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BIENNIAL SOLID WASTE REPORT

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Prepared by the New Hampshire Department of Environmental Services

NEW HAMPSHIRE
DEPARTMENT OF
Environmental
Services

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I. Introduction

Pursuant to NH RSA 149-M:29, II, this document reports New Hampshire's progress toward reaching the solid waste reduction goal established in RSA 149-M:2 and provides strategies for achieving the goal and additional information required by the statute. The report also includes a summary of the Solid Waste Management Bureau activities during calendar years (CY) 2020 and 2021.

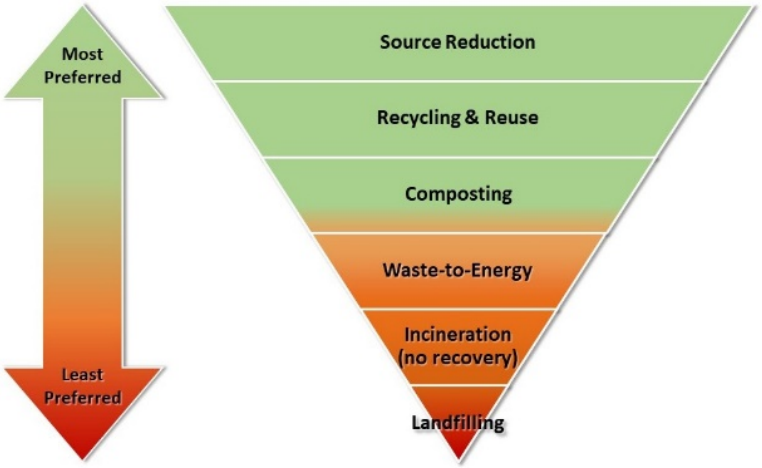
In 2021, the goal in RSA 149-M:2 was amended to establish a new disposal reduction goal (effective October 9, 2021), which replaces the former "40 percent diversion" goal. While the former goal was focused on tracking the quantity of New Hampshire's solid waste diverted from disposal (that is, recycled, composted, etc.), this new goal tracks the quantity of solid waste disposed in New Hampshire's landfills and incinerators. Because disposal data can be measured with a high degree of certainty, this metric should make it easier for NHDES to track progress toward achievement of the goal over time.

As amended, the goal in RSA 149-M:2 now reads:

> *The general court further declares a goal to reduce the quantity by weight of solid waste disposed by 25 percent by the year 2030, and by 45 percent by the year 2050. For the purposes of this goal, disposal reduction targets shall apply, on a combined basis, to disposal of municipal solid waste and construction and demolition debris, and shall be measured against baseline quantities of these wastes disposed of in the year 2018. For the purposes of this goal only, municipal solid waste means solid waste generated at residences, commercial or industrial establishments, and institutions, but excludes automobile scrap and other motor vehicle waste, infectious waste, asbestos waste, contaminated soil and other absorbent media, sludge, industrial process waste, and ash other than ash from household stoves. Disposal reduction may be achieved through source reduction as well as diversion including but not limited to reuse, recycling, and composting. For the purposes of this section "goal" shall not establish a mandate. (RSA 149-M:2, II. – effective October 9, 2021)*

Achieving the disposal reduction targets set by this goal will require robust efforts to simultaneously reduce the quantities of waste generated while also maximizing diversion from disposal through reuse, recycling, composting, or other means. Although RSA 149-M:2 discourages the disposal of recyclable materials, it does not establish recycling, composting, or other forms of waste diversion as mandatory. However, RSA 149-M:3 establishes a hierarchy of waste management methods to be used in New Hampshire (see Figure 1).

Figure 1. New Hampshire's Waste Management Hierarchy



This hierarchy provides a standard of preference for management of solid waste in the state, with priority placed on methods that reduce the generation of waste or divert recoverable materials from disposal. Source reduction, also known as "waste reduction," is at the top of the hierarchy because it prevents waste from being generated. Waste reduction has multiple benefits, including conserving resources, reducing environmental impacts, and reducing the amount of waste needing end-of-life management. When we generate waste, reuse, recycling, or composting are preferred management methods because they recover and divert materials from disposal and encourage circular use of resources. Waste-to-energy technologies include incineration with energy recovery, anaerobic digestion and emerging conversion processes that turn waste into fuel. These technologies are preferable to outright disposal in a traditional incinerator or a landfill because they recover energy and reduce volume and weight.

As established by the General Court, the waste management hierarchy and the disposal reduction goal are intended to encourage an integrated waste management system in New Hampshire. An integrated system combines a variety of approaches to reduce the quantity of waste generated while managing the waste that is generated in the most environmentally responsible manner available. The hierarchy serves as a guiding principle not only for NHDES and the state at large, but also for municipal, commercial and industrial waste generators, solid waste management companies and the general public.

II. Generation of Solid Waste in New Hampshire

The term "generation" refers to the act of producing a waste, which is something that happens every day in New Hampshire as a result of the routine activities of residents, visitors, businesses, institutions and industry. RSA 149-M generally defines "solid waste" as any abandoned or discarded material, excluding hazardous waste, nuclear waste, sludge and septage, point source discharges of certain municipal and industrial wastewater, and yard waste. Given these broad boundaries, the category of solid waste encompasses a wide variety of potential materials, including household trash, recyclable materials, food waste, commercial and industrial waste, construction and demolition debris, electronic waste, asbestos waste, non-hazardous contaminated soils, end-of-life motor vehicles, animal carcasses, infectious waste, or other non-hazardous abandoned or discarded materials.

For the purposes of this report, the concept of generation is intended to consider the entirety of solid waste produced in the state, not only wastes disposed in a landfill or incinerator, but also wastes that are diverted (for example, reused, recycled or composted). Estimating statewide generation of solid waste is complex. There are a variety of generators across various sectors in New Hampshire, but NHDES does not specifically track solid waste from the point of generation. Instead, NHDES regulates the management of solid waste at permitted solid waste facilities within the state. This only provides NHDES with data on wastes managed at these facilities and does not capture all solid waste actually generated within the state. For example, some industrial, commercial, or institutional generators may use waste hauling services that directly transport refuse and recycling to destinations outside of New Hampshire. Further, there is an indeterminable quantity of waste that is generated but never reaches a permitted solid waste facility because it is managed at the site of generation, such as through home composting, or is diverted directly to reuse (for instance, donation).

According to 2018 estimates from the United States Environmental Protection Agency (EPA), U.S. consumers generate an average 4.9 pounds of municipal solid waste (MSW) per person per day.[1] It should be noted that because this figure only considers generation of MSW, it does not account for generation of other types of solid waste such as construction and demolition debris (C&D), industrial wastes, and contaminated soils.

NHDES estimates that in 2020, approximately 2 million tons of solid waste were generated in New Hampshire, equating to a generation rate of 8.0 pounds per person per day (1.46 tons per person per year). In contrast to the EPA estimate cited above, this figure is intended to provide a more comprehensive estimate of solid wastes generated in the state. It is based on data reported by landfills and incinerators for New Hampshire wastes disposed or used as "alternate daily cover,"[2] estimates of wastes exported out-of-state for disposal, as well as best-available data for wastes diverted from disposal via recycling, or other methods (including composting, C&D processing, and treatment of contaminated soils).

III. Disposal of Solid Waste in New Hampshire

The term "disposal," defined in RSA 149-M:4, VI, generally refers to the act of depositing waste in or on land or water. The term is most commonly used to refer to "final" management methods, including deposition in a landfill or combustion in an incinerator. As noted in the introduction, disposal methods such as incineration and landfilling are least-preferred on the waste management hierarchy established by RSA 149-M:3, while source reduction (reducing the quantity of waste generated at the source) and diversion (such as recycling and composting) are at the top of the hierarchy. However, since the hierarchy was established, New Hampshire's waste management infrastructure has not significantly shifted from a reliance on disposal. With three commercial landfills, three limited-service public landfills, and one commercial waste-to-energy facility operating in New Hampshire, the state is somewhat unique among its neighboring states in terms of available disposal capacity.

[1] United States Environmental Protection Agency. *National Overview: Facts and Figures on Materials, Wastes and Recycling*.

