capacity for both in-and-out-of-state management facilities. As mentioned, the Project Team was unable to confirm processing capacities for most out-of-state management facilities. Therefore, the total regional maximum processing and excess capacity exhibited in Table 3 are likely lower than real-world capacity.

Table 3: Confirmed Food Waste Management Facility Processing Capacity

FACILITY TYPE	MAXIMUM PROCESSING CAPACITY (TPY)	CURRENT PROCESSING (TPY)	CONFIRMED EXCESS CAPACITY (TPY)
In-State Food Waste Management Facilities	8,096	4,691	3,405
Food Waste Management Facilities within 20 miles of New Hampshire Border	93,500	Not confirmed	1,650
TOTAL CONFIRMED PROCESSING CAPACITY FOR FOOD WASTE MANAGEMENT FACILITIES	101,596	NOT CONFIRMED	5,055

GEOSPATIAL ANALYSIS OF FOOD WASTE MANAGEMENT FACILITIES

This analysis identified 21 food waste management facilities located in New Hampshire and within a 20-mile radius of the state border, as illustrated in [Figure 13](#) and listed in [Table 4](#), below. Five are in New Hampshire, ten are in Massachusetts; four are in Vermont; and two are in Maine. Food waste management facilities are largely concentrated in the southeast and southwest regions of the state, while coverage for processing FLW remains limited in the central and northern regions of the state. Consequently, AEs located in the regions of concentrated management facilities have greater opportunities to divert than AEs in the rest of the state.

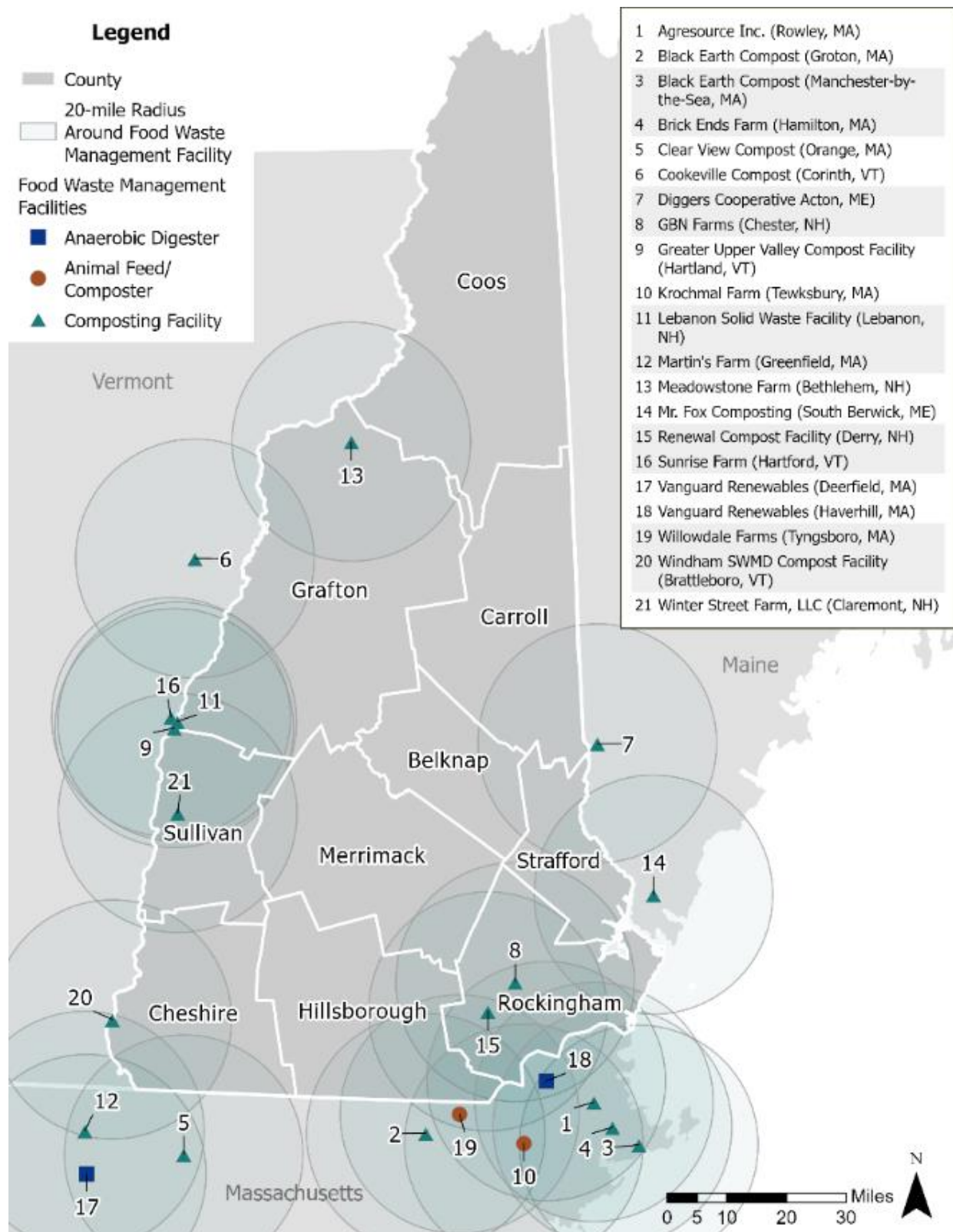


Figure 13: Food waste management facilities included in this study, with 20-mile buffers around each facility.

Table 4: Food Waste Management Facilities in New Hampshire and within 20-Mile Radius

NUMBER	NAME	MANAGEMENT FACILITY TYPE	TOWN	STATE
1	Agresource Inc.	Composting Facility	Rowley	Massachusetts
2	Black Earth Compost	Composting Facility	Groton	Massachusetts
3	Black Earth Compost	Composting Facility	Manchester-by-the-Sea	Massachusetts
4	Brick Ends Farm	Composting Facility	Hamilton	Massachusetts
5	Clear View Compost	Composting Facility	Orange	Massachusetts
6	Cookeville Compost	Composting Facility	Corinth	Vermont
7	Diggers Cooperative	Composting Facility	Acton	Maine
8	GBN Farm	Composting Facility	Chester	New Hampshire
9	Greater Upper Valley Compost Facility	Composting Facility	Hartland	Vermont
10	Krochmal Farm	Animal Feed/Composting Facility	Tewksbury	Massachusetts
11	Lebanon Solid Waste Facility	Composting Facility	Lebanon	New Hampshire
12	Martin's Farm	Composting Facility	Greenfield	Massachusetts
13	Meadowstone Farm	Composting Facility	Bethlehem	New Hampshire
14	Mr. Fox Composting	Composting Facility	South Berwick	Maine
15	Renewal Compost Facility	Composting Facility	Derry	New Hampshire
16	Sunrise Farm	Composting Facility	White River	Vermont
17	Vanguard Renewables - Deerfield	Anaerobic Digester	Deerfield	Massachusetts
18	Vanguard Renewables - Haverhill	Anaerobic Digester	Haverhill	Massachusetts
19	Willowdale Farms	Animal Feed/Composting Facility	Tyngsboro	Massachusetts
20	Windham Solid Waste Management District (WSWMD) Compost Facility	Composting Facility	Brattleboro	Vermont
21	Winter Street Farm, LLC	Composting Facility	Claremont	New Hampshire

[Figure 14](#), below, shows the FLW management facilities that recover surplus, edible food (the food pantries and one food bank in the state). As illustrated, food pantries are widely distributed across the state, with at least one located in every municipality or county. They are present in both urban and rural areas, indicating a geographically well-dispersed network of food assistance providers. While most urban areas contain multiple food pantries, northern regions of the state, such as Coos County and the upper portions of Grafton and Carroll Counties, have far fewer food pantries, presenting an opportunity to expand recovery infrastructure. Although food pantries play an important role in diverting FLW from disposal and supporting compliance with the statutory ban, they generally have limited capacity to accept large quantities of food. Therefore, subsequent sections primarily focus on composting and AD facilities, which provide greater processing capacity and are more commonly utilized by large FLW generators.

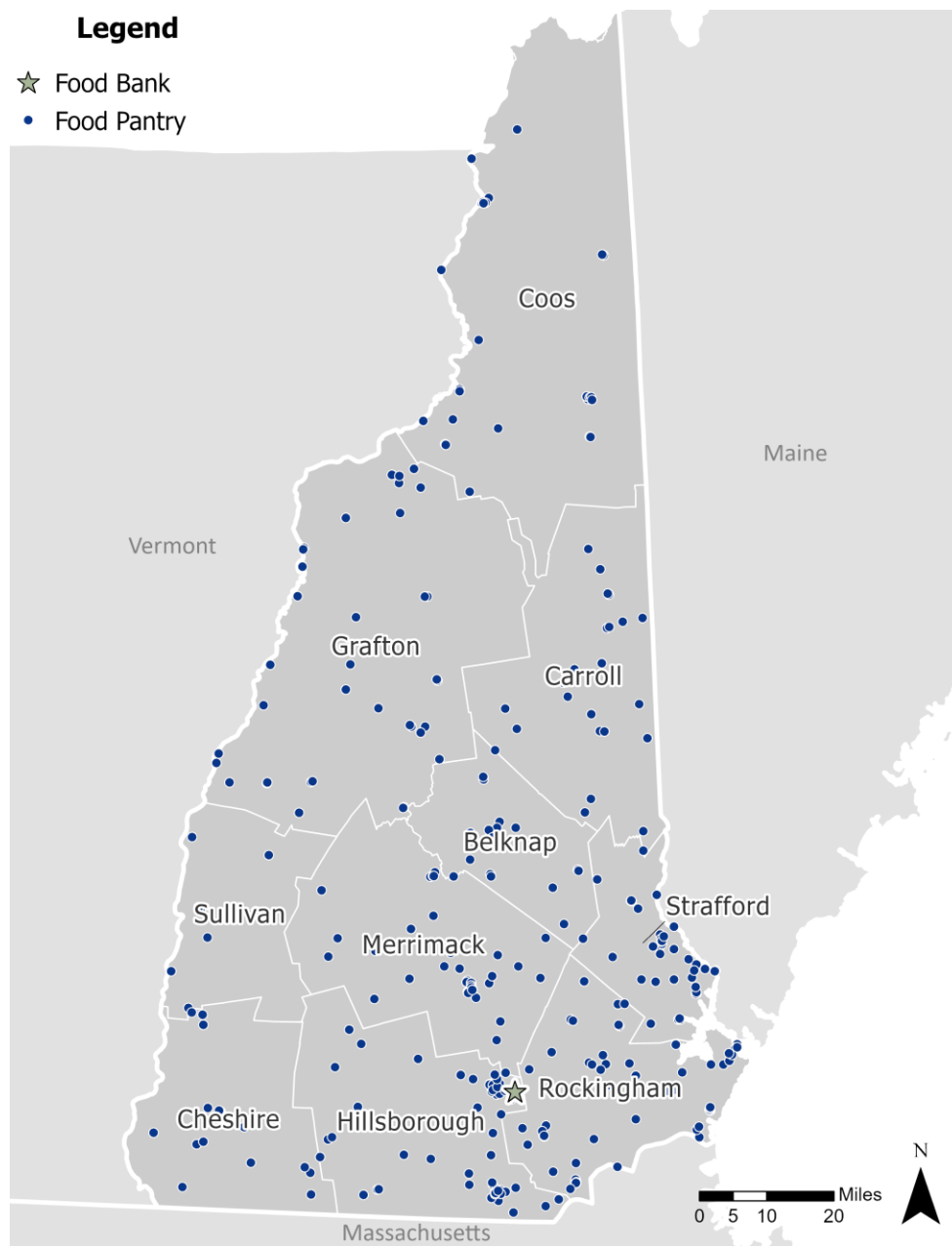


Figure 14: Map of Food Banks and pantries in New Hampshire

Gap Analysis of Infrastructure and Capacity

A gap analysis evaluated whether New Hampshire's food waste management infrastructure provides adequate processing capacity and geographic access for AEs to comply with the disposal ban. Because food waste generation and processing infrastructure vary across the state, regional analysis is necessary to account for generator density, hauling logistics, facility proximity and available excess capacity. Stakeholders identified both operational constraints and hauling-related barriers within the current system infrastructure. While several interviewees expressed concern about limited processing capacity, some management facilities reported insufficient organics hauling services in their regions, restricting their ability to capture local food waste streams. New Hampshire Food Bank, for example, emphasized the need for depackaging technology to remove packaging from spoiled food to make it more suitable for composting. Depackaging technology could help AEs and food pantries manage spoiled food more efficiently, particularly when staffing or operational resources are limited.

Existing processing capacity was estimated using publicly available sources, including facility permits, as well as interviews with generators, haulers and management facilities. Comparing these capacity estimates with AE food loss and waste (FLW) generation and diversion estimates highlight infrastructure gaps that may hinder implementation of the disposal ban. AEs must divert food waste if a management facility with adequate capacity is located within 20 miles. [Figure 15](#), below, identifies 460 unique AEs located within a direct 20-mile radius of a New Hampshire food waste management facility. Collectively, these entities are estimated to dispose of approximately 36,500 TPY of FLW. This analysis only considers in-state processing infrastructure because the Project Team was unable to verify available capacity for all processing facilities outside of New Hampshire.

New Hampshire's current in-state composting infrastructure is estimated to provide a total of 8,096 TPY processing capacity, including approximately 3,405 TPY of confirmed excess capacity reported by management facilities. Compared with the estimated 36,500 TPY of disposed FLW by AEs within the 20-mile radii, this leaves a processing shortfall of approximately 28,430 TPY. These findings demonstrate that geographic proximity to a facility does not necessarily indicate that adequate processing capacity is available.

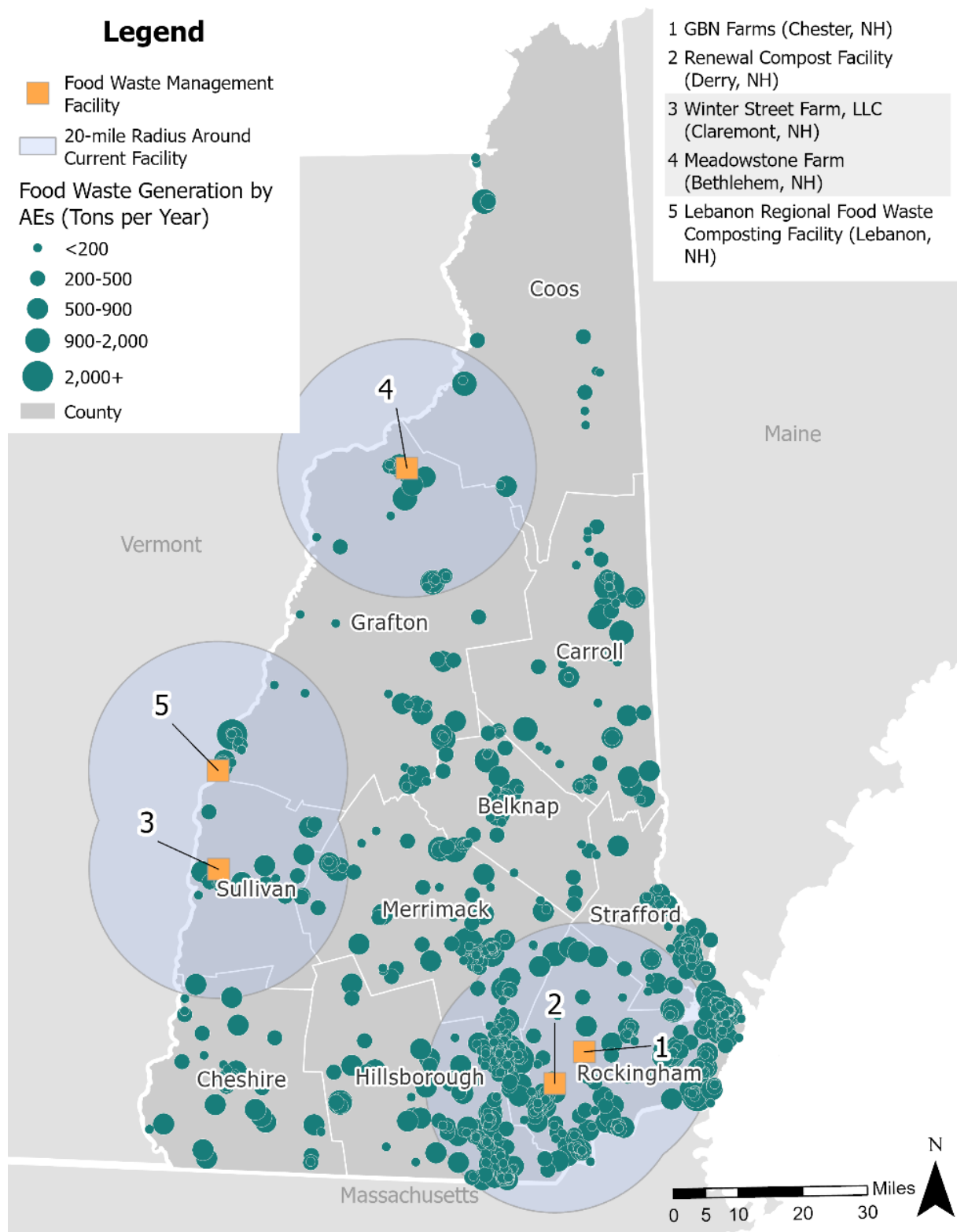


Figure 15: Affected Entities located within 20 miles of a New Hampshire food waste management facility

REGIONAL DISTRIBUTION OF FOOD WASTE GENERATION AND DISPOSAL

As illustrated previously, material generated by AEs is not evenly distributed across New Hampshire. Population is most concentrated in the southeast, while more rural regions dominate the north. Consequently, most FLW disposed of from AEs is also concentrated in the southeast due to a higher density of entities representing the food manufacturing, grocery retail, hospitality and restaurant sectors.

[Table 5](#), below, provides a view of food waste management facility capacity against estimated AE disposal at the county level. Processing capacity currently exists in only three counties:

- Grafton County's facilities have a combined capacity of 652 TPY, all fully utilized.
- Rockingham County's food waste management facilities report a combined maximum of 7,300 TPY, of which 4,015 TPY is currently utilized, leaving 3,285 TPY of excess capacity.
- Sullivan County's facility reports a maximum of 144 TPY, with only 24 TPY currently utilized and 120 TPY available.

All other counties lack processing capacity. Disposal figures in Table 5 reflect all identified AEs, not only those within 20 miles of a facility. Overall, available excess capacity is limited and geographically concentrated.

Table 5: Current In-State Processing and Excess Capacity in TPY by County⁷

COUNTY	MAXIMUM PROCESSING CAPACITY (TPY)	CURRENT PROCESSING (TPY)	CONFIRMED EXCESS CAPACITY (TPY)	NUMBER OF AES	AE DISPOSAL (TPY)	GAP IN AVAILABLE CAPACITY
Belknap	0	0	0	50	3,013	3,013
Carroll	0	0	0	55	3,014	3,014
Cheshire	0	0	0	46	3,543	3,543
Coos	0	0	0	18	1,487	1,487
Grafton	652	652	0	82	6,609	6,609
Hillsborough	0	0	0	227	18,775	18,775
Merrimack	0	0	0	229	18,006	18,006
Rockingham	7,300	4,015	3,285	103	7,772	4,487
Strafford	0	0	0	56	4,027	4,027
Sullivan	144	24	120	22	1,093	973
TOTAL	8,096	4,691	3,405	888	67,338	63,933

ACCESS TO PROCESSING CAPACITY IN THE STATE

County-level gap analysis is useful due to defined borders, yet collection operates across county boundaries and food waste management facilities routinely accept material from multiple counties. Hauler coverage is typically determined by travel time and customer density, and generators need food waste management options that are accessible. Therefore, a regional lens that considers proximity of generators and food waste management facilities can also be insightful and reveal meaningful capacity gaps to guide strategic expansion of coverage.

⁷ Disposal figures reflect all identified AEs, not only those within 20 miles of a facility. Overall, available excess capacity is limited and geographically concentrated.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - GAP ANALYSIS OF INFRASTRUCTURE AND CAPACITY

AEs are required to divert food waste if a food waste management facility with adequate capacity is located within 20 miles, but this qualification is an initial filter, since proximity alone is not a reliable indicator of whether sufficient processing capacity is available. For example, many AEs fall within 20 miles of a New Hampshire food waste management facility ([Figure 16](#), below) but available capacity at those facilities is insufficient to process the material. Not all facilities, even those located within 20 miles, are equally accessible to all generators. In regions with dense clusters of AEs, multiple generators can rely on - and increase competition for - available capacity at a limited set of food waste processing facilities. As a result, some AEs that technically meet the distance-based criterion of the disposal ban will not have realistic options for diversion due to capacity constraints.

The five composting facilities that process food waste in New Hampshire vary considerably in geographic context, and the distribution of AEs within 20 miles of each facility reflects those differences. Facility coverage areas overlap considerably in the western and southeastern parts of the state, so some AEs have access to more than one permitted facility within 20 miles. While this overlap creates nominal compliance options for those AEs, it also concentrates demand on limited sources of capacity.

Meadowstone Farm in northern Grafton County has 31 AEs within its 20-mile radius, generating an estimated 3,039 TPY of disposed food waste. No other facility currently provides overlapping coverage to those AEs, making Meadowstone's 52 TPY of capacity the practical ceiling for diversion among those generators. With 0 TPY of estimated excess capacity, an additional 2,987 TPY of annual capacity would be needed to process all the FLW from those AEs.

The Lebanon Regional Food Waste Composting Facility at the southwestern edge of Grafton County has 45 AEs within 20 miles, representing 3,241 TPY of annual disposal. Its reach overlaps with that of Winter Street Farm in Sullivan County to the south, meaning some portion of those 45 AEs may have access to both Lebanon Regional and Winter Street Farm. Lebanon's current maximum capacity of 600 TPY leaves an estimated 2,641 TPY available beyond the existing disposal demand from AEs in its radius, though committed capacity may vary from that figure in practice. Winter Street Farm has 49 AEs located in its 20-mile radius that generate an estimated 3,569 TPY of disposed food waste. It can be seen in [Figure 16](#) that a considerable number of AEs in its radius also fall within range of Lebanon's facility. Winter Street's 144 TPY of maximum capacity leaves an excess of 3,425 TPY of estimated annual disposal from nearby AE demand, if all those AEs were seeking to send material to Winter Street.

In the southeast, GBN Farms has 301 AEs within 20 miles with 23,922 TPY of annual disposal, and nearby Renewal Compost has 336 AEs within its radius that dispose of 26,928 TPY. However, their coverage areas overlap across portions of Hillsborough and Rockingham counties, and 261 AEs fall within range of both facilities, accounting for 20,897 TPY of that shared demand. Together, the combined permitted capacity of the two facilities is 7,300 TPY, yet the combined disposal demand of nearby (20-mile) AEs of 30,000 TPY leaves an estimated 22,653 TPY deficit in capacity. Generators in this corridor face the greatest risk of capacity constraints even where they technically satisfy the 20-mile criteria in the state's disposal ban.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - GAP ANALYSIS OF INFRASTRUCTURE AND CAPACITY

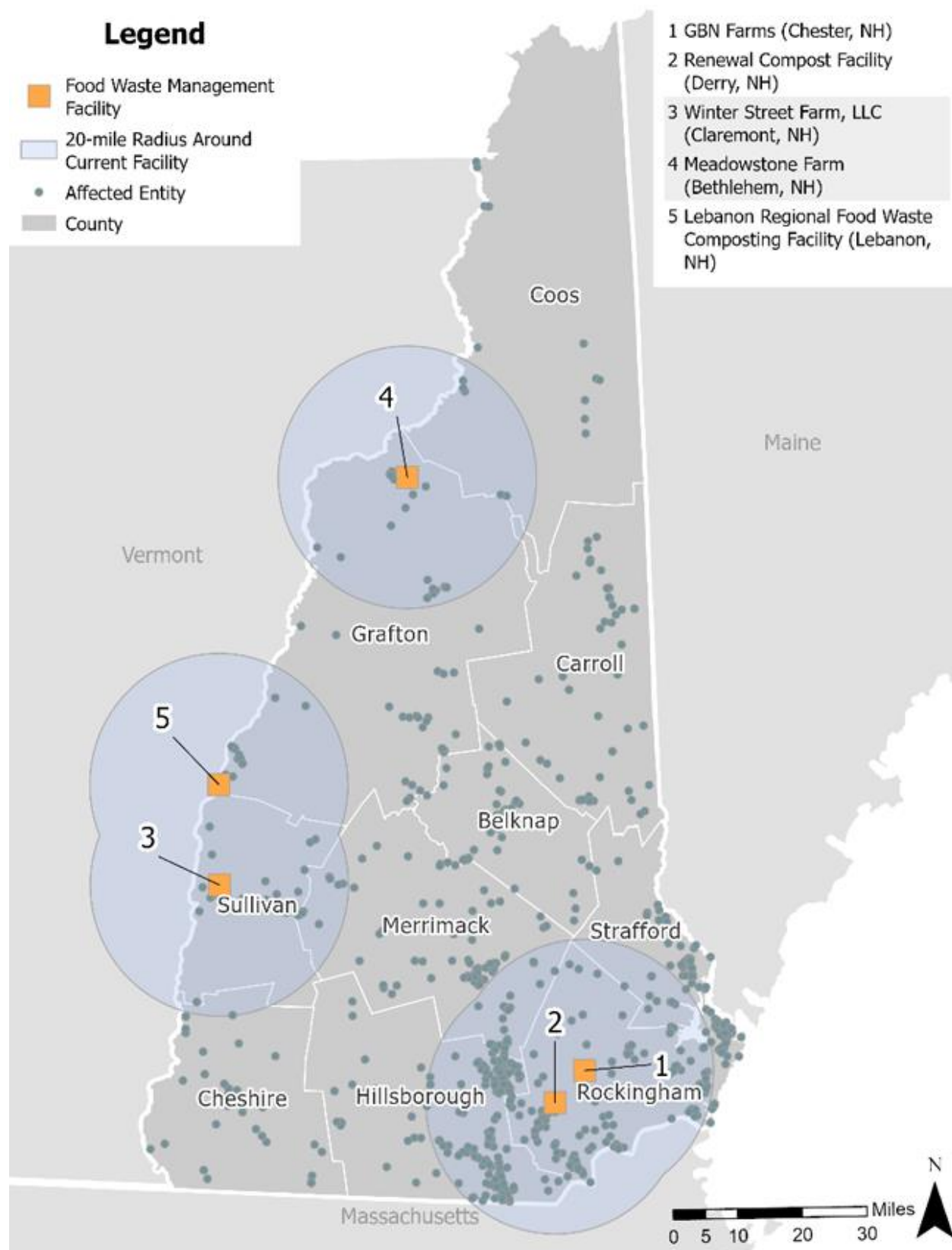


Figure 16: Affected Entities within 20 -miles of New Hampshire food waste management facilities

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - GAP ANALYSIS OF INFRASTRUCTURE AND CAPACITY

For each facility, [Table 6](#), below, summarizes the number of AEs within 20 miles, the estimated annual disposal tonnage generated by those AEs, and the facility's reported processing capacity. Facilities are ordered from north to south. Where AEs fall within the coverage areas of multiple facilities, they are counted in each applicable row. The final row reflects the unduplicated total number of AEs with access to at least one facility.

Table 6: New Hampshire Food Waste Management Facilities and Capacity Relative to Affected Entities within a 20-Mile Radius⁸

FACILITY	TOWN	MAXIMUM PROCESSING CAPACITY (TPY)	NUMBER OF AES IN 20-MILE RADIUS	ANNUAL DISPOSAL OF AES WITHIN 20 MILES	ESTIMATED EXCESS/DEFICIT CAPACITY (TPY)
GBN Farms	Chester	3,650	301	23,922	-20,272
Lebanon Solid Regional Food Waste Composting Facility	Lebanon	600	45	3,241	-2,641
Meadowstone Farm	Bethlehem	52	31	3,039	-2,987
Renewal Compost	Derry	3,650	336	26,928	-23,278
Winter Street Farm, LLC	Claremont	144	49	3,569	-3,425
TOTAL	NOT APPLICABLE	8,096	460	36,532	-28,436

REGIONAL INFRASTRUCTURE GAPS AND CAPACITY DEMAND

Another gap is evident along the central New Hampshire corridor, where the bottleneck is driven by a lack of nearby food waste management facilities, leaving many AEs outside a 20-mile service radius. Rural areas also represent a gap, where a lower density of AEs would require greater hauling distances and fall on lower density routes, which strains the economics for collection and transport to processing. AEs in these areas of the State meet the one ton per week generation threshold but lack compliant diversion options locally.

To illustrate how a strategically sited new facilities might expand diversion access for AEs that currently have no available processing outlets, [Figure 17](#), below, identifies potential placement of four “notional” composting facilities that, if developed, could capture tonnage from these AEs. These hypothetical facilities are not proposals, but merely spatial placeholders to demonstrate how coverage gaps identified in the existing network might be addressed. Together, the four notional facilities would bring an additional 203 AEs within 20 miles of a processing option, representing 13,206 TPY of disposal currently without a nearby facility.

A notional facility sited in Coos County would serve a region that only minimally overlaps the 20-mile radius of Meadowstone Farm and could provide diversion opportunities for 12 AEs within 20 miles, that generate an estimated

⁸ AE annual disposal figures represent projected tons disposed, used as a proxy for potential diversion demand. Permitted capacity figures reflect reported annual totals and do not account for capacity already committed to current customers. Excess or deficit capacity is calculated as permitted capacity minus projected AE disposal within the 20-mile radius. AEs falling within the coverage areas of multiple facilities are counted in each applicable facility row; the unduplicated total row reflects unique AEs with access to at least one facility.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - GAP ANALYSIS OF INFRASTRUCTURE AND CAPACITY

525 TPY of disposed material. Similarly, a notional facility sited in Carroll County, which currently has no in-state processing capacity, would provide access to 53 AEs within 20 miles with an estimated 3,200 TPY of material currently being disposed. Siting facilities in these two counties would close a geographic gap between the north and the partially served southeastern region of the state.

A third notional facility sited in north-central Merrimack County would also target the access gap identified in the central New Hampshire corridor. Within a 20-mile radius, this location would provide access to 129 AEs with an annual disposal of 8,666 TPY of FLW. All but a handful of facilities in that area currently lack processing access within 20 miles. A similar placement might reduce pressure on GBN Farms and Renewal Compost by drawing generators from the northern edges of Hillsborough and Rockingham into a separate coverage area.

The fourth notional facility sited in central Hillsborough County and would fill a service gap for 25 AEs within a 20-mile radius that currently lack access to a nearby compliant facility. These facilities generate an estimated 1,964 TPY of disposed FLW. This location also creates coverage overlap with the GBN and Renewal facilities to provide an additional compliant option for 238 facilities that are within 20 miles of either of those facilities that generate an estimated 19,487 TPY of disposed material. This placement would provide redundancy and further reduce dependence on any single facility.

These four notional locations illustrate that targeted infrastructure investment could substantially reduce the share of AEs that currently lack a compliant nearby facility. This analysis does not account for siting feasibility, planning, permitting or capital costs. However, it does demonstrate how geographic gaps in coverage might be addressed with added capacity and siting new, strategically placed facilities to expand the reach of the state's diversion network.

