

Regulation of Solid Waste in New Hampshire

Notes prepared by NHDES Solid Waste Management Bureau

Statutory Context

RSA 149-M, also referred to as the Solid Waste Management Act, was enacted in 1981 and provides New Hampshire’s guiding framework for management of solid waste. It names the New Hampshire Department of Environmental Services (NHDES) as the agency responsible for administering and enforcing the provisions contained in the statute, and grants the agency rulemaking authority for this purpose.

Solid Waste Defined

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, food waste, recyclable materials, commercial and industrial waste, construction and demolition debris, electronic waste, asbestos waste, nonhazardous contaminated soils, end-of-life motor vehicles, animal carcasses, infectious waste, or anything else that qualifies as abandoned or discarded.

Waste Reduction Goal & Hierarchy of Management Methods

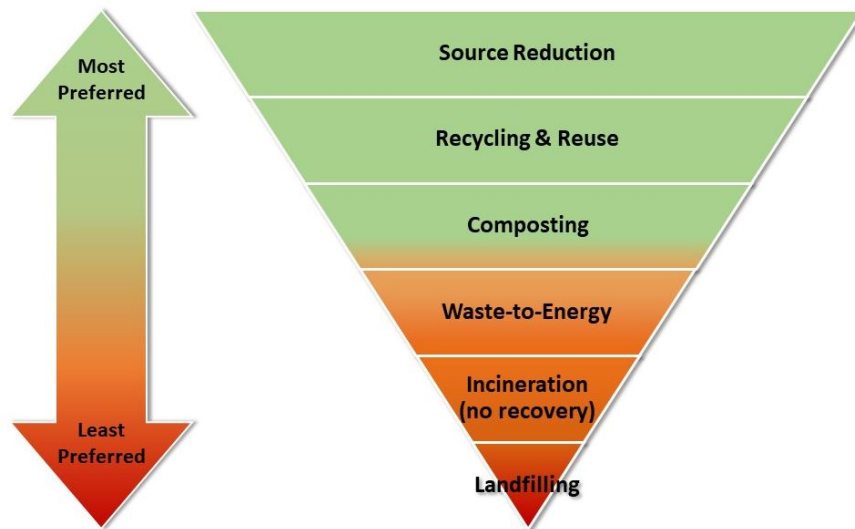
In 1990, RSA 149-M was amended to establish a waste reduction goal, which has been subsequently revised over the years. The most recent version of this goal, codified in RSA 149-M:2, established a goal to divert at least 40% of New Hampshire’s solid waste by the year 2000 in order to reduce the quantity of solid waste disposed in the state’s landfills and incinerators, as measured on a per capita basis. As stated in RSA 149-M:2:

The general court declares its concern that there are environmental and economic issues pertaining to the disposal of solid waste in landfills and incinerators. It is important to reserve landfill and incinerator capacity for solid wastes which cannot be reduced, reused, recycled or composted. The general court declares that the goal of the state, by the year 2000, is to achieve a 40 percent minimum weight diversion of solid waste landfilled or incinerated on a per capita basis. Diversion shall be measured with respect to changes in waste generated and subsequently landfilled or incinerated in New Hampshire. The goal of weight diversion may be achieved through source reduction, recycling, reuse, and composting, or any combination of such methods. The general court discourages the disposal of recyclable materials in landfills or processing of recyclable materials in incinerators. (RSA 149-M:2, I. – effective July 20, 1999)

Although this language focuses primarily on diversion, it is evident that the intention behind this goal was to reduce the overall quantity of waste generated (via source reduction) while also diverting from disposal waste that cannot be reduced (via reuse, recycling, or composting). 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.

To promote achievement of the waste reduction goal, the General Court also established 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 is at the top of the hierarchy because it provides the greatest benefits; i.e. preventing a waste from being generated results in less waste needing end-of-life management, conserves resources, and reduces overall environmental impact. When a waste is generated, managing it via recycling or composting is preferential because these methods recover and divert materials from disposal, thereby encouraging 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 landfill because they recover energy, reduce volume and weight, and in some cases may produce useful by-products.