[2] Alternate daily cover describes certain waste-derived substances that landfills may use instead of virgin soils to cover exposed solid waste at the end of each working day. For the purposes of estimating New Hampshire's total waste generation, NHDES included materials used as alternate daily cover because in practical terms such materials are wastes that would need to be managed through the solid waste management system whether or not they were used as cover material.

Table 1 below illustrates total quantities of solid waste disposed from 2018 through 2020, based on data reported by New Hampshire's landfills and waste-to-energy facility.[3] The data are broken down by waste received from in-state sources, as well as out-of-state sources. The vast majority of out-of-state waste disposed in New Hampshire is received by the three commercial landfills. Table 1 shows that total disposal has fluctuated slightly over the last couple years, with total tonnage disposed increasing about 1 percent from 2018 to 2019 and subsequently decreasing about 2 percent in 2020. Meanwhile, the ratio of in-state waste disposed has followed a similar pattern, increasing slightly in 2019 and then decreasing in 2020.

Table 1. Solid Waste Disposed in New Hampshire 2018 – 2020

Year	Total Tons Disposed	Tons from In-State Sources	Tons from Out-of-State Sources	Percentage In-State Sources
2018[4]	1,980,328	1,091,510	888,818	55%
2019	2,002,947	1,119,118	883,830	56%
2020	1,956,789	1,042,957	913,833	53%

Table 2. Disposal of NH-generated Waste, Normalized Per-Capita

Year	NH Population[5]	Total Tons Disposed from In-State Sources[6]	Tons Disposed per Capita
2018	1,356,458	1,091,510	0.80
2019	1,359,711	1,119,118	0.82
2020	1,377,529	1,042,957	0.76

Table 2 shows disposal of waste generated in New Hampshire relative to the state's population. In 2018 and 2019, the per capita rate of disposal remained relatively steady at about 0.8 tons disposed per person during those years (equating roughly 4.4 pounds disposed per person per day). However, in 2020, this rate dropped slightly to 0.76 tons per person (roughly 4.2 pounds per person per day) because disposal of New Hampshire-generated waste decreased nearly 7 percent in that year compared to 2019. This decrease may be an indicator of economic disruptions in New Hampshire related to the COVID-19 pandemic.

[3] Disposal figures presented in Table 1 do not include materials used for alternate daily cover.
[4] 2018 disposal figures shown here differ from those published in the 2019 Biennial Solid Waste Report. After issuing the 2019 Report, NHDES discovered inconsistencies in how landfill permittees were reporting their disposal tonnages. The figures presented here (for 2018 forward) have been revised to reconcile these inconsistencies.
[5] 2018 & 2019 population estimates from New Hampshire Office of Strategic Initiatives. 2020 US Census data for New Hampshire.
[6] Total tons of New Hampshire-generated solid waste disposed in New Hampshire landfills and incinerators. Does not include New Hampshire-generated solid waste exported to out-of-state disposal facilities.

Table 3. Breakdown of Total Tons Disposed by Waste Type

Year	MSW	C&D	Asbestos	Sludge	Contaminated Soil	Other[7]
2018	1,202,916	297,751	141,176	87,289	83,768	167,428
2019	1,216,157	319,222	102,428	76,808	154,110	134,222
2020	1,181,749	264,777	102,050	65,917	216,480	125,815

Table 3 illustrates the major types of solid waste received by New Hampshire's disposal facilities.[8] MSW and C&D together comprise the majority of all solid waste disposed in New Hampshire facilities. For the years shown, MSW makes up about 60% of total waste disposed, and C&D about 15%. The remaining roughly 25% is comprised of asbestos-containing waste, sludge from wastewater treatment facilities, non-hazardous contaminated soils (primarily from construction/excavation projects) and other specialized wastes, including wastes from industrial processes.

IV. Diversion of Solid Waste in New Hampshire

Unlike disposal, which is a metric that NHDES can definitively track, recycling and other forms of diversion have been harder to measure due to gaps and limitations in existing data. For the purposes of estimating a statewide recycling rate, NHDES used recycling data reported by municipal transfer stations as a general indicator of statewide recycling activities. For 2020, NHDES estimated a municipal recycling rate at 26%.[9] For 2018 and 2019 NHDES calculated this rate at 27% and 25%, respectively.

NHDES acknowledges that recycling data reported by municipal facilities only represents a subset of all recycling activities across the state. However, in the absence of more refined data, NHDES presumed the municipal data to be a suitable proxy for statewide recycling because municipal facilities tend to manage a representative cross-section of the waste stream. Moreover, limiting the dataset to only consider municipal facilities enabled NHDES to avoid challenges related to "double-counting," which can commonly occur when dealing with system-wide recycling data. This is because recyclables can be transferred between multiple facilities before arriving at a "final" destination, resulting in overlapping data being reported to NHDES by several facilities. Going forward, NHDES hopes to be able to collect better data to produce more comprehensive estimates for recycling and other diversion activities.

[7] The "Other" category in Table 3 includes ash, treated infectious waste, and other special wastes/industrial process wastes, including air pollution control waste, manufacturing process scraps, blasting sand, etc.

[8] Note that solid waste incinerators/waste-to-energy facilities are commonly only authorized to receive MSW; Landfills, however, may be permitted to accept the other waste types listed in Table 3.

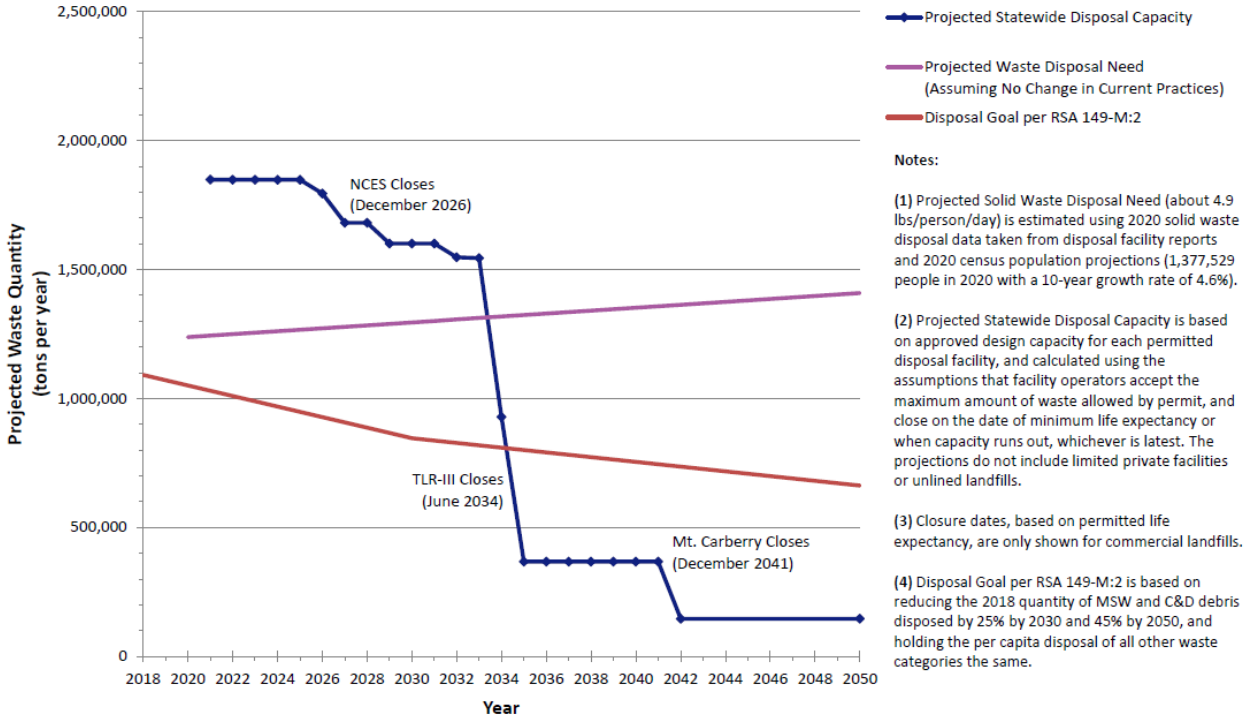
[9] This percentage is a measure of waste recycled divided by the sum of waste disposed plus waste recycled, as reported by municipal transfer stations in annual facility reports submitted to NHDES.