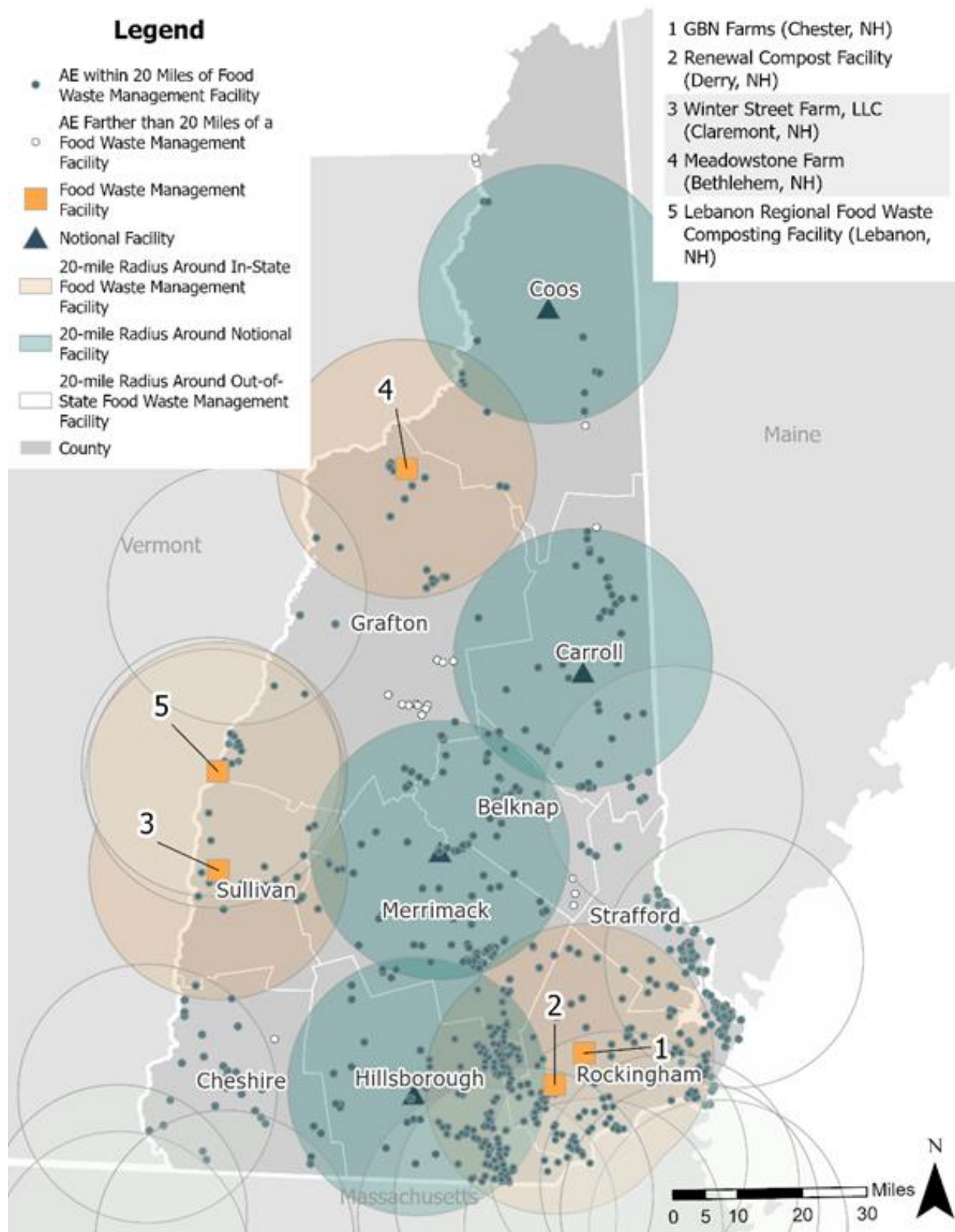


Figure 17: Impact on Affected Entity processing access from four national processor locations.

CAPACITY EXPANSION AND INFRASTRUCTURE PLANNING

Study findings show how infrastructure gaps are regional and addressing these gaps will require a combination of targeted strategies rather than a uniform approach. In regions with high concentrations of AEs and limited excess capacity, near-term compliance can be achieved by prioritizing increasing capacity at existing facilities that are already positioned to serve large volumes of nearby generators. Strategically investing in equipment, improving operational efficiency, addressing potential permitting obstacles, or accepting additional feedstocks at these locations could unlock diversion opportunities for a substantial amount of currently disposed FLW.

Since regional mismatches occur between generation, processing capacity and access to food waste management facilities, priority should be given to expanding capacity in areas with the highest demand and bringing new access to areas where facilities are either absent or scarce. In regions where existing infrastructure is absent, compliance for AEs will require new, strategically located processing capacity. Facility siting should prioritize proximity to the highest density of generators. Additionally, consideration should be given to alternative logistics models such as regional transfer or consolidation points, hub-and-spoke collection models or other approaches that can enhance access for AEs currently outside the 20-mile radius of a food waste management facility.

Emissions Impact Analysis

The potential reductions in GHG emissions associated with expanded FLW diversion under the food waste disposal ban were estimated using EPA's WARM, version 16. The WARM model was used to compare GHG emissions associated with the current FLW management scenario (baseline) and three different compliance scenarios to determine net emissions reductions from full compliance with the disposal ban.

To understand the current FLW management scenario and establish a baseline, the Project Team estimated emissions from current disposal tonnages by developing sector-specific diversion estimates for the share of total FLW currently being diverted ([Appendix E](#)). These sector-specific diversion estimates were then subtracted from the total amount of FLW generated by AEs to calculate the portion of FLW that is currently disposed ⁹ through landfill and incineration. The current baseline disposal of FLW by AEs was estimated at 67,338 tons annually. Based on historical disposal data reported in AFRs submitted to NHDES, disposed material was allocated 80 percent to landfill and 20 percent to incineration. This disposal ratio formed the baseline, or current basis, for environmental impact.

To capture a range of possible outcomes associated with a different mix of diversion methods, the Project Team modeled three scenarios to estimate the potential net GHG benefits from fully diverting FLW from landfill and incineration, as summarized in [Table 7](#), below. The first scenario assumes all FLW currently disposed is diverted to composting. The second scenario represents the Project Team's best estimate of maximum possible AE source reduction and donation practices with minimal FLW sent for composting. The third scenario represents a moderate level of source reduction, with the remaining FLW diverted to composting.

Source reduction and food donation provide the greatest emission reduction benefits because they avoid the full lifecycle impacts of food production, including cultivation, processing and distribution. Composting also provides benefits by avoiding the GHGs generated when FLW is landfilled, reducing the need for synthetic fertilizer production and application and enhancing soil health through carbon sequestration and increased organic carbon in soil over

⁹ Despite the negative GHG impact, incineration is generally not a preferred management option for food waste because its high moisture content reduces combustion efficiency and energy recovery, and can also contribute to other environmental impacts such as air pollutant emissions, making alternative pathways like source reduction, donation, composting or anaerobic digestion more environmentally beneficial.

time. However, composting still requires the collection and processing of food waste and does not avoid the upstream impacts of producing food.

In terms of GHG benefit, Scenario 1 represents a conservative estimate (32,861 MTCO₂e) with all 67,338 tons of FLW currently disposed assumed to be diverted to composting, without any additional source reduction or donation. Under Scenario 2, maximum source reduction and donation raise the net GHG benefit to 100,260 MTCO₂e, driven by 17,063 tons of FLW prevented or donated and the remaining 50,275 tons composted.

Scenarios 1 and 2 present the range of benefits (32,861 to 100,260 MTCO₂e) with Scenario 2 highlighting the potential increase in benefit due to avoiding food cultivation and production through source reduction or donation compared to management of food waste via composting. This reinforces the EPA Wasted Food Scale, which prioritizes source reduction and donation over diversion of food waste to composting or anaerobic digestion. Not all FLW is suitable for donation and there are limits to source reduction. These constraints are considered in the estimates for Scenario 2. However, the scenarios are based on qualitative information gathering and supplemental sector research, as outlined in Appendix F: Methodology for Estimating Current Disposal of Food Loss and Waste by Sector, therefore, additional data collection, including tracking of FLW generation and diversion by AEs, would be required to refine these scenarios.

Scenario 3 is intended to represent a moderate, balanced approach to full compliance. The Project Team estimated the proportion of currently disposed material, within each sector, that is most likely to be reduced at the source, donated or managed through composting. These assumptions were informed by generator interviews, literature and the Project Team's professional experience with these sectors. Under Scenario 3, an estimated 11,795 tons would be prevented or donated, while the remaining 55,543 tons would be managed through composting. When this scenario is compared to the baseline current state, the net GHG reduction is estimated to fall between Scenario 1 and 2 with a net GHG benefit of 79,450 MTCO₂e. Source reduction and donation are estimated to result in a net benefit of 48,358 MTCO₂e, while composting the remaining FLW would reduce GHGs by an additional 8,331 MTCO₂e. Furthermore, diverting the FLW from landfill and incineration would avoid an additional 22,760 MTCO₂e.

Table 7: Summary of Greenhouse Gas Emissions from 3 Different Food Loss and Waste Diversion Scenarios

Food Loss and Waste (FLW) Impact	BASILINE: CURRENT FLW (TPY)	BASILINE: CURRENT GHG IMPACT (MTCO₂E)	SCENARIO 1: FULL COMPLIANCE FLW (TPY)	SCENARIO 1: FULL COMPLIANCE GHG IMPACT (MTCO₂E)	SCENARIO 2: FULL COMPLIANCE FLW (TPY)	SCENARIO 2: FULL COMPLIANCE GHG IMPACT (MTCO₂E)	SCENARIO 3: FULL COMPLIANCE FLW (TPY)	SCENARIO 3: FULL COMPLIANCE GHG IMPACT (MTCO₂E)
Landfill	53,870	23,703	0	0	0	0	0	0
Incineration ¹⁰	13,468	(943)	0	0	0	0	0	0
Source Reduction/ Donation	Not Applicable (Baseline)	Not Applicable (Baseline)	0	0	17,063	(69,959) *	11,795	(48,358) *
Compost	Not Applicable (Baseline)	Not Applicable (Baseline)	67,338	(10,101) *	50,275	(7,541) *	55,543	(8,331) *
Total	67,338	22,760	67,338	(10,101) *	67,33	(77,500) *	67,338	(56,690) *
Diversion Benefit	Not applicable	Not applicable	67,338	(10,101) *	67,338	(77,500) *	67,338	(56,690) *
Avoiding Landfill Benefit	Not applicable	Not applicable	67,338	(22,760) *	67,338	(22,760) *	67,338	(22,760) *
NET BENEFIT	NOT APPLICABLE	NOT APPLICABLE	67,338	(32,861) *	NOT APPLICABLE	(100,260) *	NOT APPLICABLE	(79,450) *

*Negative values indicate net climate benefit

¹⁰ Despite the negative GHG impact, incineration is generally not a preferred management option for food waste because its high moisture content reduces combustion efficiency and energy recovery, and it can also contribute to other environmental impacts such as air pollutant emissions, making alternative pathways like source reduction, donation, composting or anaerobic digestion more environmentally beneficial.

Summary of Key Insights

Affected entities have generally shown strong interest in increasing food diversion and are willing to comply, but real challenges remain. Gaps in infrastructure and limited access to clear guidance are bigger obstacles than a lack of motivation. Meeting the goals of the state's 2022 Solid Waste Management Plan, the New Hampshire Food and Agriculture Strategic Plan and the food waste disposal ban will not just require enforcement, but also meaningful investments in capacity and technical support.

AFFECTED ENTITIES GENERATE LARGE VOLUMES, BUT COMPLIANCE IS CONSTRAINED BY INFRASTRUCTURE GAPS

Food manufacturers, grocers and restaurants are the sectors with AEs that generate most of the food waste in New Hampshire. While this study indicates that food manufacturers are likely already diverting, support to help grocery stores and restaurants expand their diversion programs will be critical. Expanded infrastructure, particularly for composting and boots-on-the-ground assistance, will be needed to help AEs comply.

Insight: Enforcement alone is likely to be insufficient to maximize compliance in the absence of parallel investments in infrastructure and technical assistance.

SOURCE REDUCTION AND DONATION OFFER THE GREATEST ENVIRONMENTAL BENEFITS, BUT CAN BE THE MOST CHALLENGING OPERATIONALLY

The impact analysis demonstrates that source reduction and donation results in the largest GHG reductions. However, donation often faces constraints due to food safety regulations, minimum shelf-life requirements, labor requirements and limited rescue capacity. As a result, AEs often default to composting because it is more convenient, not because it is optimal or the best use of the food. While food pantries exist across the state, financial support can help increase their capacity to accept refrigerated items, upcycle surplus food and adhere to food temperature requirements.

Insight: Policies and programs should prioritize source reduction and donations but should be coupled with financial support.

INFRASTRUCTURE IS FRAGMENTED AND UNEVENLY DISTRIBUTED

Composting and anaerobic digestion capacity is concentrated in the southern portion of New Hampshire and in neighboring states. Central, northern and rural regions lack overlapping coverage of haulers and facilities available to AEs. Animal feed pathways are understood to be widespread, but largely invisible to regulators.

Insight: Helping AEs comply should be paired with targeted capacity expansion to close infrastructure gaps. Filling in the infrastructure gaps will avoid over-reliance on limited or geographically concentrated food waste management facilities.

ENTITIES WANT TO COMPLY WITH THE DISPOSAL BAN BUT EXPRESS CONCERNS RELATED TO CLARITY, CONFIDENCE AND TIME

Interviews with entities reveal a motivation to prevent waste and benefit the community but face some common obstacles. These obstacles include uncertainty about designation as an AE, facility acceptance of their materials and challenges of complying with regulations when capacity is limited. Many entities lack the staff time required to independently navigate these issues.

Insight: Clear guidance, simple tools and targeted resources will complement expanded infrastructure.

Recommendations

The recommendations that follow convert the study's findings into targeted actions for NHDES, the New Hampshire Legislature, food rescue organizations, food waste management facilities and other stakeholders. They are organized around five strategic priorities and sequenced from immediate implementation steps to longer-term systemic investments. Recommendations, which connect to the findings of this study, are targeted at specific stakeholders and are designed to serve as a point of leverage to advance compliance with the food waste disposal ban while accounting for existing infrastructure and market conditions.

1. EMPHASIZE COMPLIANCE ASSISTANCE

Finding: Entities expressed willingness to comply with the state's food waste disposal ban, but face uncertainty about eligibility, acceptable diversion methods, documentation requirements and what to do if/when facilities or haulers are unavailable. Compliance is likely to succeed if NHDES is seen as an implementation partner, not solely as a regulator.

Interview results reinforce this finding. As shown in [Figure 18](#), below, when entities were asked what motivates them to invest effort in food waste diversion, the highest-rated factors were preventing waste of resources, supporting food-insecure communities and environmental benefits, each receiving a median score of 4. Compliance with the ban, potential financial savings, landfill capacity concerns and internal policies all scored a median of 3. This pattern suggests that AEs are driven more by a sense of responsibility and community benefit than by regulatory obligation alone. A compliance strategy that acknowledges and builds on these intrinsic motivations through deployment of tools, guidance and partnerships, rather than enforcement alone, is more likely to generate sustained engagement and compliance among AEs.

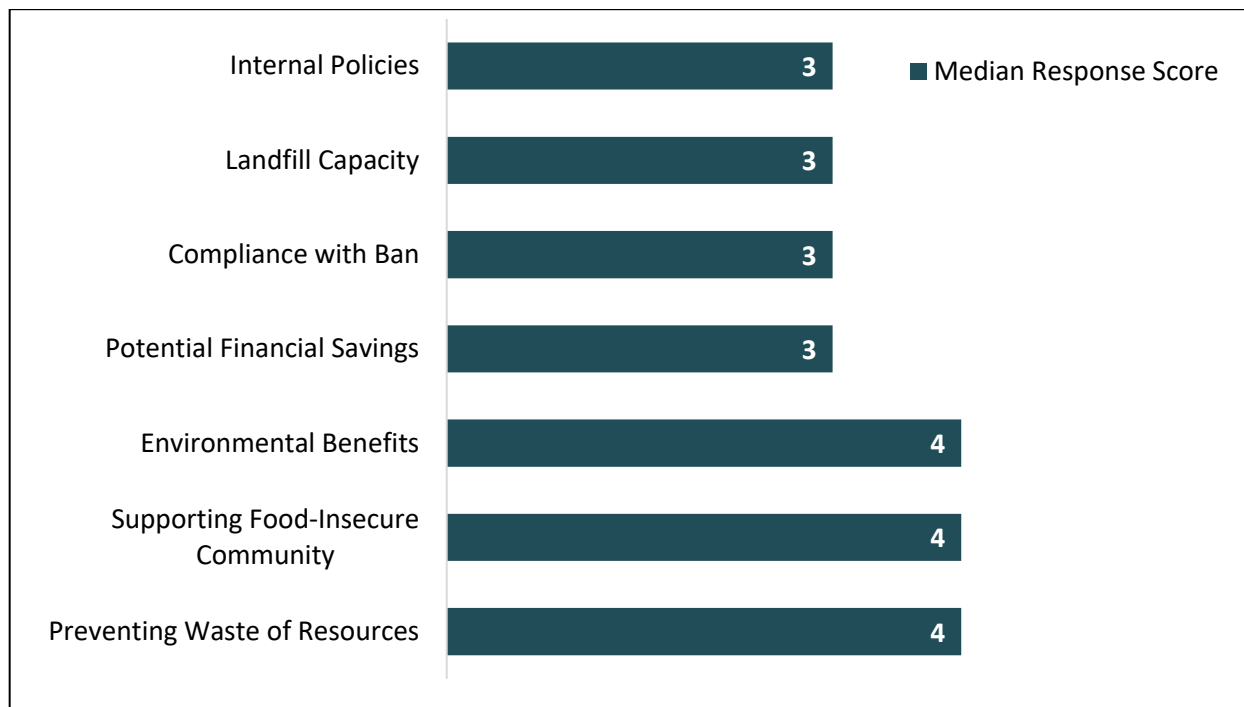


Figure 18: Entity Feedback: What is your biggest motivator for improving your food loss and waste diversion program?

1.1 Set a Clear, Consistent Compliance Framework

NHDES should publish clear compliance guidance that addresses frequently asked questions from AEs. Based on interviews and surveys, there are questions about how an AE's status is determined and which entities are subject to the ban, what constitutes acceptable diversion, proper documentation and what steps to take when nearby facilities do not have sufficient capacity or hauling service is unavailable. Guidance should clearly distinguish regulatory requirements and best practices so entities can differentiate aspirational guidance from legal obligations.

The ban's structure contributes to this uncertainty with its 20-mile threshold, for example. Several entities reported that they fall within 20 miles point-to-point, while actual travel distance on local roads is significantly farther, making diversion operationally infeasible. Several entities reported in interviews that they do not know how to learn about current capacity at nearby facilities, how to notify the state when facilities cannot accept their material or how to stay informed about new or expanded facilities. These gaps reinforce the need for centralized, accessible compliance guidance and an active networking system to connect generators to available services.

Stakeholders: NHDES (lead); trade associations and program affiliates (distribute)

1.2 Food Waste Disposal Ban Clarity

The structure of the New Hampshire food waste disposal ban creates several challenges for both generators and haulers. By restricting compliance only to AEs within 20 miles of an "alternative facility," per RSA 149-M:27, the state's ban misses opportunities to capture additional feedstock. Haulers noted that their service areas often extend beyond 20 miles and expressed a willingness to serve generation "hotspots" with high material volumes and customers, even if they fall outside the radius. Those potential customers may be disinclined to pay for food waste hauling, on top of their existing disposal costs, if they do not have to comply with the law.

Several AEs reported uncertainty about compliance eligibility and available diversion options. One recurring concern involved the ban's 20-mile threshold: some entities technically fall within 20 miles of a management facility, but actual travel distances on local roads are significantly longer, making diversion operationally infeasible. Interviewees also described limited communication and coordination among management facilities, haulers, AEs and the state. Several entities reported that they do not know how to access information about current facility capacity, notify the state when nearby facilities cannot accept material, or stay informed about new or expanded facilities that could accept their feedstock. These challenges highlight the need for centralized, accessible compliance guidance and stronger networking systems to connect generators with available services.

NHDES could collaborate with neighboring states to identify effective strategies for communicating information about food waste disposal bans, expanding program impact and applying lessons learned from states with existing food waste disposal ban policies. Some of these lessons learned and insights from AEs are outlined below.

Stakeholders: NHDES (lead); neighboring state regulators for information gathering

1.3 Use the AE Inventory Provided in this study to Drive Proactive Implementation

Utilizing the AE inventory developed from this study, NHDES should utilize the overlay of the generator locations with capacities of permitted food waste management facilities to prioritize outreach to high-generation sectors, determine compliance needs and identify entities needing technical assistance (TA). This approach will enable NHDES to proactively contact businesses meeting the generation threshold and offer compliance support before enforcement. Compliance support may involve providing resources that allow entities to conduct a waste audit; in order to verify the amount of food waste they actually generate on site. This approach mirrors what has occurred in other states, including New York, where the Department of Environmental Conservation used facility-level waste generation estimates to identify and contact designated food scraps generators under their [Food Donation and Food Scraps Recycling Act](#).

Stakeholders: NHDES lead; program partners assist with implementation and data support

2. DEPLOY TECHNICAL ASSISTANCE AS A CORE COMPLIANCE COMPONENT

Finding: Lack of staff time and know-how or confidence are primary barriers for entities to comply. Interview respondents identified financial support and in-person technical assistance as the most helpful resources for expanding diversion. Technical assistance is one of the most effective levers NHDES can deploy.

Feedback received from surveyed entities also confirmed a desire for hands-on support rather than passive informational materials only ([Figure 19](#)). In terms of support that would be most helpful, AEs rated fiscal support the highest at 5 (out of 5). In-person technical support and access to local resources such as outlets and haulers each scored a 4. Training materials, virtual support and how-to documents were also valued, but lower at 3. This suggests that written guidance is necessary at minimum, but not sufficient on its own. Direct engagement, local connections and financial assistance can drive action and that makes a strong case for a dedicated TA program.



Figure 19: Entity Feedback: What type of support would be most helpful for implementing food loss and waste diversion programs?

2.1 Establish Resources to Fund Technical Assistance

A core recommendation is that NHDES expand their technical assistance (TA) to support AEs toward compliance. Experience in neighboring states demonstrates that proactive TA significantly improves compliance rates, reduces implementation costs and burdens for AEs and accelerates diversion outcomes. Many generators expressed uncertainty about which facilities can accept their materials, what types of food waste are eligible for diversion and how to arrange transportation or service. Interview respondents, both management facilities and generators, stated that partnerships with local industries and programs that match food waste generators with diversion opportunities would be the most beneficial form of support.

New Hampshire already has a foundation to build on. Organizations across the state today provide direct, customized assistance to generators including site visits, virtual consultations, operation or waste contract reviews and ongoing specialist support. Local community groups such as [Kearsarge Climate Action Group](#) have partnered with CET to engage food businesses in prevention and diversion strategies. Colleges and universities provide student volunteers and educational resources. State and regional organizations including NH Recycles, the New Hampshire Food Alliance, the Northeast Recycling Council and the New Hampshire Municipal Association offer guidance materials, training and mapping resources. The recommendation here is to formalize and expand this network into a consistently funded, statewide program.

At the time of this study, NHDES is developing a Waste Reduction and Diversion grant program through the [Solid Waste Management Fund under RSA 149-R](#), which provides a potential funding mechanism for infrastructure development, technical assistance and educational campaigns. While the grant program addresses solid waste management broadly and is not dedicated solely to food waste, NHDES should consider designating a portion of available funding specifically for food waste technical assistance to ensure sustained, targeted support for AEs.

Two neighboring state programs provide relevant models. New York's [Rethink Food Waste NY](#) provides educational resources, case studies and direct support to AEs in the state. The program prioritizes actions along the EPA Wasted Food Scale and develops practical tools for businesses, schools, municipalities and food waste management facilities to assess waste streams and identify suitable pathways. Technical assistance is delivered at no cost to generators. In Massachusetts, [RecyclingWorks](#) is funded by MassDEP and also provides hands-on technical assistance to businesses,

institutions and municipalities subject to the commercial food waste disposal ban. Services include site-specific waste assessments, customized diversion plans, hauler and processor connections and troubleshooting. Assistance is embedded in the regulatory framework, lowering barriers to participation and helping entities find cost-saving opportunities.

A similar program in New Hampshire can address these same previously identified gaps. AEs such as smaller businesses, schools and healthcare facilities lack the type of expertise to manage food waste effectively and will struggle to identify available infrastructure or service providers that can assist them. A program can offer them customized waste audits as well as planning and other resources, like an up-to-date directory of licensed haulers and processors. Sector-specific guidance can target predominant generators and help AEs adapt as infrastructure and markets evolve. Perhaps most importantly, this approach positions NHDES as a collaborative partner rather than solely a regulator and helps build cooperative, productive relationships while also providing NHDES with performance insights.

Stakeholders: NHDES (funding and oversight); partners (technical assistance; industry associations (AE engagement))

2.2 Align Technical Assistance with Enforcement Strategy

TA can also be highly effective pre-enforcement step. This is particularly true for AEs or even entire sectors that are new to diverting organics. As entities are periodically identified by NHDES, initial contact should be an offer of compliance support rather than an enforcement action. TA findings, including the results of waste audits and the availability of local diversion infrastructure, should inform realistic compliance expectations and timelines. This approach positions NHDES as a partner in compliance and targeting enforcement authority towards entities that fail to engage in good faith. An accompanying graduated enforcement approach should accompany this approach, similar to the way Massachusetts enforces its ban. For example, when MassDEP inspectors observe food materials in a load at a landfill or transfer station tipping floor but are unsure whether it exceeds the tonnage threshold, they may first send letters to the generator. If a clear violation is identified, MassDEP typically issues a notice of noncompliance (NON) for initial violations, followed by an administrative consent order with penalties (ACOP) for repeat violations.

Stakeholders: NHDES (lead)

3. ACTIVELY SUPPORT FOOD DONATION AND SOURCE REDUCTION

Finding: Impact analysis conducted for this study shows source reduction and donation will deliver the largest GHG benefits of any diversion pathway. However, donation is constrained by food safety requirements, shelf-life logistics, labor and limited food rescue capacity. Many AEs default to composting because it is operationally simpler, even though it produces less environmental benefit.

3.1 Strengthen Food Rescue and Donation Infrastructure

NHDES should promote investment in expanding the operational capacity of food rescue, particularly in regions with a high density of AEs. Interviews indicated a significant constraint is insufficient storage such as refrigeration and freezer capacity, limited transportation resources and staffing shortages. These are infrastructure problems, not motivation problems. Food banks and rescue organizations consistently report willingness to accept more material if they have the physical capacity to do so. NHDES should look for partnership opportunities with established food pantries, for example, direct grant funding toward cold storage equipment, vehicles and staffing. In regions with little or no food rescue infrastructure, hub-and-spoke models where smaller generators aggregate material at a central collection point should be explored. This extends the reach of existing organizations.

Food banks and pantries are limited in what they can accept from generators, with requirements for shelf life and nutrition labeling. So, the sectors with the greatest viability for food donation will include grocers, supercenters, specialty food retailers, wholesalers and food manufacturers that have packaged or shelf-stable surplus. These sectors can benefit greatly from the NHFB's *Fresh Rescue Program*, which offers full program coordination and implementation, staff training, food safety compliance and dedicated support from program staff. Sectors not well-suited for food pantry/bank donation should be directed toward other management pathways. Restaurants, hospitality and event venues, for example, generate surplus prepared food that is harder to recover effectively in this way, but can be expanded through platforms such as [Too Good To Go](#), which connects generators directly with consumers willing to purchase surplus food at discounted prices. Supporting the technical capabilities of all types of food rescue organizations, including tracking tools and applications for connecting surplus food to consumers, can help expand donation from these harder-to-serve sectors. Some states have provided funding opportunities for food pantries and food banks to expand their capabilities. Platforms such as Too Good to Go that work with FLW generators to sell surplus food at discounted prices, have expanded in downtown urban areas with high concentrations of smaller food businesses.

Stakeholders: NHDES (funding and coordination); NH food rescue organizations (operations); NH Legislature (funding)

3.2 Reduce Donation Risks and Uncertainty

Confusion around food donation rules is common and was echoed by entities engaged in this study. Liability concerns remain a primary reason for not donating surplus food. This represents an area where NHDES should coordinate with New Hampshire Department of Health and Human Services (NHDHHS). New Hampshire does address food donation and liability alongside the federal Good Samaritan Act, providing strong protection for donors acting in good faith and in compliance with general food safety standards. However, these frameworks may lack detailed, donation-specific operational guidance.

NHDES should work with NHDHHS to assess whether existing guidance adequately addresses the donation of prepared and perishable foods, aligns with federal standards and provides similar clarity for alternative pathways such as animal feed. AEs sometimes report nuanced concerns (if they can provide one-time donations or how to transport edible surplus). NHDES, in coordination with NHDHHS and potentially municipal health departments, should evaluate whether code updates are needed to address these gaps. This could include assessing whether any restrictions limit the donation of foods labeled with quality-based dates (e.g., “best by” or “sell by”) and, where appropriate, advocating for their removal.

Finally, NHDES should work with NHDHHS on whether the department can help address transportation and storage challenges or play a role in connecting generators with recovery organizations capable of accepting specific food types and volumes.

Stakeholders: NHDES (coordination and guidance); NHDHHS (clarity on regs and donation-related activities); Local Health Departments (review local regs)

4. ADDRESS INFRASTRUCTURE AND HAULING GAPS THAT LIMIT COMPLIANCE

Finding: Composting and anaerobic digestion capacity is concentrated in southern New Hampshire and neighboring states. Northern and rural regions lack overlapping coverage of generators, haulers and facilities. The 20-mile rule creates uneven compliance potential across the state and informal animal feed diversion is widespread but largely invisible to regulators.

When AEs were asked to identify their biggest barriers to reducing, donating or diverting food waste ([Figure 20](#)), transportation scored highest at 4 (of 5). Staff capacity and training, lack of outlets and financial capacity each scored 3, followed by space and equipment constraints at 2. Notably, liability concerns and internal or external policies scored lowest at 1, reinforcing that the barriers to diversion are predominantly logistical and structural rather than legal. These findings argue strongly for state investment in physical systems like hauling networks, transfer infrastructure and regional processing capacity. Addressing these constraints may do more to advance compliance than regulatory messaging alone.