As established by the General Court, the waste management hierarchy was envisioned to support an integrated waste management system in New Hampshire, combining 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. In this way, the hierarchy serves as a guiding principle not only for NHDES and the state at large, but also for municipalities, commercial and industrial waste generators, solid waste management companies, and the general public. However, it is worth noting that since this hierarchy was established in 1990, waste management infrastructure in New Hampshire has not significantly shifted from disposal (landfilling and incineration) toward more preferable management methods.

NHDES Solid Waste Programs

As noted above, 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 yards, composting facilities, incinerators and landfills. The Bureau oversees and assures

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compliance for approximately 260 active permitted solid waste facilities, 120 motor vehicle salvage yards, and 600+ closed, inactive solid waste disposal sites.

Although at one time NHDES had resources dedicated specifically to waste reduction technical assistance, outreach and planning, those resources were incrementally lost due to general fund budget constraints. Unfortunately, the resultant deficiencies have not allowed the Bureau to pursue these program areas in recent years. Using its current resources, the Bureau focuses its efforts on two essential program areas:

1. Management and 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 Permitting and Design Review Section processes applications for facility permits, permit modifications, and other requests requiring approval by NHDES. The Permitting and Design Review Section provides permitting technical assistance, continually monitors the operation and construction of New Hampshire's 6 active landfills, oversees environmental monitoring and reviews plans for corrective actions when problems are identified, and also reviews facility closure plans and financial assurance plans for guaranteeing proper closure and post-closure care of facilities, in particular landfills.

2. Compliance assurance for solid waste facilities

The Bureau's Compliance Assurance Section 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. This involves providing compliance technical assistance, reviewing reports, conducting facility inspections, investigating complaints, and pursuing enforcement when necessary. The Compliance Assurance Section also assures that facility owners maintain adequate funds to guarantee proper closure and post-closure care of facilities, and distributes grant money to reimburse municipalities for eligible costs for closure of old landfills and incinerators. In addition, and as required by RSA 149-M:6, XIII, the Bureau administers a training and certification program for solid waste facility operators, known as the Solid Waste Operator Training (SWOT) Program. Each year the Bureau hosts multiple 'Basic Training' SWOT workshops for new operators and also provides numerous continuing education opportunities (provided by NHDES staff and/or 3rd 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.

Overview of Facilities Regulated

As noted above, one of the Bureau's primary responsibilities is regulating solid waste facilities. Under the permitting system established by the Solid Waste Rules, solid waste facilities are grouped into three main categories:

1. Collection, storage, and transfer facilities (e.g. transfer stations, recycling centers, scrap yards)
2. Processing and treatment facilities (e.g. incinerators, anaerobic digesters, composting facilities)
3. Landfills (e.g. active and closed/inactive landfills, inactive asbestos disposal sites)

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A current list of permitted solid waste facilities in New Hampshire (both active and inactive) may be accessed via NHDES' OneStop Data Retrieval System.¹

Collection, storage, and transfer (C/S/T) facilities form the majority of New Hampshire's solid waste management infrastructure. There are 239 active C/S/T facilities in New Hampshire, 174 of which are publicly-owned municipal transfer stations that function as drop off centers for generators of trash and recycling within the facility's service area. The other 65 are primarily privately-owned commercial transfer stations or scrap metal recycling facilities. In addition to the above-noted C/S/T's, there are also approximately 120 motor vehicle salvage yards in New Hampshire, which help to divert automotive waste to recycling and reuse. New Hampshire does not have any materials recovery facilities (MRFs) for sorting single stream recycling, although some C/S/T facilities may sort some types of commingled recyclables on a limited scale.

