BCM Environmental & Land Law, PLLC
Solutions for Northern New England

VIA EMAIL ONLY
N.H. Department of Environmental Services
Wetlands Bureau
Attn: Craig D. Rennie
Craig.rennie@des.nh.gov

November 12, 2020

Re: NHDES File Number: 2020-02239 Wetlands Standard Permit Application; Subject Property: Douglas Dr., Dalton, Tax Map #M405/406, Lot #33/ 1, 2.1, 2.3, 2.4, 2.5, 3 and Bethlehem Tax Map #406, Lot #1, 2 ("Application")

Dear Mr. Rennie,

I write on behalf of my client, North Country Alliance for Balanced Change, with initial concerns about the above-mentioned Application. North Country Alliance for Balanced Change is a New Hampshire non-profit corporation comprised of residents and property owners in the greater Dalton area who are passionate about balancing the area's development with protection of natural resources and economic interests. Please make this letter a part of your record in this Application.

Please see enclosed the letters from Muriel Robinette, P.G. and Ronald Guerin, of Calex Environmental Consulting, and Rick Van de Poll, CWS, of Ecosystem Management Consultants. As you will see, upon their review of the Application as submitted, they conclude the Department was correct to find the Application administratively complete. However, they also conclude that the Application lacks sufficient information to be approved. They have pointed out what they conclude are the specific deficiencies. We respectfully request that you review their enclosed input and incorporate it into a Request for Further Information.

I welcome any question or input you may have in response to this letter and enclosure letters. Thank you for your time and attention to this letter and to the Application.

Very truly yours,

Amy Manzelli, Esq.
Licensed in New Hampshire
(603) 225-2585
manzelli@nhlandlaw.com

Cc: Clients
Town of Dalton Conservation Commission

November 6, 2020

BCM Environmental and Land Law, PLLC
3 Maple Street
Concord, New Hampshire 03301

Attn: Amy Manzelli, Esq.

SUBJECT: Initial Review – **Standard Wetland Impact Permit Application**
Granite State Landfill, Dalton, New Hampshire

Dear Attorney Manzelli,

Calex Environmental, LLC (Calex) has reviewed the subject permit application and offers the following comments:

General:

- In general, the Application appears to include all required topics (in the checklist).
- The alternatives analysis appears limited, as it did not include any sites located outside of NH. It is difficult to imagine that these four sites are the only ones that have landfill siting potential and that the preferred alternative will require filling 16.3 acres of wetlands. Since it is anticipated that 30% of the waste will come from out of state, it would be logical that at least one out-of-state site be considered.
- The Application and attachments appeared to have some discrepancies in the stated amount of anticipated wetlands impact. The project description says it will encompass a max of 180 - 200 acres (which is supposed to include roads, parking, ancillary building areas, as well as the actual landfill footprint), and the application says it is permanently impacting 16.3A of wetlands, plus 1,350' of intermittent stream bank and 150' of perennial stream bank. The narrative application (p. 173) states 17.49 acres of impact and yet the application form (p. 24) calculates to 17.57 acres of impact.
- The amount of wetland impact stated in the form comes out to about 9.1% permanent wetland impacts, yet Form B of the Army Corps of Engineers checklist (pg. 40 of 397 in the PDF of the Application) states that the project wetlands impacts are 6.5%.
- Appendix B asks 'what is the area of previously filled wetlands', yet "unknown" is the provided response, which is not true. Based on the Stabilization Plan, there were areas of prior wetland fill (as were also depicted on the 2009 AoT plans).

Groundwater/Hydrogeology:

- The groundwater and surface water impacts section appears very weak as it appears that only shallow piezometers were installed to evaluate groundwater, which would be limited to investigation of just the shallow water table, which of course would be expected to mirror the topography. The Application mentions installation of 41 GW wells, but does not provide locations, logs, depths etc., and no pump test or water level data for these wells. The Application does not include any boring logs, water level measurements (other than the one contour map), no bedrock wells, no surface water/groundwater/bedrock aquifer interface studies, and no watershed or water budget analyses, all which are needed to understand the local and regional hydrogeological setting in which the proposed landfill would be constructed.
- The Figure 9-3.4 is called a well inventory, yet does not include any information about well depths, logs, pumping rates, water usage.
- The Figure 9-3.3 is only relevant to shallow groundwater (<20') in the thin (<25' thick) overburden soil and is NOT the surface that the landfill liner bottom would likely even be constructed on, since from an engineering perspective, one would not install a liner on compressible organics. Design details are not included in the Application, so it is not known at this time if/how much bedrock blasting may occur to provide a semi-level rock surface from which to build up the liner system.
- Bedrock mapping appears not to have occurred, or at least is not reported in this Application. The location and presence of bedrock fracture zones will be important to the understanding of the regional hydrogeological flow systems.
- The Application offers no quantification regarding hydrogeological impacts from construction of the landfill to the watershed surface water or groundwater. Impacts, water quantity and quality to Alder Brook, Forest Lake and beyond are undefined.
- The "design details" included in the Application are all pretty much boiler cutsheets as "for instance" examples, as there are no specific data/calculations from the site included – e.g. stormwater runoff flows and volumes for subareas to inform sizing of culverts, swales, catchment basins, etc. This we would expect to see in the Alteration of Terrain permit application and in the landfill final design details.
- Bottom line, the Application appears to be complete and robust at first blush, but is missing large amounts of critical data from studies yet to be produced.