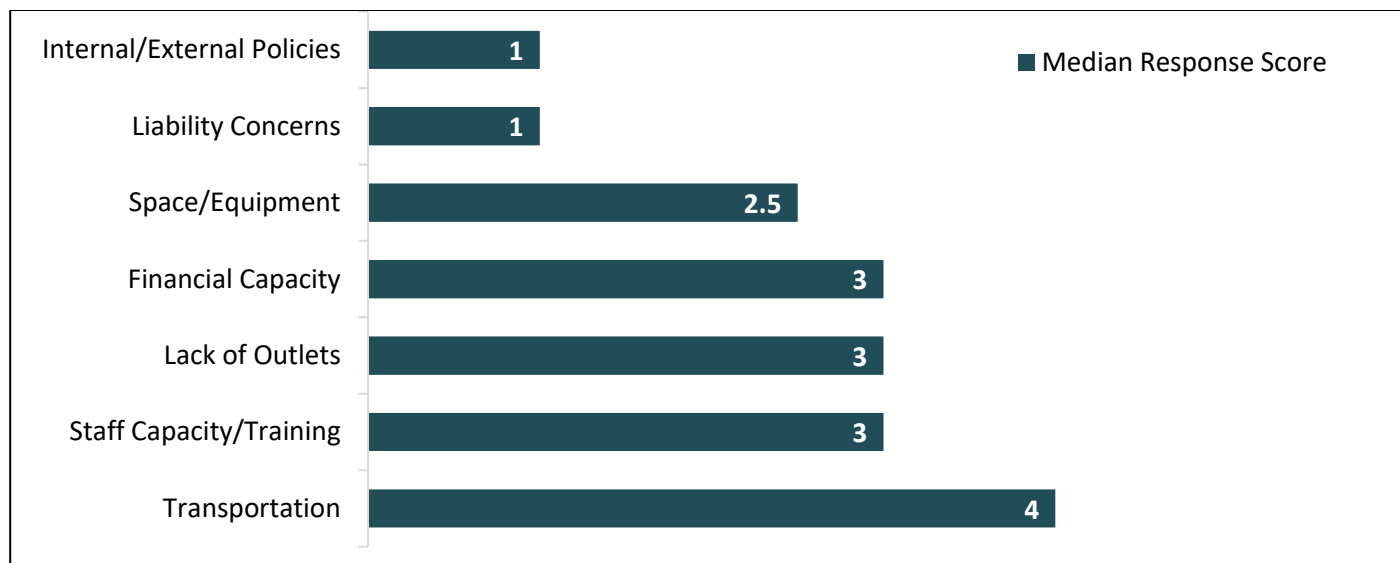


Figure 20: Entity Feedback: What are the biggest barriers to reducing, donating or diverting FLW?

4.1 Use Geographic Insights to Target Infrastructure Investment

NHDES should use the study's data and geospatial findings to prioritize bottlenecks such as AE-dense regions with few viable diversion pathways, permitted facilities that lack excess capacity and where hauling coverage is limited or unavailable. This study provides information related to these gap areas, which should result in priority for financial support in the form of grants, low-interest loans or tax incentives that will support the expansion of infrastructure. NHDES should update and refine the analysis as new facilities emerge, and the set of AEs evolves over time.

As previously described, infrastructure needs will be regional in nature. In areas with sufficient generator density, commercial composting or anaerobic digestion facilities may be viable. In more rural areas, hub-and-spoke systems may be more practical. Regional partnerships between municipalities and private operators should be encouraged to share the cost of infrastructure and benefit from economies of scale.

Stakeholders: NHDES (lead, spatial analysis, grants); New Hampshire Legislature (funding); public and private operators (infrastructure)

4.2 Expand Support to Hauler Market

The study revealed that hauling coverage is constrained in much of the state, particularly in the central, western and northern regions outside the southern corridor. Expanding service in these areas will require strategies that improve collection efficiency and reduce costs. Route densification, where haulers coordinate routing and pickups, improve collection economics where individual accounts might be prohibitive. Transfer stations that aggregate material locally before transport to a regional processing facility can serve a similar function for more dispersed areas. In

Massachusetts, 55 of 144 municipalities have designated a preferred vendor for residential food scraps collection and 72 municipalities offer drop-off options for residents. Comparable arrangements in New Hampshire, tailored to its population density, could extend hauling access beyond the regions where commercial services currently operate. One point of engagement might be through an existing virtual organics hauler roundtable, convened annually by CET, that brings together haulers from across New Hampshire and the broader Northeast to discuss market conditions, share lessons learned and identify opportunities to strengthen the organics recycling system.

Stakeholders: NHDES (coordination & incentives); private haulers (services); municipalities (logistics infrastructure)

4.3 Expand Support to Composters

Total composting capacity was identified as a key bottleneck. To enable composters to accept the types and volumes of food scraps targeted for diversion, NHDES could provide targeted support to permitted facilities seeking to expand capacity. This support could include streamlined permitting guidance, technical assistance on contamination management and capital funding for equipment upgrades. NHDES could also improve clarity around acceptable materials by more clearly delineating food waste categories within composting facility permits and Annual Facility Reports, helping AEs better understand which facilities can accept specific material streams.

Interviews with compost operators highlighted several barriers that limit their ability to expand operations and accept additional feedstock. While national testing programs such as the [U.S. Composting Council's Test Method for the Examination of Composting and Compost \(TMECC\)](#) help ensure product safety and quality, access to the Seal of Testing Assurance (STA) certification remains limited. Composters noted that limited access to STA certification—due to cost, lab availability and administrative burden—can reduce market confidence in finished compost due to concerns about pathogens or contaminants.

Composters also expressed a need for expanded training and technical support. Although resources such as [NH Recycles' Composting Toolkit](#) are available, operators identified gaps in localized, sector-specific guidance, as well as opportunities for hands-on learning. Desired support includes personalized support, facility tours and peer-to-peer knowledge sharing on emerging technologies and operational best practices. An example of this assistance includes CET's assistance for composting operators, currently funded by USDA and to date has supported multiple operators in New Hampshire.

Stakeholders: NHDES (permitting, technical guidance, grants); composting facility operators (implementation)

4.4 Clarify the Role of Animal Feed and On-Farm Pathways

Diverting food scraps to animal feed is legal in New Hampshire but it is [regulated](#) under agriculture and public health statutes, not the solid waste system. Rules are administered separately from NHDES composting and disposal permits, so this pathway is regulated, but only partially visible at a system level. For example, while composting facilities require permits, track tonnage and report to NHDES, animal feed operations do not. Much activity in this pathway is informal and decentralized, as small farms and households feed scraps to animals through direct generator-to-farm relationships that are legal but untracked, even as New Hampshire's food waste law rightly recognizes feeding animals as a preferred pathway.

NHDES should coordinate with the New Hampshire Department of Agriculture to map licensed and informal animal feed operations, clarify when this pathway constitutes compliant diversion under the ban and develop simple documentation guidance for AEs who use it. Over time, NHDES might even be able to include animal feed quantities under reporting, not to impose a new regulatory burden on farms, but to promote the visibility for planning and to enable AEs to fully take advantage of it.

Stakeholders: NHDES (lead); New Hampshire Department of Agriculture (coordination); farms, agriculture industry (participation)

5. IMPROVE DATA COLLECTION, REPORTING AND ADAPTIVE MANAGEMENT

Finding: NHDES will need consistent, high-quality data to assess whether the ban is working as intended, where diversion is occurring and where infrastructure gaps remain. Without reliable measurement, NHDES will not be able to target investments, evaluate program effectiveness or make the case for continued funding.

5.1 Establish Specific Reporting Requirements

NHDES should implement structured reporting from both food waste management facilities and, where feasible, from large AEs. Current reporting does not adequately distinguish food waste from other organics, so it's difficult to know how much food waste is being diverted. The Annual Facility Report could require composters and AD facilities to report food separately from yard waste and other organics, a change that would significantly improve tracking of diversion volumes and reveal capacity trends over time. Additionally, NHDES should explore whether a simple digital reporting tool, rather than paper-based or ad hoc surveys, could reduce the burden on both generators and agency staff while improving data quality and timeliness. The biggest generators might report on volumes, diversion methods and service providers and any relevant barriers. New York, for example, requires designated food scraps generators to report annually on food waste donated and recycled ([New York State, 2026](#)). New Jersey also has mandatory reporting from generators, both on generation and on how their food waste is managed ([New Jersey Department of Environmental Protection, n.d.](#))

Stakeholders: NHDES (lead, reporting design and oversight); processors or recovery organizations (reporting); AEs (generation reporting); Legislature (authority for reporting requirements, as needed)

5.2 Measure impact of Implementation to Refine Policy and Program Design

Reported data should be leveraged to track diversion volumes by pathway. This information can reveal how food is being managed in relation to the preferences set by New Hampshire's waste management hierarchy as well as EPA's Wasted Food Scale ([Figure 14](#)). Regional compliance trends can help NHDES evaluate whether technical assistance and infrastructure investments are producing measurable results. Ideally, this information will feed back into continual improvement of the program's design and achievement of the state's SWMP and waste diversion goals.

Stakeholders: NHDES (lead)

Next Steps and Prioritization

The recommendations presented here will need to be considered in stages, building on existing partnerships and scaling investment as the program matures. This report's findings show that New Hampshire has already demonstrated successful food waste diversion models from which to build. Grocery retailers have implemented efforts to reduce food loss through donation, composting and animal feed. Other businesses have implemented diversion programs with technical assistance support. These successes would translate to valuable case studies to be showcased by NHDES. Interviewed generators consistently identified partnerships that can serve in a matchmaking capacity by connecting them with available haulers, processors and food rescue organizations as to be highly valuable. To maintain momentum and sequence effort realistically, NHDES should think about actions on different time horizons:

NEAR TERM



In the next two years, NHDES should focus on actions that don't require a statutory change or significant resources beyond what is available. These include conducting the AE-to-facility spatial overlay using the study inventory, publishing compliance guidance, launching or expanding technical assistance, initiating outreach to large AEs, coordinating with DHHS and food banks to clarify donation requirements and disseminating existing partnership case studies.

MID-TERM



In subsequent years, NHDES should pursue actions needing resources unavailable today, involving coordination with other agencies, or requiring legislative action. Infrastructure grants could target regions lacking access or capacity, expansion of hauler networks or hub-and-spoke collection.

LONG TERM



Over time, NHDES should take the data and relationships developed early on and refine enforcement priorities and compliance tactics based on actual diversion performance as understood through robust reporting and feedback mechanisms. Beyond capacity, end markets for compost and digestate are likely to need bolstering and there will be opportunity to incorporate organics diversion goals into broader state goals related to solid waste planning or even climate.

Overall, these recommended actions reflect a central takeaway from this study: AEs in New Hampshire are generally willing to comply. With improved infrastructure, targeted guidance and ongoing coordination, AEs can achieve measurable results towards compliance with the food waste disposal ban. By prioritizing actions strategically and building on early successes, NHDES can establish a strong framework for food waste diversion that supports the state's environmental, economic and community goals.

Appendix A: Methodology and Detailed Assessment of Generation Factors

This section outlines the cross-sector quality assurance process, summarizes the selected generation factors and explains the methodology used to determine generation factors for each sector.

QUALITY ASSURANCE

A multi-pronged quality assurance procedure was implemented to verify and improve the accuracy of entity datasets by identifying errors or omissions in each sector. This included a focused validation of affected entities (AEs) and for the largest food waste generators, this validation including cross-referencing with publicly available secondary data sources (e.g., industry or trade alliance datasets and internet searches) and validation with local contacts and partners via direct outreach and local store directories. For smaller generators within each sector, public data cross-referencing and random spot-checking were employed to confirm general accuracy of location size and entity count.

INSTITUTIONS

The list of entities for K-12 public schools was cross-referenced with the [US National Center for Education Statistics' Common Core of Data](#) (CCD) for America's public schools for the 2023-2024 and 2024-2025 school years. K-12 private schools were cross-referenced with the [US National Center for Education Statistics' Private School Universe Survey](#) (PSS) data for the 2023-2024 school year. The list of colleges and universities in the state of New Hampshire was cross-referenced with the [New Hampshire Department of Education's list of New Hampshire Higher Education Approved Colleges and Universities](#) (2024). Correctional facilities were confirmed using lists of entities available through the US Federal Bureau of Prisons, the New Hampshire Department of Corrections and individual county Department of Corrections webpages.

RESIDENTIAL: MULTIFAMILY HOUSING

The dataset of large multifamily housing units was cross-referenced with the [US Department of Housing and Urban Development Multifamily Housing Property search \(2026\)](#) and the [New Hampshire Housing Directory of Housing \(2026\)](#) for completeness.

COMMERCIAL BUSINESSES

Commercial sector datasets were primarily obtained from Data Axle, which provides verification status and last verification dates for each entity. Quality assurance generally followed the previously described procedures, with minor adjustments to accommodate sector-specific datasets. The Data Axle database classifies some entities as "suspect" or "pre-verified" if the data verification is outdated. For entities that received a classification from Data Axle, the Project Team individually verified the entity, if their estimated food loss and waste (FLW) generation met the threshold of the food waste disposal ban. Only entities with a verified status in the Data Axle database were retained for entities estimated to generate less than one ton per week of FLW, unless independently confirmed to be in business. Quality assurance indicated that many suspect and pre-verified hospitality entities, primarily seasonal camps, remained active and were retained. Restaurants located within malls were identified using landmark addresses, removed from the main restaurant dataset and compiled into a separate dataset.

GENERATION FACTORS

Studies were compiled and reviewed to identify existing FLW generation factors for individual sectors. A generation factor and corresponding unit were selected for each sector based on study validity, alignment with project interview findings and the expertise of the Project Team. [Table 8](#), below, provides a summary of the selected generation factors by sector.

Table 8: Summary of Sector FLW Generation Factors

CATEGORY	SECTOR	RECOMMENDED GENERATION FACTOR	UNITS	SOURCE
Residential	Large Multifamily Complexes	452	pounds per household per year	NRDC, 2017
Institution	Elementary School	28.25	pounds per student per year	Vermont Natural Resources, 2018
Institution	Middle School	18.25	pounds per student per year	Vermont Natural Resources, 2018
Institution	High School	8.75	pounds per student per year	Vermont Natural Resources, 2018
Institution	Mixed Grade	18.42	pounds per student per year	RRS calculation of an average of generation factors for each grade
Institution	Boarding Schools	122.5	pounds per student per year	RRS calculation based on 3 meals per day at 0.28 pounds per meal (US EPA, 2020) for residential percentage and one meal per day for students
Institution	Colleges and Universities	34.61	pounds per student per year	RRS, 2024
Institution	Correctional Facilities	305	pounds per inmate per year	RRS, 2024
Institution	Healthcare	653	pounds per bed per year	EPA, 2020
Food Service	Restaurants	2,430	pounds per employee per year	RRS calculation, average of reviewed studies
Food Service	Hospitality	1,138	pounds per employee per year	EPA, 2020
Food Service	Large Events and Venues	0.31	pounds per visitor per week	EPA, 2020
Food Service	Malls and Shopping Centers	2,430	pounds per employee per year	Applied to each restaurant identified within the mall and summed up for the mall.
Food Service	Large Office Buildings	1.50	pounds per employee per week	RRS calculation which assumes 3 meals per week and average food waste per meal (0.46/meal)

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX A: METHODOLOGY AND DETAILED ASSESSMENT OF GENERATION FACTORS

CATEGORY	SECTOR	RECOMMENDED GENERATION FACTOR	UNITS	SOURCE
Retail	Grocery Stores	2.03	tons per employee per year	NRDC, 2017
Retail	Specialty Food and Convenience Stores	0.85	tons per employee per year	EPA, 2020
Retail	Supercenter and Warehouse Clubs	0.38	tons per employee per year	EPA, 2020
Distribution	Food Wholesalers and Distributors	1,356	pounds per employee per year	RRS calculations which was an average of studies analyzed (CCG, 2006, CCG, 2014, BSR, 2013, ReFED, 2016)
Distribution	Food Banks and Pantries	Interview data	pounds per year	NH Food Bank Interview, 2026
Industrial	Food Processors and Manufacturers	0.095	pounds per dollar of revenue per year	EPA, 2020
Agricultural	Farms	Total sector estimate	Not Applicable	USDA, 2022

GENERATION ESTIMATES

The generation factors for each sector were applied to individual entities to estimate total sector generation in tons per year (TPY). Entities estimated to generate more than one ton of food waste per week were classified as affected entities. Total sector generation, affected entity counts and annual tonnages were then calculated, as shown in [Table 9](#), below.

Table 9: Food Waste Generation Estimates in TPY by Sector and Affected Entities

CATEGORY	SECTOR	NUMBER OF TOTAL SECTOR ENTITIES	NUMBER OF AFFECTED ENTITIES	SECTOR TOTAL FLW GENERATION (TPY)	AFFECTED ENTITIES FLW GENERATION (TPY)
Residential	Large Multifamily Complexes	1,028	54	17,452	4,257
Institutions	K-12 schools	635	2	1,954	98
Institutions	Colleges and Universities	32	8	875	660
Institutions	Correctional Facilities	20	3	620	367
Institutions	Healthcare	174	17	5,418	1,391
Food Service	Restaurants	970	136	28,841	10,860
Food Service	Hospitality	586	37	12,322	5,198
Food Service	Large Event Venues and Festivals	43	28	1,737	1,710

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX A: METHODOLOGY AND DETAILED ASSESSMENT OF GENERATION FACTORS

CATEGORY	SECTOR	NUMBER OF TOTAL SECTOR ENTITIES	NUMBER OF AFFECTED ENTITIES	SECTOR TOTAL FLW GENERATION (TPY)	AFFECTED ENTITIES FLW GENERATION (TPY)
Food Service	Malls and Shopping Centers	83	35	5,182	4,110
Food Service	Large Office Buildings	11	4	643	339
Retail	Grocery Stores	126	120	32,542	32,294
Retail	Specialty Food and Convenience Stores	454	1	3,961	55
Retail	Supercenters and Warehouse Clubs	46	46	4,211	4,211
Distribution	Food wholesalers and Distributors	77	4	1,652	970
Distribution	Food Banks and Pantries	379 ¹¹	1	1,003	130
Industrial	Food Processors and Manufacturers	412	392	156,434	155,570
Agricultural	Farms	1,329	0	6,130	0
TOTAL	NOT APPLICABLE	6,405	888	280,997	222,220

LARGE MULTIFAMILY COMPLEXES

GENERATION FACTOR SELECTION AND CALCULATION

As shown in the equation below, a generation factor for annual household FLW was applied to the number of units for each multifamily complex to estimate the annual food waste for that entity. Food waste generation was assumed to be relatively constant throughout the year to estimate weekly generation.

$$\text{Pounds per household per year} \times \text{households per multifamily complex} \times (1 \text{ ton} / 2,000 \text{ pounds}) = \text{TPY of FLW}$$

Estimated Generation by AEs in Large Multifamily Complexes sector: 4,257 TPY

A variety of sources were reviewed to select the annual household FLW generation factor. These ranged from 328 pounds per household per year from a study in Oregon (2019) to 464 pounds per household per year from studies conducted in the US (2016) and the UK (2022). The value of 452 pounds per household per year from a study conducted by Natural Resources Defense Council (2017) was selected for this study since it is based on recent U.S. data and uses a reliable methodology combining self-reported surveys and audit data. Studies that rely solely on participants self-reporting their food waste may be biased, as the act of tracking itself has been shown to reduce food waste. Therefore, a study that applies both self-reporting by participants and waste or bin audits was deemed to be the most representative estimate. All identified and reviewed generation factor sources are presented below in [Table 10](#).

¹¹ For the purposes of this study, Project Team removed out-of-state pantries.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX A: METHODOLOGY AND DETAILED ASSESSMENT OF GENERATION FACTORS

Table 10: Summary of Generation Factor Sources for Large Multifamily Complexes

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	452	pounds per household per year	NRDC, 2017	8.70	pounds per household per week	Combines national datasets, updated case studies and interviews with stakeholders to track waste volumes and identify intervention points. Kitchen Diary, self-reported survey, bin dig, also used in EPA, 2020
No	352	pounds per household per year	ReFED, 2024		tons residential and households	Calculated from ReFED Food Waste Monitor of 23.5M tons/132.2M households
No	380	pounds per household per year	CCG, 2015	380	pounds per household per year	Waste Composition from residences in five regions across California
No	371	pounds per household per year	US EPA, 2016	148.20	pounds per person per year	Self-Reported waste measurement and photo diary from eleven cities/counties in the US over seventeen food waste reduction campaigns reported 2.2 to 3.5 pounds per person per week.
No	464	pounds per household per year	InSinkErator, 2016	464	pounds per household per year	Self-reported data for residential solid and liquid food waste disposal and diversion associated with installation of food waste disposers in households across multiple U.S. cities
No	328	pounds per household per year	Oregon DEQ, 2019	6.30	pounds per household per week	Includes liquid waste down the drain. Four-part study-urban and rural households-1) interviews,2) phone survey, 3) kitchen diaries, curbside sorting and surveys.
No	463	pounds per household per year	WRAP, 2022	210	kilogram per household	2022 data showing six million tons in UK households, 210 kg per household.

K-12 SCHOOLS

GENERATION FACTOR SELECTION AND CALCULATION

The K-12 FLW generation factor is expressed in pounds of food waste per enrolled student per school week, calculated during peak season for 35 weeks. To calculate annual food waste the number of enrolled students per school is multiplied by the relevant K-12 generation factor and divided by 2,000.

Pounds per student per year × enrolled students × (1 ton / 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in K-12 Schools Sector: 98 TPY

[Table 11](#), below, shows the generation factors reported in the literature and reviewed for this study. Audits of food waste in K–12 schools in the reviewed literature indicate that food waste generation patterns vary significantly by geography and grade level. Generation factors for elementary, middle and high schools were selected based on data from Vermont, as they provided different estimates by grade and were considered most representative of New Hampshire. Although these factors are lower than those reported in a World Wildlife Fund (WWF) study of nine U.S. cities also provided a breakdown by grade, this difference is likely driven in part by New Hampshire’s lower participation in Free or Reduced-Price Lunch programs (23% compared to the national average of 53%).

Interview data from a New Hampshire elementary school analyzed alongside the WWF study, show reasonable alignment with the selected factors. For modeling purposes, “mixed” schools are represented by the average of elementary and middle school generation factors, while pre-schools are assumed to align with elementary school rates.

A generation factor specific to boarding schools could not be identified in literature. Therefore, a factor was created based upon an average estimate of food waste per meal (0.28lbs/meal (EPA, 2020)) and assuming 75% of boarding school students are served 3 meals per day (based upon desk research of reported data for New Hampshire boarding schools), with the remainder served one meal per day and assuming 175 days per year.

Table 11: Summary of Generation Factor Sources for K-12 Schools

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	28.3	pounds per student per year	Vermont Natural Resources, 2018	1.13	pounds per student per week	Elementary - Assumes 175 school days per year
Yes	18.3	pounds per student per year	Vermont Natural Resources, 2018	0.73	pounds per student per week	Middle - Average of middle and high schools
Yes	8.8	pounds per student per year	Vermont Natural Resources, 2018	0.35	pounds per student per week	High School data
Yes	18.4	pounds per student per year	RRS calculated	Not applicable	Not applicable	Mixed (average of Elementary, Middle and High School)

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX A: METHODOLOGY AND DETAILED ASSESSMENT OF GENERATION FACTORS

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	122.5	pounds per student per year	RRS calculated	0.28	pounds per student per week	RRS calculation for Boarding Schools, using 0.28 pounds per meal (EPA, 2020) and 75% of students eating 3 meals per day with 25% eating one meal per day
No	39.2	pounds per student per year	WWF, 2019	39	pounds per student per year	Average- used for varied schools, based on 46 schools across nine cities in US.
No	42.8	pounds per student per year	WWF, 2019	43	pounds per student per year	Elementary
No	41.9	pounds per student per year	WWF, 2019	42	pounds per student per year	Middle
No	27.3	pounds per student per year	WWF, 2019	27	pounds per student per year	High School
No	24.7	pounds per student per year	WWF, 2019	25	pounds per student per year	Pre-K
No	26.5	pounds per student per year	WWF, 2024	26.53	pounds per student per year	WWF case study reported 10,000+ pounds diverted from Hollis Primary in 2023/24. The 377 K-3 students 3% free/reduced lunch- equates to 26.5 pounds per student per year
No	22.0	pounds per student per year	EPA, 2020	22.0	pounds per student per year	Average of data from reviewed studies. pounds per student per year

COLLEGES AND UNIVERSITIES

GENERATION FACTOR SELECTION AND CALCULATION

The factor of 34.6 pounds per student per year multiplied by the reported student enrollment for colleges and universities to arrive at an estimate of food waste for these entities.

Pounds per student per year × enrolled students × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Colleges and Universities Sector: 660 TPY

Most data reported for college and universities FLW is reported as food waste per meal. This is then multiplied by the average number of meals per student each year to arrive at the generation factor. RRS regional data was used to estimate 0.23 pounds per meal of food waste and 150.5 meals per student per year. Data from New Hampshire and

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX A: METHODOLOGY AND DETAILED ASSESSMENT OF GENERATION FACTORS

Vermont institutions were consistent with these estimates. [Table 12](#), below, shows the factors that reviewed the selected food waste per meal and meals per student per year factors.

Table 12: Summary of Generation Factor Sources for Colleges and Universities

SELECTED	FACTOR	UNITS	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	34.6	pounds per student per year	RRS, 2024	Not applicable	Not applicable	Based upon 0.23 pounds per meal *150.5 meals per student
No	38.4	pounds per student per year	Vermont Natural Resources, 2018	1.13	pounds per student per week	Not applicable
No	0.23	pounds per meal	RRS, 2024	0.23	pounds per meal	Adjusted average informed by interviews in Maine
No	0.40	pounds per student per meal	EPA, 2020	0.40	pounds per student per meal	Average meals per student per meal from two methods applied by EPA
No	0.23	pounds per student per meal	CCG, 2015	0.23	pounds per student per meal	Educational institutions in general and not specific to colleges and universities
No	0.40	pounds per student per meal	Harvard Magazine, 2025	0.40	pounds per student per meal	Reported case study
No	0.11	pounds per meal	UNH, 2023	0.11	pounds per meal	Reported case study
No	150.5	meals per year per student	RRS, 2024	150.5	meals per year per student	Calculated based on Maine data showing 76% non-residential and 24% residential colleges and universities
No	113.3	meals per year per student	UNH, 2023	113.3	meals per year per student	17,000 meals per day, 25,519 students per year; assumed 170 days
No	169.0	meals per year per student	EPA, 2020	169.0	meals per year per student	Meals on average based on average of literature.
No	110.3	meals per year per student	NH (CET) interviews	110.3	meals per year per student	Plymouth State Interview 3,700 students, 2,400 meals per day
No	333.5	meals per year per student	NH (CET) interviews	333.5	meals per year per student	Colby Sawyer College 943 students, 1850 meals per weekdays; 1,000 meals per day weekends

CORRECTIONAL FACILITIES

GENERATION FACTOR SELECTION AND CALCULATION

FLW generation for correctional facilities is calculated using a factor expressed in pounds per inmate per year, multiplied by the number of inmates. Where annual data on inmates was not available it was estimated to be 70% of capacity.

Pounds per inmate per year × inmates × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Correctional Facilities Sector: 367 TPY

The selected factor was 305 pounds per inmate per year. It was based on prior RRS analysis and informed by New England regional data. Food waste reported in the literature ranged from 0.65 pounds per inmate per day to 1.25 pounds per inmate per day. This variance is shown in [Table 13](#), below. Data on average annual inmate population was used to estimate annual food waste. It was assumed that there was minimal seasonal effect and food waste was spread evenly across all weeks of the year.

Table 13: Summary of Generation Factor Sources for Correctional Facilities

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNIT	NOTES
Yes	305	pounds per inmate per year	RRS, 2024	Not applicable	Not applicable	Based upon New England interviews and prior RRS research. Consistent with other estimates.
No	365	pounds per inmate per year	CTDEEP, 2001	1.00	pounds per inmate per day	New York data and compost program, unclear if generated or recovered, used by nine other studies
No	456	pounds per inmate per year	Mendrey, K., 2013	1.25	pounds per inmate per day	Washington State reported data
No	511	pounds per inmate per year	Goldstein, N., 2015	1.40	pounds per inmate per day	Correctional facility reported data
No	237	pounds per inmate per year	NYS P2i, 2013	0.65	pounds per inmate per day	Calculated from compost diversion reported by NY DOCC to NYCEC and includes occupancy

HEALTHCARE

GENERATION FACTOR SELECTION AND CALCULATION

Food waste generation at healthcare facilities was estimated by multiplying pounds per bed by the number of beds.

Pounds per bed per year × number of beds × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Healthcare Sector: 1,391 TPY

[Table 14](#), below, summarizes the data reviewed to arrive at a generation factor for the healthcare sector. The generation factor of 653 pounds per bed per year was selected to estimate healthcare FLW. This factor is derived from an average of studies analyzed by the EPA (2020). This method is based upon data reported at an institutional level which is then translated to a per bed factor. Analysis conducted by the Project Team included several more recent studies but arrived at a similar factor, so it was not adjusted.

The Project Team benchmarking also analyzed factors derived from two other methods which were deemed less reliable. One method utilizes data reported on food waste per meal which then relies on an estimate of meals per bed for the institutions, for which there is limited data and high uncertainty. Another method provides an estimate of food waste per employee but has less data upon which to base the estimate. The results of these methods were not measurably different.

Table 14: Summary of Generation Factor Sources for Healthcare

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	653	pounds per bed per year	EPA, 2020	653	pounds per bed per year	Average of studies derived from waste audit data; CTDEEP, 2001, Walsh et al., 1993, CalRecycle, 2015, NC DENR, 2012
No	1,248	pounds per bed per year	CTDEEP, 2001	0.60	pounds per meal	From original report
No	233	pounds per bed per year	CalRecycle, 2015	0.57	tons per bed per year	Table 52: Food Generation (223,416 tons), total generation (1,096,945) to calculate 0.57 tons per bed
No	468	pounds per bed per year	North Carolina DENR, 2012	188	tons per year per establishment	Hospital Waste Audit divided by number of beds. The only hospital in Orange County, North Carolina, has 803 beds.
No	924	pounds per bed per year	Thiel, et al., 2021	2.53	pounds per day per bed	A one-day waste audit in one NYU Langone Hospital Main Campus- 750 beds, 9,575 on-site full-time-employee and 212,574 patient days per year.
No	378	pounds per bed per year	NRDC, 2017	3.42	pounds per bed per day	Waste audits in 3 cities (Denver, NYC and Nashville) arrived at 3,500 pounds per employee per year
No	650	pounds per bed per year	RRS Calculated	Not Applicable	Not Applicable	Average of studies reviewed

RESTAURANTS

GENERATION FACTOR SELECTION AND CALCULATION

Several data sources were reviewed to arrive at a recommended generation factor for FLW in this sector as summarized in [Table 15](#), below. Generation factors based on number of employees ranged from 1,529 pounds per employee per year to 3,382 pounds per employee per year. The average of the reviewed studies was selected.

Pounds per employee per year × number of employees × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Restaurants Sector: 10,860 TPY

Full-service restaurants typically generate more food waste on-site because customers primarily consume food on the premises, whereas limited-service restaurants and snack bars generally produce less on-site food waste since customers often take their food off premises and dispose of waste elsewhere.

Due to the inconsistent nature of NAICS code classifications and data results from the generation study not reflecting a significant difference between restaurant types, a single generation factor was used.