New Hampshire has 14 active processing and treatment (P/T) facilities. This includes 6 operating composting facilities holding solid waste permits. Facilities dedicated to the composting of leaf and yard waste do not require a solid waste permit, therefore NHDES lacks definitive data on how many leaf and yard waste composting operations exist in the state. The other P/T facilities in New Hampshire include 2 operating solid waste incinerators: one large-scale commercial waste-to-energy facility with an unlimited service area, and one small-scale municipal incinerator with a limited service area. In addition, there is one contaminated soils treatment facility and a handful of C&D/wood processing facilities. Currently, New Hampshire does not have any permitted solid waste anaerobic digesters.

In regard to active landfills, New Hampshire has 6 operating lined MSW landfills. 3 are publicly-owned facilities with limited service areas: The Lebanon Regional Landfill, The Lower Mount Washington Valley Landfill in Conway, and The Four Hills Secure Landfill in Nashua. The other 3 are privately-owned commercial facilities authorized to receive waste from an unlimited service area: North Country Environmental Services (NCES) in Bethlehem, The Mount Carberry Secure Landfill in Success, and The TLR-III Refuse Disposal Facility (aka Turnkey Landfill) in Rochester. There are also 3 operating non-MSW landfills: The Merrimack Station Coal Ash Landfill in Bow, The Boscawen Corn Hill Road C&D Landfill, and The Epping Bulky Waste Disposal Area.

New Hampshire also has more than 300 closed/inactive landfills, the majority of which are unlined former municipal "dumps." Although perhaps not always considered part of the state's solid waste management infrastructure, these facilities perform a critical function as waste containment systems. As such, they require ongoing monitoring and maintenance to assure protection of human health and the environment. In addition to these closed landfills, there are approximately 360 documented asbestos disposal sites in New Hampshire. Most of these sites are in the Nashua/Hudson area, where up until the late 1970's the Johns-Manville Corporation manufacturing plant in Nashua, and its predecessors, distributed the plant's asbestos-containing waste for use as fill on residential, commercial, industrial and public lands, both developed and undeveloped, as well as areas beneath roads and along riverbanks.

Public Benefit Requirements and Disposal of Out of State Waste

When NHDES considers an application for a proposed Solid Waste Facility, the Bureau must determine whether the proposed facility provides a substantial public benefit based upon three primary criteria (per RSA 149-M:11, III(a)-(c)):

¹ The OneStop search interface can be accessed here: <http://www4.des.state.nh.us/DESOnestop/BasicSearch.aspx> And search guidance can be accessed here: <http://www4.des.state.nh.us/DESOnestop/Help/DESOnestop.pdf>

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1. The short- and long-term need for a solid waste facility of the proposed type, size, and location to provide capacity to accommodate solid waste generated within the borders of New Hampshire;
2. The ability of the proposed facility to assist the state in achieving the implementation of the hierarchy and goals under RSA 149-M:2 and RSA 149-M:3; and
3. The ability of the proposed facility to assist in achieving the goals of the state solid waste management plan, and applicable solid waste district plans.

By law, an applicant for a permit must demonstrate in their application that the proposed facility satisfies each of the above criteria.

With regard to the first criterion, a facility is required to provide capacity for waste generated within the borders of New Hampshire. However, the Commerce Clause of the US Constitution has commonly been interpreted to preempt a state from explicitly prohibiting or adopting protectionist policies against the acceptance and disposal of out-of-state waste.² As such, commercial landfills in New Hampshire are permitted to receive waste from out-of-state sources, provided they also provide capacity for NH generated waste.

For information regarding the ratio of in-state/out-of-state waste acceptance as well as remaining capacity at New Hampshire's operating solid waste disposal facilities (landfills and incinerators), see attachment: *NH Disposal Figures 2015 – 2018*.

² The 1978 Supreme Court Case, Philadelphia v. New Jersey, struck down a New Jersey law that prohibited the importation of waste into the state. For additional information, see: <http://law2.umkc.edu/faculty/projects/ftrials/conlaw/statecommerce.htm>