V. Projected Solid Waste Disposal Need and Disposal Capacity

Figure 2 illustrates NHDES' projections for the quantity of solid waste generated in New Hampshire needing disposal compared to available permitted disposal capacity at New Hampshire's landfills and incinerators. It is important to note that the disposal capacity projections shown below assume that statewide disposal capacity will be depleted as quickly as feasible, and that landfills will cease operations after depleting their current permitted capacity. It is likely that many of these facilities will seek additional expansions, but NHDES does not rely on hypothetical future capacity when making projections. The information displayed in Figure 2 essentially represents how long New Hampshire's existing disposal capacity might be expected to last without the addition of any new capacity. Further explanation of the figure and how NHDES derived these projections is provided below.

Figure 2. Projected Waste Disposal Need & Capacity for New Hampshire (2022 - 2042)

Projections Based on 2020 per capita disposal data and approved permitted facility capacity as of April 2022



Projected Waste Disposal Need

For this report, NHDES projected New Hampshire's solid waste disposal need in accordance with RSA 149-M:11, V, which requires the department to consider disposal need over a 20-year planning period. NHDES based its projections on the following:

- The statutory requirement in RSA 149-M:11, V(a) that disposal projections account for all waste generated in New Hampshire, including waste exported to out-of-state disposal facilities.
- Disposal tonnage data reported by New Hampshire's operating landfills and incinerators in their 2020 annual facility reports (AFRs).
- Export disposal data reported to NHDES from 2000 through 2020 plus one standard deviation to account for annual variability and unreported exports.

- Population data provided in the 2020 U.S. Census, which estimated that New Hampshire's population grew 4.6% between 2010 and 2020.[10] For the purposes of this analysis, NHDES assumes this same growth rate will continue, equating to a roughly 9.2% growth in population over the 20-year planning period.
- The assumption that New Hampshire's per capita rate of disposal will remain constant over the 20-year planning period.
- The assumption that diversion rates will remain constant over the 20-year planning period.

NHDES estimated the disposal rate at New Hampshire landfills and incinerators for in-state generated solid waste in 2020 was about 4.9 pounds per person per day (including exports).[11] The "Projected Waste Disposal Need" line depicted in Figure 2 represents this per person disposal rate multiplied by projected population for each year of the planning period. As previously indicated, the estimates of waste disposal need in this report assume no changes in current waste disposal and diversion practices. However, as a point of reference, Figure 2 also includes a "Disposal Goal" line estimating New Hampshire's disposal need if the disposal reduction goal in RSA 149-M:2 were achieved, that is, a 25% reduction in disposal of MSW and C&D by 2030, and a 45% reduction by 2050.[12] The depiction of this goal in Figure 2 illustrates that, if the goal is to be achieved, waste reduction and diversion efforts must be increased.

Projected Waste Disposal Capacity

Projected waste disposal capacity is based on a combination of factors, including specific requirements relative to operational lifespan contained in each disposal facility's permit. NHDES estimated the statewide "Projected Waste Disposal Capacity" line shown in Figure 2 based on the following:

- Estimates of total permitted capacity for solid waste disposal facilities in New Hampshire, excluding:
    - Unlined landfills pursuant to RSA 149-M:11, V(a), and
    - Limited private facilities, which are "closed-circuit" facilities that only serve the capacity needs of the generator who owns the facility and therefore do not provide disposal capacity for the general public.
- Estimates of permitted landfill capacity converted from volumetric capacities (measured in cubic yards) to weight-based capacities (measured in tons). Because landfill permits express capacity in terms of volume, conversion to tons is necessary to align capacity values with disposal need projections, which are estimated in tons. This conversion process may introduce minor discrepancies.
- The assumption that the Wheelabrator Concord Company waste-to-energy facility will provide steady-state capacity throughout the 20-year planning period.
- The assumption that landfill operators will fill at the maximum rate allowed by the facility's permit, regardless of operational limitations.

[10] 2020 US Census data for New Hampshire

[11] The per person disposal estimate presented here is 0.9 pounds lower than the 5.8 pounds per person per day provided in the 2019 Biennial Solid Waste Report. This is because the 2019 estimate was based on 2018 disposal data, which NHDES later determined to be erroneously high due to inconsistencies in how landfill permittees had been reporting disposal tonnages. NHDES has since rectified these inconsistencies and believes the per person disposal rate in this report to be more accurate.

[12] The disposal reduction goal in RSA 149-M:2 applies only to disposal of MSW and C&D, therefore the "Disposal Goal" line shown in Figure 2 assumes that the disposal of other waste categories (for example – asbestos waste, contaminated soils, sludge) will increase in proportion with population growth over the course of the planning period.

- The assumption that a facility will close on the minimum operational date required by its permit, which NHDES considers the earliest anticipated closure date of a disposal facility. This assumption ignores whether a facility may actually be able to continue operations beyond its minimum required date, and also disregards the facility's potential for future capacity expansions.

These assumptions result in a conservative projected lifespan of existing disposal capacity in New Hampshire. Note that Figure 2 shows the earliest anticipated closure dates for the state's three commercial landfills, which accept the majority of New Hampshire's solid waste, and Table 3 below shows the earliest anticipated closure date of all eight operating disposal facilities in New Hampshire, excluding unlined landfills and limited private facilities.

Table 3. Active New Hampshire Disposal Facilities, Listed by Earliest Anticipated Closure Date

Facility Type	Facility Name	Location	Service Type / Service Area	Earliest Anticipated Closure Date
Waste-to-Energy Incinerator	Wheelabrator Concord Company L.P.	Concord, NH	Commercial / Unlimited	None
Incinerator (no resource recovery)	Hebron-Bridgewater Refuse District	Bridgewater, NH	Limited Public / Limited	None
Landfill	Four Hills Secure Landfill Expansion	Nashua, NH	Limited Public / Limited	April 15, 2023[13]
	North Country Environmental Services, Inc.	Bethlehem, NH	Commercial / Unlimited	December 31, 2026[14]
	Lebanon Regional Solid Waste Facility	Lebanon, NH	Limited Public / Limited	est. 2030[15]
	TLR-III Refuse Disposal Facility	Rochester, NH	Commercial / Unlimited	June 30, 2034[16]
	Lower Mount Washington Valley Secure Solid Waste Landfill	Conway, NH	Limited Public / Limited	est. 2038[17]
	Mount Carberry Secure Landfill	Success, NH	Commercial / Unlimited	December 31, 2041[18]

[13] Four Hills Secure Landfill Expansion: Condition (7) of the facility's Standard Permit, effective June 26, 1995, stipulates that the permittee shall operate the facility in a manner that provides 20 or more years of disposal capacity. The permittee began operations in Phase I on April 15, 2003. According to the facility's 2021 Annual Facility Report, the permittee estimates that the facility will continue to provide capacity into 2029, exceeding the minimum 20-year capacity requirement by approximately 6 years.

[14] North Country Environmental Services, Inc.: Condition (27)(b) of the permit modification issued October 9, 2020 stipulates that the permittee shall operate Stage VI through at least December 31, 2026.

[15] Lebanon Regional Solid Waste Facility: There is no minimum operating life expectancy in the facility permit. The anticipated closure date is estimated based on projected remaining capacity and life expectancy reported in the facility's 2021 Annual Facility Report.

[16] TLR-III Refuse Disposal Facility (aka Turnkey Landfill): Condition (21)(b) of the permit modification effective June 11, 2018 stipulates that the permittee shall operate the facility through at least June 30, 2034.

[17] Lower Mount Washington Valley Secure Solid Waste Landfill: There is no minimum operating life expectancy in the facility permit. The anticipated closure date is estimated based on projected remaining capacity reported in the facility's 2021 Annual Facility Report.

[18] Mount Carberry Secure Landfill: Condition (24)(b) of the permit modification issued April 22, 2022, stipulates that the permittee shall operate the facility through at least December 31, 2041.