Table 15: Summary of Generation Factor Sources for Restaurants

SELECTED	FACTOR	UNIT	SOURCE	NOTES
Yes	2,430	pounds per employee per year	Calculated	Average of studies analyzed
No	2,494	pounds per employee per year	CalRecycle, 2006	Limited-service restaurants only
No	1,529	pounds per employee per year	Recycling Works Mass	Gardener Ale House Case Study, kitchen prep and fryer grease, generating 52 tons, with 68 employees
No	3,392	pounds per employee per year	Calrecycle, 2006	Interviews, site visits and waste sorts; full service only (2,910 disposed, 478 diverted)
No	1,406	pounds per employee per year	NRDC, 2017	Estimate across 3 full-service restaurants from bin digs and/or self-reported (significant difference between two methods was noted)
No	3,000	pounds per employee per year	CTDEEP, 2001	Connecticut data includes both full service and limited widely cited ReFED (2016), NRDC (2017), RecyclingWorks in MA (2018), EPA Food Opportunities (2019) but based on data from 1990s
No	2,760	pounds per employee per year	CalRecycle, 2015	CalRecycle, full and limited service together, 2.92 tons generated-51% food waste)- 2,760 reported in EPA,2020

HOSPITALITY

GENERATION FACTOR SELECTION AND CALCULATION

[Table 16](#), below, summarizes the literature reviewed related to hospitality sector food waste. The selected generation factor is based on the EPA factor (2020, updated in 2025), which averages three studies reporting pounds of food

waste per hotel employee per year. The Okazaki et. al. (2008) was adjusted to make the generation factor consistent with the other studies. The studies were published between 2006 and 2015 using data from three states (California, Hawaii and New Jersey) and Vancouver, Canada. The Project Team also reviewed a 2015 CalRecycle study which showed comparable results to the other studies. The EPA 2020 factor was used to maintain consistency with other reports. The estimated food waste for the hospitality sector was calculated as follows:

Pounds per employee per year × number of employees × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Hospitality Sector: 5,198 TPY

Table 16: Summary of Generation Factor Sources for Hospitality

SELECTED	FACTOR	UNIT	SOURCE	NOTES
Yes	1,138	pounds per employee per year	EPA, 2020	Average of studies reviewed (CCG,2006; Okazaki et al.,2008; Tetrattech,2015)
No	1,983	pounds per employee per year	CalRecycle, 2006	Based on hotels with greater than 30 employees
No	375	pounds per employee per year	Okazaki et. al.,2008	Primary data collected from interviews, site visits and waste sorts at 62 generators in Hawaii (cited by NRDC (2017))
No	1,197	pounds per employee per year	CalRecycle, 2015	Commercial Waste Generator Study by CalRecycle of both small and large hotels
No	997	pounds per employee per year	Tetra Tech, 2015	Vancouver Metro samples six entities
No	1,292	pounds per employee per year	RRS Calculated	Average of studies reviewed

LARGE EVENTS AND VENUES

GENERATION FACTOR SELECTION AND CALCULATION

Several methods were used to estimate sector-specific food loss and waste (FLW) generation. In general, FLW was calculated by multiplying the estimated amount of waste generated per visitor by the number of visitors over a given period (e.g., weekly or annually). Peak attendance was also evaluated to determine whether an entity met the AE threshold of one ton of FLW per week. Based on a review of multiple studies summarized in [Table 17](#), below, an average generation rate of 0.31 pounds of FLW per visitor was applied.

The general formula used to estimate annual FLW is shown below and was adapted for specific subsectors based on data availability:

Pounds per visitor × number of visitors per event × events per week × active weeks per year × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Large Events and Venues Sector: 1,710 TPY

Desktop research limits the analysis of this sector to large events and venues, likely to generate significant food waste. Total estimates for food waste from this sector are 1,682 TPY of which 1,656 is estimated to come from AEs. Venues were estimated to generate more FLW annually (1,504 TPY) but festivals generated nearly three times the food waste during their peak weeks (151 tons per week). A total of 43 Affected Entities were identified, 13 venues and 30 festivals.

Desktop research was used to estimate attendance and duration for individual festivals. These inputs supported both weekly generation estimates (for AE threshold evaluation) and annual FLW calculations. A similar approach was applied to stadiums, arenas and athletic fields, using estimates of event frequency, venue capacity and/or peak attendance to calculate weekly visitors and active weeks per year.

For amusement and theme parks, weekly attendance was estimated using data from the Global Attractions Attendance Report (AECOM, 2023), supplemented by additional research. This analysis established a correlation between park acreage and visitation (approximately 460 visitors per week per acre). This relationship was applied to estimated park acreage to calculate weekly attendance, which was then combined with estimated operating weeks to derive annual attendance.

Table 17: Summary of Generation Factor Sources for Events and Venues

SELECTED	FACTOR	UNIT	SOURCE	NOTES
Yes	0.31	pounds per visitor	EPA, 2020	Average of literature reviewed, used in Maine report
No	0.16	pounds per visitor	Costello et al. 2017	University of Missouri of seven football games
No	0.32	pounds per visitor	CalRecycle, 2015	Variety of public venues (including sports stadiums)
No	0.45	pounds per visitor	CalRecycle, 2006	Variety of public venues (including sports stadiums)

MALLS AND SHOPPING CENTERS

GENERATION FACTOR SELECTION AND CALCULATION

The restaurant generation factor was applied to each restaurant within the malls to estimate food waste at the individual establishment level. These estimates were then aggregated to determine total FLW for each location.

Pounds per employee per year × number of employees × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Malls and Shopping Centers: 4,110 TPY

Data obtained from the Data Axle database was used to group restaurants located at malls or shopping centers. A total of 83 malls or plazas were identified to have one or more restaurants with total sector FLW generation is estimated at 99.7 tons per week. Of these 35 malls or shopping centers were estimated to be affected entities generating over one ton per week per site. Total AE FLW generation is estimated to be 4,110 tons annually.

LARGE OFFICE BUILDINGS

GENERATION FACTOR SELECTION AND CALCULATION

Data on FLW generation factors for this sector were not readily available so it was derived by RRS using reported estimates of FLW per meal from the literature and data gathered on meals per employee per week. The generation formula is shown below.

Pounds per employee per year × number of employees × (1 ton per 2,000 pounds) = TPY of FLW

Estimated Generation by AEs in Large Office Buildings Sector: 339 TPY

These are based on a cross-sectoral estimate for the Hospitality, Restaurant, Cafeterias (HoRaCa) sectors of average food waste per meal (Vardopoulos, 2025) and supported by case study data reported in the UK (WRAP, 2024) and an

assumption of 3 meals on-site per week per employee which was validated in the generator interviews. [Table 18](#), below, summarizes the generation factors.

Table 18: Summary of Generation Factor Sources for Large Office Buildings

SELECTED	FACTOR	UNITS	SOURCE	NOTES
Yes	71	pounds per employee per year	Calculated	Calculated based on estimated pounds per meal and assuming 3 meals per week per employee
No	0.46	pounds per meal	Vardopoulos et al., 2025	Hospitals, restaurants and cafeterias sites reported as 209.3 grams per meal
No	0.46	pounds per meal	WRAP, 2024	Case study in United Kingdom and a food waste reduction by WRAP.

GROCERY STORES

GENERATION FACTOR SELECTION AND CALCULATION

[Table 19](#), below, summarizes the generation factors reviewed for the grocery sector. The generation factor selected was based upon the factor reported by the EPA (2020 and again used in 2025), which is calculated as the average of the studies reviewed by the EPA. It agrees well with other data reported, including for Hannaford's grocery stores. It is based upon the number of employees at the entity location. Two other methods were reviewed (based on tons per establishment and tons per dollar of revenue) but not selected as most representative.

Tons per employee per year × number of employees = TPY of FLW

Estimated Generation by AEs in Grocery Stores Sector: 32,294 TPY

Table 19: Summary of Generation Factor Sources for Grocery Stores

SELECTED	FACTOR	UNIT	SOURCE	NOTES
Yes	2.04	tons per employee per year	EPA, 2020	EPA calculated average of reviewed studies, Method 1
No	2.31	tons per employee per year	CalRecycle, 2006	Waste Audit
No	2.02	tons per employee per year	CalRecycle, 2015	Waste Audit, CalRecycle
No	1.50	tons per employee per year	CTDEEP, 2001	Estimate from literature in 1990s
No	2.19	tons per employee per year	Ebner, 2016	Waste Audit data from six NY supermarkets
No	2.04	tons per employee per year	Murphy, 2021	Hannaford's data 65 million pounds. in 183 stores with 30,000 employees

SPECIALTY FOOD RETAIL AND CONVENIENCE STORES

GENERATION FACTOR SELECTION AND CALCULATION

Data for this sector is limited, as most studies focus on larger retail stores. A study by the North Carolina Department of Environment and Natural Resources reported waste data per establishment and per employee for the convenience

store sector. It also reviewed several older studies that supported this estimate and found that food waste generation in this sector is less than half that of large retail grocers.

CET interviews included one entity from this sector, which reported “marginal waste generation” and indicated it did not meet the food waste generation threshold. In addition, a review of sustainability reports from major convenience store chains (e.g. 7-Eleven and Stewart’s) did not identify food waste management as a material issue. Based on these findings, a generation factor was selected, noted in [Table 20](#), below. NHDES has flagged this sector as an area for future research.

Food waste generation may also vary within this sector depending on the types of food sold. Stores that sell more fresh food, produce, prepared foods and baked goods are likely to generate more food loss and waste than stores that primarily sell shelf-stable packaged foods and beverages.

Tons per employee per year × number of employees = TPY of FLW

Estimated Generation by AEs in Specialty Food Retail/Convenience Stores Sector: 55 TPY

Table 20: Summary of Generation Factor Sources for Specialty Food Retail/Convenience Stores

FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNIT	NOTES
0.85	pounds per employee per year	NCDENR, 2012	83	Tons per year per establishment	North Carolina Stores, divided by number of employees, arrives at 1700 pounds per employee

SUPERCENTERS AND WAREHOUSE CLUBS

GENERATION FACTOR SELECTION AND CALCULATION

There is limited data on Supercenters and warehouse clubs. The two studies reviewed are shown in [Table 21](#), below. The generation factor used was calculated as the average of the data reported in two studies in the literature. The 2006 California waste characterization study reported waste disposal, diversion and total generation data based on samples obtained from 24 big retail box stores. The ReFED estimate was obtained through a series of interviews and used by the EPA in their 2020 report.

Tons per employee per year × number of employees = TPY of FLW

Estimated Generation by AEs in Supercenters/Warehouse Clubs Sector: 4,211 TPY

Table 21: Summary of Generation Factor Sources for Supercenters/Warehouse Clubs

SELECTED	FACTOR	UNIT	SOURCE	NOTES
Yes	0.38	tons per employee per year	RRS Calculated	Average of studies reviewed
No	0.27	tons per employee per year	CalRecycle, 2006	Retail big box 24 store sample. Food waste generation comprises 4.1% of total 4,599 tons.
No	0.50	tons per employee per year	ReFED (2016)	Collected data through a series of surveys and interviews with store managers at supercenters

FOOD WHOLESALERS/DISTRIBUTORS

GENERATION FACTOR SELECTION AND CALCULATION

Only four of the 77 entities in this sector were estimated to be AEs. A variety of generation factors are reported in the literature, including those based on number of employees, sales revenue and estimates per establishment. [Table 22](#), below, shows the studies analyzed that report a generation factor per employee. The generation factor selected represents the average of the studies reviewed. This study uses a generation factor based on the number of employees. This approach was selected because it avoids the need for additional extrapolation required to account for pricing volatility and the time value of money in revenue-based factors. It also provides greater granularity than per-establishment estimates, which lack a clear basis for extrapolation.

Tons per employee per year × number of employees = TPY of FLW

Estimated Generation by AEs in Food Wholesalers/Distributors Sector: 970 TPY

Table 22: Summary of Generation Factor Sources for Food Wholesalers/Distributors

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	1,356	pounds per employee per year	RRS calculated	Not applicable	Not applicable	Average of studies analyzed (CCG, 2006, CCG, 2014, FWRA, 2013, ReFED, 2016)
No	1,054	pounds per employee per year	CCG, 2014	1054	pounds per employee	Interviews, site visits, waste sorts-it includes non-food wholesalers in non-durable category.
No	1,000	pounds per employee per year	ReFED, 2016	Not applicable	Not applicable	Extrapolated from interviews and research
No	2,013	pounds per employee per year	CCG, 2014	1.0064	tons per employee per year	Table 8 highlights Food and non-durable wholesale trends
No	1,357	pounds per employee per year	FWRA, 2013	1357	pounds per employee	Study across 10 retail stores and 3 wholesalers.

FOOD BANKS AND FOOD PANTRIES

GENERATION FACTOR SELECTION AND CALCULATION

The Project Team applied metrics provided by the New Hampshire Food Bank to select a generation factor.

Estimated Generation by AEs in Food Bank Sector: 130 TPY

In 2025, the food bank reported distributing 19,736,862 pounds of food to 420 partner agencies including food pantries, homeless shelters, soup kitchens, children's programs, senior centers and more. During the same period, the food bank disposed of 260,348 pounds of food, equivalent to approximately 2.5 tons of food waste per week.

Literature indicates that [food pantries typically dispose of 5% of donated food](#) due to spoilage, expiration or handling constraints. This statistic was confirmed to be generally accurate through direct interviews. Assuming the food distributed was evenly allocated across the Food Bank's 420 partner agencies, each agency would receive

approximately 46,993 pounds annually. Applying the conservative 5% disposal estimate, each food pantry would generate an estimated 0.04 tons of food waste per week. Although some food pantries are out-of-state, seasonal or erroneous, the Project Team applied this average across all pantries. As such, this equates to an estimated 742 tons of waste annually. When combined with the 130 tons of waste generated by the food bank, the total estimated waste generated across the food bank and food pantries is approximately 1,003 TPY. However, only the food bank is indicated as an AE.

FOOD MANUFACTURERS/PROCESSORS

GENERATION FACTOR SELECTION AND CALCULATION

Several studies were reviewed for this sector as summarized in [Table 23](#), below. These studies used a pounds per dollar of revenue per year methodology. The average of these studies was selected as the best estimate generation factor, 0.095 pounds per dollar of sales per year.

These data are based on multiple surveys of food manufacturers and processors across the country. The studies were adjusted to 2025 dollars to align with current Data Axle data and then averaged to determine the generation factor for this sector.

Because food loss and waste (FLW) can vary significantly by type of manufacturer or processor, RRS also conducted an extensive review of both public and proprietary data by subsector. Generation factors were developed for each type of food processor based on FLW per employee per year. The subsector-specific factors were then compared to the overall sector generation factor and showed alignment. As a result, a single generation factor was applied for the sector.

Tons per employee per year × number of employees = TPY of FLW

Estimated Generation by AEs in Food Manufacturers/Processors Sector: 155,570 TPY

Table 23: Summary of Generation Factor Sources for Food Manufacturers/Processors

SELECTED	FACTOR	UNIT	SOURCE	REPORTED FACTOR	REPORTED UNITS	NOTES
Yes	0.07	pounds per \$1,000 Revenue	RRS calculated	Not applicable	Not applicable	Average of studies analyzed
No	0.13	pounds per \$1,000 (2025) Revenue	CCG, 2014	0.170	pounds per \$1,000 (2016) Revenue	10.6B pounds of food waste based on \$55.8B 2014 across eight or nine manufacturers
No	0.04	pounds per \$1,000 (2025) Revenue	ReFED, 2016	0.053	pounds per \$1,000 (2014) Revenue	Reported 2014-dollar value- (cited by NRDC and ReFED (unadjusted)- updated to 2025-dollar value in this report
No	0.04	pounds per \$1,000 (2025) Revenue	CCG, 2014	0.062	pounds per \$1,000 (2013) Revenue	Survey representing 17% of U.S. industry revenue (2011), covering \$122B in sales, 260,000 employees and 7.53B pounds generated.

FARMS

GENERATION FACTOR SELECTION AND CALCULATION

Estimating FLW by this sector is challenging as it requires crop, land-use and production data which is not readily available. USDA National Agricultural Statistics Service (NASS) conducts a survey where they collect information from farmers every five years. The last survey was in 2022. An analysis of this data is highlighted in ReFED's Insight Engine, which estimates that New Hampshire farms generated 24,655 tons of produce supply in 2024 with approximately 6,130 tons of produce grown but unsold or unused.

Given this small amount for the whole sector, it is unlikely that any one farm is an AE. Furthermore, much of the FLW is treated on farms and diverted from landfill with only about 49 TPY estimated to be landfilled or incinerated.

Estimated Generation by AEs in Farms Sector: 0 TPY

FLW from farms is mostly unharvested (71%), with some sent to animal feed (19%) or donation (1.5%). Less than 1% or 48.7 tons (or under one ton/week for any individual farm) were estimated to be sent to landfills or incineration from all farms in the state.

Appendix B: Generator Interview Results and Characterization of Food Loss and Waste by Sector

The Project Team conducted 38 interviews across 17 sectors to understand characteristics of their food loss and waste (FLW). [Table 24](#), below, quantifies the interviews conducted per sector. Data collected through interviews reflect key findings, when applicable and available. Interview insights were complemented by RRS' industry expertise and desktop research. [Table 25](#), below, defines commonly used terminology when describing generation characteristics and reasons for FLW.

Table 24: Number of Interviews Conducted per Sector

SECTOR	NUMBER OF INTERVIEWS CONDUCTED
Large multifamily complexes	2
K-12 schools	2
Colleges and universities	3
Correctional facilities	1
Healthcare	1
Restaurants	6
Hospitality	4
Large events and venues	2
Malls and shopping centers	0
Large office buildings	1
Grocery stores	8
Specialty food retail/convenience stores	2
Supercenters/warehouse clubs	1
Food bank	1
Food wholesalers/distributors	2
Food manufacturers/processors	1
Farms	1
TOTAL	38

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

Table 25: Definitions of Food Loss and Waste Terminology

TERM	DEFINITION
Edible	Food that can be consumed by humans
Food preparation or manufacturing waste	Waste generated during the preparation or manufacturing of meals
Fresh	Unpackaged food or produce not yet prepared or served
Frozen	Food that is stored in a freezer
Inadequate refrigeration	Food that has been spoiled due to the inability to maintain refrigeration
Inedible	Inedible parts of food such as banana peels, eggshells, bones, coffee grounds, etc.
Overstocking	Surplus food that has spoiled or must be removed to make space for incoming orders
Packaged	Food in original packaging such as retail surplus or spoiled/expired goods
Plate waste	Food prepared for consumption but not fully consumed by the consumer
Policy or safety concerns	Food that is past its expiration date or disposed of due to site policy or food safety concerns
Possibly edible	Byproducts or food parts that some people or animals would eat
Prepared	Food prepared for consumption but not served such as food bar or banquet food
Too much food is prepared or served	Also referred to as overproduction, the food is prepared but left as surplus
Unavoidable food waste	Food materials that are not edible under normal conditions and cannot be prevented through improved planning or management, such as bones, shells, peels, pits and other inedible parts generated during food preparation and consumption

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

Interviewees were asked to identify the primary causes and types of FLW within their operations. [Figure 21](#) and [Figure 22](#), below, summarizes their responses.

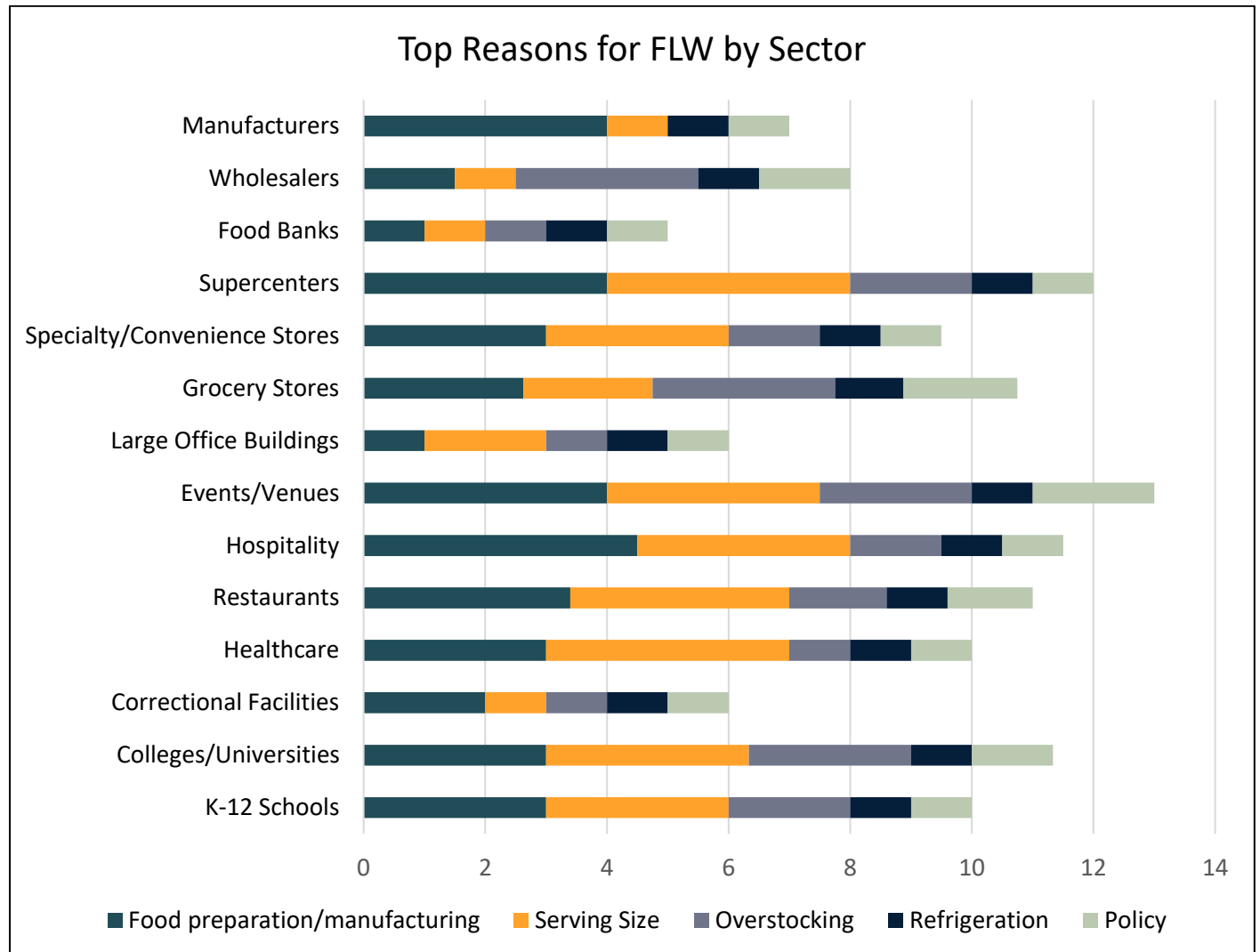


Figure 21: Sector Interview: Top reasons for food waste by sector

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

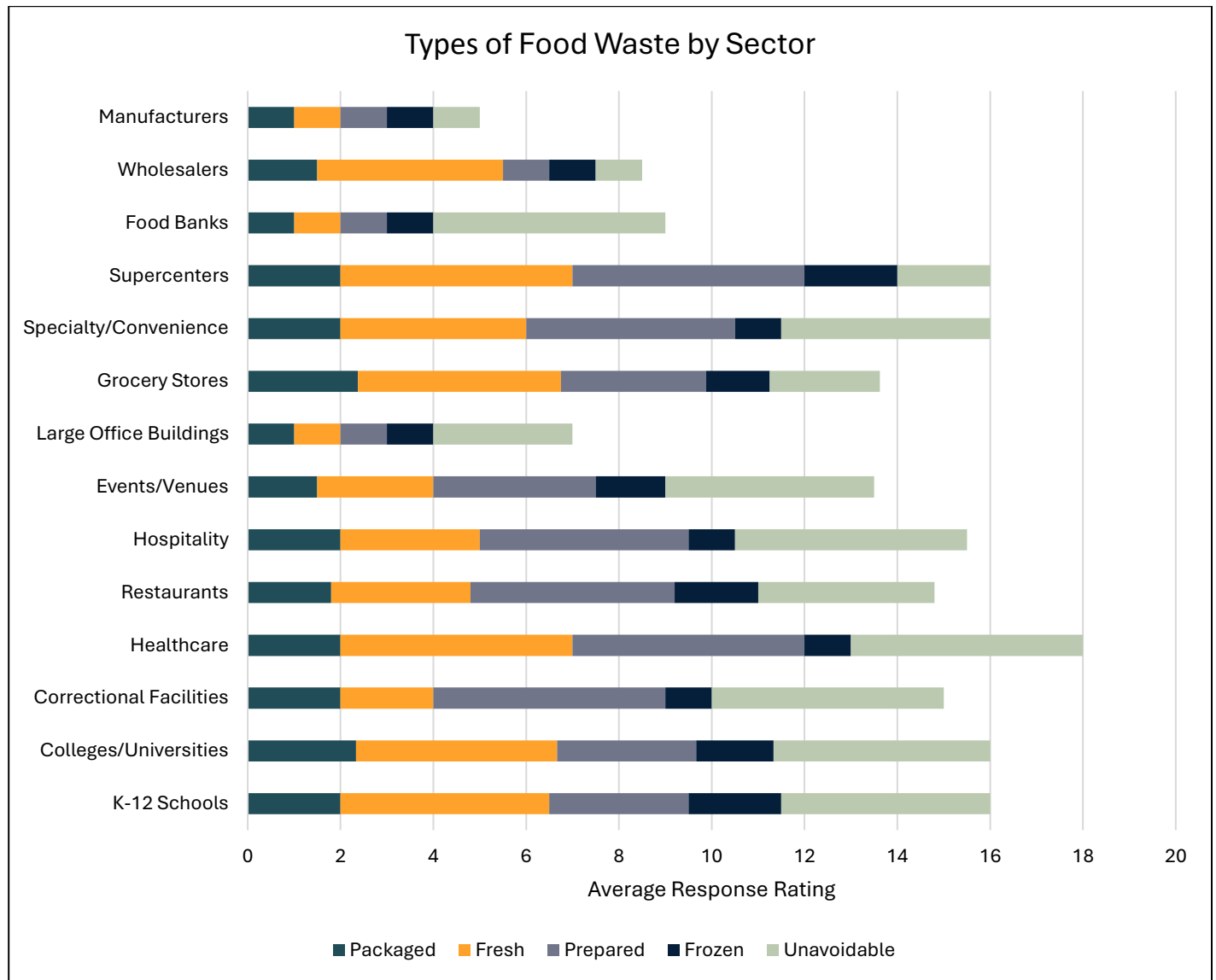


Figure 22: Sector Interview: Types of food waste generated by sector

LARGE MULTIFAMILY COMPLEXES

CHARACTERIZATION

Multifamily interview respondents were unsure about the characteristics and causes of their residents' food waste. However, according to [ReFED's Insights Engine](#) (2025), the greatest causes of residential food loss and waste in New Hampshire are inedible parts and spoiled food as depicted in [Figure 23](#), below. Other causes include food that is considered inedible, not wanting leftovers, leaving food out too long, date labeling concerns, the taste of food, having too little food to save and cooking issues.

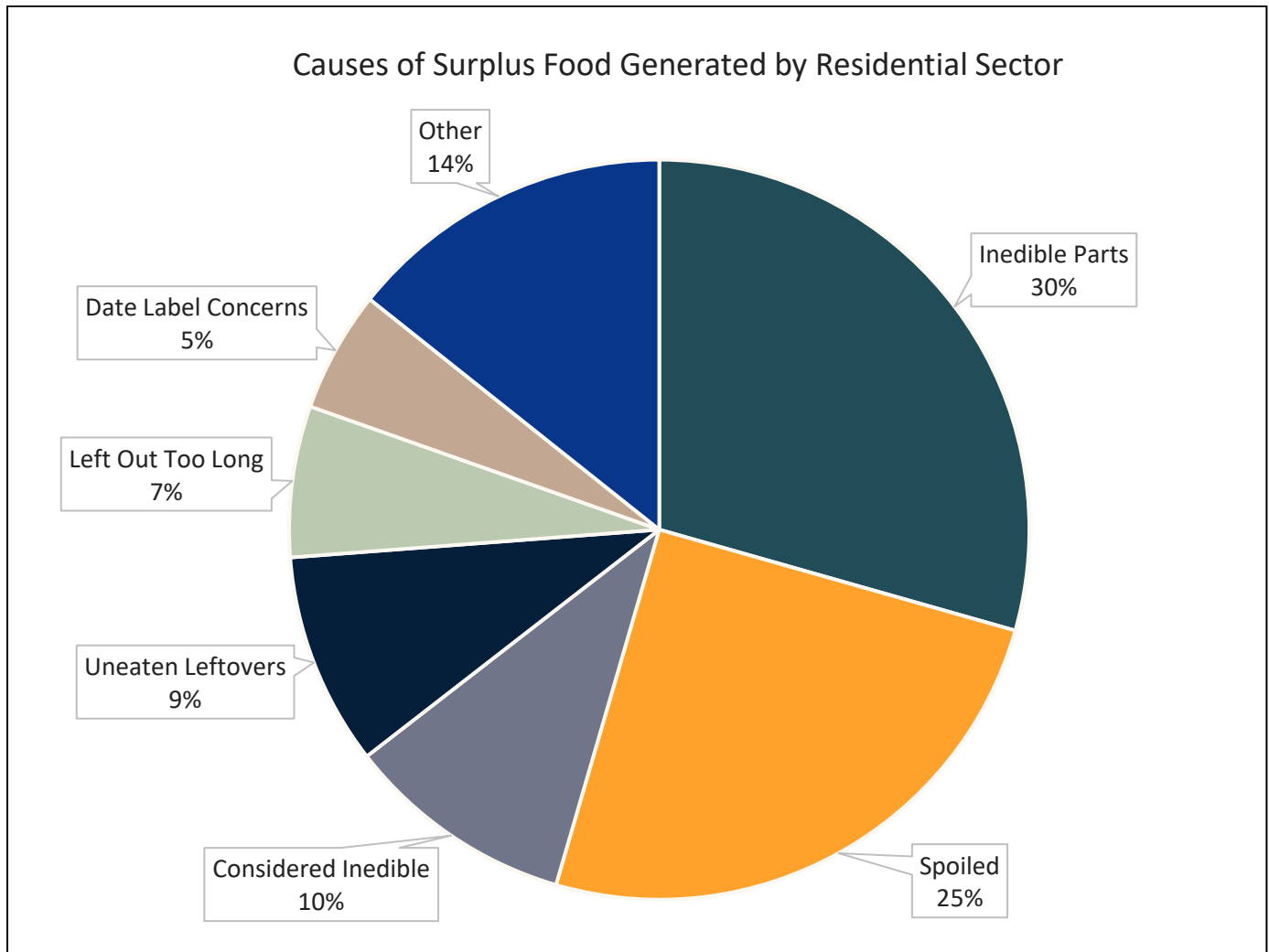


Figure 23: Causes of surplus food generated by the residential sector in New Hampshire (ReFED, 2025)

K-12 SCHOOLS

CHARACTERIZATION

The K-12 schools which were interviewed reported a variety of types of food waste generated. Highlighted in [Figure 24](#), the types of food most frequently wasted are fresh food and plate scrapings, which are reported to be mostly rotten or inedible food. Interviews with the K-12 schools in New Hampshire indicated that food waste from overpreparation and overproduction were major causes of food waste. National studies, such as [World Wildlife Fund's Food Waste Warriors](#), have also highlighted refrigeration, federal policy and program concerns and operational constraints as the top contributing factors. However, K-12 schools in New Hampshire have lower participation in National school meal programs than the national average and potentially have more cooking on-site than a typical school does nationally.