What is Missing/Next Steps:

The Wetlands Application may be deemed "complete" because it includes (i.e. touches on) all aspects of the checklist requirements, but certainly with minimal information/data. The DES response back to the Applicant should include requests for significantly more

information. Specifically, the additional information and studies we see as important include:

- All data and reports they actually discuss in this Application – the pressure transducer records, logs for the 10 piezometers, well logs and/or rock core data for the purported 41 monitoring wells, all water level measurements, accurate elevation data, test pit logs, wetland and soils mapping notes, photography logs, and any onsite meteorological data.
- Design and performance of a comprehensive regional hydrogeological study which would include data collection necessary to quantify the relationship between the shallow groundwater, bedrock groundwater, wetlands and surface water within the impacted watersheds, so that the impacts of the landfill development can be quantified and evaluated in relationship to existing conditions. This type of study would be expected to encompass at least two years of data collection and analyses and entail data collection from monitoring wells (drilled into bedrock and not just surficial soil), stream gauging stations, surface water stilling basins, and water supply wells in the area. Both water quantity and quality should be assessed, so that impacts from the acres of development can be quantified.
- Performance of a regional traffic impact study.
- Performance of a regional noise and odor modeling study.

Please don't hesitate to call if you have any questions. Thank you.

Sincerely,
CALEX ENVIRONMENTAL, LLC

Ronald Guerin
President

Muriel S. Robinette, P.G [NH, NY, ME]. Senior Consultant
muriel@calexenvironmental.com

Ecosystem Management Consultants, LLC
c/o Rick Van de Poll, Ph.D.
30 No. Sandwich Rd.
Center Sandwich, NH 03227

November 9, 2020

To: Craig Rennie, Inland Wetland Supervisor
NHDES Dam Bureau
PO Box 85 29 Hazen Drive
Concord, NH, 03302-0095

From: Rick Van de Poll, Ph.D.
Ecosystem Management Consultants

Re: Casella/Granite State Landfill Wetland Permit Application File # 2020-02239

Dear Craig;

I have been hired by North Country Alliance for Balanced Change (NCABC) through their legal counsel, BCM Environmental & Land law, PLLC, to comment on the proposed environmental impacts associated with the Casella/Granite State Landfill ('Casella'). I began this process in July and have reviewed the wetland permit application dated August 31, 2020 in its entirety. I have also reviewed the NHDES letter of acceptance dated September 22, 2020 after it had been deemed administratively complete on September 4, 2020.

- With roughly 17 acres of wetland impacts, a quarter mile of stream impacts and 5 vernal pools to be filled, this project has the largest amount of aquatic resource impacts of any project in the state for the past 10 years. It will be more than the total amount of ARM Fund impacts in any given year since 2010, and will be seven times as much as the proposed impacts associated with the failed Northern Pass Transmission Project.
- In general, the Application appears quite comprehensive, and the applicant has responded to all of the items in the checklist.
- The Alternatives Analysis is fairly well documented and is relatively complete, and it is no surprise that the preferred (Dalton) site scored highest. It is nonetheless difficult to imagine that these four sites are the only ones that have landfill potential and that the preferred alternative will require filling 16.3 acres of wetlands. Given the fact that the NHDES has already acknowledged that up to 49% of the waste will come from out of state, wouldn't DES/ACOE expect to see an out-of-state site also considered? What about expanding the site in Success that is closer to a population center instead of in a rural area?
- The application and attachments have some discrepancies in the amount of wetland and stream impacts. The project description says it will encompass a max of 180 - 200 acres (which is supposed to include roads, parking, ancillary building areas, as well as the actual landfill footprint), and the application says it is permanently

impacting 16.3 acres of wetlands, plus 1,350' of intermittent stream bank and 150' of perennial stream bank. The 'Siting, Evaluation, and Minimization Report' by CMA indicates 16.8 acres of impact. The narrative application (p. 173) states 17.49 acres of wetland impact and 1333 feet of stream impact, and the application form (p. 24) calculates to 17.50 acres of wetland impact and 1046 lineal feet of intermittent stream and 287 lineal feet of perennial stream impact. What is the actual total amount of proposed impacts for wetlands and streams?

