



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

June 24, 2024

Granite State Landfill LLC
1855 Vermont Rte 100
Hyde Park VT 05655

**Re: Request for More Information – Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2023-03259
Subject Property: Douglas Drive, Dalton, Tax Map #406/1, Lot #406/2**

Dear Applicant:

The New Hampshire Department of Environmental Services (Department) Wetlands Bureau has reviewed the above-referenced Standard Dredge and Fill Wetlands Permit Application (Application) and determined the following additional information is required to complete its evaluation of the Application pursuant to RSA 482-A:3, XIV(a)(2) and Rules Env-Wt 100 through 900:

- 1- **Avoidance and minimization** - to demonstrate the least impacting alternative has been selected and to address concerns outlined by the Bethlehem Conservation Commission (BCC), Dalton Conservation Commission (DCC), and Ammonoosuc Local River Management Advisory Committee (LAC), please address the following: [Env-Wt 311.06(h), Env-Wt 311.06(i), Env-Wt 313.03, and Env-Wt 524.02(b)]
 - a. *Offsite alternatives analysis* – as commented in the DCC and LAC reports, several options appear to be potentially viable as offsite alternatives providing the same capacity. Please provide maps that depict specific site restraints and other unsuitable conditions referenced in Section 7, part 1 of 2 of the application to support the assertion that the proposed site is the least impacting alternative location for a landfill of the requested capacity. Specifically: [Env-Wt 524.02]
 - i. Massachusetts – the alternative analysis includes only a narrative of unsuitability for sites considered in Massachusetts. Please:
 1. Provide maps to demonstrate site restraints and unsuitable conditions with the project footprint overlay.
 2. Revise the siting criteria to be consistent with the parameters also used for New Hampshire sites, as the siting criteria not affiliated with Massachusetts law (i.e., National Wetlands Inventory map, poorly drained soils, etc.) appears to be more restrictive and were not disqualified when considering New Hampshire sites.
 - ii. Shelburne, New Hampshire – the alternative analysis narrative indicates this site design would result in 15 acres of wetland impacts. However, the National Wetland Inventory (NWI) did not map wetlands within the vicinity of the conceptual landfill footprint. Please provide:
 1. Supporting documentation for the basis of the delineation interpretation.
 2. Demonstrate that the delineation interpretation of this alternative site was consistently used for other alternative sites.
 3. More detailed map(s) depicting proposed roads and site restrictions that results in unsuitability for the project location.

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- iii. Carroll East, New Hampshire – a review of Figure 6 appears to have sufficient developable upland space if the landfill was reconfigured. Please:
 1. Provide map(s) that show alternative landfill footprints.
 2. Depict site restrictions with the project footprint overlay to demonstrate this is an unsuitable alternative.
 - iv. Carroll West, New Hampshire – avoidance and minimization of the site design appears achievable if the project footprint was located in available upland space. Please:
 1. Revise the map to depict Bog Brook in relation to potential impacts, if any.
 2. Include parameters that may be considered unsuitable.
 - v. Were other Public Solid Waste Districts and Host Communities considered in the offsite alternative analysis (e.g., Lebanon, Nashua, Conway, Eaton, etc.)? Please explain.
- b. *Aggregation* – please provide an overview of the future project plans that includes all lots for the overall development scheme to inform the assessment of avoidance and minimization. After-the-fact (ATF) impacts to be retained for the pre-cast concrete company roadway are outside the landfill project footprint and are indicative of a larger overall development scheme. As commented in BCC and DCC reports, there is both a concern regarding piecemeal of the application and expansion of the landfill. The Department is unable to assess compliance with avoidance and minimization requirements without an overall scheme of development for the lots in question. Please note that under RSA 482-A:11, V, the Department is required to consider a series of projects composing an overall scheme of development in the aggregate even if completed by multiple developers.
- c. *Onsite Analysis* – to demonstrate that the project has avoided and minimized wetland impacts to the furthest extent practicable and still maintain capacity, please address the following:
- i. Delineation – to demonstrate the landfill siting is in the least impacting location, please:
 1. Field delineate all jurisdictional boundaries in accordance with Env-Wt 406.02 and revise the Permitting Plan Set per Env-Wt 306.05(a)(1), Env-Wt 313.03, and Env-Wt 524.03(a)(3). The field wetland delineation boundary verification must include all wetlands within the overall project scheme (e.g., the future business park, the onsite compensatory mitigation site, the pre-concrete operation and associated roadway, offsite compensatory mitigation site, etc.). As commented in the BCC report, the assessment of the project’s avoidance/minimization of wetland impacts cannot be adequately assessed otherwise. [Env-Wt 306.05(a)(1)]
 - ii. Wetland Classification – per Env-Wt 406.06, the wetland classification of each wetland shall be identified on the plans. Please:
 1. Discretely divide wetland classifications where hydrophytic vegetation and landscape topography transitions (e.g., wetland boulder fields) per the Cowardin Classification method per Env-Wt 406.06. For example, a total of 24,695 square feet of PFO1E/4E is located at Impact Number 20-6. Section 8 of the application submittal indicates that wetter portions of this PFO1E/4E had hydrophytic vegetation changes suggesting a different Cowardin Classification class.
 2. Update wetland classifications, as areas that were previously identified as PSS may be more appropriately identified as PFO, such as sections of Wetland Impact Area 21-11 and 22-25.
 - iii. Functional Assessment – impacts to wetlands functions and values is identified as a concern by the DCC report and LAC report. To demonstrate the location of the proposed project will have the least impact to wetland functions, please:
 1. Classify, evaluate, and provide functional assessment sheets for each jurisdictional area to be impacted and proposed for compensatory mitigation. [Env-Wt 311.10(c), Env-Wt 311.07(b)(4), Env-Wt 313.03, Env-Wt 406.06, and Env-Wt 803.01]