Assessment of Waste Disposal Need Relative to Waste Disposal Capacity

As depicted in Figure 2, NHDES estimates that New Hampshire's disposal capacity may fall short of projected disposal need starting in 2034, assuming that the TLR-III (Turnkey) facility reaches the end of its currently permitted capacity and that no additional disposal capacity is permitted by that time. This capacity shortfall is projected to range between about 950,000 tons in 2035 to about 990,000 tons by 2041. In 2042, the disposal capacity shortfall is expected to increase to roughly 1.2 million tons, assuming the Mount Carberry facility depletes its existing permitted capacity by the end of 2041. It is important to note that this analysis is simply a 'snapshot' based on current information and is not intended to be a predictive forecast. As indicated at the beginning of this section, the assumption that all of New Hampshire's commercial landfills will close after reaching their currently permitted capacity is unlikely. Even if these facilities have long-term plans to expand, such plans cannot be included in capacity projections until they are officially permitted by NHDES. Additionally, if New Hampshire achieves the disposal reduction goal in RSA 149-M:2 by reducing overall generation of solid waste and/or increasing diversion rates, it will reduce the state's overall disposal need and thereby decrease demand for disposal capacity. With such factors in mind, it is important to acknowledge that projections of disposal need and capacity are subject to change based on evolving circumstances and available data.

VI. State and Regional Trends in Solid Waste Management

Trends in New Hampshire

Landfill Expansions – Applications for landfill expansions constitute the vast majority of requests for new permitted solid waste management capacity received by NHDES. At the same time, there continues to be significant public opposition to expanding existing facilities or siting new disposal facilities.

Waste Imports – Out-of-state waste comprises roughly 50% of total waste disposed in New Hampshire facilities. Most of the out-of-state waste disposed in New Hampshire is received by the three commercial landfills (see Table 3 above). Commercial disposal facilities in New Hampshire are permitted to receive waste from both in-state and out-of-state sources. The Commerce Clause of the U.S. Constitution has commonly been interpreted to preempt a state from explicitly prohibiting or adopting policies that would restrict a commercial solid waste facility from accepting and disposing of out-of-state waste.[19]

Organic Waste Diversion – There has been continued interest among legislators, municipalities, regional organizations, commercial/institutional entities and members of the public on the topic of composting and organic waste diversion. Diverting organics recovers resources, reduces disposal need, has the potential to reduce waste management costs, and is consistent with the hierarchy. In an effort to address feedback from the general public and improve the State's regulatory framework for facilities that compost food waste, NHDES has been working to update New Hampshire's existing Solid Waste Rules for solid waste composting facilities (see discussion of on-going efforts in Section VIII. herein).

Legislative Attention to Waste Issues – There has been continued interest in solid waste-related issues over the last couple years, with several bills introduced during the 2020 & 2021 legislative sessions:

[19] The 1978 Supreme Court Case, Philadelphia v. New Jersey, struck down a New Jersey law that prohibited the importation of waste into the state.

2020 Legislative Session

- SB 591 – An act establishing a statewide solid waste disposal reduction goal. This bill was an initial attempt to update and reframe the "40 percent diversion" goal in RSA 149-M:2. The proposal did not advance due in part to complications in the legislative process related to the COVID-19 pandemic. The proposal was revived in 2021 as part of SB 146, and later incorporated into HB 413.
- SB 629 – An act establishing a solid waste management fund and establishing a solid waste disposal surcharge. This bill sought to establish a dedicated fund to support solid waste management planning, technical assistance, outreach and administration of grant programs to promote waste reduction and diversion among New Hampshire's municipalities and businesses. This bill did not advance due in part to complications in the legislative process related to the COVID-19 pandemic.
- HB 1194 – An act establishing a surcharge for certain single use plastics. Seeking to reduce generation of plastic waste and encourage use of reusable cups and bags, this bill would have allowed retail merchants to charge five-cents per single-use plastic cup or bag provided to customers. The proposal did not advance out of the House.
- HB 1319 – This bill sought to restrict NHDES from issuing permits to landfills located within 2 miles of a state park or certain federal lands. The bill passed the House but did not advance in the Senate. The proposal was revived in 2021 as HB 177.
- HB 1373 – This bill sought to establish a legislative committee to study the use of polystyrene foam (that is, *Styrofoam*) in schools, hospitals and government buildings. The bill did not advance out of the House.
- HB 1422 – This bill proposed a moratorium on permitting any new privately-owned landfills in New Hampshire for a period of two years. The bill did not advance out of the House.
- HB 1425 – This bill would have directed the NH Department of Education and NHDES to research and publish information on the health risks associated with use of food containers in public schools containing polyfluoroalkyl substances (PFAS) and polystyrene. The bill would have also established a legislative study committee to study alternatives for such containers. The proposal passed the House but did not advance in the Senate.
- HB 1472 – In an effort to reduce waste associated with plastic straws, this bill would have restricted food service establishments from providing plastic straws to customers unless explicitly requested. The bill passed the House but did not advance in the Senate.
- HB 1508 – This bill would have restricted the use of paper receipts for certain business transactions. The proposal did not advance out of the House.
- HB 1512 – This bill was intended to address child hunger and reduce food waste by authorizing schools to convert edible, unserved cafeteria leftovers into frozen to-go meals that could be provided to children who participate in the free or reduced-price meals program. The bill did not advance out of the House.
- HB 1564 – This bill sought to prohibit food service establishments from distributing single-use food or beverage containers made from polystyrene foam. The bill passed the House but did not advance in the Senate.
- HB 1570 – This bill would have established an architectural paint take-back program to promote recycling and proper disposal of water- and oil-based paints or similar coatings. The bill did not advance out of the House.
- HB 1610 – This bill would have established a pharmaceutical drug takeback program to promote safe disposal of certain medications. The bill did not advance out of the House

- HB 1701 – This bill would have required certain retail stores to implement collection programs for recycling of film plastics, such as bags and shrink wrap. The proposal passed the House but did not advance in the Senate.
- HB 1702 – This bill would have created a working group to assist NHDES with solid waste planning and policy initiatives. The bill passed the House but did not advance in the Senate. The proposal was revived in 2021 as part of HB 413.
- HB 1703 – This bill would have established a working group to review opportunities and barriers to promote recovery of unused, edible food to reduce food waste and feed the hungry in New Hampshire. The bill passed the House but did not advance in the Senate.
- HB 1704 – This bill proposed a September 30, 2020 deadline for NHDES to initiate rulemaking to update requirements for facilities that compost food waste. The bill passed the House but did not advance in the Senate. The proposal was revived in 2021 as part of HB 413.
- HB 1706 – This bill sought to create a legislative committee to study the recycling, solid waste management, and procurement policies of New Hampshire state agencies. The bill passed the House but did not advance in the Senate.

2021 Legislative Session

- SB 146 – This omnibus bill encompassed several initiatives, including a proposal to establish a statewide disposal reduction goal (reviving 2020's SB 591). The section of the bill containing the disposal reduction goal was eventually removed from SB 146 and incorporated into HB 413.
- HB 177 – A successor to HB 1319 from the 2020 session, this bill sought to restrict NHDES from issuing permits to landfills located within 2 miles of a state park. The bill passed the House but was ultimately voted down by the Senate.
- HB 413 – Proposing to establish a solid waste working group and impose a deadline for adoption of new composting rules, this bill revived HB 1701 and HB 1704 from the 2020 session. The bill was subsequently amended to include a solid waste disposal reduction goal, which was formerly a provision of SB 146, and also incorporated an October 1, 2022 deadline for NHDES to publish an updated Solid Waste Management Plan. The amended bill passed the House and Senate and was signed into law by Governor Sununu.
- HB 500 – A successor to HB 1512 from the 2020 session, this bill sought to address child hunger and reduce food waste by authorizing schools to convert edible, unserved cafeteria leftovers into frozen to-go meals that could be provided to children who participate in the free or reduced-price meals program. The bill passed the House and Senate and was signed into law by Governor Sununu.
- HB 618 – Very similar to HB 1564 from the 2020 session, this bill sought to prohibit food service establishments from distributing single-use food or beverage containers made from polystyrene foam. The bill did not advance out of the House.