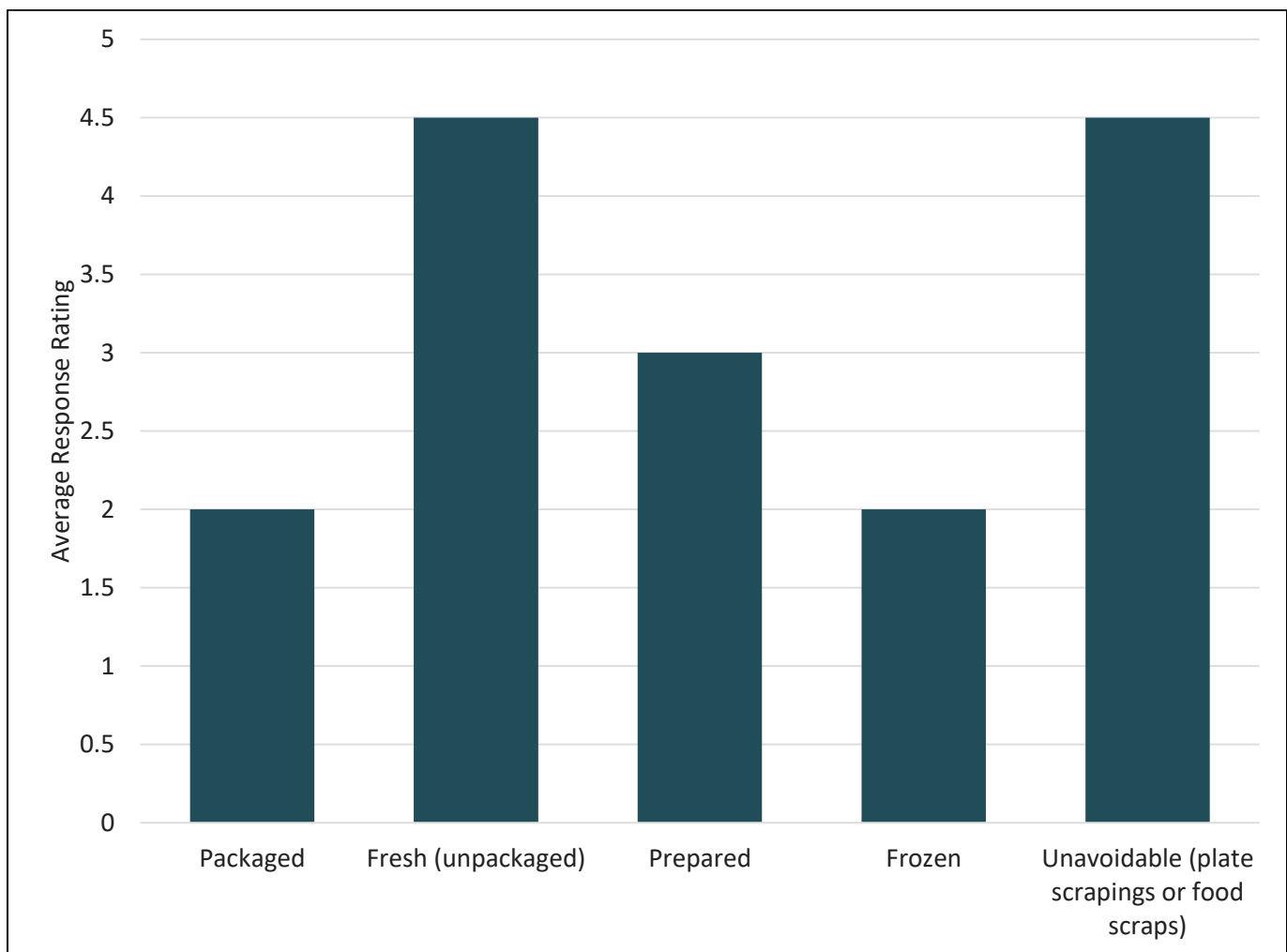


Figure 24: Interview responses to types of food waste generated by K-12 schools

COLLEGES AND UNIVERSITIES

CHARACTERIZATION

Food waste at colleges and universities is a combination of plate waste and edible, prepared food ([Figure 25](#)). This aligns with industry studies that highlight food waste predominately comes from uneaten prepared foods and overproduced buffet items.

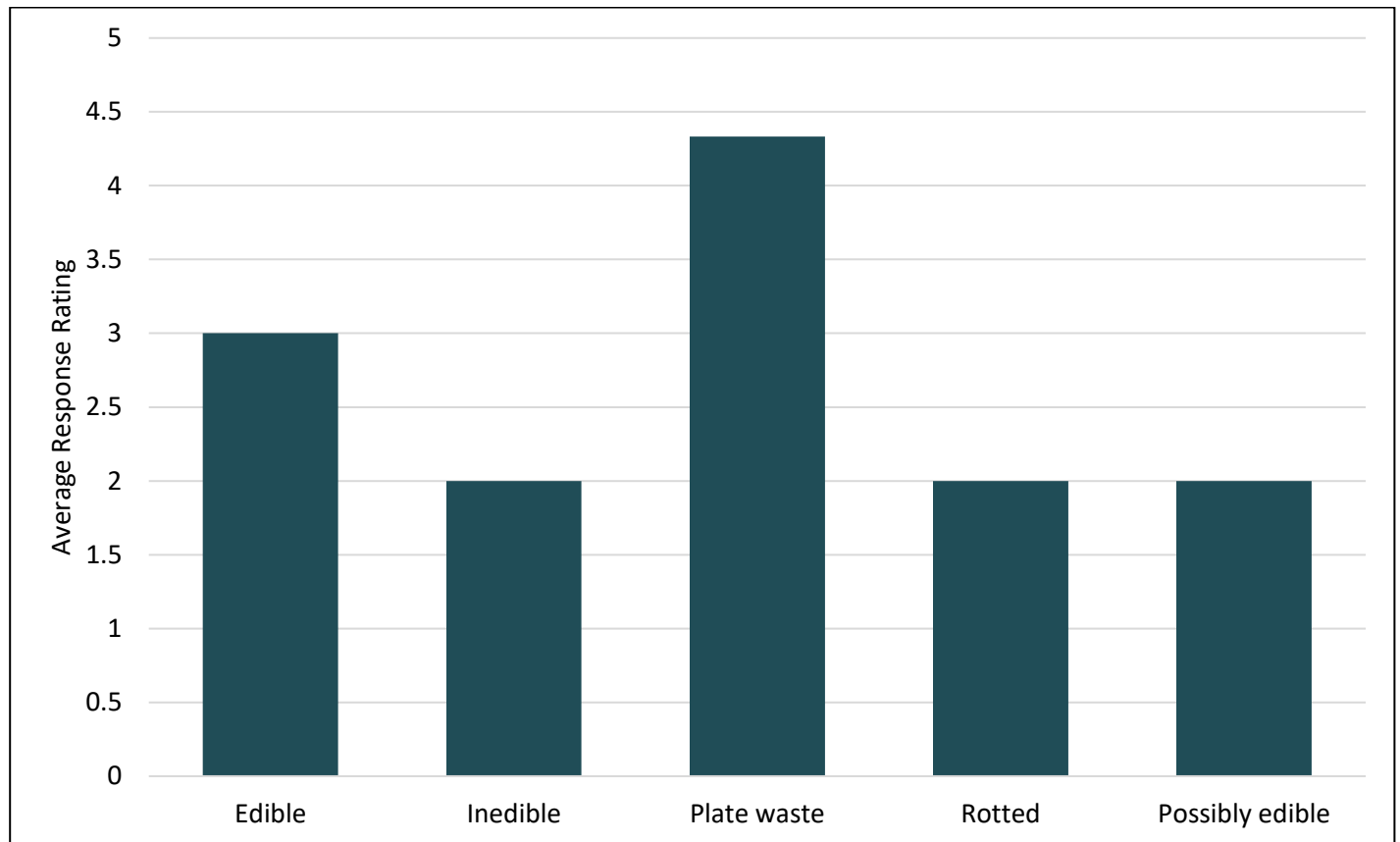


Figure 25: Interview responses for types of food waste generated by colleges and universities

CORRECTIONAL FACILITIES

CHARACTERIZATION

The Project Team interviewed one correctional facility who reported prepared food and unavoidable food waste (such as bones, shells, pits and other inedible parts generated during food preparation or consumption) as being the most common types of food wasted ([Figure 26](#)). Packaged and fresh foods followed, with frozen foods not being a substantial contributor to food waste. The most common reason for wasted food was reported to be waste from preparation, as indicated in [Figure 27](#) below. Like universities, correctional facilities often prepare foods that are served buffet-style, which results in primarily plate waste or prepared foods that may not be suited for donation.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

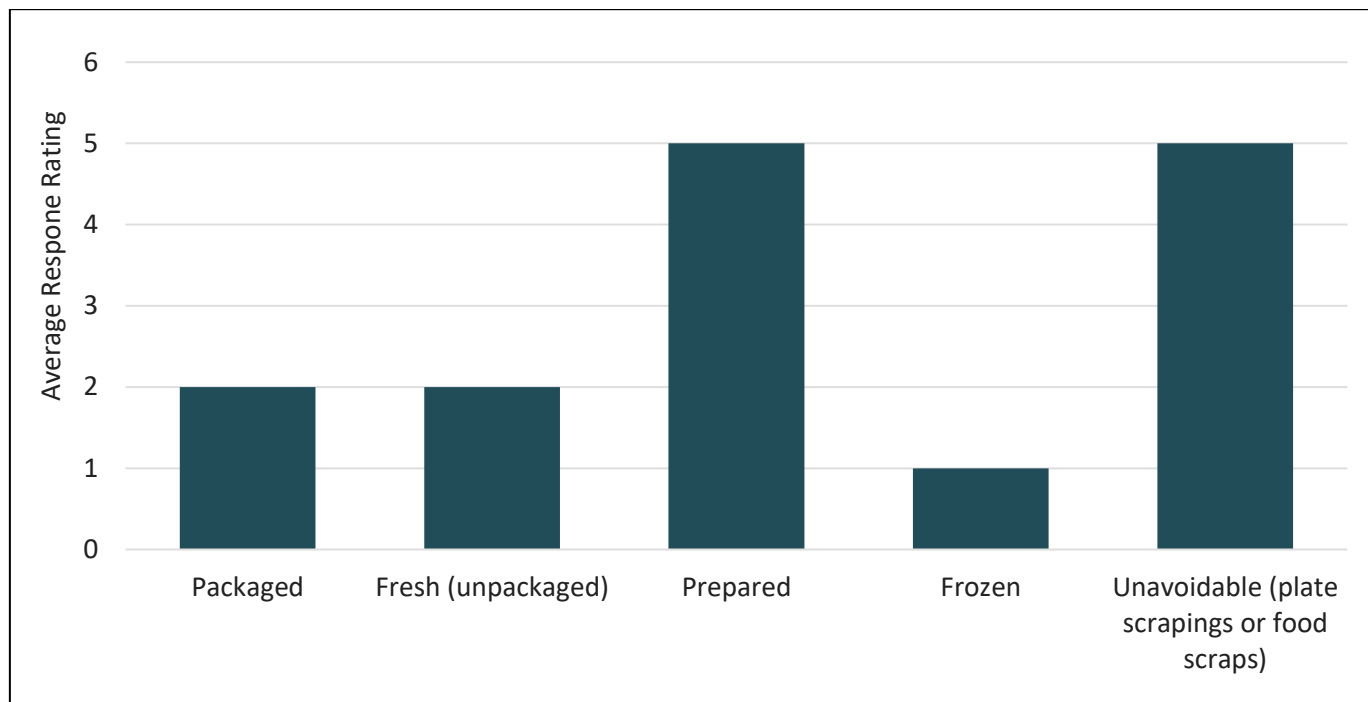


Figure 26: Interview responses to types of food waste generated by correctional facilities

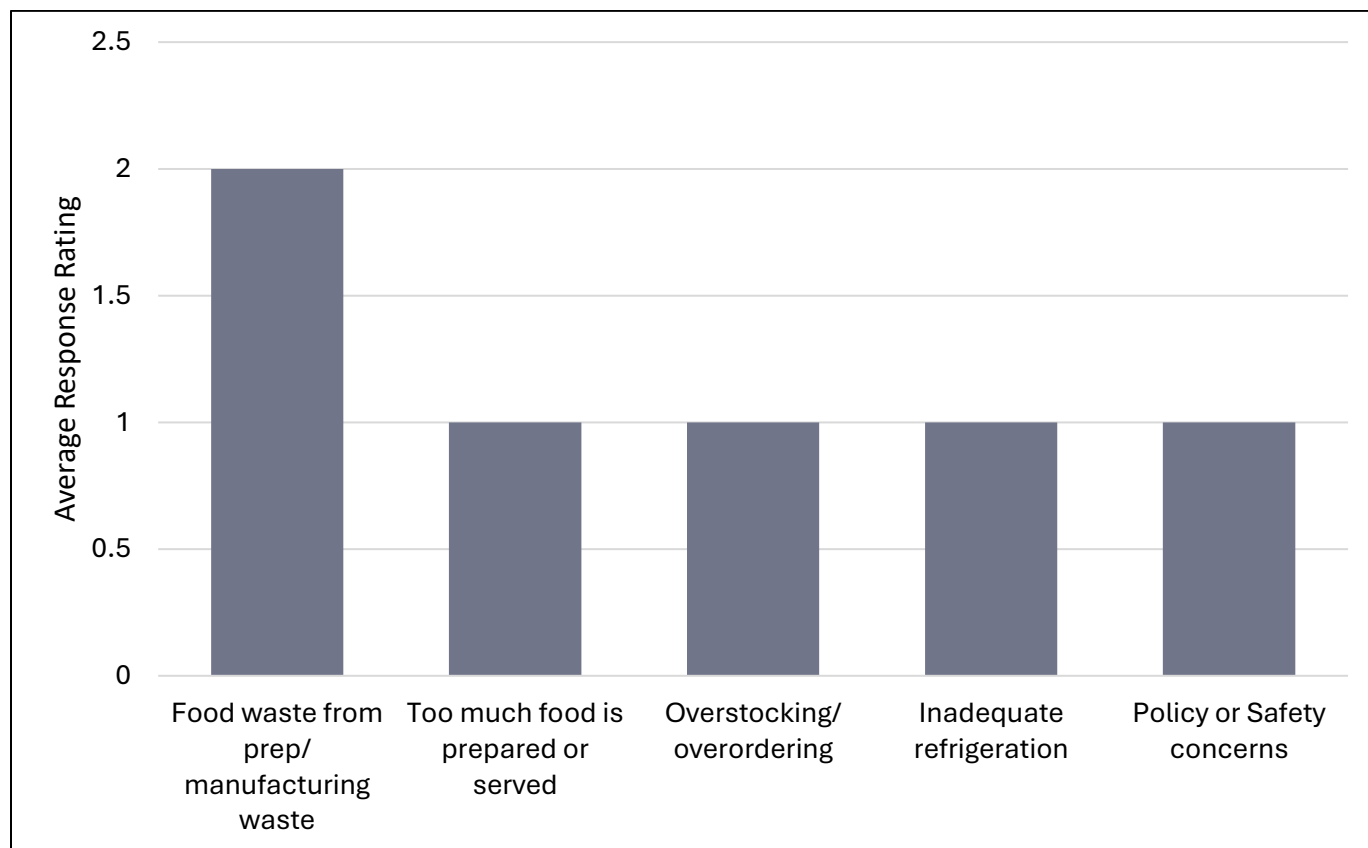


Figure 27: Interview responses to top reasons for food waste by correctional facilities

HEALTHCARE

CHARACTERIZATION

Primary interviews of healthcare facilities found that the most common types of food wasted are fresh (unpackaged) food, prepared food and unavailable food waste (plate scrapings or food scraps). [Figure 28](#) shows the main cause of food waste as too much food being prepared or served, followed by food waste from preparation. Other causes of food waste were not large contributors to food waste.

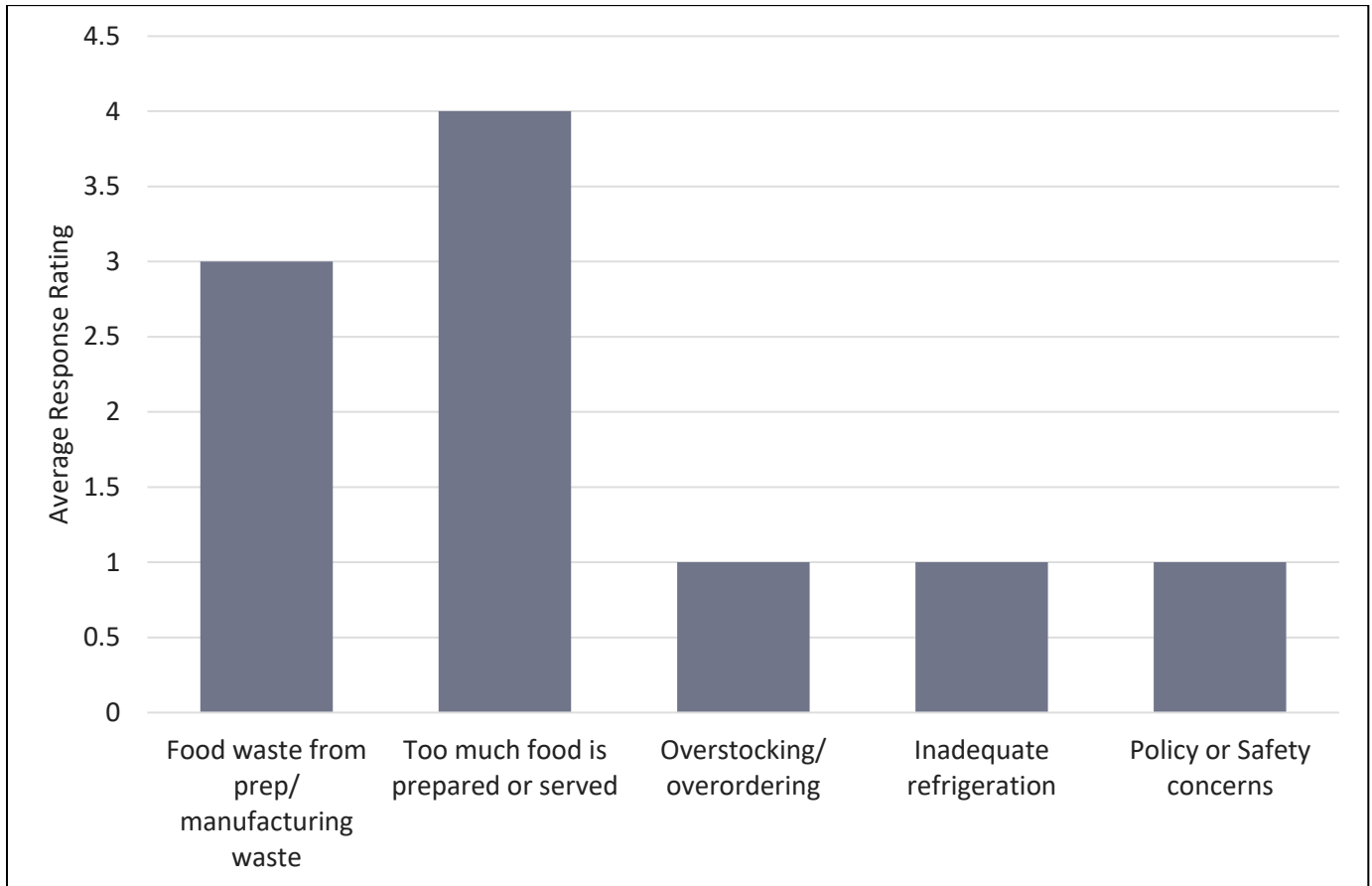


Figure 28: Interview responses to top reasons for food waste by healthcare facilities

RESTAURANTS

CHARACTERIZATION

Primary interviews of restaurants indicated that the most common types of food wasted are prepared food and unavoidable waste (plate scrapings or food scraps) ([Figure 29](#)). The main causes of food waste were reported to be too much food being prepared or served and food waste from preparation ([Figure 30](#)). Based on the type of food waste generated, interview respondents noted starting with tips to reduce overproduction and prep waste would be most beneficial.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

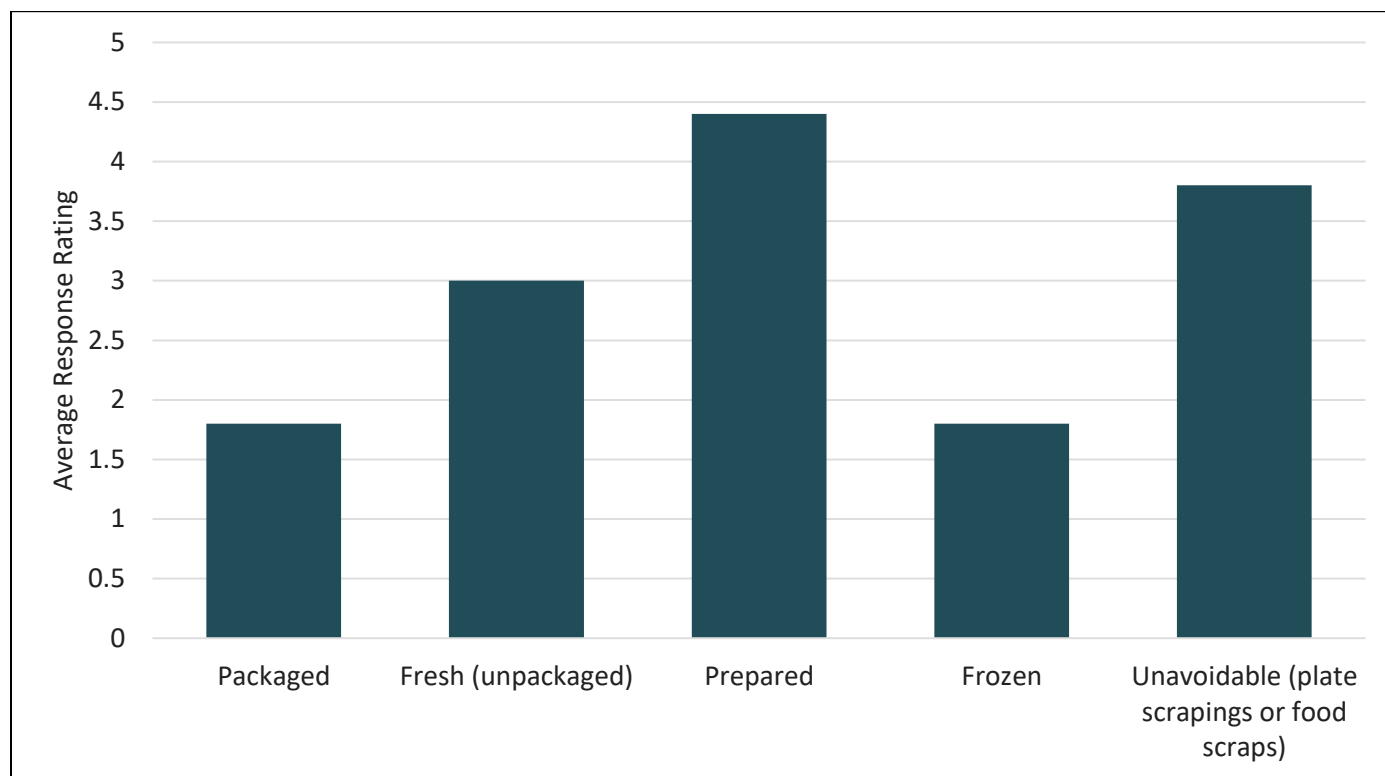


Figure 29: Interview responses to types of food waste generated by restaurants

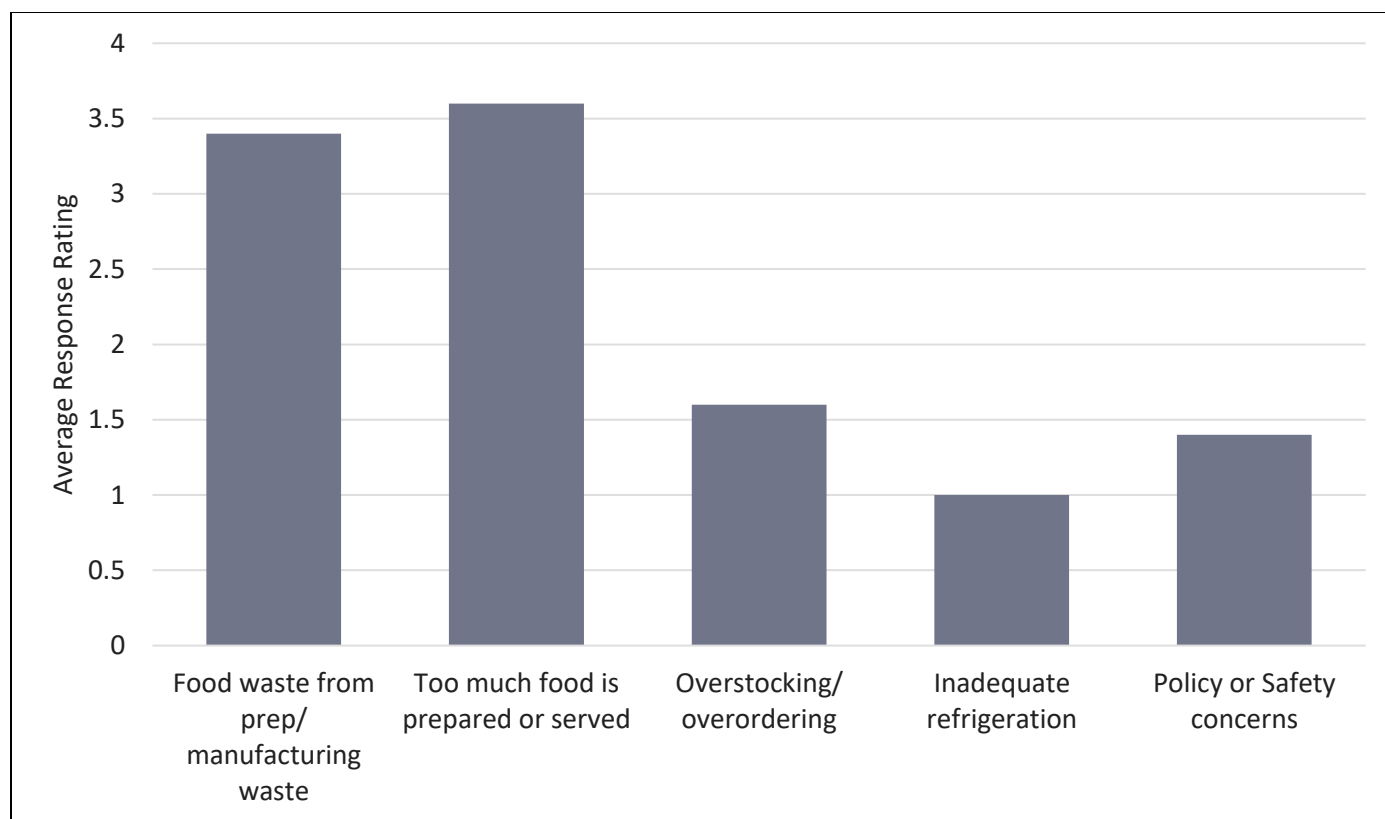


Figure 30: Interview responses to top reasons for food waste by restaurants

HOSPITALITY

CHARACTERIZATION

Among hospitality establishments interviewed, the most common cause of food waste was food waste from preparation and too much food being prepared or served ([Figure 31](#)). Hospitality sector often have prepared or packaged items served during continental breakfasts and offers an opportunity for donation, if appropriate, or composting if inedible.

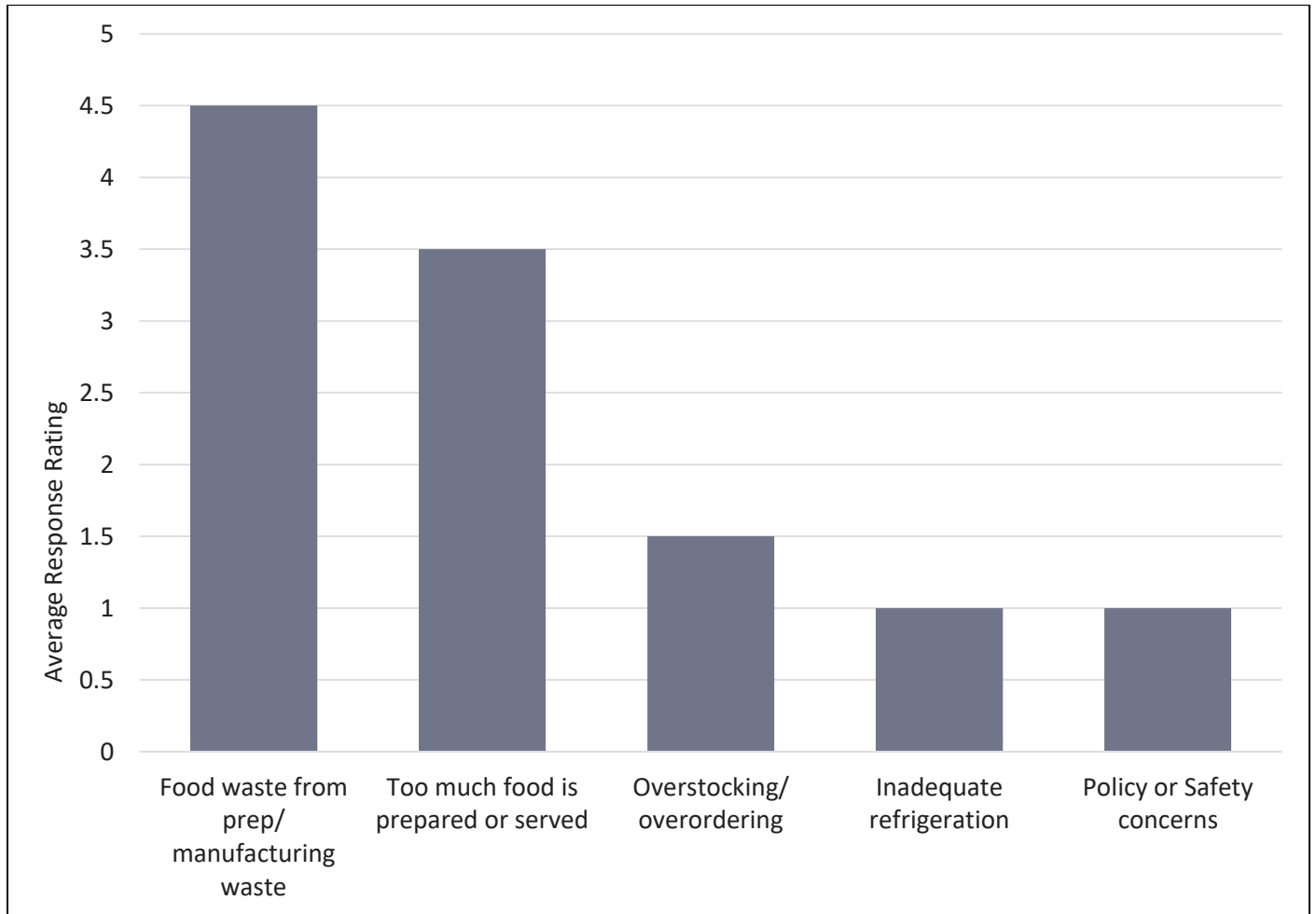


Figure 31: Interview responses to top reasons for food waste by hospitality establishments

LARGE EVENTS AND VENUES

CHARACTERIZATION

According to primary interviews, the most common type of food wasted at event venues is unavoidable waste (plate scrapings or food scraps), followed by prepared food and fresh (unpackaged) food ([Figure 32](#)). Most of this waste is inedible or plate waste, followed by rotten food.