2. Clarify and depict the acreage and limits of construction to inform impacts to the functions and values and demonstrate avoidance and minimization. The stated acreage figures for impacts vary within the application submittal. [Env-Wt 313.03 and Env-Wt 903.04]
3. Revise the functional assessment sheets to include: [Env-Wt 311.07, 311.10, and Env-Wt 313.03]
 - a. Principal functions and values for all wetlands and vernal pools part of the common scheme of development referenced above, including but not limited to the business park, and on the provided functional sheets (e.g., wetland ID 10-80, 11-C-500 and Sheet 4-J/c, 13-16-1, 13-17.18, 19-20.21.27.34.35.82.83.84, 20-14.22, 20-99, 21-3.13, 22-NN.PP.QQ, 22-SS-VV-WW, 31-68, 32-48.49.50, 33-52.53.54.55.56, 34-57, 34-58.59.60.61, 35-62, 35-68, 35-70.71.72, 8-38, 8-39 8-40, 9-T-601).
 - b. Corresponding wetland identification number on the Permitting Plan Set with the functional assessment sheets per Env-Wt 311.05(a)(22).
 - c. Wetland areas identified on Wetland Impact sheets 21 and 22 appear to be higher function-value wetlands and should be reflected on separate functional assessment sheets. Please identify principal functions including nutrient retention, groundwater recharge/discharge, nutrient removal/retention, wildlife habitat, endangered species, and/or floodflow alteration.
 - d. Narrative descriptions (p. 11 of the High Methodology) including unusual or noteworthy conditions. The “attachments to each form are recommended and should include a sketch of the wetland in relation to the surrounding landscapes, an inventory of vegetation and potential wildlife species, and a photo of the wetland. This additional information facilitates understanding functions and the subjective analysis of values.”
 - e. Demonstration of how the results of all (updated and new) functional assessments were used to select the location of the proposed project having the least impact to wetland functions.
- iv. Alternative Design Layout – per Env-Wt 313.03, jurisdictional areas must be avoided to the maximum extent practicable and unavoidable impacts must be minimized. Please explain why the following was not considered when the application was prepared: [Env-Wt 313.03 and Env-Wt 524.04(d)]
 1. Alternative landfill cell shapes, alignment, or reduction in the landfill footprint.
 2. An alternative entrance from the north/west to minimize impact area, as suggested in the DCC and BCC reports.
 3. Plan revisions to include additional culverts to connect wetland systems along Douglas Drive and ensure hydrologic connectivity (e.g., ATF impact areas 33-12, 33-13, 34-10, 34-11, 33-12 on sheets 33-I of the Wetland Impact Plans).
 4. Realignment of Douglas Road to result in the least impacting alternative, as commented in both the DCC and BCC reports, per Env-Wt 311.12.
 5. Reduction in surface area of the proposed riprap apron at PHW-12 on the Permitting Plan Set on sheet G&D-3.
- d. *Hydrologic Connectivity* – approximately half of the watershed boundary provided in Section 1 of the application is proposed to be filled. As commented in the BCC, DCC, and LAC reports, the downstream wetlands may be hydrologically connected to the wetlands proposed to be impacted. Please: [Env-Wt 313.03 and Env-Wt 524.04(d)]

- i. Provide analysis to demonstrate the project meets the hydrologic connectivity standard and provide the groundwater mapping information to address concerns regarding impacts to the functions and values of downstream wetlands.
 - ii. Explain and demonstrate if alternative landfill cell shapes, alignment, or reduction in the landfill disturbance footprint were considered to preserve as much of the watershed as practicable, prevent elimination of jurisdictional areas downstream, and ensure connectivity between resources without compromising the landfill capacity. As noted by the Earthforensics, Inc. report addressed to DCC dated February 20, 2024, the intermittent stream ultimately discharges into Alder Brook and the Ammonoosuc River. Fill over the seep identified as 16-140 GW Seep of the Horizons Engineering Existing Wetland Plans may result in elimination of resources downstream. Other design elements of the landfill footprint also appear to potentially eliminate surface water sources for other wetlands, including the wetland east of pond 13, where the hydrologic connectivity is not preserved.
 - iii. Add culverts or other connectivity passage mechanisms to ensure hydrologic connectivity with the jurisdictional resources disconnected by Douglas Drive, including but not limited to wetland systems identified on the Permitting Plan Set (Douglas Drive sheets DD-2 through Sheet DD-4) as follows:
 1. Wetland #1
 2. Wetland #3
 3. Wetland #7
 4. Wetland #10
 - iv. Upsize existing perched culverts identified on the Wetlands Impact Plans (sheets 1-2):
 1. Existing 12-inch culvert at wetland impact area 2-1
 2. Existing 12-inch culvert at wetland impact area 1-1
 3. Existing 15-inch culvert at stream impact area 2-2
 4. Existing 15-inch culvert at stream impact area 2-4
 - v. Identify all existing and proposed culverts on the revised Permitting Plan Set in response to this letter and ensure all culverts are adequately sized and meets criteria specified in Env-Wt 313.03, Env-Wt 311.05(a)(22), Env-Wt 524.04, and Env-Wt 904.01.
- e. *Protected Species and Habitat* – the BCC, DCC, and LAC reports include concerns pertaining to protected species and wetland dependent habitat. Per Env-Wt 524.04(e) and (f), the project must maintain wetland-dependent wildlife habitat and its associated migratory pathways, reproductive sites, and maintain fishery habitat or populations. To demonstrate the project impacts are the least impacting alternative, please:
- i. Provide correspondence from New Hampshire Fish and Game (NH&G) and the NH Natural Heritage Bureau (NHB) indicating that final recommendations and their review is complete and revise the project accordingly per Env-Wt 311.01(b)(1). The DataCheck results letter identified areas of concern relative to protected species or habitats and correspondence appears to be ongoing.
 - ii. Identify and classify all exemplary natural communities, including bogs and fens, within the project vicinity in the Permitting Plan Set in plan view. As indicated in the GSL photo log provided to NHB (photo 10), bog(s) exist within the project vicinity. Per Env-Wt 102.29, “bogs” means a wetland distinguished by stunted evergreen trees and shrubs, peat deposits, poor drainage, highly acidic soil conditions, highly acidic water conditions, or any combination thereof.
 - iii. Identify all rare seepage forest/forest seep natural community types per Env-Wt 311.01(b)(1). As indicated by the NHB DataCheck letter, community types such as the northern white cedar seepage forest, northern hardwood seepage forest, larch-mixed conifer swamp, etc. may occur within the project location.
 - iv. Revise the construction sequence to include any recommendations by NH Fish & Game and NHB and that timing restrictions to address Env-Wt 307.