Formation of the NH Solid Waste Working Group (SWWG) – The SWWG, established by HB 413 during the 2021 legislative session, is comprised of members representing various public and private entities involved with solid waste management. The group has a 5-year lifespan (until November 1, 2026) and is tasked with assisting NHDES with planning and policy initiatives related to solid waste management. The SWWG held its first organizational meeting on October 29, 2021 and has been focusing early efforts to assist NHDES with development of an updated Solid Waste Management Plan. More information on the membership and activities of the SWWG can be found on the group's webpage.[20]

[20] New Hampshire Solid Waste Working Group webpage

Regional Trends

Resurgence of Recycling Markets – Although national and international markets for recyclable commodities experienced a significant downturn starting in late 2017, the markets recovered significantly starting in 2020 through 2021. This resurgence was due to an array of factors, including:

- Development of new market capacity in Asia and North America (particularly for use of recycled paper fiber), which offset capacity disruptions caused by China restricting imports of recyclables including mixed paper, cardboard, and most other scrap materials.
- The COVID-19 pandemic disrupted operations for many businesses and institutions which reduced the volume of recyclable streams commonly generated by such entities. With reduced supply, the value of many recyclable commodities rose sharply.
- Many consumer brands have made pledges to use more recycled plastic content in their plastic containers and packaging. As a result, demand for certain types of recycled plastic resins has increased, which in turn has raised their value.

Waste-to-Energy Challenges – Across the region, waste-to-energy facilities continue to face challenges related to aging infrastructure and economic pressures as they compete in a marketplace with electricity producers using relatively inexpensive fuels, such as natural gas. In late 2020, Connecticut's Materials Innovation and Recycling Authority (MIRA) announced intentions to close a major waste-to-energy facility in Hartford, Connecticut. The facility, which provided disposal capacity for more than 500,000 tons of waste per year from dozens of Connecticut municipalities, is scheduled to cease operations in July 2022. With this development, exports of waste from Connecticut are expected to increase. MIRA hopes to convert the facility to a transfer station that will consolidate waste for transport to out-of-state disposal facilities. This is expected to be a major shift for Connecticut, which for several decades has managed the majority of its waste through a network of in-state waste-to-energy facilities.

Waste Disposal Bans/Mandatory Recycling Laws – Over time, several Northeast states have phased in waste bans to eliminate the landfilling and incineration of easy-to-recycle and toxic materials. The waste bans encourage the development of new systems and infrastructure to collect banned items and other discarded materials, and to divert them from disposal to reuse and recycling. Based on the Northeast Recycling Council's report about *Disposal Bans & Mandatory Recycling in the United States,*[21] many states have enacted mandatory recycling laws in conjunction with disposal bans. Glass, metal, paper, cardboard, large appliances, cathode ray tubes, vehicle batteries, and certain construction and demolition debris are some of the materials subject to active waste bans and mandatory recycling laws in various Northeast states. While RSA 149-M does not establish recycling as mandatory in New Hampshire, there are disposal bans in place for wet-cell batteries, leaf and yard waste, electronic video display devices, computers, and electronic media recorders/players (RSA 149-M:27, II-IV). Examples of more recent waste bans enacted by other states include:

- Effective November 1, 2022, mattresses and textiles will be added to the current list of materials banned from disposal in Massachusetts.
- Massachusetts has set Minimum Performance Standards (MPS) for C&D Handling Facilities to facilitate diversion of C&D and ensure compliance with state waste disposal bans. The MPS establish criteria for the separation of banned and recoverable materials, requiring C&D Handling Facilities to achieve a Process Separation Rate (PSR) of at least 15% and demonstrate that all waste ban materials are being separated to the greatest extent possible.

[21] Northeast Recycling Council. *Disposal Bans & Mandatory Recycling in the United States* (Revised Oct. 2020).

Organic Waste Disposal Bans – As of July 1, 2020, the food waste disposal ban enacted as part of Vermont's Universal Recycling Law (Act 148)[22], applies to all generators, including households, regardless of quantity of food scraps generated or distance to available diversion facilities. This ban was initially put in place in 2014, applying to entities generating at least 2 tons of food scraps per week that were located within 20 miles to an authorized organics management facility. In subsequent years, the ban has been progressively phased-in by decreasing the generator threshold. Vermont's approach has gained attention as the most aggressive statewide organics diversion policy. Connecticut, Massachusetts, Rhode Island, and New York have taken a different approach by enacting food waste disposal bans that solely target large-scale generators. In most cases, these bans apply to commercial or institutional generators that produce 1 ton or more of food waste per week. Some states make exceptions for specific types of generators (hospitals, nursing homes, elementary schools) and/or generators that fall outside a certain distance to an authorized composting facility. States across the Northeast have adopted these statutory requirements to reduce disposal need and spur development of food recovery efforts, as well infrastructure for composting and anaerobic digestion. In 2022, the following changes take effect:

- Connecticut and Massachusetts are initiating the next phase of their food waste bans, by reducing their compliance threshold. Businesses and institutions generating at least ½ ton of food waste per week will be required to divert that material to an authorized organics management facility (for example, a composting or anaerobic digestion facility). In Connecticut, exceptions apply if the generator is located more than 20 miles from an authorized facility.
- New York will require all businesses and institutions that generate an annual average of 2 tons of food waste per week to donate surplus edible food for human consumption to the extent possible.

Extended Producer Responsibility (EPR) – EPR is a type of Product Stewardship policy used to encourage resource recovery and minimize the impacts to public health, safety and the environment from the use and disposal of consumer products. Many Northeastern states have adopted EPR laws that require manufacturers to share responsibility for end-of-life management of the product(s) they produce. A long-standing example of one such policy in New Hampshire is the mercury thermostat take-back program established in 2008 (RSA 149-M:58-a). More recent examples of EPR programs in other states include:

- Paint take-back programs in Connecticut, Maine, Rhode Island, and Vermont.
- Electronic waste recycling programs in Connecticut, Maine, New York, Rhode Island, and Vermont.
- A battery recycling program in Vermont that targets single-use and rechargeable batteries.
- Mattress recycling programs in Connecticut and Rhode Island require manufacturers to establish a program to manage discarded mattresses generated in each state. The stewardship law establishes a fee at the point of sale to finance the program, which pays for transportation and recycling of unwanted mattresses.
- Maine passed a law establishing an EPR program for packaging. Producers pay into a fund based on the amount and the recyclability of packaging associated with their products. The funds will be used to reimburse municipalities to cover eligible waste management costs, infrastructure investments, and public education activities.

[22] Vermont Universal Recycling Law (Act 148)

VII. Congressional Actions and Court Rulings

Congressional Actions

In 2021, the United States Congress passed the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law). The law allocates federal funding for a variety of infrastructure improvement initiatives, including $350 million to support waste management infrastructure and recycling programs. This unprecedented federal investment in solid waste management is intended to improve people's health and safety and help establish and increase recycling programs nationwide. The funding will be administered by the US EPA to develop best practices for collection and labeling of used batteries and to establish grant programs to support development of recycling infrastructure as well as recycling education and outreach. The specific details of these grant programs are currently under development. Additional information and updates will be available on the EPA's website.[23]

Court Rulings

In *Appeal of Conservation Law Foundation, Inc.* (2021), the New Hampshire Supreme Court upheld a decision of the Waste Management Council, which affirmed the Department's issuance of a solid waste facility expansion permit. At issue was a condition included within the permit that required the facility to annually demonstrate a 30% diversion rate among its customers, to prepare a diversion report if 30% was not achieved, and to assist generators to increase their diversion rates. The Supreme Court found support for the Department's determination that this condition would assist the goals of RSA 149-M:2 and RSA 149-M:3 because of the information that would be generated through the condition, which would allow the Department to learn more about the composition of the waste stream and diversion rates and would inform development and implementation of future diversion strategies. The Court's decision affirms that conditions such as the one at issue are a means available to the Department to gather much needed diversion data and one of the ways a facility's permit may assist a facility in complying with the RSA 149-M:11 public benefit criteria.

