

**TYPE 1-B PERMIT MODIFICATION**  
**EXETER MUNICIPAL LANDFILL CLOSURE PLAN**

Facility Name: Exeter Landfill  
Facility Permit #: DES-SW-SP-1992-001  
9 CROSS ROAD EXETER, NH

**Submitted By:**

**TOWN OF EXETER**  
**10 FRONT ST.**  
**EXETER, NH 03833**

Date of Closure Construction Approval: June 9, 1994  
Date of closure plan: 3/26/2024  
Facility Name: Exeter Municipal Landfill  
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## **Introduction**

This Closure Plan is prepared for the Exeter Municipal Landfill using the closure plan content and format defined in the New Hampshire Department of Environmental Services (NHDES) Solid Waste Rules Env-Sw 1106.04 and is submitted by the Town of Exeter.

This Plan is the first closure plan for the landfill because the landfill's closure predated the requirement for a closure plan.

## **Section 1. Facility Identification**

Facility name: Exeter Municipal Landfill

Property Owner: Town of Exeter

Mailing Address: 10 Front St, Exeter, NH

Contact: pvlasic@exeternh.gov; (603) 773-6160

Location: 9 Cross Rd, Exeter, NH

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The landfill – a municipal solid waste landfill - is located at 9 Cross Road, Exeter, New Hampshire and was capped in 1994. The host property is Town-owned and encompasses approximately 22 acres, which also includes an active transfer station. The property is bounded by Cross Road to the east, another Town-owned lot (which hosts a brush dump and municipal public works area) to the south, an undeveloped woodlot to the west, and a residential area to the north. The Exeter River is located approximately 1,000 ft to the north.

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## **Section 2. Closure Schedule**

The Exeter Municipal Landfill was closed in 1994.

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### **Section 3. Waste Identification**

The Exeter Municipal Landfill received municipal solid waste.

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#### **Section 4. Notifications**

The Exeter Municipal Landfill is closed. No notifications are required.

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## **Section 5. Closure requirements**

All closure requirements were completed in accordance with the applicable regulations, permit applications, and construction certification documents and have been previously submitted and approved by the NHDES.

“Landfill Closure Design and Specifications, Cross Road Landfill, Exeter, New Hampshire,” prepared by GZA Geo Environmental Inc. dated March 30, 1994, is on file with NHDES under administrative order no. WMD 87-136.

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## **Section 6. Post-closure requirements**

The Town of Exeter will perform post-closure testing, inspection, maintenance, and monitoring at the facility pursuant to the provisions of the Solid Waste Rules and DES Permit DES-SW-SP-1992-001, in order to achieve the following required Performance Standards Ref Env-Sw 807.04:

- a. The facility and site effectively cease generating leachate;
- b. The facility and site effectively cease generating decomposition gases;
- c. The facility and site achieve maximum settlement, with the capping system intact and no reasonable expectation that integrity of the capping system will be at risk without regular maintenance;
- d. The facility and site have no adverse impact to air, groundwater or surface water; and
- e. The facility and site do not otherwise pose a risk to human health or the environment.

The permittee will complete semi-annual inspections, with one annual report submitted to NHDES prepared by a qualified consultant. The inspections are recommended to be conducted in the spring following snowmelt and after/during the annual mowing event in the fall. The site inspections will verify:

- 1) The General Site Condition, including:
  - a. All gates, fences, or natural barriers used to control/restrict access to the landfill in accordance with Env-Sw 1004, to facilitate compliance with the performance standards provided in Env-Sw 807.04, and to otherwise limit threats to public health, safety and the environment. Ref Env-Sw 807.03(b)(11)
  - b. The presence of weather-resistant legible signs posted around the perimeter of the landfill in areas where fencing is not used. Ref Env-Sw 807.03(b)(11)
  - c. The proper grading and drainage of the access road(s). Ref Env-Sw 806.08(c)
  - d. Any portions of the site used for activities other than post closure monitoring and maintenance. Ref Env-Sw 807.05(o)
    - i. A Type 1-B Modification Permit is submitted for the post closure use of a Solar Electric System. The general condition of the Solar Electric System will be verified in the following manner:
      1. Verification of PV system functionality will be enabled by web-based production monitoring. Inspection of the racking and geoballast foundation units and electrical equipment will be completed annually by a qualified technician. Industry-standard projections estimate a 40-year service life for solar equipment.
      2. A 7-foot-tall perimeter fence will be installed to keep out unauthorized personnel and vehicles. Exposed array conductors will be protected from access by unqualified personnel in accordance with National Electric Code requirements. Lockable electrical enclosures and equipment requiring tools to open will be used to restrict access to all equipment by unauthorized personnel.