- f. *Geomorphic compatibility* – the BCC and LAC reports identify concerns regarding erosion and stream bank destabilization at the site, as well as sedimentation downstream in intermittent and perennial streams. All stream crossings shall be designed in accordance with Env-Wt 904.01. Please:
- i. Revise the provided stream crossing sheets to match the culvert identification numbers provided in the plans to determine if the proposed structures are geomorphically compatible per Env-Wt 313.03, Env-Wt 311.05(a)(22), Env-Wt 524.04(d), and Env-Wt 904.01.
 - ii. Implement design features to improve aquatic organism passage and the expected distance, in linear feet, of downstream and upstream improvement for aquatic organism passage or fish passage. [Env-Wt 903.04(h)]

2- **Compensatory Mitigation** – before the Department can approve a compensatory mitigation proposal, the avoidance and minimization criteria must be met per Env-Wt 313.01(a)(1)c. The compensatory mitigation proposed includes a combination of both in-lieu fee payment (ILF) payment and permittee responsible mitigation (PRM) including restoration activities and aquatic resource and buffer preservation on multiple parcels; however, additional information is required to determine if the proposed mitigation package satisfies Env-Wt 800. Please provide:

- a. General information required for a PRM proposal including:
- i. A baseline documentation report that describes current property conditions and includes color photographs taken in the absence of snow cover of the buffer area. [Env-Wt 312.04]
 - ii. A copy of the proposed conservation easement language or language noting conveyance of fee simple ownership which protects the conservation values in perpetuity, in accordance with Env-Wt 808.14. [Env-Wt 312.04]
 - iii. Data on the surrounding area, including: [Env-Wt 803.02]
 1. Land use;
 2. Soils;
 3. Habitat information from the NHF&G WAP;
 4. Critical habitats and populations of the state’s species of conservation and management concern and whether there are any rare, special concern, or state or federally listed threatened or endangered species present, including any flora, fauna, or migratory species; and
 5. Exemplary natural communities and natural community systems identified by NHB.
 - iv. Location of the site to be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust). [Env-Wt 803.01(d)]
 - v. Functional assessment sheets of the proposed mitigation site(s) per Env-Wt 803.01(f) and Env-Wt 803.02. Given that one of the proposed mitigation sites is located directly downstream of the proposed landfill, please clarify how the functions and values of the wetlands will be maintained and how the downstream hydrology and ecological integrity will be impacted by the elimination of upgradient jurisdictional resources.
 - vi. Summary of the proposed measures specified in Env-Wt 803.02(b), Env-Wt 803.03, and Env-Wt 803.04. [Env-Wt 803.01(i)(2)]
 - vii. Explanation of why the mitigation project will result in a resource with overall functions and values equal to or greater than the jurisdictional areas impacted by the project. [Env-Wt 803.02(b)(7) and Env-Wt 805.01(a)]
 - viii. Demonstration that the compensatory mitigation plan meets or exceeds the ratios listed in Table 800-1, relative to the amount of impacted jurisdictional areas for permittee-responsible mitigation (other than for stream impacts). [Env-Wt 803.08]