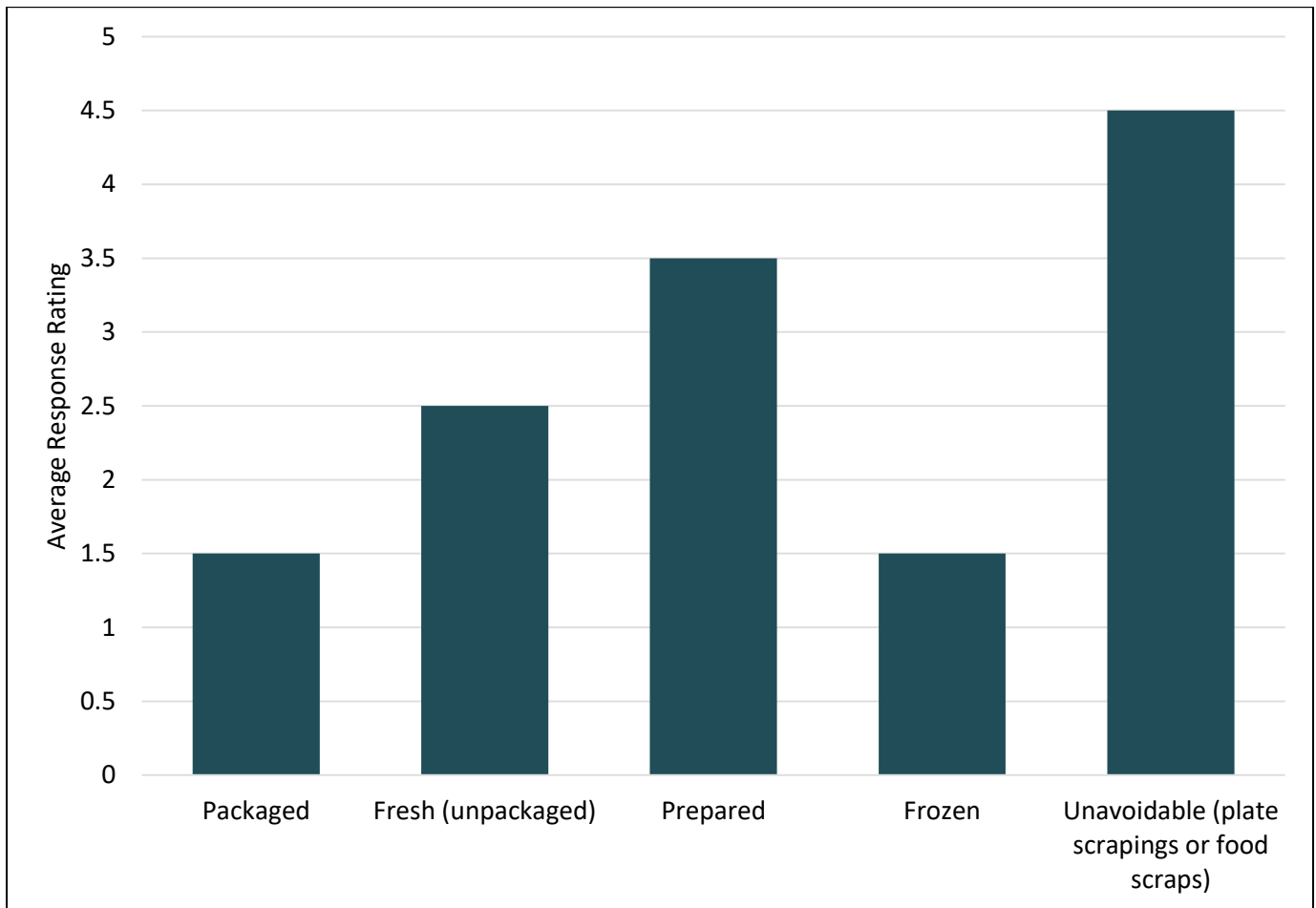


Figure 32: Interview responses to types of food waste generated by events and venues

MALLS AND SHOPPING CENTERS

CHARACTERIZATION

For this study, the Project Team was unable to reach a mall or shopping center for an interview. However, the characterization of food waste generated by food courts and mall restaurants is anticipated to be similar to that of individual restaurants and cafes, which predominately consists of pre-consumer waste (back-of-house preparation), post-consumer waste (unavoidable, i.e., plate scrapings) and unsold prepared food and packaged food.

LARGE OFFICE BUILDINGS

CHARACTERIZATION

The most common type of wasted food reported in a primary interview with a large office building was unavoidable waste (plate scrapings or food scraps), as shown in [Figure 33](#). In addition, [Figure 34](#) illustrates that the primary reason for waste being too much food prepared or served. In this case, because the office building that was interviewed does not have a cafeteria but does have kitchens available for staff to use too much food prepared refers to employees that bring too much food from home. Events held at the office use biodegradable packaging institute (BPI) certified dishware and cutlery, which is collected along with excess food for composting.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

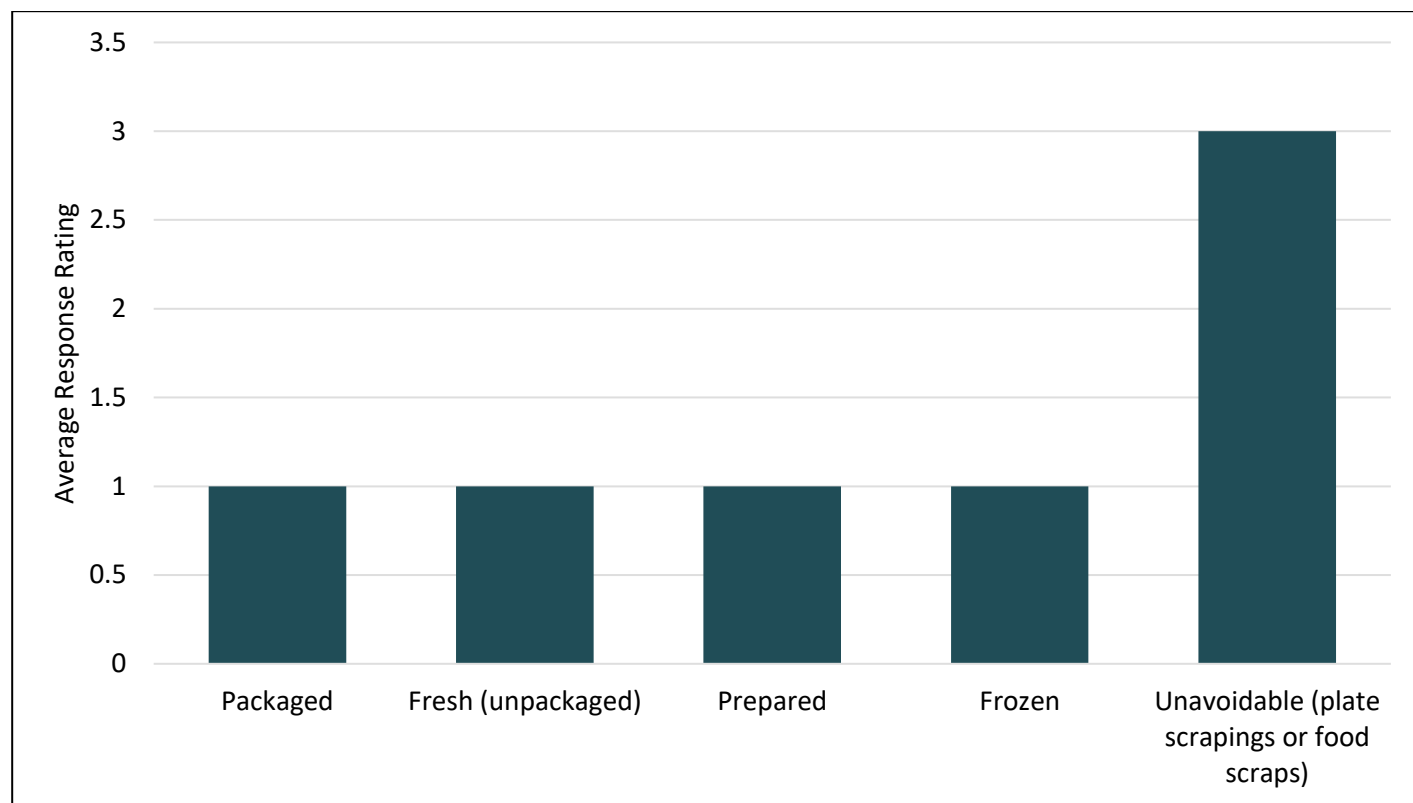


Figure 33: Interview responses to types of food waste generated by large office buildings

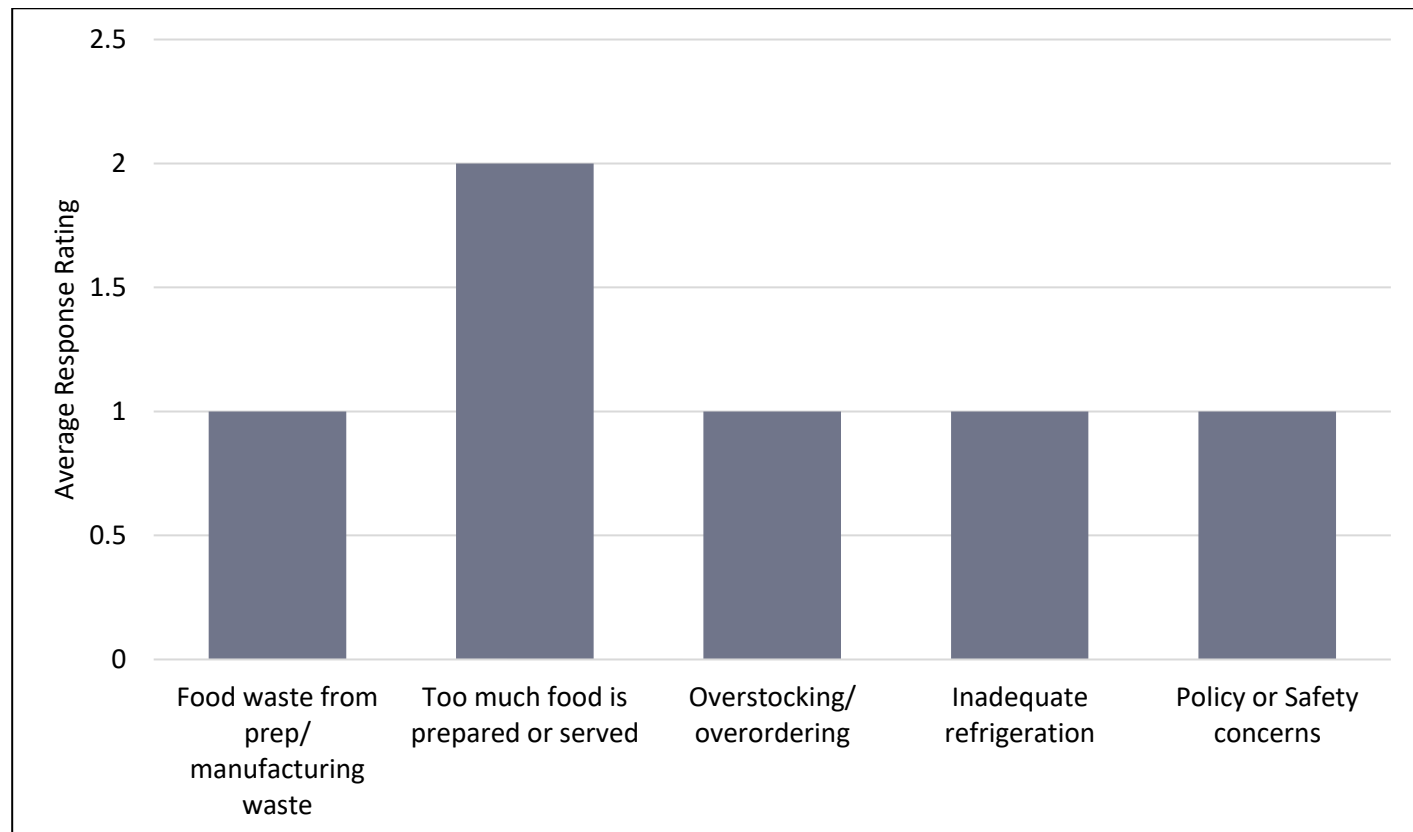


Figure 34: Interview responses to top reasons for food waste by large office buildings

GROCERY STORES

CHARACTERIZATION

The most common type of food waste reported by grocery stores was fresh (unpackaged) food, followed by prepared food ([Figure 35](#)). Most of the wasted food was reported to be inedible, with the reasons for food waste reported as overstocking or overordering ([Figure 36](#)). Some interview respondents reported that food is currently source-separated, with edible but unmarketable food donated to local organizations, food scraps offered to livestock farmers, oils and grease sent for recycling and the remainder diverted for composting. One respondent indicated that the majority of organic waste generated is compostable packaging and plate waste.

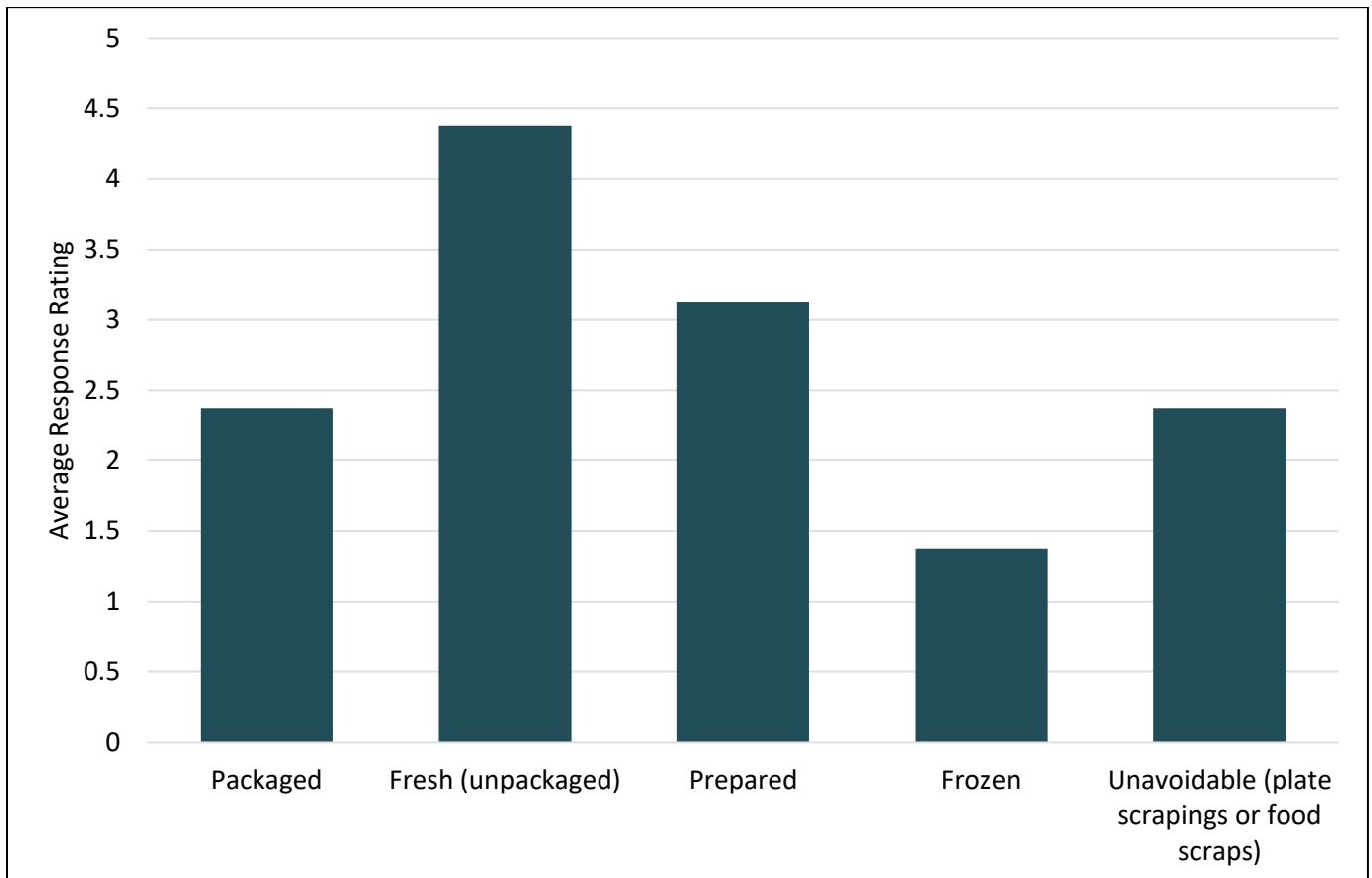


Figure 35: Interview responses to types of food waste generated by grocery stores

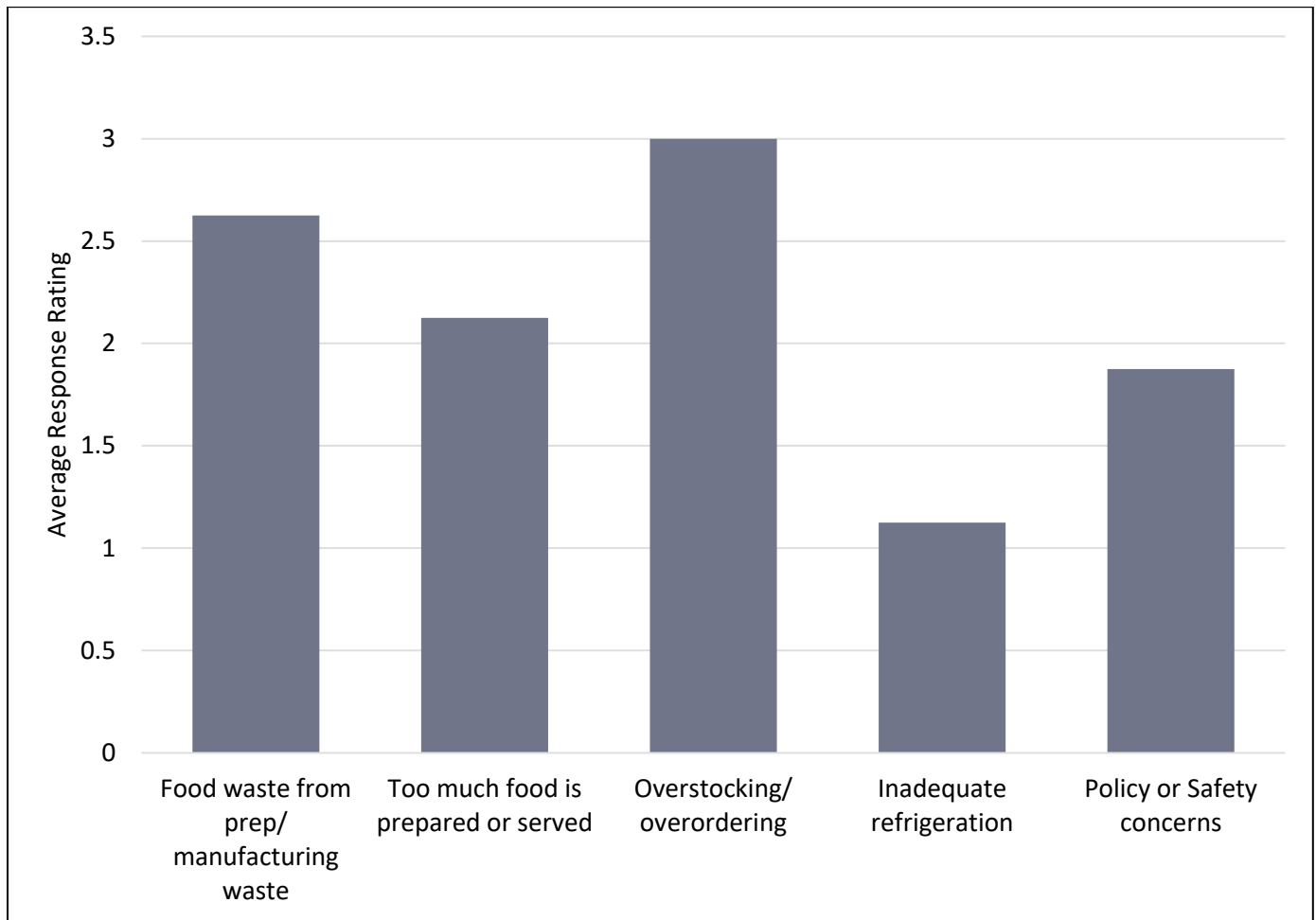


Figure 36: Interview responses to top reasons for food waste by grocery stores

SPECIALTY FOOD RETAIL AND CONVENIENCE STORES

CHARACTERIZATION

Based on primary interviews with specialty food retail stores, the most common types of wasted food were prepared food, unavoidable waste (plate scrapings or food scraps) and fresh (unpackaged) food ([Figure 37](#)). Most of this food waste was inedible or plate waste, with edible food, rotten food and possibly edible food less common. The most common reasons for wasted food are reported to be food waste from preparation and too much food being served or prepared ([Figure 38](#)).

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX B: GENERATOR INTERVIEW RESULTS AND CHARACTERIZATION OF FOOD LOSS AND WASTE BY SECTOR

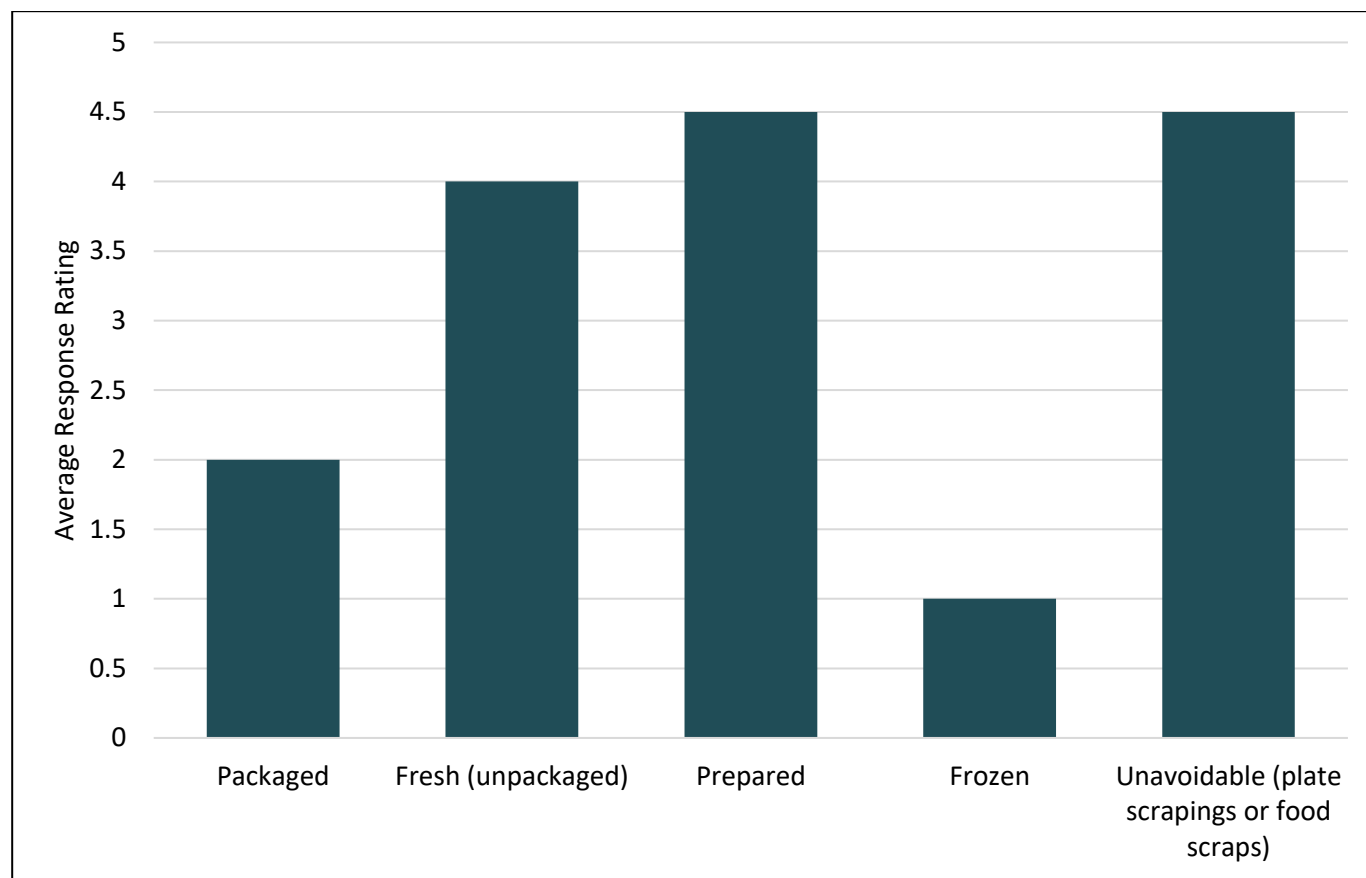


Figure 37: Interview responses to types of food waste generated by specialty food retail/convenience stores.

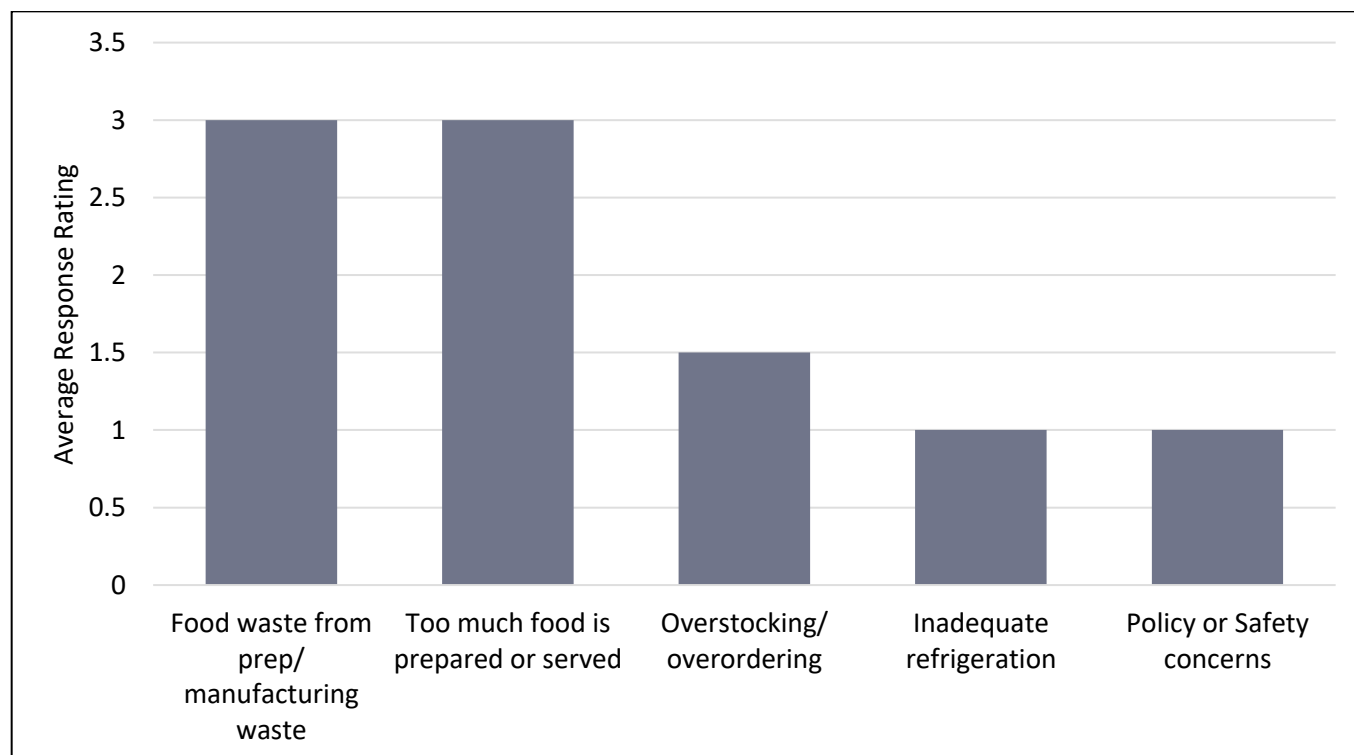


Figure 38: Interview Responses to top reasons for food waste by specialty food retail/convenience stores.

SUPERCENTERS AND WAREHOUSE CLUBS

CHARACTERIZATION

The supercenters interviewed reported that the most common types of wasted food were fresh (unpackaged) food, highlighted in [Figure 39](#), below. The most common types of wasted food were reported to be inedible food, with the most common food waste reason to be too much food prepared or food waste from preparation (Figure 40). This is indicative of the supercenter, which was interviewed, as they had a robust food court.