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3. The Town will continue to mow vegetated areas regularly, including areas under and around the solar equipment, and will continue to inspect for erosion, settlement, or other event created by the installation of the Solar Electric System as defined in this Closure Plan.
    4. Attachment 4a outlines the Decommissioning Plan for the Solar Electric System.
  - e. The condition and accessibility of groundwater monitoring wells. Ref Env-Sw 807.03(b)(8)
  - f. The function and maintenance of the surface water monitoring system. Ref Env-Sw 807.03(b)(8)
- 2) The Stormwater System Condition, including:
  - a. The maintenance of the sedimentation/detention pond. Sedimentation and overgrown vegetation should be removed.
  - b. Ensuring culverts are intact and free of obstructions.
  - c. Ensuring perimeter drainage swales/ditches are well maintained, unobstructed, and free flowing.
  - d. The presence of positive drainage from any drainage swales.
  - e. The condition of any methods used to control surface water (e.g., berms, benches).
  - f. The condition of runoff channels. These should be protected to prevent scour and erosion that creates sediment.
  - g. Any evidence of erosion (e.g., sedimentation in drainage ditches and ponds).
  - h. The condition of storm drains (e.g., frame, grate, wall joints, pumps, sumps, pipes, inlet and outlet stone).
- 3) The Decomposition Gas Control System Condition, including:
  - a. The function and condition of the passive gas management system (e.g., vent cap, riser pipe).
    - i. The gas management system consists of approximately 22 gas vents located across the landfill cap.
  - b. The function and condition of all soil gas probes.
    - i. The soil gas probe system consists of approximately 12 probe locations.
  - c. The function and condition of all indoor air quality monitors.
  - d. The presence of any landfill odors.
  - e. Any evidence of stressed (e.g., damaged/weakened) vegetation.
  - f. Collection of methane generation data, including data from vents, soil probes, and indoor air quality monitors (as applicable). Trends will be evaluated in the Annual Report and immediate notification to NHDES and implementation of contingency procedures will occur if methane levels exceed the LEL levels established in 806.07. Accordingly, these measurements will include:
    - i. Methane levels inside any on or off-site structures. Ref Env-Sw 806.07(b)(1)

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- ii. Methane levels at the property line within the soil. Ref Env-Sw 806.07(b)(2)
- 4) The Cap (Cover) Condition, including:
  - a. Uniformity of cap settlement. Any visual evidence of depressions, water ponding, cracking, and/or sloughing. Ref Env-Sw 807.03(b)(10)
  - b. If the cap slope is promoting runoff.
  - c. The occurrence of regular mowing of the cap, at least once per year in fall.
  - d. Any evidence of erosion (e.g., erosion rills, exposed soil).
  - e. The condition of the vegetative layer.
  - f. Any evidence of damage due to unauthorized access.
  - g. Any evidence of damage due to burrowing animals.
- 5) The Leachate Systems Condition, including:
  - a. The operation and maintenance of the facility's leachate management system in accordance with Env-Sw 806.05. Note that leachate production at the landfill was negligible following closure and leachate collection and disposal was discontinued.
  - b. Any leachate breakouts or seeps, either on or off the landfill property.
  - c. The functioning of the leachate collection system and/or leak detection system appurtenances. Note this is not applicable.
  - d. The disposal of any leachate stored on-site, if applicable. Note this is not applicable.
- 6) The permittee will also complete groundwater monitoring in accordance with the Groundwater Monitoring Permit issued on February 26, 2019 and revised July 9, 2021 (GWP-198401081-E-005). Renewal applied for in 2024.
  - a. The groundwater monitoring permit requires that the Town file an Annual Summary Report each January and submit monitoring results to NHDES no later than 45 days after sampling. The exact sampling locations and frequency are outlined in the permit's conditions.

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## **Section 7. Recordkeeping and reporting**

For its solid waste permit, the Town is required to submit an Annual Post Closure Report by March 31 of the subsequent year. The groundwater monitoring permit requires that the Town file an Annual Summary Report each January and submit monitoring results to NHDES no later than 45 days after sampling.

Copies of all records and reports will be maintained on site during construction. Copies of these files will be transferred to NHDES at the completion of construction for Department records. All recordkeeping and reporting obligations required of the facility following completion of the closure work are identified in Section 5 of the Closure Plan.

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## **Section 8. Other permits**

Per Env-Sw 1106.04(e)(8), all other local, state and federal permits and approvals required to implement facility closure, including the implementation of all post-closure monitoring and maintenance requirements, and the status of each permit and approval identified is listed below.

- Solid Waste Facility Permit - DES-SW-SP-1992-001
  - Closure Construction Plans Approval, June 9, 1994.
  - Solar array
    - Type I-B Permit Modification (including supplements for financial assurance and construction plans) – pending.
    - Alteration of Terrain Permit (AoT-2541), February 23, 2024.
- Groundwater Monitoring Permit
  - GWP-840181-E-001, expired July 31, 2001.
  - GWP-198401081-E-002, expired January 2, 2007.
  - GWP-198401081-E-003, expired March 10, 2013.
  - GWP-198401081-E-004, expired December 15, 2018.
  - GWP-198401081-E-005, under renewal.

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### **Section 9. Closure Cost Estimate**

A closure cost estimate prepared in accordance with Env-Sw 1403.02 for post-closure landfill care and maintenance and solar decommissioning is attached. The Town of Exeter intends to use the approved LOGO test for financial assurance to meet the requirements of Env-Sw 315 and Env-Sw 1400.

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