- ix. Identification of any existing encumbrances or restrictions on the property(ies). [Env-Wt 803.01(h)(2) and Env-Wt 808.14(b)]
 - x. Survey(ies) and legal descriptions of compensatory mitigation area(s). [Env-Wt 313.04]
 - xi. A detailed account of the compensatory mitigation recommendations by BCC and DCC, such as a copy of the meeting minutes. [Env-Wt 803.01(k)]
 - xii. A detailed account of the recommendations, if any, provided by the local river management advisory committee pursuant to RSA 483:8-a. [Env-Wt 803.01(l)]
- b. Compensatory mitigation in the form of Aquatic Resource Buffer Preservation that meets criteria established in Env-Wt 804 and includes: [Env-Wt 803, Env-Wt 804, Env-Wt 805, and Env-Wt 806]
- i. Identify an entity to hold conservation interest(s). [Env-Wt 804.04(f)]
 - ii. A statement from the landowner or prospective seller that it is willing to transfer the property, and proposed grantee indicating that the proposed grantee will accept the easement or fee simple deed. [Env-Wt 312.04]
 - iii. A project timeline for conservation interest implementation and intent to meet criteria outlined in Env-Wt 804, Env-Wt 311.08, and Env-Wt 312.04.
 - iv. Delineations of aquatic resource areas and boundaries completed by a Certified Wetland Scientist per Env-Wt 804.04(d)(1).
 - v. A copy of the proposed conservation easement language or language noting conveyance of fee simple ownership which protects the conservation values in perpetuity, in accordance with Env-Wt 808.14. [Env-Wt 804.04(e)]
 - vi. Submit a draft legal description of the compensatory mitigation area(s) (Env-Wt 804.04
 - vii. Stewardship plan for how the property(ies) will be managed and monitored by the easement holder(s). [Env-Wt 808.16]
 - viii. Summary of the conservation goals in accordance with Env-Wt 804.
- c. Compensatory mitigation in the form of Wetland Restoration, Enhancement or Creation Mitigation proposals must meet criteria established in Env-Wt 803 and includes: [Env-Wt 803.02 and Env-Wt 803.03]
- i. A report that identifies restoration and enhancement components in plan view and addresses:
 - 1. How the proposal creates hydrologic conditions or connections that will produce the desired wetland functions or values to be restored or created. [Env-Wt 803.02(b)(2)]
 - 2. How the site meets the selection criteria stated in Env-Wt 805.02. [Env-Wt 803.02(b)(6)]
 - 3. Predominant functions to be created, restored, or replaced. [Env-Wt 803.01(i)(1)]
 - ii. The source of wetland hydrology for the proposed mitigation area to confirm that the site has a suitable geomorphic setting for aquatic resource restoration, enhancement, or creation. [Env-Wt 805.02(c)]
 - iii. How the proposal creates vegetative, soil, and hydrologic conditions or land connections that will produce the desired wetland functions and values to be restored, enhanced, or created. [Env-Wt 805.02(d)]
 - iv. How the proposal restores/creates hydrologic conditions for desired functions and values. [Env-Wt 803.02(b)(2)]
 - v. Wetland micro and macro topography in the proposal to achieve hydrologic diversity. [Env-Wt 805.02(e)]
 - vi. How the proposed wetland restoration, enhancement, or creation site will not be affected by anticipated secondary and cumulative impacts from the construction site. [Env-Wt 805.02(g)]
 - vii. The history of the mitigation project area, including a discussion on current logging operations per Env-Wt 805.02(h).

- viii. Stream mitigation information, if proposed, that includes: [Env-Wt 806.03]
 - 1. The length of the stream channel to be restored or enhanced, in linear feet;
 - 2. Information on the location of the stream impact or mitigation plan in relation to critical habitats and populations identified in the wildlife action plan, and whether any lands are protected in the vicinity of the mitigation site(s);
 - 3. Information on the suitability of the mitigation site for cold water fisheries habitat, access to feeding, spawning, or natural dispersal for fisheries or wildlife;
 - 4. Proposed improvements for aquatic organism passage, geomorphic compatibility, or hydraulic capacity;
 - 5. Proposed improvements to restore or enhance riparian or associated aquatic resource function(s), including the percent of the area within 100 feet laterally in an outward direction from each stream bank along the length of the stream bank that will be restored or otherwise improved;
 - 6. A description of the hydrology necessary to support the desired stream type, including stream flow, location in the watershed, watershed size, water source, and salinity for tidal water; and
 - 7. A description of the existing versus proposed substrate type, source material, and material size.
 - ix. A monitoring program throughout the landfill's life, as requested by BCC and DCC reports, and specifies: [Env-Wt 803.04 and Env-Wt 803.01(m)]
 - 1. Performance standards for the mitigation project.
 - 2. A description of monitoring that will be conducted following construction of the mitigation project, by identifying how the monitoring will be accomplished, how long the monitoring program will span, and whether and how the monitoring will change as the project begins to achieve the established performance standards.
 - 3. The name, daytime telephone number, and email address, if any, of the certified wetland scientist or qualified professional, as applicable, who will be responsible for conducting the monitoring and assessing whether the mitigation project has met the specified performance standards.
 - 4. The measures that will be taken during construction and after completion of the project for which the permit is being sought to promote success of the mitigation project.
 - 5. How the Department will be informed of the condition of the mitigation project over time (e.g., written annual reports).
 - 6. The monitoring period in accordance with Env-Wt 807.05.
 - x. Consideration of vernal pool creation, as specified in Env-Wt 805.01, to offset vernal pool impacts.
 - xi. Connections to wetlands, surface waters, or associated upland wildlife and vegetated corridors to *enhance* the wetland or surface water use and colonization by native flora and fauna. As currently proposed, the landfill footprint appears to result in a disconnection to wetlands and surface waters downstream of the landfill footprint and does not meet the criteria for site selection. [Env-Wt 805.02(b)]
- d. For the in-lieu mitigation, please provide information required by Env-Wt 803.02 or Env-Wt 803.03 per Env-Wt 803.05. An in-lieu mitigation payment shall not substitute for the requirement to avoid or minimize impacts established in Env-Wt 313.03 per Env-Wt 803.10.
- Per Env-Wt 803.01(c), after consultation with the Department in accordance with Env-Wt 311.02 and the US Army Corps Engineers in accordance with Env-Wt 803.08(c), an applicant shall demonstrate that the in-lieu fee payment amount has been calculated as specified in accordance with Env-Wt 803.07 and/or the permittee-responsible mitigation, through evidence and documentation, have met the requirements of Env-Wt 803.*