VIII. NHDES' Solid Waste Programs and Ongoing Efforts

RSA 149-M grants NHDES authority to administer and enforce the provisions of RSA 149-M, and the Solid Waste Rules adopted pursuant to RSA 149-M. This work is carried out by the Solid Waste Management Bureau (Bureau) within NHDES' Waste Management Division. The Bureau ensures that management of solid waste in New Hampshire is protective of human health and the environment by regulating the facilities and practices associated with the collection, processing, treatment, recycling, re-use, and disposal of solid waste in New Hampshire. Examples of the types of facilities regulated by the Bureau include transfer stations, recycling centers, scrap metal yards, composting facilities, incinerators, and landfills. The Bureau oversees and assures compliance for approximately 260 active permitted solid waste facilities, 120 motor vehicle salvage yards, and 600+ closed, inactive solid waste disposal sites (consisting of inactive landfills and asbestos disposal sites).

NHDES' Solid Waste Programs

In CY 2020 and 2021, NHDES worked to restructure and started to rebuild the Solid Waste Management Bureau, realigning programs to make the best use of its resources. Heightened interest in solid waste

[23] More information about recycling funding available through the Bipartisan Infrastructure Law can be found on the US EPA website

management from the legislature and the public has resulted in additional resources being shifted to support these efforts.

The Solid Waste Management Bureau is now structured with four essential program areas:

1. *Permitting of solid waste facilities*:

   In accordance with RSA 149-M:6, III, the Bureau regulates solid waste facilities through the administration of a permit system. The Bureau's Engineering & Permitting Section (EPS) is responsible for processing applications for facility permits, permit modifications, and other requests requiring approval by NHDES. EPS also provides permitting technical assistance, inspects and monitors the construction, operation and closure of New Hampshire's active landfills and processing/treatment facilities, and reviews environmental monitoring data and proposed plans for corrective actions when problems are identified.

2. *Compliance assurance for solid waste facilities*:

   The Bureau's Compliance Assurance Section (CAS) is responsible for assuring that solid waste facilities are operated and closed in compliance with permit requirements, the Solid Waste Rules (Env-Sw 100 et seq.) and RSA 149-M. CAS oversees five regulatory program areas: the Active Facility Inspection Program, Motor Vehicle Salvage Yard Program, Closed Unlined Landfill Program, Inactive Asbestos Disposal Site Program, and Limited Reuse of Contaminated Soil Program, along with an enforcement arm that serves each regulatory program area. Each program area provides compliance technical assistance, reviews reports, conducts inspections, investigates complaints, and pursues enforcement when necessary.

3. *Materials Management, Education & Planning*

   In 2021, the Materials Management, Education & Planning Section (MMEPS) was established to provide a range of planning, education, and technical assistance services. MMEPS staff are responsible for coordinating statewide solid waste management planning efforts and addressing technical assistance needs of communities, particularly with respect to promoting waste reduction and diversion. As required by RSA 149-M:6, XIII, MMEPS also administers a training and certification program for solid waste facility operators, known as the Solid Waste Operator Training (SWOT) Program. Each year the SWOT Program hosts multiple 'Basic Training' workshops for new operators and provides numerous continuing education opportunities administered by NHDES staff and/or third parties. The SWOT Program equips facility operators with an awareness of regulatory requirements, fosters a direct relationship between the Bureau and the regulated community, and promotes voluntary compliance. There are over 1,200 solid waste operators currently certified under this program.

4. *Reporting, Information & Financial Management*

   The Reporting, Information & Financial Management Section (RIFMS) is responsible for the Bureau's reporting, information and financial management functions and leads the Bureau's information technology and file management initiatives. RIFMS administers a financial assurance program to assure that facility owners maintain adequate funds to guarantee proper closure and post-closure care of facilities. RIFMS also distributes grant money to reimburse municipalities for eligible costs for closure of old landfills and incinerators as allowed by RSA 149-M:41.

In addition to restructuring the Solid Waste Management Bureau as described above, in CY 2020-2021, Bureau staff:

- Processed a total of 74 applications for new permits and for modifications to existing permits, including facility improvements, and expansions to existing solid waste facilities.
- Designed online training to temporarily replace the established in-person training program for certified Solid Waste Operators during the COVID-19 pandemic.
- Certified 403 new solid waste operators and provided 27 continuing education workshops for operators needing to renew their certification.
- Ensured continuity of operations at all solid waste facilities during the COVID-19 pandemic by establishing lines of communication with facility operators, tracking operational changes at facilities, and sharing the latest guidance information from state and federal authorities.

Ongoing Program Efforts

Ongoing efforts by the Bureau include the following:

- The Engineering & Permitting Section has been working to streamline application processing procedures and complete application reviews within prescribed time limits to avoid automatic, default approvals (pursuant to RSA 541-A:29-a). In addition, EPS is working to improve compliance assessment procedures related to terms and conditions contained in facility permits, as well as landfill construction and operation.

- The Compliance Assurance Section is working to bolster its inspection program for active and inactive facilities, improving the consistency of inspection criteria, documentation, tracking and follow-up. CAS continues to work to ensure that closed/inactive landfills are monitored and maintained in accordance with the applicable requirements. At the same time, CAS is working to assure compliance with filing incident reports and annual facility reports, which provide critical data about facilities in the state. Additionally, the Asbestos Disposal Site program has been working to track the status of ongoing projects, reviewing work plans and notifications submitted for approval, and assuring that state and federal program requirements are met. Staff in CAS have also been working to develop new rules for a General Permit, which will be used for registering Motor Vehicle Recycling Facilities.

- The Materials Management, Education and Planning Section has been focusing efforts on updating the state's composting facility regulations, development of the solid waste management plan, interfacing with the newly-formed New Hampshire Solid Waste Working Group. Proposed revisions to the composting rules were released for public comment in December 2021. The revisions were developed to provide greater clarity and to streamline permitting options for facilities that compost food waste. With respect to the State's Solid Waste Management Plan, a 2021 amendment to RSA 149-M:29 (result of HB 413) requires the plan to be published by October 1, 2022 and every 10 years thereafter. NHDES staff are working on the plan and have been collaborating with the Solid Waste Working Group and the Waste Management Council in order to meet this deadline. In addition, the SWOT program intends to develop more opportunities for remote trainings as a compliment to in-person trainings, to allow for increased participation in cases where operators of solid waste facilities are unable to attend in person.

- The Reporting, Information & Financial Management Section is actively working to ensure that all facilities required to provide a financial assurance plan have one in place. Program staff have also been enhancing the functionality of the Bureau's database to improve data retrieval for internal project management purposes as well as for the public. Longer-term priorities include digitizing the Bureau's historical paper files to improve file access, and revising forms issued by the Bureau for reporting, permit applications, etc. to provide greater clarity and improve the submittal and review process.

All of the Solid Waste Rules (Env-Sw 100 et seq.) are due to expire in 2024 and will need to be readopted. To prepare for this task, the Bureau has developed an approach to draft rule revisions in pieces – prioritizing a few chapters at a time. Staff in all four program areas are compiling suggested changes and additions to the rules they administer. Of note, once the General Permit rules are adopted, additional types of general permits may be added to the rules for different types of solid waste facilities. CAS also intends to develop new rules for solid waste haulers required to register pursuant to RSA 149-M:29-a, which will entail developing a compliance program to ensure all haulers comply with the registration requirements.

Other Organizations Involved in Solid Waste Management

For a list of other organizations who provide technical assistance and/or useful resources related to solid waste management, see Appendix A. The list includes a brief description of each organization. Further details for each organization can be obtained by going to its website or contacting the organization directly.

IX. Conclusions and Recommendations

As stated in RSA 149-M:29, II, an overarching purpose of this report is to assess progress toward achieving New Hampshire's disposal reduction goal established in RSA 149-M:2. Because the goal was established in 2021 and is to be measured against baseline disposal data from 2018, there is limited data currently available to assess progress. Data from 2018 to 2020 indicate that disposal tonnages fluctuated slightly, but this short interval is insufficient to infer an overall trend. Disposal data from the coming years will help to establish a more complete picture of where New Hampshire's disposal practices stand in relation to the goal.