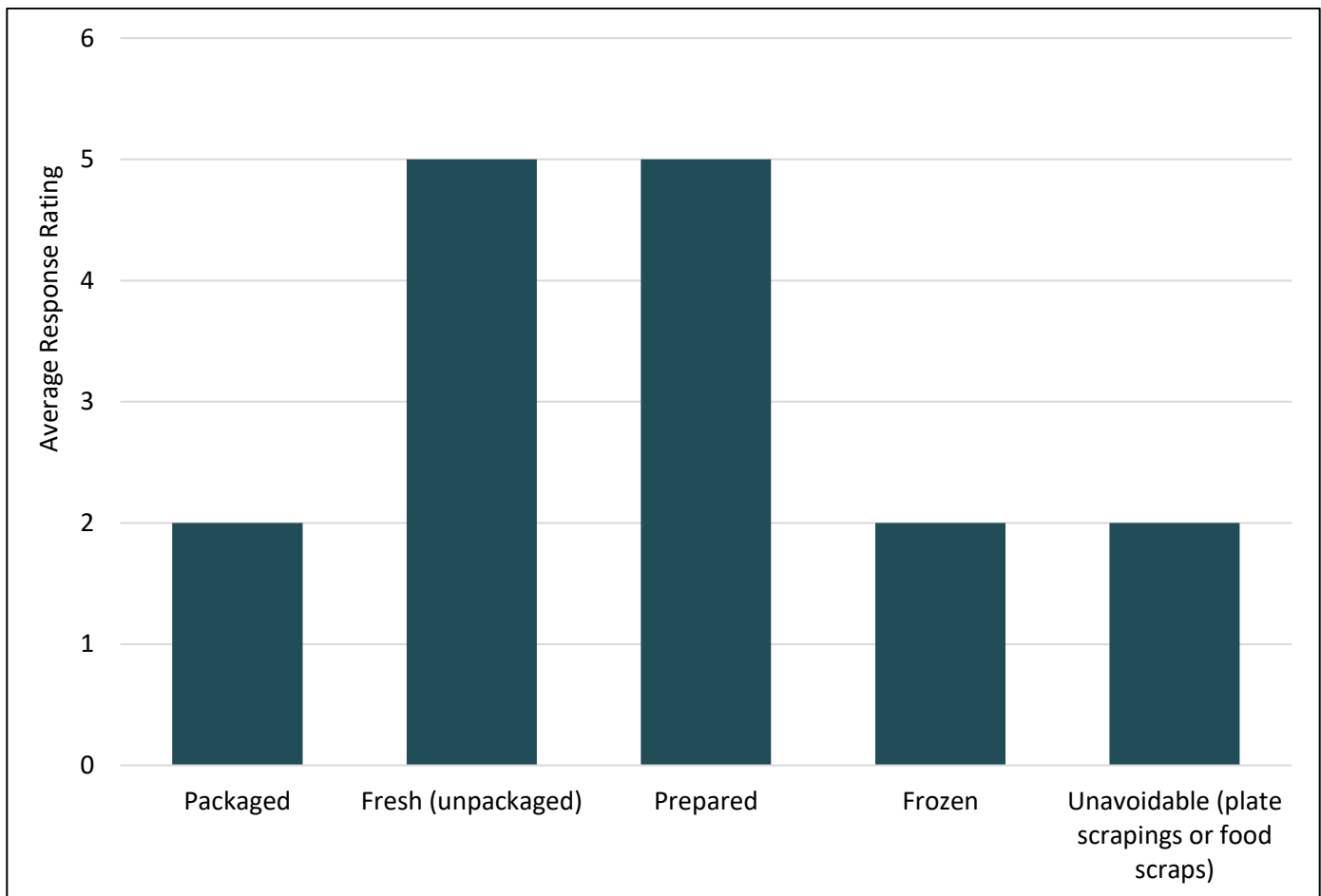


Figure 39: Interview responses to types of food waste generated by supercenters

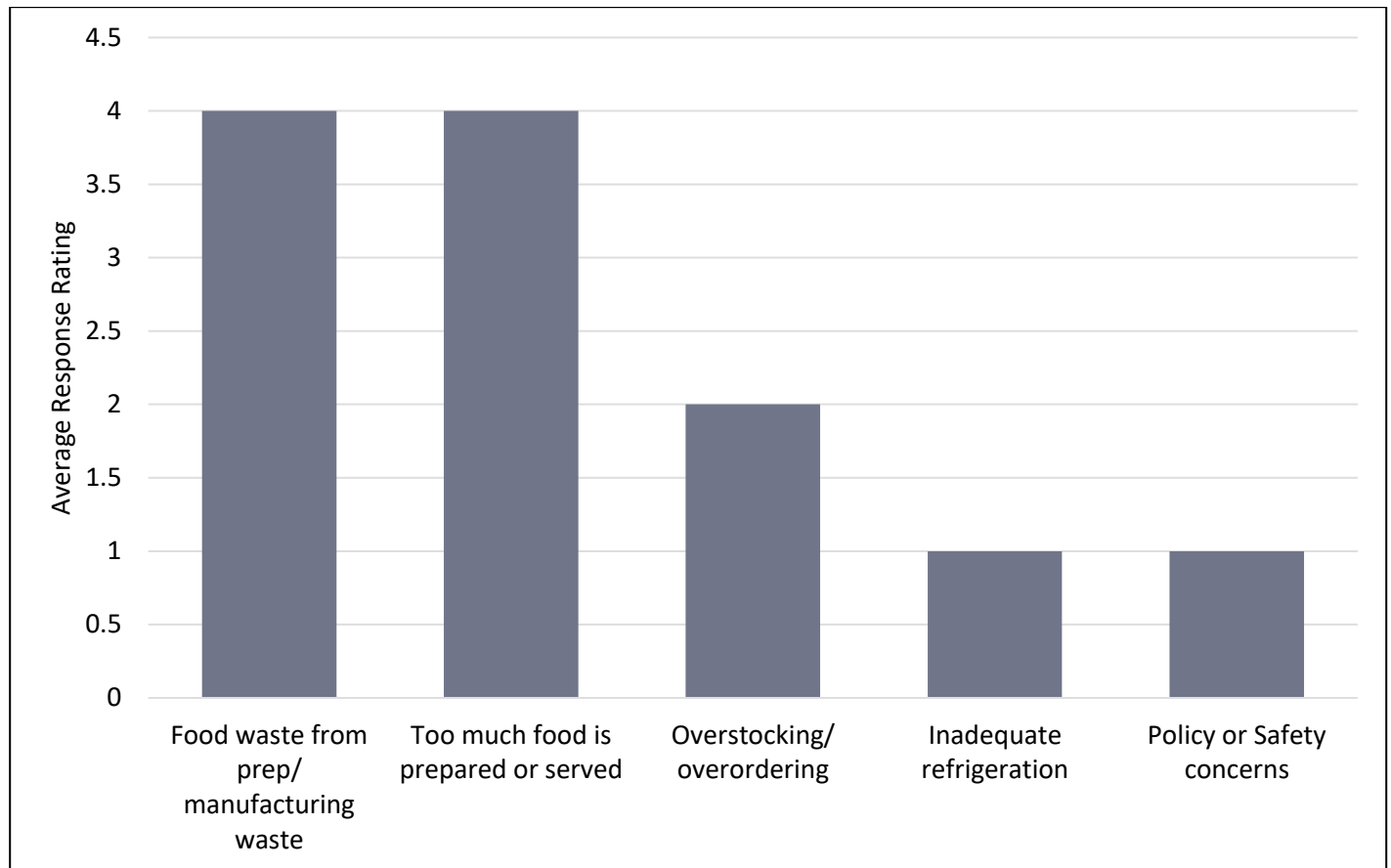


Figure 40: Interview responses to top reasons for food waste by supercenters

FOOD BANK

CHARACTERIZATION

Primary interviews with the food bank and food pantries found that most food waste was unavoidable or inedible. Challenges with expiration and nutrition labeling are the drivers of food waste for this sector. While the New Hampshire Food Bank requires five days of shelf life for donation, food pantries still receive food donations at or beyond the expiration date. As the food bank seldom reaches capacity for both refrigerated and shelf stable food products, as learned in interviews, overstocking is not a significant factor in food waste. However, food pantries interviewed reported refrigeration capacity as a contributing factor in food waste, which limits capacity expansion. The food bank and many pantries already send a portion of food waste to be composted or to animal feed where possible, but packaging and rotting food create limitations around diversion pathways. Due to the unique nature of this sector, as a receiver of edible food and generated of food waste, the interview was customized for this study.

FOOD WHOLESALERS/DISTRIBUTORS

CHARACTERIZATION

According to primary interviews with food wholesalers/distributors, the most common type of wasted food was fresh (unpackaged) food (Figure 41). Most of the wasted food was inedible with the most common cause of wasted food was reported to be overstocking or overordering (Figure 42).

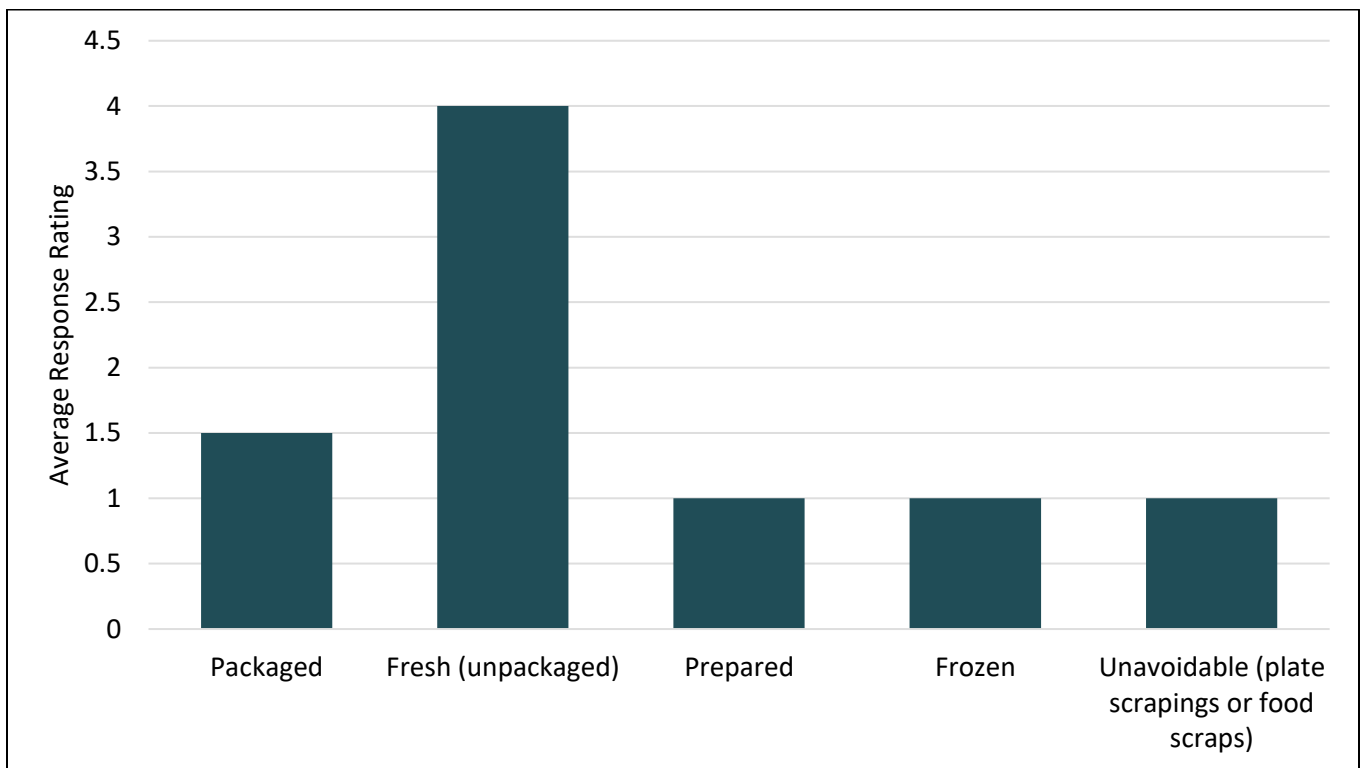


Figure 41: Interview responses to types of food waste generated by food wholesalers/distributors

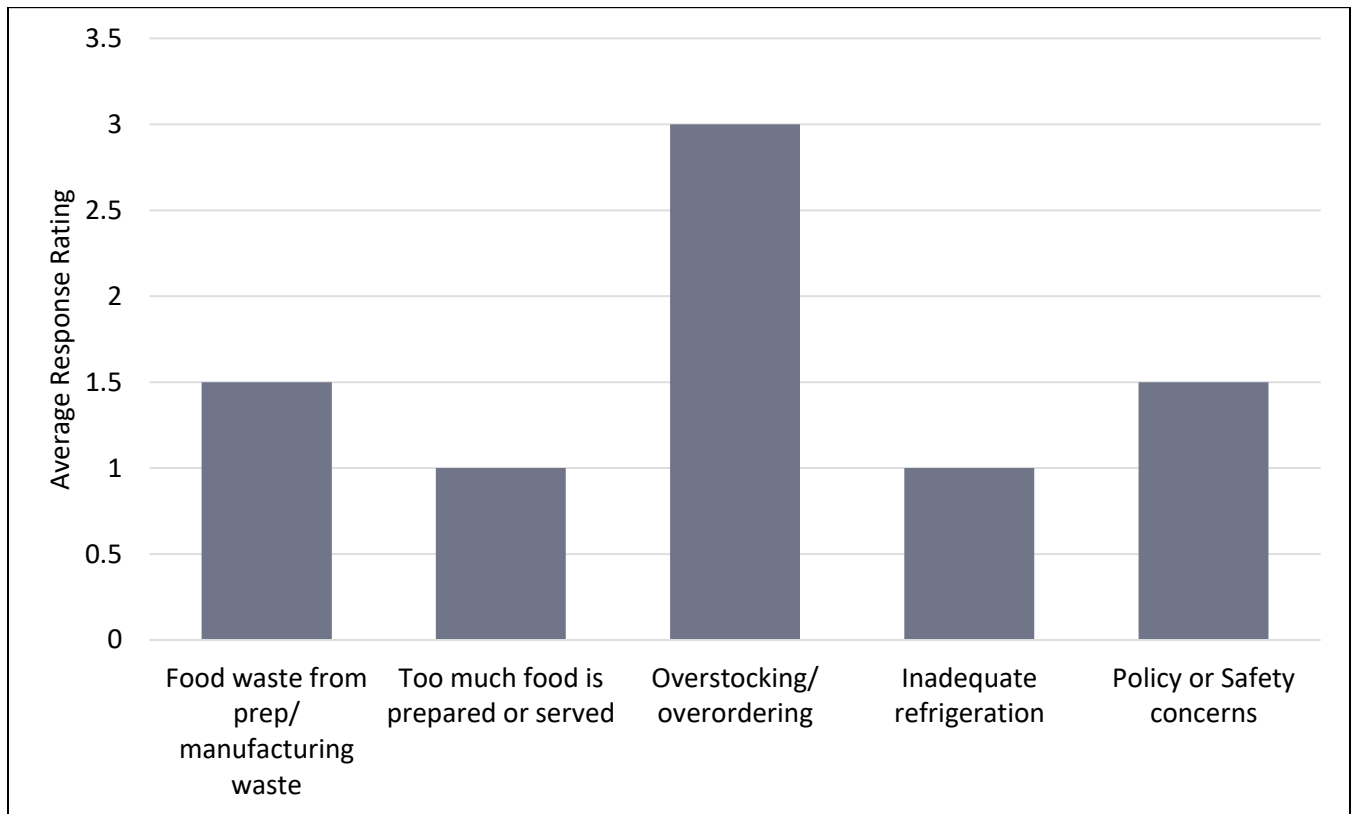


Figure 42: Interview responses to top reasons for food waste by food wholesalers/distributors

FOOD MANUFACTURERS/PROCESSORS

CHARACTERIZATION

Since this manufacturing is upstream in the retail sector of the supply chain, it mainly generates pre-consumer food loss and waste. This includes losses that occur as part of the production process, such as trimmings, bones or peels, batch changeover or startup losses, spills or leaks and products that do not have quality standards. Also included as FLW, although sometimes not technically classified as food loss, are by-products such as spent brewer's grains, whey or husks. By-products and processing losses, due to their high volume and consistency, are typically captured or diverted for beneficial use such as rendering, composting or anaerobic digestion rather than disposed of as waste. Other forms of waste generally stem from process inefficiency and are carefully managed by these companies as it directly ties to their bottom line. Therefore, this sector sees high diversion rates with mostly unavoidable FLW.

Manufacturers and processors were contacted via phone call to confirm diversion operations were in place for food loss and waste. This list of entities consisted primarily of breweries and beverage companies. Of the seven businesses that responded, five reported donating their grains from brewery production to a local farm to be used as animal feed. Several also indicated that they compost their food waste generated from their kitchens, although they could not confirm where the material is sent for processing.

FARMS

CHARACTERIZATION

FLW is composed of unharvested produce,¹² on-farm post-harvest handling and packing losses and unsold produce due to buyer rejection. Estimating food loss by farms is challenging due to the lack of farm-specific data. Food loss and waste on farms are driven by a combination of biological, operational and market factors. As seen in [Figure 43](#), ReFED analysis estimates that 24% of the FLW are marketable crops left behind after harvest or never harvested due to inefficiencies such as improper timing of harvest or limited access to labor or equipment failure.

Existing literature on wasted food characterization for farms in New Hampshire, combined with data from primary interviews, was incorporated into the characterization. Farms primarily generate fresh, raw, unprocessed produce, and all wasted food at the farm level is unpackaged. In terms of disposal it is important to note that much of the FLW (inedible and edible) is treated on the farm with only about 49 tons per year (TPY) leaving the farm.

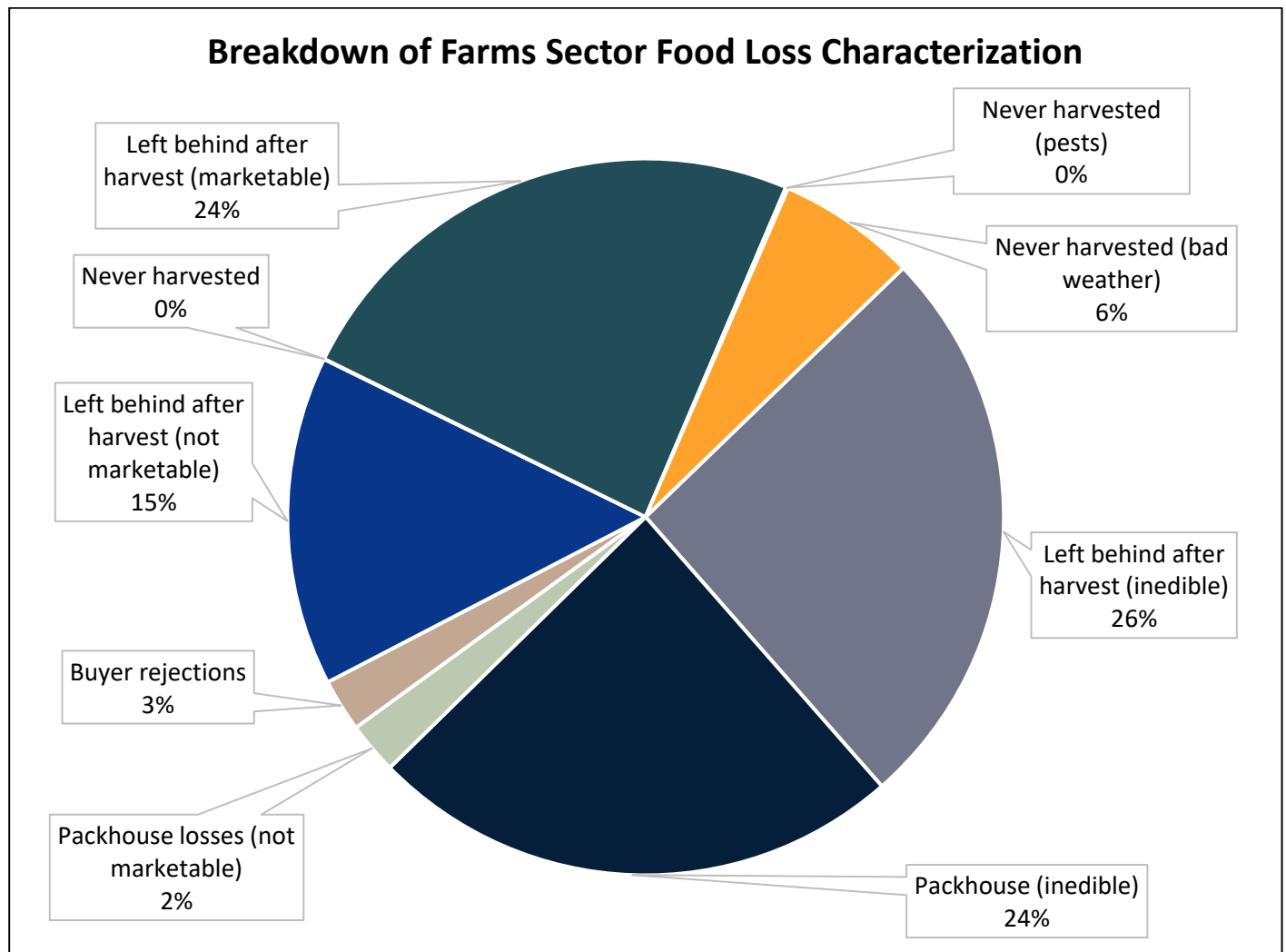


Figure 43: Breakdown of farm sector food loss characterization

¹² Does not include crops not grown for human consumption or parts of the plant that are not edible.

Appendix C: Methodology for Identifying Potential Affected Entities per New Hampshire's Food Waste Disposal Ban

TO: Jenny Mitchell, NHDES

FROM: Coryanne Mansell, RRS

DATE: September 18, 2025

CC: Jackie Ebner, RRS; Hunt Briggs, RRS

RE: Methodology for identifying potential Affected Entities per New Hampshire's food waste disposal ban

RRS will analyze food loss and waste (FLW) across the state of New Hampshire (NH), drawing on the best available data from existing literature, state-specific studies, independent research and stakeholder interviews. The New Hampshire Department of Environmental Services (NHDES) has identified 17 priority sectors that represent significant points of food generation and potential loss. These include farms; grocery stores; specialty food retailers; supercenters; restaurants; hotels, resorts, convention centers and casinos; hospitals and nursing homes; K–12 schools; colleges and universities; food manufacturers and processors; food wholesalers and distributors; food bank/food pantries, large event venues and festivals; malls; correctional facilities; large office buildings; and large multifamily complexes.¹ The general methodology for estimating FLW for a sector is illustrated in [Figure 44](#). This requires identifying generation factors for each sector and applying them to an extrapolation basis per entity (e.g., annual sales, employee count, etc.). Multiplying these yields an estimated annual FLW generation (tons per year).

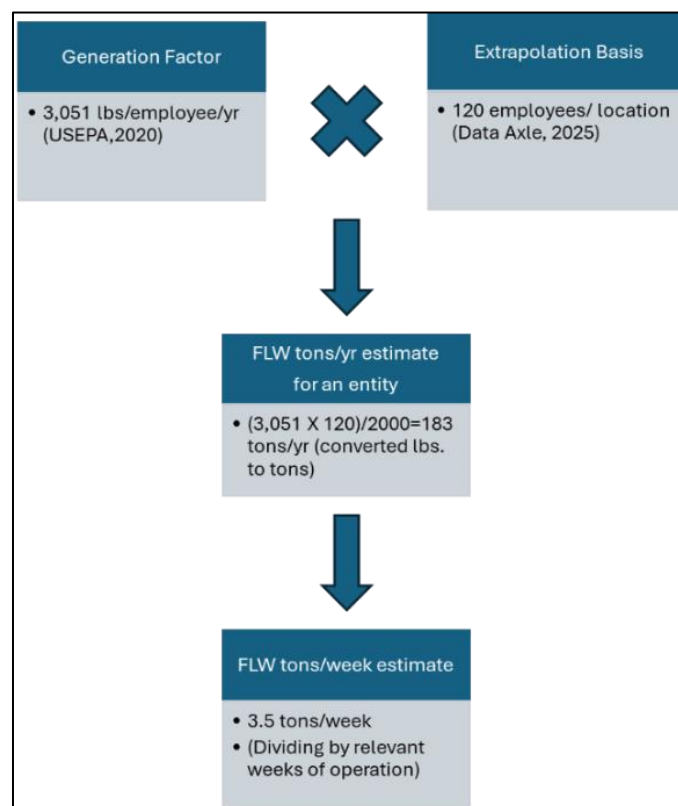


Figure 44: Generation calculation example for a full-service restaurant

For each sector, RRS will apply a multi-step process to develop the estimates of FLW.

1. Identify Datasets and Initial Estimations

- a. **Benchmark Analysis and Selection of Generation Factors:** Generation factors are the qualitative parameters that form the basis for estimating sector-specific FLW. These factors use key parameters such as the number of full-time employees, annual revenue or meals served to estimate FLW for a sector. A literature review will be conducted to compile the most current research on FLW generation factors. Priority will be given to the most recent data (limited to studies published after the year 2000 where possible) and geographically relevant literature sources, with New England and New Hampshire-specific data incorporated where available. However, regional and national literature sources will be reviewed and incorporated, as needed, to provide a comprehensive analysis to inform generation factors. A comparison with FLW generation factors used in neighboring states, such as Maine, will be conducted to provide consistency or a clear rationale on differences between New Hampshire's generation factors and others within the region. Best estimates of recommended generation factors, along with higher and lower factors, offer initial insights into the impact of the variation in reported generation factors. This will be used to conduct further research to select nominal generation factors used to calculate FLW.
- b. **Preliminary Identification of Potential AEs and Collection of Extrapolation Basis:** For each sector, RRS will compile a list of entities that generate food waste, including the basis data required for extrapolation. Basis data includes the factors (i.e., employee count, annual revenue, etc.) for each sector that a generation factor will be applied to. These metrics are necessary to translate generation factors, based on specific study findings, into FLW generation estimates for a given entity. For example, a list of restaurants with data on employees can be combined with a generation factor reporting FLW per employee to estimate the FLW for a given restaurant. RRS will apply the agreed upon cut-offs to generate a manageable list and target entities for each sector. The agreed cut-off criteria, included in the initial project proposal, for business are to have greater than five employees and greater than \$1 million in sales revenue. Additional cut-off criteria apply to festivals, limiting them to those with greater than 5,000 visitors per week and limiting multifamily homes to those with greater than 20 units. Data will be validated to remove duplicates and erroneous entities. Cutoff criteria will filter erroneous entities that are likely not affected by the ban. This resulting list will be used to calculate overall sector generation and identify those entities generating greater than one ton of FLW per week that may be subject to the ban.
- c. **Calculation of Sector-Specific FLW and Initial List of Potential AEs:** The generation factors will be applied to the basis for extrapolation to calculate preliminary FLW estimates for each of the 17 sectors. When applicable, data will be adjusted based on weeks of operation during a calendar year to estimate weekly FLW generation. The food waste generation threshold of one ton per week or more will be applied to identify the potential AEs based upon the recommended generation factors. This will establish an initial list of potential AEs (including those that clearly meet the ban's generation threshold and those that may meet it depending upon the generation factors) to refine through further analysis and data gathering.

2. Analyze and Refine Estimates

- a. **Review Lists and Prioritize Interviews:** The list of potential AEs will be reviewed with NHDES and the Project Team to identify any major discrepancies in the expected AEs. Sectors with greater amounts of affected FLW and larger uncertainty around generation factors will be prioritized for direct interviews to assess the accuracy of modeled results and gather additional New Hampshire specific information.

- b. **Target Interviews:** NHDES and the Project Team will agree upon the prioritization of stakeholder interviews within each sector. These interviews will provide additional data points and qualitative insights into sector-specific FLW generation. Interview questions will be prepared by the Project Team and submitted for review and approval by NHDES. Interviews will also inform the characterization of FLW, such as edible vs. inedible, packaged vs. unpackaged, etc. The Project Team will seek to identify key motivators and barriers to implementing diversion programs. This type of qualitative data will complement the quantitative estimates to provide a more comprehensive understanding of the dynamics of FLW across sectors.
- c. **Finalization of Estimates and Potential AEs:** The final generation factors, target sector entities list and potential AEs will be defined, reviewed and presented to NHDES.

[Table 26](#), below, describes the 17 sectors being analyzed and the source for entity-specific data. Data on specific multifamily complexes is limited; however, the US Census Bureau provides general information on the sector, including a count of complexes with greater than 20 units. Data on individual complexes may be available from New Hampshire Housing, however, to determine the complexes that meet the threshold of greater than one ton of FLW per week. Similarly, data on individual farms is limited, but USDA Census data provides data at a state level. Review of this data indicates that it is unlikely that any farm would qualify as an AE, so a high-level analysis of this sector's generation will be provided. Data on institutional sector target entities will be obtained from public records including those from State and Federal agencies and credible non-profit organizations.

The list of target entities for the Commercial Sector will largely come from the business database, Data Axle (formerly known as Infogroup Business USA). Data Axle provides a comprehensive database with information on millions of US businesses, including company name, address, sales volume, employee count and industry classification (e.g. NAICS). The North American Industry Classification System (NAICS) is a standard system used by the US, Canadian and Mexican governments to classify and analyze economic activity. The system provides a six-digit hierarchical structure where the first four digits define the sectors, and additional digits refine the subsector and industry group. Businesses typically self-assign the codes that best describe their activities with a Primary NAICS code, designating the activity generating the largest portion of the establishment's revenue. A cut-off criterion of greater than five employees and greater than \$1 million in revenue was applied to all commercial target sectors.

Malls represent a subset of restaurants grouped within a common location. An internet search and interview will be used to compile a list of mall locations, which can then be cross-referenced with Data Axle restaurant data. Interview data will also confirm whether waste is centrally managed at these locations. Large office buildings with on-site food service will be identified through similar methods, including internet searches and interviews. A list of major food providers in this sector will be developed from these sources to identify potential target entities. Target entities that host events will be obtained from Data Axle using the established cut-off criteria. This list will be supplemented with festivals that attract more than 5,000 visitors per week, a metric estimated to generate approximately one ton of food waste per week.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX C: METHODOLOGY FOR IDENTIFYING POTENTIAL AFFECTED ENTITIES PER NEW HAMPSHIRE’S FOOD WASTE DISPOSAL BAN

Table 26: Target Sector Definitions and Data Sources

CATEGORY	SECTOR	TARGET SECTOR DEFINITION	DATA SOURCES
Residential	Large Multifamily Complexes	Multifamily housing that has greater than 20 units	Decennial Census (US Census Bureau 2020), Project list (NH Housing, 2024) ¹
Institutions	Healthcare	Facilities which provide live-in care, including hospitals, nursing homes, supported residential care and assisted living facilities	Licensed health facilities (NH Dept of Health, 2025)
Institutions	K-12 schools	Educational setting which provides meals includes private and public schools	Public school enrollment (NH Dept of Ed., 2025)
Institutions	Colleges and Universities	Higher education institutions	Integrated Post Secondary Education System (US Dept of Ed, 2025)
Institutions	Correctional Facilities	Live-in correctional facilities (federal and state), county jails, criminal psychiatric units and transitional housing units.	2024 Annual Report (NH Dept of Corrections, 2025); A Focus on Incarceration (Center for Justice and Equity (2024)
Commercial Business	Hospitality	An establishment providing accommodation, meals and other services for travelers and tourists ² . NAICS code 721110 (hotels and motels), 721120 (Casino Hotels), 721191 (bed-and-breakfast inns), 721199 (Other travel accommodations), Restaurants located in the hotels will be in this category.)	Data Axle
Commercial Business	Restaurants	Food service establishments ² : NAICS code 722511(Full-Service Restaurants) 722513 (Limited-Service Restaurants), 722514 (Cafeterias, Grills and Buffets), 722320 (Caterers), 722515 (Snack and Non-Alcoholic Beverage Bars)	Data Axle

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX C: METHODOLOGY FOR IDENTIFYING POTENTIAL AFFECTED ENTITIES PER NEW HAMPSHIRE'S FOOD WASTE DISPOSAL BAN

CATEGORY	SECTOR	TARGET SECTOR DEFINITION	DATA SOURCES
Commercial Business	Events and Venues	Events and event spaces where food is served: ² NAICS:711310 (Event centers), 712120 (Historical Sites), 711212 (Racetracks), 711219 (Other Spectator Sports), 712110 (Museums), 712130 (Zoos and Botanical Gardens), 713110 (Amusement and Theme Parks), 561920 (Convention & Meeting Facilities & Services), 713910 (Golf Courses and Country Clubs), 713920 (Skiing Facilities), 713950 (Bowling Centers), Festivals with greater than 5000 visitors/week.	Data Axle; List of Festivals (Visit New Hampshire)
Commercial Business	Malls and shopping centers	Malls that contain food service establishments with centralized waste management.	Data Axle and Interviews
Commercial Business	Large Office Buildings	Large office buildings with cafeterias or food service operations.	Data Axle and Interviews
Commercial Business	Grocery Stores	Retail establishments that sell groceries ² : NAICS code 445110 (Supermarkets and Other Grocery Retailers (except Convenience and Warehouse retailers))	Data Axle
Commercial Business	Specialty Food and Convenience Stores	Specialty markets and smaller food retailers ² : NAICS code 445230 (Fruit and Vegetable Retailers) 445240 (Meat Retailers) 445250 (Fish and Seafood Retailer), 445291 (Baked Goods Retailers), 445292 (Confection and Nut Retail), 445298 (All Other Specialty Food Retailers) and 445131 (Convenience Stores)	Data Axle
Commercial Business	Supercenters	Warehouse and big box stores that sell food ² : NAICS code 455211 (warehouse clubs and supercenters) and stores like Target or Walmart that may not be under 455211)	Data Axle

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX C: METHODOLOGY FOR IDENTIFYING POTENTIAL AFFECTED ENTITIES PER NEW HAMPSHIRE'S FOOD WASTE DISPOSAL BAN

CATEGORY	SECTOR	TARGET SECTOR DEFINITION	DATA SOURCES
Commercial Business	Food Wholesalers/Distributors	Wholesalers and distributors of food: ² NAICS codes 424410 (General Line Grocery Merchant Wholesalers) 424420 (Packaged Frozen Food Merchant Wholesalers) 424430 (Dairy Product (except Dried or Canned) Merchant Wholesalers) 424440 (Poultry and Poultry Product Merchant Wholesalers) 424450 (Confectionery Merchant Wholesalers) 424460 (Fish and Seafood Merchant Wholesalers) 424470 (Meat and Meat Product Merchant Wholesalers) 424480 (Fresh Fruit and Vegetable Merchant Wholesalers) 424490 (Other Grocery and Related Products Merchant Wholesalers)	Data Axle
Commercial Business	Food Bank	New Hampshire Food Bank	Interview
Commercial Business	Food Manufacturers/Processors	Establishments that manufacture food for human consumption ² : NAICS codes 3112 (Grain and Oilseed Milling), 3113 (Sugar and Confectionary Manufacturing), 3115 (Dairy Manufacturing), 3116 (Animal Slaughter and Processing), 3117 (Seafood Processing), 3118 (Bakeries and Tortilla Manufacturing), 3119 (Other Food Manufacturing), 3121 (beverage manufacturing)	Data Axle
Farms	Farms	Farms that grow food for human consumption	2022 Agricultural census survey (USDA, 2022)

¹Data on specific complexes may be available.