- 3- **Application Package** – A review of the Section 11 of Form NHDES-W-06-012 (Section 11), Army Corps of Engineers application, and Water Quality Certification application revealed discrepancies between the square footage and linear footage of impacts. Please clarify and update Section 11, as needed, to calculate all surface water impacts in linear feet and square feet for all temporarily disturbed and permanently impacted areas and provide the revised permit processing fee, as applicable. [Env-Wt 311.03(b), Env-Wt 311.04, and Env-Wt 903.02]
- 4- **Wetland Impact Depiction and Tabulation** – please account for omitted jurisdictional impacts (temporary, permanent, ATF impacts in square feet and linear feet, as applicable) for the following areas and/or revise the project plans to further avoid and minimize impacts:
 - a. Missing wetland impact area flagged in the field located between Impact Area 22-26 and Impact Area 22-17 of the Wetland Impact Plans located approximately at 44.34765, -71.69185 degrees.
 - b. Potential vernal pool impacts not identified and located within Impact Area 22-25, 22-6, and 22-1 and potential expansion of vernal pool 7 on the Wetland Impact Plans. NHDES staff identified vernal pool indicators, such as salamander egg masses and caddisfly larvae. Please field verify the presence of vernal pools within the entirety of the project development scheme per Env-Wt 406.02(b)(4) and Env-Wt 406.02(d).
 - c. Culvert headwalls, such as:
 - i. PHW-46 on Sheet G&D-2 of the Stormwater Ponds Grading and Drainage Plan 1.
 - ii. PHW-37 on Sheet G&D-3 of the Stormwater Ponds Grading and Drainage Plan 2 and DD-10 of the Douglas Drive Plan and Profile Sheet 9.
 - iii. PHW-38 on sheet DD-9 of the Douglas Drive Plan and Profile Sheet 8 and DD-10 of the Douglas Drive Plan and Profile Sheet 9.
 - d. Stone outlet protection, such as:
 - i. Stone outlet protection southwest of Pond 6 on Sheet G&D-3 of the Stormwater Ponds Grading and Drainage Plan 2.
 - ii. Outlet protection associated with DDP2 on Sheet DD-4 of the Douglas Drive Plan and Profile Sheet.
 - e. Existing ATF concrete culverts identified on sheet DD-11 of the Douglas Drive Route 116 Plan Sheet 1.
 - f. Clearing and erosion control devices, such as:
 - i. The perimeter of Pond 5 on Sheet G&D-3 of the Stormwater Ponds Grading and Drainage Plan 2.
 - ii. Clearing limits identified west of Pond 7 and south of Douglass Drive and impacts proposed east of Pond 9 on Sheet G&D-3 of the Stormwater Ponds Grading and Drainage Plan 2.
 - iii. Clearing limits and erosion control devices east and west of Douglas Drive of the Douglas Drive Plan and Profile Sheet 3-4.
 - iv. Clearing limits and erosion control devices for the pond identified on Sheet DD-9 of the Douglas Drive Plan.
 - v. Erosion control devices north of Douglas Drive on Sheet DD-11 of the Douglas Drive Route 116 Plan Sheet 1.
 - g. Riprap located north of Douglas Drive on Sheet DD-12 of the Douglas Drive Route 116 Plan Sheet 2.
 - h. Temporary Impact Area 9-1 located within an area of fill should be considered as a permanent wetland impact on Sheet 9-I of the Wetland Impact Plan.
 - i. Adjust discrepancies between the AoT proposed wetland impacts and the wetland impacts proposed with this Application, as indicated in the BCC reports.

- j. Douglas Drive ATF impacts that resulted in dissection of hydrologically connected jurisdictional areas, including the following impact areas on the Wetland Impact Plans:
 - i. 31-3 and 31-1 (sheet 31)
 - ii. 8-6 and 8-7 (sheet 8)
 - iii. 8-4 and 8-3 (sheet 8)
 - iv. 23-7 and 23-6a (sheet 23)
 - v. 22-13 and PSS/PFO (sheet 22)
 - vi. Wetland flags C-81 through C-83 and wetland flags 16-13 through 16-18 (sheet 13-l)
 - vii. Impact 13-4, Wetland flags 16-294 through 16-5, and PEM1E wetland (sheet 13-l)
 - viii. PEM1Edx and wetland flag 16-307 (sheet 13-l)
 - ix. 2-1 fill located within marsh (sheet 2)
 - x. 2-3 and 2-4 (sheet 2)
- k. The woods road bisecting wetland impact areas 21-18, 22-11, and 22-27; 21-28 and 22-6; and 22-25 and 23-2. These areas appear to be hydrologically connected based on NHDES field review of the area, including hydrophytic vegetation, hydrologic indicators, and aerial imagery. These areas may be more appropriately delineated as connected, or if they no longer exhibit the three wetland parameters, may be considered as ATF impacts.
- l. The watercourse identified within Impact Area 20-7, located approximately at 44.35279, -71.691349 degrees.

