



The State of New Hampshire  
**Department of Environmental Services**



**Robert R. Scott, Commissioner**

**VIA EMAIL ONLY**

June 1, 2021

John Gay, Region Engineer  
Granite State Landfill, LLC  
1855 VT Route 100  
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Email: [john.gay@casella.com](mailto:john.gay@casella.com)

**SUBJECT: Proposed Granite State Landfill, 172 Douglas Drive, Dalton, NH**

**Incomplete Application – Request for Additional Information**

Standard Permit Application – Proposed Landfill; Initial application received February 9, 2021 and assigned Application No. 2021-52265

Dear Mr. Gay:

The New Hampshire Department of Environmental Services, Waste Management Division (NHDES) has reviewed the above-cited application by which Granite State Landfill, LLC (GSL) seeks a standard permit to construct and operate a municipal solid waste double-lined landfill. In accordance with the requirements of the New Hampshire Solid Waste Rules, Env-Sw 100 et seq. (Rules), NHDES has determined that the application is incomplete.

Please address the following comments to satisfy the provisions of Env-Sw 300, and clarify aspects of the application to support the technical review pursuant to Env-Sw 304.07. Note that the following relates only to the proposed landfill footprint identified as “Phase I.”

***Application Content***

1. Capacity was provided, but was not consistent across all portions of the application. Pursuant to Env-Sw 314.06(e), (1) provide the capacity for each facility function, expressed in tons and cubic yards, including storage capacity for recyclable materials and residual wastes; (2) processing capacity for construction and demolition debris; and (3) disposal capacity for the landfill. Ensure proposed capacity quantities meet the definitions in Env-Sw 102.09, Env-Sw 102.10 and Env-Sw 102.11.
2. Section III of the permit application appears to be missing local (e.g., zoning, planning) and federal approvals. Pursuant to Env-Sw 314.07, identify all local and federal approvals which are or may be required for the facility, and provide the status of each.
3. There were no legal agreements provided regarding transfer of property ownership and access easements. Pursuant to Env-Sw 314.09, provide copies of all relevant legal agreements for property ownership and access rights to demonstrate that the proposal will comport with Env-Sw 804.06 as well as Env-Sw 1003.02, Env-Sw 1003.03, and Env-Sw 1102.02.
4. The application included background information, but was missing discussion of some known historical environmental conditions. Pursuant to Env-Sw 314.10(b)(3), provide a discussion (e.g., history and current

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status) of Remediation Site #201806023, Air Stationary Source AFS No. 3300790117, and any other known or suspected conditions at the site which are or should be of environmental, public health or safety concern.

5. The Natural Heritage Bureau's (NHB's) online DataCheck tool was used to assess certain sensitive receptors, specifically the presence of endangered and threatened species; however, as identified by NHB in its memorandum dated April 5, 2021, the DataCheck tool has a number of limitations and is not considered adequate by NHB for the purposes of this proposed project and site. Pursuant to Env-Sw 314.10(b)(4), provide map(s) and a narrative discussion of the facility's proximity to and impact on sensitive environments, specifically as they relate to habitats for endangered and threatened species, consistent with the memorandum from NHB and in consideration of Env-Sw 1002.03.

6. NHDES understands that GSL has conducted a traffic study as requested by NH Department of Transportation (NHDOT). Pursuant to Env-Sw 314.10(b)(6) and in consideration of the traffic study, review and update as appropriate traffic-related information provided in the application.

7. GSL provided cost estimates and asserted that it would provide the required bonds for purposes of financial assurance. Pursuant to Env-Sw 314.12(f), provide a complete proposed financial assurance plan, specifically including a complete draft of the financial assurance mechanism (e.g., bond, standby trust), prepared in accordance with Env-Sw 1403.

### ***Hydrogeological & Geotechnical Investigations, and Groundwater & Bedrock Contours***

8. NHDES reviewed the hydrogeological and geotechnical reports, and found there was insufficient information to evaluate the requirements of Env-Sw 804, including relative to the minimum separation distances from the base of the landfill liner to bedrock and seasonal high groundwater elevations (6 feet each for groundwater and bedrock), and the feasibility of designing and installing a groundwater release detection system pursuant to Env-Or 700. Pursuant to Env-Sw 314.10(b), provide the following additional information to facilitate technical review of the application relative to the requirements of Env-Sw 804:

#### *Subsurface investigations*

- The logs of additional borings, laid out in a systematic investigative pattern within the footprint, used to determine depth to bedrock.
- The logs and monitoring data from additional groundwater monitoring points, laid out in an investigative pattern within the footprint, used to evaluate seasonal high groundwater.

#### *Figures*

- A figure showing the separation distance from the designed bottom of the proposed landfill liner system to bedrock.
- Geologic cross-sections, tied to surface (e.g., wetlands as discharge points) and subsurface explorations (e.g., hydrogeological, geotechnical), depicting pertinent features in detail such as the proposed liner, fill, bedrock, and seasonal high groundwater, including a note indicating the date(s) from which the seasonal high groundwater elevations shown were derived.
- Other figures updated as appropriate to reflect the updated hydrogeological and geotechnical information.