²Cut-off criteria of greater than five employees and greater than \$1 million in sales revenue.

To estimate food waste for an individual entity, the sector-specific generation factor is applied to available data, such as annual meals served or number of employees. [Table 27](#), below, outlines the generation factor units selected based on available FLW data for each sector. For restaurants and supercenters, for example, pounds per employee per year is used because the EPA's FLW data is available only in that unit. Final generation numbers for each sector will result from the process outlined above, beginning with a thorough literature review and incorporating New Hampshire-specific or regional inputs to develop estimates that best reflect New Hampshire generators.

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX C: METHODOLOGY FOR IDENTIFYING POTENTIAL AFFECTED ENTITIES PER NEW HAMPSHIRE'S FOOD WASTE DISPOSAL BAN

Table 27: Generation Factor Units and Descriptions

SECTOR	GENERATION FACTOR UNITS
Large Multifamily Complexes	Pounds per household per year
Healthcare	Pounds per bed per year
K-12 Schools	Pounds per student per year
Colleges and Universities	Pounds per student per year
Correctional Facilities	Pounds per inmate per year
Hospitality	Pounds per employee per year
Restaurants	Pounds per employee per year
Events and Venues	Pounds per visitor OR pounds per employee per year
Malls and shopping centers	Pounds per employee per year
Large Office Buildings	Pounds per meal OR pounds per employee per year
Grocery Stores	Pounds per employee per year
Specialty Food and Convenience Stores	Pounds per employee per year
Supercenters/Warehouse Clubs	Pounds per employee per year
Food Wholesalers/Distributors	Pounds per employee per year OR pounds per \$1,000 of annual revenue
Food Bank	Not available
Food Manufacturers/Processors	Pounds per dollar of annual revenue
Farms	Not available

Appendix D: Methodology for Conducting Infrastructure Analysis

TO: Jenny Mitchell, NHDES

FROM: Coryanne Mansell, RRS

DATE: October 6, 2025

RE: Methodology for conducting NH Food Waste Study - Task 3: Infrastructure Analysis

RRS will assess the capabilities and capacity of existing surplus food and food waste management facilities (management facilities) in New Hampshire, while also considering facilities in neighboring states that fall within a 20-mile radius of the border. In addition, the Project Team will perform a gap analysis to determine where capacity is lacking in the state. The Project Team will develop a categorized inventory of management facilities including food banks and pantries, composting facilities, anaerobic digesters, haulers and animal feed operations. To better understand facility needs and opportunities, the team will conduct up to ten direct interviews with management facilities using an electronic survey (survey) to categorize and capture responses. The survey will also be distributed electronically to additional management facilities where email addresses are available. Questions will focus on understanding current processing practices, capacity and the types of support that will be required for these facilities to expand operations and process additional volumes of surplus food. Contact information and addresses of the food waste management facilities will be shared with NHDES in an Excel format. The detailed methodology is outlined below.

Methodology

1. Categorize and Inventory Surplus Food and Food Waste Management Facilities

- a. **Identify Management Facilities:** The Project Team will compile a comprehensive list of management facilities within New Hampshire and the surrounding states within 20 miles of the border. The list will include food banks and pantries, composting facilities, anaerobic digestors, haulers and animal feed operations.
 - i. For in-state management facilities, data sources will include RRS, the Center for EcoTechnology (CET), the New Hampshire Food Alliance, New Hampshire Food Bank, New Hampshire Department of Business and Economic Affairs and New Hampshire Department of Environmental Services (NHDES), supplemented by outreach to regional networks and industry directories that may be identified during research. The list of facilities will be validated by NHDES to ensure key entities are included.
 - ii. Out-of-state management facilities, within 20 miles of New Hampshire, will be identified through desktop research and information publicly available by Massachusetts, Maine and Vermont state agencies.
- b. **Validate Management Facilities:** The Project Team will verify that each identified management facility is currently operational and able to accept commercial food scraps by conducting internet research and direct outreach. As applicable, this step will also include confirming each management facility's service area, types of surplus food accepted and permit status (as applicable).
- c. **Survey and Interviews:** The Project Team will design a survey, included below, that will be used for direct interviews and distributed electronically to the remaining management facilities, as available. This survey will be developed on Google Forms and utilized by the Project Team to compile information when speaking with management facilities. The final selection of interviewees will depend on responsiveness; however, the Project Team will attempt to have at least one interview from each type of

management facility. The survey will capture details on permitted versus actual capacity, types of surplus food or food waste accepted and operational constraints. Questions specific to each type of management facility will be included to compile information on their challenges and opportunities. In-state management facilities will be prioritized for interviews. To ensure a representative sample, a combination of in-state and out-of-state interviews may be conducted, as agreed upon by RRS and NHDES. If fewer than ten in-state management facilities are available or responsive, validated out-of-state management facilities will be contacted for interviews or survey requests when contact information is available. Out-of-state management facilities not interviewed will receive a survey to assess surplus food processing capacity within 20 miles of the New Hampshire border; however, the study primarily focuses on in-state capacity needs.

2. Geospatial Analysis of Existing Management Facilities

- a. **Map of Management Facilities:** The Project Team will create a series of static geospatial maps for all validated management facilities, using ArcGIS. Facilities will be displayed against defined county boundaries. Any management facilities located in neighboring states, within 20 miles of New Hampshire's borders, will also be mapped to account for cross-border processing capacity. The resulting map will identify composting facilities, anaerobic digesters, animal feed operations and food banks and pantries with different icons.
- b. **Identification of Potential AEs:** The Project Team will use the static maps and data from the generator study to:
 - i. Verify which entities on the list of prospective AEs meet the 20-mile radius provision of the ban and establish preliminary classifications as mandated or exempt.
 - ii. Provide a visual display of existing management facilities and their proximity to regional concentrations of food waste generation, which will be incorporated into the gap analysis.

3. Gap Analysis

- a. **Summarize Analysis:** The Project Team will synthesize interview and geospatial analysis findings to evaluate current and potential processing capacity as well as opportunities for investment or policy support. The analysis will:
 - i. Compare current management capacity against projected quantities of surplus food and food waste generated by the list of prospective AEs.
 - ii. Identify regions with insufficient capacity and determine specific facility requirements needed to address these gaps, including opportunities for development of new or expanded facility capacity. For example, management facilities with insufficient capacity in areas of high food waste concentration indicate a need for capacity expansion, while high concentrations of food waste without management facilities in a 20-mile radius suggest a need for new development.
 - iii. Identify key barriers (e.g., equipment, permitting, transportation, labor or feedstock quality) to accepting additional surplus food and food waste and provide recommendations to overcome barriers.
 - iv. Identify existing programs, organizations and businesses that are involved in efforts to track, study and reduce food waste in New Hampshire. Insights from the interviews and existing expertise from the Project Team will help compile this information.

- v. Identify successful public and private initiatives that have effectively connected food waste generators with reuse and recycling outlets. Desktop research and information gathered from the interviews will be used to identify existing successes.
- vi. Recommend data collection, measurement and analysis methods that will assist NHDES to track the success of the food waste disposal ban.

Management Facility Interview Questions/Survey

1. Name of business.
2. What is your name, title and the best way to reach you? (email/phone/text).
3. Which type of management facility do you most identify with:
 - a. Composting facility.
 - b. Food bank or pantry.
 - c. Animal feed operation.
 - d. Hauler.
 - e. Anaerobic digester.
 - f. If other, please specify.
4. What type(s) of organics do you accept? (Check all that apply).
 - a. Yard waste.
 - b. Produce (no meat or dairy).
 - c. Packaged food (including meat and dairy).
 - d. Unpackaged food (including meat and dairy).
 - e. Compostable service ware and bags.
 - f. Other (please specify).
5. Were you aware of New Hampshire's food waste disposal ban before today?
 - a. Yes/No/Unsure – How did you hear about it and what do you already know?

Questions Specific to Permitted Compost Facilities

1. What is your service area?
2. What is your permitted processing capacity (tons/year)? Permit usually references tons/day.
 - a. *Internal note:* At the time of this study, all permitted sites in NH allow the facility to accept up to 10 tons per day of food waste.
3. What is your actual processing capacity (tons/year) and how do you determine that amount?
4. What is your estimated excess capacity (tons/year) and how do you determine that amount?

5. How do you track your tonnage?
6. What are the biggest challenges your facility faces in accepting or processing food scraps?

Questions Specific to Food Recovery Organizations (e.g., food banks and food pantries)

1. How many pounds of recoverable food do you accept/redistribute in one year?
2. What is your current maximum capacity? (Indicate pounds, tons, meals served).
3. What types of food do you recover? (Check all that apply).
 - a. Prepared foods (such as sandwiches, salads, etc.)
 - b. Produce.
 - c. Packaged goods.
 - d. Frozen goods.
 - e. Dairy products.
 - f. Meats.
 - g. Bakery items.
 - h. Other (please specify).
4. Are there food types you cannot accept (e.g. hot or refrigerated food, produce, expired non-perishables, etc.)?
 - a. Why not? Is it due to a lack of... refrigeration capacity, shelf space, community interest, transportation to retrieve the foods, source connections, or strict government regulations?
5. What is your current storage and refrigeration capacity (refrigerators, freezers, dry storage)?
6. Do you currently partner with large generators (grocery, healthcare, schools/universities, food service) to recover their surplus food?
7. Are there gaps in donor sources you would like to reach (restaurants, institutions, schools)?
8. Do you send surplus food to be composted or recycled if it is not suitable for donation?
 - a. How much of the surplus food is spoiled or expired?

Questions Specific to Haulers (including facilities that self-haul)

1. What is your service area?
2. Do you collect food waste from commercial businesses or institutions?
3. Where do you deposit the collected food waste? In-state and/or out-of-state?
 - a. Do you bring the food waste to a composting facility or anaerobic digester?
4. Do you have the capacity to expand your food waste collection routes?

Questions for All Respondents

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX D: METHODOLOGY FOR CONDUCTING INFRASTRUCTURE ANALYSIS

1. What kinds of technical assistance or training would be most helpful for your staff or organization? (e.g., site visits with food waste experts, online toolkits, guidance on regulations, sector-specific training, etc.)
2. What are the **primary** constraints on increasing your processing capacity? (Pick top three)
 - a. Equipment limitations.
 - b. Site/space limitations.
 - c. Storage for feedstocks or cold storage.
 - d. Staffing/labor availability.
 - e. Regulatory or permitting restrictions.
 - f. Lack of reliable feedstock supply.
 - g. Transportation challenges.
 - h. Lack of end-market demand (for finished compost or specific types of recovered food).
 - i. Financial resources/funding.
 - j. Other (please specify).
3. What forms of assistance would be most useful to support capacity expansion? (Pick top three).
 - a. Funding or grants for staffing/equipment/infrastructure/operational costs.
 - b. Technical assistance (training).
 - c. Policy or regulatory support.
 - d. Market development for finished products.
 - e. Networking/partnership opportunities.
 - f. Other (please specify).
4. If financial support was available, how would you use the funding to expand your processing capacity?

Appendix E: Methodology for Impact Modeling

TO: Jenny Mitchell, NHDES

FROM: Coryanne Mansell, RRS

DATE: February 1, 2026

RE: Methodology for Impact Analysis Modeling

RRS will conduct an impact analysis to quantify potential reductions in greenhouse gas (GHG) emissions resulting from enhanced food loss and waste (FLW) diversion practices required under New Hampshire's food waste disposal ban. Using the U.S. Environmental Protection Agency's (EPA) Waste Reduction Model (WARM), version 16, the analysis will compare baseline emissions from current disposal of affected entity (AE) FLW to three alternative diversion scenarios. These scenarios represent disposal pathways aligned with EPA's Wasted Food Scale and New Hampshire's preferred food waste management methods.

PROCESS

The Project Team will employ an impact assessment approach using EPA's WARM tool v.16 to quantify baseline emissions compared against three alternative FLW diversion scenarios. The baseline scenario represents current AE-generated FLW managed through landfill disposal or incineration. To calculate the net climate impacts associated with full diversion of AE FLW, the alternative scenarios will compare baseline disposal data to three different source reduction and diversion models to illustrate various diversion pathways to compliance. The Project Team will develop diversion estimates for each of the scenarios below from data collected through interviews with New Hampshire food generators during the food waste generator study (Task 2). Estimates will be supplemented by additional research from established literature and the Project Team's subject matter expertise.

The following explains how the baseline and each of the three alternative scenarios will be modeled in more detail.

BASELINE SCENARIO

The baseline model will represent the estimated tonnage of FLW generated by AEs that is currently sent to disposal (landfill or incineration). Using the sector-level FLW generation estimates developed in Task 2, the Project Team will estimate the amount of FLW currently diverted by AEs within each sector. Estimating diversion on a sector-by-sector basis allows the analysis to reflect differences in waste characteristics, implementation challenges and operational constraints unique to each sector. The remaining FLW estimated to be disposed of by AEs will be allocated between landfill and incineration using historical data for the proportion of municipal solid waste landfilled vs. incinerated in New Hampshire.

ALTERNATIVE SCENARIO 1: HIGH DIVERSION TO COMPOSTING

Alternate Scenario 1 assumes no additional source reduction or donation by AEs beyond the current baseline. All additional FLW diversion required to achieve compliance is modeled as being sent to composting. This scenario assumes sufficient expansion of composting facilities to process all FLW that is not reduced or donated.

ALTERNATIVE SCENARIO 2: HIGH SOURCE REDUCTION AND DONATION

To highlight the benefits of increased source reduction and donation, Alternative Scenario 2 models best AE source reduction and donation practices. All remaining FLW from AEs will be diverted from landfill disposal and allocated to composting, assuming adequate buildout of food donation and composting infrastructure to achieve this scenario.

ALTERNATIVE SCENARIO 3: COMBINATION OF SOURCE REDUCTION AND DIVERSION

The inputs for alternative scenario 3 represent AE FLW managed through a combination of source reduction and diversion to composting. The Project Team will develop estimated percentages of sector-specific FLW that would most likely be reduced at the source, donated or composted to achieve full compliance. Combining a blend of source reduction and composting, this alternative scenario represents a moderate, but reasonable estimate of potential climate impacts resulting from full compliance.

KEY ASSUMPTIONS

- The analysis is based on potential AEs identified in Task 2 only and therefore includes a best estimate of generation and known entities at the time of this study.
- The FLW management pathways will include source reduction/donation and composting.
- Donation will be modeled as source reduction, assuming the food that was donated avoids the production of food required to feed the recipients of the donated food.
- Precise data on the current source reduction, donation and diversion of FLW from AEs to management facilities is not directly available. As a result, estimates are derived from the Project Team's prior field experience and relevant literature.
- Scenario modeling represents full implementation of the food waste disposal ban and is informed by data obtained in this study, established literature and the Project Team's expertise. Scenarios may not represent actual implementation of New Hampshire's food waste disposal ban and policy compliance.
- Modelling FLW disposal for the baseline will be allocated with 80% going to landfill and 20% to incineration, based on historical data from Annual Facility Reports submitted to NHDES by permitted disposal facilities.
- LFG emissions will be modeled to represent a typical New Hampshire landfill, where LFG is recovered to electricity. This model is based on [NHDES data](#) that indicates all six active landfills have LFG recovery and four out of six of those landfills have gas to energy systems in place.
- Anaerobic digestion (AD) was not specifically included as a management pathway in this analysis because there are currently no AD facilities that accept food waste in New Hampshire. It is assumed that any additional infrastructure needed to process remaining food waste from AEs would consist of composting facilities. Furthermore, academic literature indicates that the lifecycle impacts of composting and AD are

generally similar, with some peer-reviewed studies favoring one approach over the other. As such, the impacts from composting modeled in this exercise are expected to be reasonably representative of AD impacts. A summary of this research is provided below.

- The EPA WARM model does not include a pathway for diverting FLW to animal feed. Although diversion to animal feed is a preferred food waste management strategy that can provide environmental benefits, it is not applicable across all sectors. This practice is most common among food processors/manufacturers and retailers/wholesalers and some entities within these sectors reported diversion to animal feed during interviews. However, infrastructure interviews indicated that capacity for FLW diversion to animal feed is limited within the state. Therefore, the Project Team did not assume any additional diversion to animal feed beyond current levels. In general, diverting FLW to animal feed provides greater environmental benefits than composting but fewer benefits than source reduction or donation. As a result, the environmental benefits of animal feed diversion are expected to fall within the range of outcomes represented by the scenarios modeled.
- All GHG results will be reported in metric tons of carbon dioxide equivalents reduced (MTCO₂e).
- While the EPA WARM model is widely used to estimate GHG emissions reductions associated with landfill diversion, it is also recognized to have inherent limitations and potential biases. These limitations are discussed below to support appropriate interpretation of results.

ADDENDUM TO APPENDIX E: NOTE ON THE EPA WARM MODEL

The WARM model is a spreadsheet-based life-cycle tool used to evaluate waste management options by comparing a baseline scenario (in this case, the current state) with alternative pathways (the future state). Due to its accessibility and transparency, it is widely used by governments and organizations for waste planning and climate reporting.

However, GHG estimates for food waste management can vary across tools and studies depending on the underlying assumptions and methodology. Some critiques of the WARM model include underestimation of landfill emissions and overestimation of the benefits of composting.¹³ Despite these differences, most models consistently show that landfilling has the highest environmental impact, while composting and anaerobic digestion are preferred treatment pathways.

Composting was modeled as the primary pathway to treat food waste as this is how organics are currently managed in the state. However, the results can be considered similar to those that would result for treatment via anaerobic digestion (AD). The WARM model only provides one pathway for composting (turned windrow) and estimates composting a ton of food waste to result - 0.15 MTCO₂e (a net benefit). WARM provides four pathways for AD that range from -0.06 MTCO₂e to -0.40 MTCO₂e.¹⁴

¹³ For Example, Dyson et al. (2021) compared WARM to two other peer reviewed waste management models, SWOLF (Solid Waste Optimization Life-cycle Framework) developed by researchers at North Carolina State University and EASETECH developed by the Technical University of Denmark (DTU) and observed that the WARM estimates were lower. Conversely, other models show compost benefits to be lower due to more detailed modeling of fertilizer displacement and more conservative modeling of the benefit of soil organic carbon growth when compost is applied (CARB, 2014).

¹⁴ Dry AD with cured digestate is estimated to result in - 0.40MTCO₂e/ton food waste, Dry AD with Land Application -0.10MTCO₂e/ton, Wet AD with digestate curing -0.06MTCO₂e and Wet AD with direct land application -0.14.

WARM does not offer a specific pathway for food donation or diversion to animal feed. In this analysis, donation is modeled as source reduction based on the assumption that it displaces the production of food that would otherwise be needed. Diversion to animal feed is also not modeled, but the net impact per ton is generally beneficial relative to treatment of food waste (e.g. composting or AD) but less than that of source reduction.

These relationships are reflected in EPA's Food Waste Management Hierarchy which ranks food waste management from most preferred to least preferred: source reduction, donation, diversion to feed animals and recycling through composting or anaerobic digestion.

DIVERSION AND DISPOSAL ESTIMATES

To estimate the current FLW sent to landfill or incineration by AEs, the Project Team applied diversion percentages to the FLW generation. Then based on information obtained during stakeholder interviews, a review of the literature including ReFED destination estimates and the Project Team's expertise, current diversion rates were estimated to quantify the amount currently being donated and diverted. This was then validated against the New Hampshire Waste Characterization study as described in Appendix F: Methodology for Estimating Current Disposal of Food Loss and Waste by Sector.

These diversion percentages were then applied to the AEs to arrive at a baseline estimate of current FLW disposal by AEs. The disposed tons were allocated 80% to landfill and 20% to incineration, based on historical data from Annual Facility Reports submitted to NHDES by permitted disposal facilities. This formed the baseline current state inputs for the WARM model. The results are shown in [Table 28](#), below, where 154,883 tons of FLW are estimated to be currently diverted to donation animal feed, land application, composting or AD and 67,338 tons estimated to be currently disposed. Of that, 53,870 tons is assumed to be landfilled and 13,468 incinerated.

Table 28: Current Food Loss and Waste Disposal and Diversion Estimates by Affected Entities (Baseline)

SECTOR	AE GENERATION (TPY)	AE % DIVERSION	DONATION	COMPOST	AE DIVERSION (TPY)	AE DISPOSAL (TPY)
Multi-Family Complexes	4,257	1%	0.3%	1%	42.6	4,215
K-12 Schools	98	5%	0.2%	5%	4.9	93
Colleges and Universities	660	40%	5.0%	35%	263.9	396
Correctional Facilities	367	1%	0.2%	1%	3.7	363
Healthcare	1,391	3%	0.0%	3%	41.7	1,349
Restaurants	10,860	1%	0.2%	1%	108.6	10,751
Hospitality	5,198	1%	0.2%	1%	52.0	5,146
Large Event Venues and Festivals	1,710	3%	0.2%	3%	51.3	1,659
Malls	4,110	0%	0.0%	0%	0.0	4,110

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX E: METHODOLOGY FOR IMPACT MODELING

SECTOR	AE GENERATION (TPY)	AE % DIVERSION	DONATION	COMPOST	AE DIVERSION (TPY)	AE DISPOSAL (TPY)
Large Office Buildings	339	1%	0.2%	1%	3.4	336
Grocery Stores	32,294	40%	20%	20%	12,917.7	19,376
Specialty Food Retail and Convenience Stores	55	1%	1%	0%	0.6	55
Supercenters and Warehouse Clubs	4,211	20%	10%	10%	842.2	3,369
Food Wholesalers and Distributors	970	50%	49%	1%	484.8	485
New Hampshire Food Bank	130	40%	25%	15%	52.0	78
Food Manufacturers and Processors	155,570	90%	60%	30%	140,013.4	15,557
Farms	0	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
NOT APPLICABLE	222,220	-	-	-	154,883	67,338

¹Estimated Total current diversion to donation, animal feed, compost or AD

ALTERNATE SCENARIOS

Three future state scenarios were modeled to estimate full source reduction and diversion of all FLW currently disposed by AEs. This was done by applying estimates for nominal, high and low source reduction/donation percentages to the overall baseline AE FLW generation estimates.

These source reduction/donation percentages represent the additional proportion of currently disposed FLW that would be source reduced/donated under each scenario. This data was combined with Project Team expertise and compared to the ReFED Insight Engine diversion destination estimates, shown in [Appendix F](#), to arrive at diversion estimates for each sector for each scenario as shown below in Tables 29-31.

Table 29: Scenario 1: All Affected Entities Diverting to Composting

SECTOR	ADDITIONAL SOURCE REDUCTION AND DONATION (% OF DISPOSAL)	ADDITIONAL SOURCE REDUCTION AND DONATION (TPY)	ADDITIONAL COMPOST
Multi-Family Complexes	0%	0%	4,215
K-12 Schools	0%	0%	93
Colleges and Universities	0%	0%	396
Correctional Facilities	0%	0%	363
Healthcare	0%	0%	1,349
Restaurants	0%	0%	10,751
Hospitality	0%	0%	5,146
Large Event Venues and Festivals	0%	0%	1,659
Malls	0%	0%	4,110
Large Office Buildings	0%	0%	336
Grocery Stores	0%	0%	19,376
Specialty Food Retail and Convenience Stores	0%	0%	55
Supercenters and Warehouse Clubs	0%	0%	3,369
Food Wholesalers and Distributors	0%	0%	485
New Hampshire Food Bank	0%	0%	78
Food Manufacturers and Processors	0%	0%	15,557
Farms	0%	0%	0
TOTAL	NOT APPLICABLE	NOT APPLICABLE	67,338

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX E: METHODOLOGY FOR IMPACT MODELING

Table 30: Scenario 2: Affected Entities with Additional Source Reduction/Donation Activities

SECTOR	ADDITIONAL SOURCE REDUCTION PER DONATION (% OF DISPOSAL)	ADDITIONAL SOURCE REDUCTION PER DONATION (TPY)	ADDITIONAL COMPOST
Multi-Family Complexes	5.00%	211	4,004
K-12 Schools	40.00%	37	56
Colleges and Universities	40.00%	158	237
Correctional Facilities	1.50%	5	358
Healthcare	15.00%	202	1,146
Restaurants	30.00%	3,225	7,526
Hospitality	20.00%	1,029	4,117
Large Event Venues and Festivals	20.00%	332	1,327
Malls	5.00%	205	3,904
Large Office Buildings	5.00%	17	319
Grocery Stores	50.00%	9,688	9,688
Specialty Food Retail and Convenience Stores	45.00%	25	30
Supercenters and Warehouse Clubs	50.00%	1,684	1,684
Food Wholesalers and Distributors	10.00%	48	436
New Hampshire Food Bank	50.00%	39	39
Food Manufacturers and Processors	1.00%	156	15,401
Farms	0.00%	Not applicable	Not applicable
TOTAL	67,338	17,063	50,275

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX E: METHODOLOGY FOR IMPACT MODELING

Table 31: Scenario 3: Affected Entities with Additional Source Reduction/Donation and Composting Activities

SECTOR	ADDITIONAL SOURCE REDUCTION/ DONATION (% OF DISPOSAL)	ADDITIONAL SOURCE REDUCTION/ DONATION (TPY)	ADDITIONAL COMPOST
Multi-Family Complexes	1.0%	42	4,173
K-12 Schools	10.0%	9	84
Colleges and Universities	10.0%	40	356
Correctional Facilities	1.0%	4	360
Healthcare	5.0%	67	1,281
Restaurants	10.0%	1,075	9,676
Hospitality	10.0%	515	4,632
Large Event Venues and Festivals	5.0%	83	1,576
Malls	1.0%	41	4,068
Large Office Buildings	1.0%	3	333
Grocery Stores	40.0%	7,751	11,626
Specialty Food Retail and Convenience Stores	15.0%	8	46
Supercenters and Warehouse Clubs	40.0%	1,348	2,021
Food Wholesalers and Distributors	0.0%	Not applicable	485
New Hampshire Food Bank	40.0%	31	47
Food Manufacturers and Processors	5.0%	778	14,779
Farms	0.0%	Not applicable	Not applicable
TOTAL	NOT APPLICABLE	11,795	55,543

Appendix F: Methodology for Estimating Current Disposal of Food Loss and Waste by Sector

The Project Team estimated the amount of food waste disposed across 17 distinct sectors by first calculating the portion of food loss and waste (FLW) that is currently donated, diverted to animal feed, land applied or composted (as discussed in Appendix E, and shown in Table 28, above). Sector-specific disposal rates were then calculated by subtracting the portion of FLW estimated to be donated or diverted from the total FLW generated by that sector, as shown in Table 32, below. It is important to note that the estimated tonnages shown in Table 32 represent the total FLW generation and disposal for all entities identified within each sector, not just those identified as affected entities (AEs). Therefore, the generation and disposal figures shown in this section differ from those shown in other areas of this document.

The Project Team estimated the percentage of FLW currently being diverted based on the information gathered during interviews which, in many cases, was qualitative as entities were often not currently tracking FLW or diversion. Interview data was supplemented with desktop research and Project Team experience and expertise. The diversion estimates developed by the Project Team were also compared with destination rates reported in the ReFED Insights Engine. ReFED's estimates are derived from a national modeling framework that integrates numerous public and proprietary datasets, supplemented by expert input and industry research, including waste audits, surveys and case studies. State-level estimates for destinations such as food donation, animal feed and composting are generated by applying national patterns to state-specific indicators such as population and economic activity. These estimates were further refined using the Project Team's knowledge of New Hampshire and regional food waste management practices.

Table 32: Estimated FLW Generated and Calculated Disposal for All Sectors Studied

SECTOR	ESTIMATED TOTAL FLW GENERATION (TPY)	ESTIMATED PERCENTAGE DIVERTED	ESTIMATED LANDFILL OR INCINERATION DISPOSAL (TPY)
Multi-Family Complexes	17,452	1%	17,278
K-12 Schools	1,954	5%	1,856
Colleges and Universities	875	40%	525
Correctional Facilities	620	1%	614
Healthcare	5,418	3%	5,256
Restaurants	28,841	1%	28,552
Hospitality	12,322	1%	12,199
Large Event Venues and Festivals	1,737	3%	1,685
Malls and Shopping Centers	5,182	0%	5,182
Large Office Buildings	643	1%	636
Grocery Stores	32,542	40%	19,525
Specialty Food Retail and Convenience Stores	3,961	1%	3,921
Supercenters and Warehouse Clubs	4,211	20%	3,369
New Hampshire Food Bank	1,003	50%	502
Food Wholesalers and Distributors	1,652	40%	991

NEW HAMPSHIRE FOOD WASTE GENERATION STUDY - APPENDIX F: METHODOLOGY FOR ESTIMATING CURRENT DISPOSAL OF FOOD LOSS AND WASTE BY SECTOR

SECTOR	ESTIMATED TOTAL FLW GENERATION (TPY)	ESTIMATED PERCENTAGE DIVERTED	ESTIMATED LANDFILL OR INCINERATION DISPOSAL (TPY)
Food Manufacturers and Processors	156,434	90%	15,643
Farms	6,130	99%	49
TOTAL	280,977	NOT APPLICABLE	117,784

The total estimated FLW disposed across all studied sectors was calculated at 117,7384 tons. In order to validate this estimate, the Project Team compared it with the industrial, commercial and institutional (ICI) data from the 2024 New Hampshire Waste Characterization Study, shown in Table 33, below. Because the ICI sector does not include residential or agricultural sources, those sectors were excluded from the comparison. In addition, estimated waste from food processors and manufacturers was reduced by 50%, based on the assumption that a significant portion of this material is liquid and managed through wastewater systems rather than solid waste disposal which is the subject of the Waste Characterization Study. Furthermore, since the New Hampshire Waste Characterization Study did not account for exported waste, the reported ICI disposal estimate was increased by 10% to account for exports out of the state.

This study estimated ICI disposal of 84,838 tons of FLW, compared to 67,049 tons based on the New Hampshire Waste Characterization Study results (including the 10% export adjustment). In other words, estimates of total ICI disposal from this study were about 26% higher than the Waste Characterization Study. However, it is important to note that food waste contains significant moisture and the Waste Characterization Study sampled waste as it arrived at disposal facilities, meaning that the food waste had been present in the waste stream for some time before it arrived at the facility and may have lost some moisture along the way. As food waste decomposes or becomes compacted during collection and transport, moisture is lost through evaporation, absorption into other waste materials or as leachate, reducing the measured weight of the remaining food waste. It is also important to note that this study used conservative assumptions when selecting generation factors and identifying sector entities in order to comprehensively identify AEs. Therefore, a generation estimate that is within a 30% increase when compared to waste characterization data is considered to show reasonable agreement.

Table 33: Comparison of Estimated FLW Disposal with the 2024 New Hampshire Waste Characterization Study

STUDY	TOTAL ESTIMATED FLW DISPOSAL (TONS)	INSTITUTIONAL, COMMERCIAL INDUSTRIAL FLW DISPOSAL (TONS)	ADJUSTED DISPOSAL INCLUDING EXPORTS (TONS)
New Hampshire Food Waste Generation Study and Infrastructure Analysis	117,784	84,786	Not Applicable
New Hampshire Waste Characterization Study	121,608	60,954	67,049

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