Please update the Permitting Plan Set and label and shade the areas of proposed impact, impact type, impact area (square feet for all jurisdictional areas and linear feet for watercourses), revise Section 11, and provide the revised permit processing fee. [Env-Wt 311.03(b), Env-Wt 311.04, Env-Wt 311.05(a)(18), and Env-Wt 803.01(a)]

- 5- **Permitting Plan Set** – on a single master permitting plan set to clearly delineate, describe the project, and provide project specific information per Env-Wt 311.05(a)(22), please revise the Permitting Plan Set to include:

a. **General plan details**

- i. The name of each owner of the subject property as of the date the application is prepared. [Env-Wt 311.05(a)(2)]
- ii. The tax map, block, unit, and lot number of each parcel in the subject property. [Env-Wt 311.05(a)(3)]
- iii. The name and professional license number of the individual responsible for each portion of the plan, such as the wetland delineation and survey. [Env-Wt 311.05(a)(5), Env-Wt 311.05(a)(14), and Env-Wt 311.05(b)(2)]
- iv. Stamp of the surveyor to subdivide the existing gravel pit from the proposed landfill. [Env-Wt 524.03(a)(2)]
- v. The scale of the plan with a graphical scale bar on all plan sheets. [Env-Wt 311.05(c)(1)b.]
- vi. All existing and proposed easement boundaries, including drainage and maintenance access easements, in relation to the property lines of the subject property. [Env-Wt 311.05(a)(7)]
- vii. Overlay of the existing and proposed final contours at intervals no greater than 2 feet in all areas to be disturbed, including but not limited to the proposed stone outlet protection and outfalls of the sedimentation basins. [Env-Wt 311.05(a)(17), Env-Wt 311.05(a)(22), and Env-Wt 524.03(3)]
- viii. All roadways in plan view and individual sheets that depicts the footprint, as it appears that the ATF impacts west of the landfill footprint proposed to be retained have not been included in the Douglas Drive Plan and Profile Sheet of the Permitting Plan Set per Env-Wt 311.05(a)(10). Please include existing and proposed culvert dimensions for these areas to ensure hydrologic connectivity. [Env-Wt 311.05(a)(10) and Env-Wt 524.04(d)]

- ix. Work sequence, relative timing, and proposed seed mix on the plans pertaining to temporary impacts and restoration per Env-Wt 307.12 and Env-Wt 311.06(d). Please update the construction sequence to per Env-Wt 311.03(b)(7) to provide the method, timing, and manner as to how your project will meet the standard conditions in Env-Wt 307.
 - x. Existing conditions, including but not limited logging operations; active sand and gravel mines; drag strip; rock quarry; commercial pre-cast concrete operation; all roadways including those through the proposed onsite compensatory mitigation site and pre-cast concrete operation; and location of the asphalt plant previously operated and since removed. [Env-Wt 311.05(a)(10)]
- b. Jurisdictional area plan details**
- i. An overview of the subject property and proposed impact areas in relation to property lines. [Env-Wt 311.05(a)(6)]
 - ii. All ground water seeps, as iron flocs identified during the June 6, 2024 NHDES inspection suggest a potential ground water seep at Wetland impact Area 22-6 (approximately 44.3496701, -71.691349 degrees). [Env-Wt 311.05(a)(22)]
 - iii. Consistent shading of jurisdictional impact areas in plan view on all sheets per Env-Wt 311.05(a)(18) and Env-Wt 311.05(a)(22). For example, Sheet LP-1 depicts the base grading plan and includes a legend for permanent and temporary impacts, but the plan view does not include the shading of those impacts in plan view.
 - iv. Location and number of the individual wetland boundary markings for all wetlands located within the project area in overlay. [Env-Wt 306.05(a), Env-Wt 311.05(13), Env-Wt 311.05(b)(1), Env-Wt 524.03(a)(3)]
 - v. Graphically depicted and labeled ordinary high water mark per Env-Wt 406.04.
 - vi. Graphically depicted and labeled limit of banks for perennial stream(s). [Env-Wt 406.04(a)]
 - vii. The Cowardian classification for each jurisdictional area, including all streams, and separate lumped existing classifications (e.g., PFO and PSS) based on differentiation physical structure of the wetlands or stream systems and breaks in vegetative communities in landform or variation in soil characterization as described by the federal method per Env-Wt 406.06.
 - viii. Notes that specify the date(s) on which the wetlands delineation was performed and delineation methodology. [Env-Wt 311.05(b)(5)]
 - ix. The wetland classifications overlay the grading and drainage plans. [Env-Wt 311.05(a)(22)]
 - x. The impact areas identified and labeled separately in square feet for each jurisdictional area, including streams, wetlands of different Cowardin classifications, and vernal pools per Env-Wt 311.05(a)(10), Env-Wt 311.05(a)(13), Env-Wt 311.05(a)(22), and Env-Wt 311.04(j). Please also include the linear feet of stream impacts per Env-Wt 311.04(g). The NHDES staff recommend providing a table on the plans to clarify this information. Please note impacts must be consistent with those impacts tabulated on Section 11.
 - xi. Label all wetland impacts with an identification that corresponds to the functional assessment sheets and match the Wetland Impact plans by Horizons Engineering. [Env-Wt 311.05(a)(22)]
- c. Stream and wetland crossings plan details**
- i. The size of the culvert crossing under the maintenance access drive to the pond (structure PHW-37) at Pond 11, as shown on Sheet LP-1 of the grading and drainage plans per Env-Wt 311.05(a)(10)
 - ii. The footprint, location, dimensions and inlet and outlet elevations of all existing, proposed, and ATF culverts to be retained, consistent with the Wetland Impact Plans provided with the proposed conditions for ATF impacts per Env-Wt 311.05(a)(10), Env-Wt 311.05(a)(22) and Env-Wt 903.04.
 - iii. Cross-sections showing the water surface elevation resulting from the 50-year storm event for all proposed stream crossings and stream crossings to be retained. [Env-Wt 903.04(b)(7)]