- The amount of wetland impact stated in the standard application form comes out to about 9.1% of the site (with no consideration of the streambanks), yet Form B of the Army Corps of Engineers checklist (pg. 40 of 397 in the PDF of the Application) states that the project wetlands impacts are 6.5%....so which is correct?
- Appendix B goes on to ask what is the area of previously filled wetlands, yet "unknown" is the response. We now know based on the Stabilization Plan that there were areas of prior wetland fill (see also the 2009 AoT plans), yet no mention of this is included.
- Appendix B asks if the project occurs within Tier 1 or Tier 2 habitat, which they indicated by saying "no." A quick review of WAP 2020 map (which did not change from 2015), shows that there are two areas of Tier 2 habitat within the project area as shown on the cover sheet of their "19045_Wetland Impact Plans."
- Director Tom O'Donovan requested on September 27, 2019 that the applicant evaluate the project's "potential downstream impacts to wetlands and surface waters from changes in hydrology." By definition, this should have included an analysis of the potential for surface water infiltration to move beyond the zone of the Alder Brook/Hatch Brook catchment as defined in Section 9.3. For example, most bedding lines in the area north of the Northey Hill Fault run northeast-southwest, i.e. potentially in the direction of Forest Lake. Whereas the applicant states in Section 9.3.4 that the nearest private water well is ">1/2-mile east of the proposed landfill footprint," there are plans for a settling pond < 1800 feet from the edge of Forest Lake wherein subsurface (i.e. bedrock) bedding lines may be a factor of concern.
- Further, the applicant in Section 12.1 states that "[G]roundwater flow patterns and groundwater levels to adjacent stream and stream systems shall be maintained" yet there is no proof of this or plan to ensure this is true.
- Over 3,000 feet of new road is shown on Map sheet #12 & 21 alongside a forested and scrub-shrub wetland. Whereas the applicant has stated its intention of minimizing direct impacts, the proximity of these wetlands suggests that direct salt-loading will occur by the winter maintenance of the roadway. The plan set shows no treatment swale, ditch, or other conveyance of salt-laden waters away from this high quality wetland system. Will the state require additional mitigation measures to ensure the proper protection of these wetlands as per the U.S. Army Corps' PGP that states,

  "Projects authorized by this PGP shall have no more than minimal individual, secondary and cumulative impacts to waters of the U.S. as a result of construction and operation of this project."

- The wetland functional analysis utilized the Federal Highways Method, which, while acceptable for permitting purposes, makes it very difficult to precisely identify low

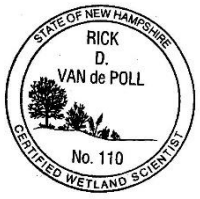
versus high value wetland units. For example, the categorization of the wetland types artificially lumps a mixture of wetland NWI types, especially those that embed salient features such as vernal pools. It was therefore unclear how the applicant will avoid high functioning wetland as stated in Section 7.3. It is also unclear how this will translate into the preservation of comparably valued wetlands under the on-site preservation option.

- The Compensatory Mitigation ratio worksheet in Section 12 utilizes a different set of impact numbers, which underscores the need for a final set of impact numbers as noted above.
- In terms of compensatory mitigation, there was no provision for the replacement of the five "lost" vernal pools and their 750-foot terrestrial habitat buffers according to U.S. Army Corps specifications.

In sum, whereas it appears that the applicant has provided a solid basis for NHDES review of the proposed wetland and stream impacts, there are several notable inconsistencies that will need to be addressed prior to a final determination. Perhaps the most salient of these is the fact that the applicant has been thus far unsuccessful in finding a site where less than 9.1% (+/- 17 acres) of the landscape contains wetlands that must be eliminated in their entirety. Given that the service area for the proposed landfill will include several communities from two other states, it would seem appropriate for the burden for environmental damages be shared to a larger degree than simply monetary compensation through the service contract.

Respectfully submitted;

Rick Van de Poll



Rick Van de Poll, Principal, CWS #110
Ecosystem Management Consultants

cc. BCM Environmental & Land Law, PLLC
North Country Alliance for Balanced Change (NCABC)