Achieving the disposal reduction goal will require substantive shifts in current waste management practices toward more robust waste reduction and diversion efforts. Because the goal is not mandatory, voluntary waste reduction and diversion efforts by public and private solid waste management entities, haulers, and waste generators across all sectors will be important to New Hampshire's successful pursuit of the goal. Such efforts include financial investments to develop diversion infrastructure consistent with New Hampshire's Waste Management Hierarchy (RSA 149-M:3). NHDES' Solid Waste Management Plan[24] incorporates goals, strategies and actions that will guide NHDES' efforts to encourage waste reduction and diversion in support the disposal reduction goal.

[24] 2022 New Hampshire Solid Waste Management Plan

Appendix A: Organizations Involved with Solid Waste Management

State/Local Organizations

Auto and Truck Recyclers Association of NH (ATRA)
Address: PO Box 331 Weare, NH 03281
Telephone: (603) 529-7211
Website: https://web.a-r-a.org/Other/Auto-Truck-Recyclers-of-New-Hampshire-2596
Contact: David Wilusz, President, allied10@aol.com

The Auto and Truck Recyclers Association of New Hampshire (ATRA) promotes environmentally friendly business practices for facilities engaged in automobile and truck recycling, dismantling and salvage within the state of New Hampshire. ATRA encourages uniform commercial practices among its members and provides leadership in ensuring familiarity with local, state, and federal laws and regulations governing the conduct of such businesses. It represents the interests of its members before governing bodies, seeking to ensure recognition of the contributions of the vehicle recycling industry. ATRA seeks to work closely with regulatory bodies such as the Department of Environmental Services, the Department of Safety and the Department of Transportation, as well as organizations with similar goals, such as the New Hampshire Municipal Association, New Hampshire Auto Dealers Association, the New Hampshire Towing Association and many others.

Lakes Region Planning Commission (LRPC)
Address: Humiston Building, 103 Main Street, Suite 3, Meredith, NH 03253
Telephone: (603) 279-5341
Website: https://www.lakesrpc.org/
Contact: Dave Jeffers, Regional Planner, djeffers@lakesrpc.org

The Lakes Region Planning Commission (LRPC) is a unique association of local governments that provides comprehensive planning services to meet the diverse needs of New Hampshire's Lakes Region. Their mission is to provide effective planning, in order to achieve and sustain a quality environment, a dynamic economy, and local cultural values by supporting community efforts through leadership, education, technical assistance, information, advocacy, coordination and responsive representation. During the tenure of this report, the LRPC has developed a series of Solid Waste Roundtable events where they invite attendees to learn about solid waste issues in the region and offer solutions. Topics range from closed landfill maintenance, to disposal and use of glass, to food waste composting. In addition, they coordinate the household hazardous waste collection events for the Lakes Region.

New Hampshire the Beautiful
Address: 2101 Dover Road, Epsom, NH 03234
Telephone: 1-888-784-4442 Toll-Free in NH, (603) 736-4401
Website: http://www.nhthebeautiful.org/
Email: nhtb@nrra.net

New Hampshire the Beautiful, Inc. (NHtB) is a private, non-profit Charitable Trust established in 1983 and voluntarily funded by the soft drink distributors and bottlers, retail grocers, and the malt beverage industry. The Board of Directors of NHtB has awarded the Northeast Resource Recovery Association (NRRA) a contract to administer the grants and solid waste facility sign programs in addition to overseeing the distribution of litter bags for roadside cleanups across New Hampshire.

New Hampshire Network – Plastics Working Group
Website: http://www.newhampshirenetwork.org/working-groups/plastics-working-group
http://www.10towns.org/home (Ten Towns – Ten Actions Toolkit)
Email: nhplasticwaste@gmail.com

The New Hampshire Network is an assortment of organizations working to facilitate communication among groups concerned about New Hampshire's environment, energy future, and climate. Specifically, the **Plastics Working Group** is focused on addressing the intersectionality of climate change, human health, environmental justice, waste management, and pollution aspects of plastics and the petrochemical industry. The Plastics Working Group supports local, state, and federal initiatives to reduce the production of single-use plastics, develop partnerships with the business, education, and municipal sectors, develop local policy actions to enhance recycling and safe disposal of plastics, and engage in public education. The group published **The Ten Towns – Ten Actions Toolkit** for communities to use to develop a framework and identify potential partners for actions related to policy, engagement, and infrastructure.

North Country Council (NCC)
Address: 161 Main Street, Littleton, NH 03561
Telephone: (603) 444-6303
Website: http://www.nccouncil.org/
Contact: James Steele, Finance Manager & Special Projects Planner, jsteele@nccouncil.org

The North Country Council (NCC) is one of nine regional planning commissions in New Hampshire, serving in an advisory role to local governments to promote coordinated planning, orderly growth, efficient land use, transportation access, and environmental protection. The Commission's region consists of serving 50 communities and 25 unincorporated places in the northern third of New Hampshire. NCC provides solid waste technical assistance to communities in their service area by developing educational materials, workshops, panel discussions, and webinars about the diversion and disposal of food scraps, paint, electronics, medical waste, and Pay-As-You-Throw. They also coordinate several HHW collection events in their region.

UNH Cooperative Extension
Address: Taylor Hall, 59 College Road, Durham, NH
Telephone: 1-800-735-2964 Toll-Free in NH, (603) 862-1520
Website: https://extension.unh.edu/

The Cooperative Extension Network provides information and outreach on a multitude of topics to the citizens of New Hampshire. For example, through their Master Gardeners Program, they provide information on backyard composting and community gardens. They also continue to provide information on the use of wood ash as an agricultural soil amendment and promote the reduction of marine debris through a project that recycles derelict fishing gear.

Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC)
Address: 10 Water Street, Suite 225, Lebanon, NH 03766
Telephone: (603) 448-1680
Website: https://www.uvlsrpc.org/
Contact: Vickie Davis, Senior Planner, vdavis@uvlsrpc.org

The Upper Valley Lakes Sunapee Regional Planning Commission (UVLSRPC) has been providing professional planning assistance to municipal boards since 1963. UVLSRPC coordinates all aspects of planning, act as a liaison between local and state/federal governments and provide advisory technical assistance to the 27 communities and committees in its region who affect the future land use of the region. UVLSRPC has provided training to solid waste operators on implementing organics recycling at rural transfer stations, reduction of HHW in the waste stream and improper disposal of medicines. The group also worked with business owners who are small quantity generators of hazardous waste for better solutions for managing their waste.

Regional and National Organizations

Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
Address: 1015 18th Street NW, Suite 803, Washington, DC 20036
Telephone: (202) 640-1060
Website: http://astswmo.org
Contact: Gabrielle Frigon, ASTSWMO Board Member for Region 1, gabrielle.frigon@ct.gov

The Association of State and Territorial Solid Waste Management Officials (ASTSWMO) supports the environmental agencies of the States and trust territories. ASTSWMO focusses on the needs of State hazardous waste programs; non-hazardous municipal solid waste and industrial waste programs; recycling, waste minimization, and reduction programs; Superfund and State cleanup programs; waste management and cleanup activities at federal facilities, and underground storage tank and leaking underground storage tank programs. The association's mission is: "To Enhance and Promote Effective State and Territorial Waste Management Programs, and Affect National Waste Management Policies." The organization is structured to accomplish this two-part mission through both member committees and Association staff efforts.

Center for EcoTechnology (CET)
Address: 320 Riverside Drive, Florence, MA 01062
Telephone: (413) 586-7350
Website: https://www.centerforecotechnology.org/

The Center for EcoTechnology (CET) works with partners throughout the country to research, develop, demonstrate, and promote the technologies which have the least disruptive impact on the natural ecology of the Earth. CET provides technical expertise to help local, state, and federal policy makers, municipalities, and businesses and institutions of all sizes develop and implement waste diversion solutions for many materials, including waste food, cardboard, paper, mercury, C&D, glass, metals, textiles and more. CET also helps to administer the *RecyclingWorks* program funded by MassDEP – which is a recycling assistance program designed to help businesses and institutions maximize recycling, reuse, and composting opportunities.