- iv. The dewatering system, and information specified in Env-Wt 903.04(d).

d. Mitigation plan details

- i. A surveyed plan showing the location of the proposed conservation area boundaries, wetland boundaries, and the separate acreage of wetlands, streams, and vernal pools located within the conservation area boundary. [Env-Wt 312.04, Env-Wt 311.04(g), Env-Wt 311.05(a)(22)]
- ii. The location and number of the individual wetland boundary markings. [Env-Wt 311.05(b)(1) and Env-Wt 312.04]
- iii. All existing easement boundaries and utility right-of-way boundaries footprint in square feet. [Env-Wt 311.05(a)(7) and Env-Wt 311.05(a)(10)]
- iv. Construction procedures and timing of the proposed work pertaining to the compensatory mitigation sites. [Env-Wt 803.02(b)(4) and Env-Wt 805.03(b)]
- v. Acreage and dimensions of the existing gravel road. [Env-Wt 311.05(a)(10) and Env-Wt 311.05(a)(22)]
- vi. Description of erosion controls to be installed and details to minimize or prevent sediment from entering adjacent, undisturbed wetlands or surface waters. [Env-Wt 803.02(b)(5) and Env-Wt 805.03(e)]
- vii. An invasive species control plan and location of invasive species in the vicinity. [Env-Wt 803.02(b)(5), Env-Wt 805.03(f), and Env-Wt 805.03(g)]
- viii. The location of the mitigation site relative to other protected lands. [Env-Wt 803.02(b)(6)]
- ix. Existing and proposed grades. [Env-Wt 803.02(b)(3) and Env-Wt 805.03(a)]
- x. Predicted water fluctuations. [Env-Wt 803.02(b)(3) and Env-Wt 805.03(a)(1)]
- xi. Proposed wetland cover types. [Env-Wt 803.02(b)(3)]
- xii. A planting proposal, with preference given to native wetland plants and natural communities as follows: [Env-Wt 803.02(b)(5) and Env-Wt 805.03]
 - 1. Plant species with scientific names and quantities provided;
 - 2. Source of planting materials or whether the plan relies on natural re-vegetation;
 - 3. Plant stock site and zones of predicted plant occurrence;
 - 4. Plant survival goals;
 - 5. The proposed locations of native plant stock and the rate and type of seeding;
 - 6. When and where seeding or planting will take place; and
 - 7. Notation of dead snags, tree stumps, or logs per acre, where appropriate, to provide structure and cover for wildlife and food chain support.
- xiii. Documentation of existing and proposed soils as follows: [Env-Wt 803.02(b)(5) and Env-Wt 805.03(d)]
 - 1. The existing soils on the proposed project site;
 - 2. The source of soils to be placed on the site;
 - 3. The likely seed bank composition of soils;
 - 4. The depth of proposed growing medium; and
 - 5. The soil properties such as texture and organic content.
- xiv. Plan notes that identify a list of activities that will be allowed and not allowed within the project area. [Env-Wt 805.03(h)]
- xv. Stream mitigation information, if proposed, that includes:
 - 1. The length of the stream channel to be restored or enhanced, in linear feet. [Env-Wt 806.03]
 - 2. Existing and proposed channel forms including both cross section and profile. [Env-Wt 806.04(a)]
 - 3. Channel width and length of reach. [Env-Wt 806.04(b)]

4. Sediment transport model and the reference reach. [Env-Wt 806.04(c)]
5. Construction procedures, sequence, and timing. [Env-Wt 806.04(d)]
6. A planting proposal, with preference given to native plants and natural communities as required in Env-Wt 805.03(c). [Env-Wt 806.04(e)]
7. Information on the floodplain, including the level of connectivity between the stream and the floodplain, the permanence of coarse woody material in the floodplain, and the width of the floodplain. [Env-Wt 806.04(f)]
8. Erosion control specifications to prevent sediment from entering adjacent, undisturbed wetlands or surface waters. [Env-Wt 806.04(g)]
9. If any invasive plant species are within 100 feet of each stream bank, identification of the type and location of the species and an invasive species control plan. [Env-Wt 806.04(h)]
10. Photographs of the channel, banks, and side slopes. [Env-Wt 806.04(i)]
11. A list of activities that will be allowed and not allowed within the mitigation area. [Env-Wt 806.04(j)]