### *Discussion, Modeling & Analyses*

- A discussion of the seasonal high groundwater and its current and historical trends as it relates to the recent drought conditions and the groundwater to liner separation across the liner footprint.
- A discussion regarding how the discharging groundwater conditions will be affected by potential filling of wetlands, both within the liner footprint and outside of it. Address the potential effects of fill on groundwater elevations and whether it will cause a rise in groundwater levels that may compromise the required 6-foot groundwater to liner separation.
- Modeling of groundwater transit times from the landfill (such as lined landfill footprint, associated leachate piping and storage operations areas, and infiltration/detention basins) to surface water bodies.
- A thorough analysis of the monitorability of the proposed facility to demonstrate that if there were a release from the facility there would be sufficient time from initial contaminant detects in monitoring wells to take mitigative action before there are impacts to surface water bodies and water supplies.

### **Landfill & Other Facility Requirements**

9. NHDES was unable to determine consistency with the requirements of 40 CFR §258.10 relative to airports. Pursuant to Env-Sw 803.04, provide information to demonstrate that the proposed landfill will comply with 40 CFR §258.10. Namely, if the proposed landfill is located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft, notify the affected airport and the Federal Aviation Administration (FAA). In addition, provide information to demonstrate that the proposed landfill is not located within 6-miles of certain airports as identified in the Note to 40 CFR §258.10.

10. On Figure 12 of Attachment V(1), GSL proposed setbacks from wetlands via groundwater gradients; however, the requirements for wetlands setbacks are relative to protection of surface waters. Pursuant to Env-Sw 804.03(e), revise the setbacks from wetlands to reflect upgradient and downgradient based on topography rather than groundwater elevation.

11. The proposed technical specifications included excavating and filling; however, the application and specifications did not specifically address filling in the approximately 17 acres of wetland areas. In addition, NHDES was unable to discern the amount of cut and fill needed. Clarify the proposed filling procedures for wetland areas and provide a cut and fill figure for the landfill footprint and infrastructure areas to allow for a technical review of Env-Sw 805.03.

12. The applicant has proposed a capping system of 2.7H:1V as shown in the Closure Plan, Figures C-2 and C-3. Demonstrate that the average slope of the capping system is 2.5H:1V, from toe to top of slope, not including the top deck, or revise the final grades to meet the requirements of Env-Sw 805.10(p).

13. GSL has proposed a few evenly and widely-spaced gas monitoring probes for purposes of landfill gas migration monitoring, but has not provided supporting information for the gas monitoring program. Provide information necessary to demonstrate that the proposed type and frequency of landfill gas migration monitoring, including locations, is based on soil conditions surrounding the disposal area, including hydrogeological and hydraulic conditions, and the locations of any man-made structures (e.g., facility office, Ingerson residence) and property boundaries in accordance with Env-Sw 806.07(d).

14. NHDES understands that the applicant intends to have waste transport vehicles queue on Douglas Drive or in the infrastructure area; however, the design plans show a gate on Douglas Drive prior to the infrastructure area. Clarify proposed queuing and associated access controls to meet the requirements of Env-Sw 1004.02(c).

15. The application indicates that fencing will be used to control access; however, fencing for access control could not be identified on the proposed plans. Clarify where fencing will be used to provide access control. In addition, NHDES is aware that a number of access roads have historically crossed the proposed property boundaries. Provide a review of and proposed controls for these corridors as needed to meet the requirements of Env-Sw 1103.03.

16. The application indicates that the majority of the landfill is visibly shielded by existing vegetation and natural topography; however, the application has not addressed the design features incorporated to minimize adverse impacts such as visibility from certain locations, dust, and windblown litter. Identify the features incorporated into the facility design to minimize adverse impacts to surrounding properties pursuant to Env-Sw 1103.04.

17. The proposed operating plan indicates that GSL intends to conduct routine facility operations between 3 a.m. and 8 p.m.; however, the application does not provide the demonstration required pursuant to Env-Sw 1105.08(b)(1). Provide the required demonstration.

18. The application includes a preliminary closure design that does not include final grading for purposes of stormwater controls. Further, the stormwater design in Attachment VI(4) does not appear to match the Closure Plan in Section VIII. Provide preliminary closure design plans (50 to 75% construction drawings) that include final grading (similar to Drawing No. INT-8) with stormwater control features shown to facilitate technical review of Env-Sw 807, which references Env-Sw 805.09 and Env-Sw 805.10.

### ***Design Revisions***

19. Based on the additional subsurface investigation information and analyses, and the preceding comments, NHDES anticipates that GSL may need to revise the base grades of the liner systems, the footprint of the landfill, and the final cap grades, which may result in changes to facility capacity. Provide a revised design and other information as needed to meet the requirements of Env-Sw 100-2000.

Please address the above comments by submitting your response to NHDES through the NHDES OneStop Data Provider portal using the site code “123456789.” Include “Application No. 2021-52265” on the submittal.

Pursuant to Env-Sw 304.04, Incomplete Applications, review of your application is suspended until the requested information is received. Please note that, pursuant to Env-Sw 304.05(d), all information needed to complete the application must be submitted within one year of the date of this letter to avoid having the application become dormant and be deemed denied.

After NHDES receives the revisions requested above, we will be able to comment on the completeness of the revised design as well as other aspects of the application.

John Gay, Region Engineer  
Granite State Landfill, 172 Douglas Drive, Dalton, NH  
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June 1, 2021  
Page 5 of 5

Please contact me if you have any questions regarding this correspondence.

Sincerely,



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