Northeast Recycling Council (NERC)
Address: 139 Main Street, Suite 401, Brattleboro, VT 05301
Telephone: (802) 254-3636
Website: https://nerc.org
Contact: Lynn Rubinstein, Executive Director, lynn@nerc.org

The Northeast Recycling Council provides technical assistance, information access, research, and networking opportunities on recycling market development for state and regional programs in the six New England states as well as New York, New Jersey, Pennsylvania and Delaware. In addition to providing a forum for the exchange of information between states and state agencies, NERC undertakes research and education projects that address regional recycling, market development and waste management issues.

Northeast Resource Recovery Association (NRRA)
Address: 2101 Dover Road, Epsom, NH 03234
Telephone: (603) 736-4401 or (800) 223-0150
Website: https://nrra.net
Contact: Reagan Bissonnette, Executive Director, rbissonnette@nrra.net

Founded in 1981 as a private, non-profit organization, NRRA provides technical, educational, and marketing support to New Hampshire municipal recycling programs. NRRA provides marketing and brokerage services for municipalities in New Hampshire, Massachusetts, Maine and Vermont. This cooperative approach

combines materials from many communities to gain economies of scale in transportation and offers access to markets which would typically be denied to individual small communities. NRRA also provides extensive outreach and technical assistance to its member communities designed to strengthen and expand recycling and waste diversion activities.

Northeast Waste Management Officials' Association (NEWMOA)
Address: 89 South Street, Suite 600, Boston, MA 02111
Telephone: (617) 367-8558
Website: http://www.newmoa.org/
Contact: Jennifer Griffith, Project Manager, jgriffith@newmoa.org

The Northeast Waste Management Officials' Association (NEWMOA) is a non-profit, non-partisan, interstate association established in 1986 by the governors of the New England states as an official interstate regional organization. The membership is composed of state environmental agency directors of the hazardous waste, solid waste, waste site cleanup, pollution prevention and underground storage tank programs in Connecticut, Maine, Massachusetts, New Hampshire, New York, New Jersey, Rhode Island and Vermont. NEWMOA's mission is to help states articulate, promote, and implement economically sound regional programs for the enhancement of environmental protection. The group fulfills this mission by providing a variety of support services that facilitate communication and cooperation among member states and between the states and EPA and promoting the efficient sharing of state and federal program resources.

ReFED, Inc.
Address: 4602 21st Street, #1531, Long Island City, NY 11101
Website: https://refed.org/
https://insights.refed.org/ (Insights Engine)

ReFED is a national nonprofit dedicated to ending food loss and waste across the U.S food system by advancing data-driven solutions. New Hampshire municipalities can leverage ReFED's data to make informed decisions that improve economic, social, and environmental systems. ReFED's insights can be used to highlight supply chain inefficiencies, identify grants and economic opportunities, spur innovation, scale high-impact initiatives, and engage with multiple stakeholders to develop local programs.

Solid Waste Association of North America (SWANA)
Address: 1100 Wayne Avenue, Suite 650, Silver Spring, MD 20910
Telephone: 1-800-GO-SWANA (1-800-467-9262)
Website: https://swana.org/
Contact: Meri Beth Wojtaszek, Deputy Executive Director

The Solid Waste Association of North America (SWANA) is the largest member-based solid waste association in the world with 45 Chapters, in the U.S., Canada and the Caribbean and over 10,000 members. SWANA is the U.S. and Canadian National Member of the International Solid Waste Association (ISWA) and participates and supports ISWA events and programs. SWANA's conferences and training programs cover all aspects of integrated municipal solid waste management, and the Association is a policy and technical representative of solid waste management practitioners, executives, companies, and government organizations.

The Composting Collaborative
Email: Info@compostingcollaborative.org
Website: www.compostingcollaborative.org

The Composting Collaborative is a project of the GreenBlue, BioCycle Magazine and the U.S. Composting Council. Their mission is to accelerate composting access and infrastructure to improve soil health and divert compostable materials from landfills. As a collaborative, they are able to provide educational support to groups looking to implement composting in their community or business. Since 2017 The Composting

Collaborative has focused on projects to gather better data on organics processing capacity, provide information about pretreatment and preprocessing technologies, and establish optimized soil sampling methodologies. They are presenting at three national conferences in 2019 and 2020 and have provided numerous webinars for anyone looking for information regarding composting.

The Recycling Partnership
Address: 125 Rowell Court, Falls Church, VA 22046
Website: https://recyclingpartnership.org/

The Recycling Partnership is a national nonprofit organization that is transforming recycling in towns, cities and states all across America. Their mission is to encourage recycling by offering a different perspective on the role of recycling in our society. They have created tools to enhance recycling that can be customized to specific needs of a town, city, or organization or even a business. In the last five years, they have partnered with various stakeholders on recycling enhancement projects. The Recycling Partnership tracks each of these projects to create baseline data and case studies to train others on how to implement the tools they have created.

Toxics in Packaging Clearinghouse (TPCH)
Address: c/o NEWMOA, 89 South Street, Suite 600, Boston, MA 02111
Telephone: (617) 367-8558 ext. 309
Email: info@toxicsinpackaging.org
Website: https://toxicsinpackaging.org/
Contact: Melissa Lavoie, Project Manager, mlavoi@newmoa.org

In 1990, New Hampshire was the second state in the nation to adopt the toxics-in-packaging model legislation developed by the Coalition of Northeastern Governors (CONEG). Nineteen states have adopted a toxics-in-packaging law based on the CONEG model and the model has been used internationally. To ensure consistent and effective implementation of the laws, the Toxics in Packaging Clearinghouse (TPCH) was created in 1992 to simplify the law's administrative procedures, promote cooperation and information sharing between participating states, minimize procedural burdens on affected industries, and promote understanding and greater awareness of the law's objectives. TPCH is assisted in its mission by technical advisers from representatives of industry and public interest organizations.

The US Composting Council (USCC)
Address: 1053 E Whitaker Mill Rd., Suite 115, Raleigh, NC 27604
Telephone: (301) 897-2715
Email: uscc@compostingcouncil.org
Website: https://www.compostingcouncil.org

The US Composting Council (USCC) was established in 1990 and is a national member-based organization dedicated to the development and promotion of the composting industry, including the manufacturing, marketing and utilization of compost. USCC members include compost manufacturers, compost marketers, equipment manufacturers, product suppliers, academic institutions, public agencies, nonprofit groups and consulting/engineering firms.

United States Department of Agriculture (USDA) – Rural Development
Grants Contact: Water & Environmental Programs National Office
Telephone: (202) 720-9583
Website: https://www.rd.usda.gov/programs-services/solid-waste-management-grants

NH Contact: Sarah Waring, State Director
Address: 87 State Street, Suite 324, PO Box 249, Montpelier, VT 05601
Telephone: (802) 828-6080

Website: https://www.rd.usda.gov/nh

The United States Department of Agriculture Rural Development provides annual solid waste management grants. The goal is to reduce or eliminate pollution of water resources by providing funding for organizations that provide technical assistance or training to improve the planning and management of solid waste sites. This grant program has helped organizations in New Hampshire provide technical assistance where NHDES has been unable to.

United States Environmental Protection Agency (U.S. EPA) – Sustainable Materials Management

Address: Office of Resource Conservation and Recovery, 1200 Pennsylvania Avenue, NW (5305P), Washington, DC 20460

Website: https://www.epa.gov/smm

The United States Environmental Protection Agency – Sustainable Materials Management Program (SMM) provides information to the regulated community as well as the public on managing materials from cradle-to-grave. It is a systematic approach to using and reusing materials over the entire life cycle by highlighting changes in how society thinks about natural resources and environmental protection. EPA's SMM program provides webinars and training free of charge on all things solid waste including food waste reduction, electronics recycling, C&D recovery, and partnership opportunities for communities. The SMM program has also gathered data from the states regarding solid waste management, created a Waste Reduction Model (WARM) and other sustainable materials management tools for users.