- 6- **After-the-fact (ATF) jurisdictional impacts** – the application requests to retain ATF jurisdictional impacts, specifically along Douglas Drive. During the June 4 through June 6, 2024 inspection, NHDES staff observed several woods roads that were not discussed in the application regarding the history or regulatory status (ATF), and identified areas proposed to be retained that could be further avoided and minimized after the fact. Please provide: [Env-Wt 311.12 and Env-Wt 313.03]
- a. A report of existing conditions and a discussion of the history or regulatory status of all impacted areas, including: [Env-Wt 311.05(a)(6)a.]
 - i. Douglas Drive identified on Sheet 1 and Sheet 2 of the Wetland Impact Plans.
 - ii. The entrance sign pathway.
 - iii. Logging history and wood roads located within the landfill footprint.
 - b. A restoration plan for ATF impacts that could be further avoided and minimized such as: [Env-Wt 313.03]
 - i. The entrance sign pathway, as the Douglas Drive is proposed to be adjusted and upland space will be available for sign relocation.
 - ii. Impact area 34-10 (Sheet 34-I of the Wetland Impact Plan) in which the ATF impacts extend past the required area for regrading work.
 - iii. Wetland flags 60-8 through 60-10 (Sheet 34-I), as the existing roadway will be vacated in this location and is an opportunity for restoration.
 - c. Description of the restoration work sequence, relative timing, and proposed seed mix on the Permitting Plan Set, as commented in the DCC and BCC reports. [Env-Wt 307.12, Env-Wt 311.06(d), and Env-Wt 311.12(a)(3)]
 - d. A monitoring plan designed to ensure that the restoration is successful. [Env-Wt 311.12(a)(4)]
 - e. Revise the Permitting Plan Set to depict upsized diameters of the existing ATF culverts to ensure hydraulic capacity, hydrologic connectivity, and aquatic organism passage: [Env-Wt 313.03 and Env-Wt 524.04]
 - i. Impact 2-5, existing 15" culvert (R4UB3)
 - ii. Impact 2-2A, existing 15" culvert (R3UBH)
 - iii. Impact 2-1A, existing 12" (R3UBH)
 - iv. Impact 13-4, existing 15" (PEM/PSS)
 - f. All documents and requirements specified in Env-Wt 311.12(a) 1-5.

- 7- **Wetland Impact Plans** – please clarify:
- The temporary crossing noted on sheet 23-I dimensions, purpose, and construction sequence. Please update the Permitting Plan Set to ensure clarity and consistency across all plan sets under review. [Env-Wt 311.05(a)(10) and Env-Wt 311.05(a)(22)]
 - The date each plan was originally prepared and the date of each revision. [Env-Wt 311.05(a)(4)]
 - A labeled north-pointing arrow that points true or magnetic north to indicate orientation. [Env-Wt 311.05(a)(11)]
- 8- **Wetland delineation** – a review of data sheets; LiDAR based terrain; the poorly drained soils and very poorly drained soils map provided to AoT; and the field inspection conducted on June 4 through June 6 indicated discrepancies with the delineated wetland boundaries. Please: [Env-Wt 406.01, Env-Wt 406.02, Env-Wt 406.04, and Env-Wt 406.06]
- Provide additional documentation to justify the basis of the delineation, including the isolated wetland identified on Sheet 13. It appears wetland 18 connects to wetland 16 and 17 based on the poorly drained soils and dominant facultative wetland plant species (e.g., *Fraxinus Pennsylvanica* or commonly known as green ash) are occurring.
 - Where revisions are made, please ensure wetland, stream, and vernal pool identification, classification, and assessments are done and updated documentation correlates and corresponds throughout the revised application submission.
 - Provide consistent delineated wetland boundaries revised as a result of the field inspection with the USACE and NHDES staff on June 4 through June 6 of 2024 in plan view on the permitting plan set.
- 9- **Ownership** – please provide documentation of the legal interest in the subject property for the applicant, Granite State Landfill, per Env-Wt 311.06(f). As discussed on June 4, 2024, the landfill design is intended to be purchased by Casella, however, discussion on June 4, 2024 regarding the future business park located within the project boundary will be subdivided and later operated by Mr. Ingerson, the current owner.
- 10- **BCC and DCC reports** – per Env-Wt 311.06(h), please address each comment raised by the Bethlehem Conservation Commission and Dalton Conservation Commission in response to this request.
- 11- **Local river management advisory committee (LAC)** - please address each comment raised by the LAC (letter dated June 7, 2024) in response to this request per Env-Wt 311.06(i).

Please submit the required information as soon as practicable. Pursuant to RSA 482-A:3, XIV(a)(2), **the required information must be received by NHDES Wetlands Bureau within 60 days of the date of this request (no later than August 23, 2024), or the Application will be denied.** Should additional time be necessary to submit the required information, an extension of the 60-day time period may be requested. Requests for additional time must be received prior to the deadline in order to be approved. In accordance with applicable statutes and regulations, the applicant is also expected to provide copies of the required information to the municipal clerk and all other interested parties.

Based on NHDES review your project has greater than 5,000 square feet of non-tidal wetland impacts, stream work greater than 200 linear feet, and dredge and fill activity within vernal pool depressions. To ensure that you obtain permitting under the Clean Water Act, please contact the U.S. Army Corps of Engineers (USACE) at 1-978-318-8832, 1-978-318-8295, or by email at to see if additional mitigation may be required from the USACE.

Pursuant to RSA 482-A:3, XIV(a)(3), NHDES Wetlands Bureau will approve or deny the Application within 30 days of receipt of all required information, or schedule a public hearing, if required by RSA 482-A or associated rules.

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If you have any questions, please contact Emma Berger, Inland Section Supervisor, via email at Emma.Berger@des.nh.gov or by phone at (603) 271-3376.

Sincerely,



Emma Berger
Inland Wetland Section Supervisor
Land Resources Management, Water Division

cc: Douglas Ingerson, Jr., J.W. Chipping
Barry Keith, B.H. Keith Associates
Bethlehem Municipal Clerk/Conservation Commission
Dalton Municipal Clerk/Conservation Commission
Ammonoosuc River Local Advisory Committee
Horizons Engineering, Inc.
Sanborn Head & Associates

ec: NHDES Rivers Program