



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Thomas S. Burack, Commissioner**

November 12, 2008

Thomas Burack, Chairman  
Site Evaluation Committee  
Dept. of Environmental Services  
29 Hazen Drive  
Concord NH 03302-0095

RE: Alteration of Terrain Permit Application #080721-01  
Granite Reliable Power – Phillip's Brook Wind Project  
Dummer, Millsfield, Odell, Irving's Location, Dixville, NH

Dear Chairman Burack:

The following represents the Alteration of Terrain status report for the EFSEC regarding the above referenced project

1. Please provide pre and post-development drainage area plans showing the boundaries and locations of all subcatchments, reaches, ponds, and points of analysis that were modeled in the drainage report.
2. Provide larger drainage diagrams for the pre and post development analysis, as the 8.5" x 11" drainage diagrams that were included in the drainage report are not legible.
3. A number of the proposed treatment swales have longitudinal slopes less than 0.005. DES prefers longitudinal slopes no flatter than 0.005 to avoid negative drainage. Please revise the swale slopes. Also, you may want to review the Manning's n selected for these swales as it appears some may be fairly conservative. Attached is a graph that varies Manning's n depending on depth of flow in treatment swales.
4. Review of the drainage analysis indicates that several of the proposed treatment swales were not modeled dimensionally (i.e. length, width, depth of flow, etc.) to show that they meet our treatment criteria. Please revise the analysis accordingly.
5. Please include spot grades at the inlet and outlet ends of all proposed treatment swales on the grading plans.
6. Please include the location of all temporary erosion control measures on the grading plans.
7. Please label the contour line elevations for the existing and proposed grades.
8. A number of the surveyed wetland boundary lines do not match up or are open ended near road crossings. For example, Sheet 120 shows a large wetland crossing which then ends at Sta 21+00 with no wetland boundary. Please recheck

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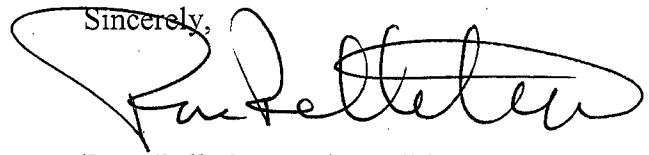
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all wetland boundaries to make certain that they accurately represent the wetlands as delineated.

9. Please be certain to identify the location of all vernal pools on the plans.
10. It is not clear if any regrading or stumping will occur on the proposed powerline right-of-ways. Please provide clarification.
11. According to the curve number summary, the post-development analysis has a 65.92 acre increase of "Brush, Good, HSG D" with a calibrated Curve Number of 55. Is this increase caused from the clearing of "Woods, Good" for the new powerline right-of-ways? Also, this only seems to occur in the D soils. Please provide further explanation of this change in cover type.
12. Based on our site visit, it appears that the proposed switching station is within close proximity to an existing osprey nest along the PSNH powerline. Please consult with the NH Fish & Game Department to determine if this is acceptable or if there are recommended setbacks.
13. The grading plans show the location of several staging areas, but it is not clear if gravel borrow pits are needed to construct the project. If so, then please indicate their location on the grading plans.
14. Please provide a replanting/restoration plan for the staging areas or other areas that will be temporarily disturbed from the proposed construction activities.
15. Provide a justification as to why 30 acres of "open" area is being recommended in the construction sequence. Also, projects that have greater than 5 acres of open area require a detailed phasing plan developed by a Professional Engineer or by a Certified Professional in Erosion and Sediment Control (CPESC). Please provide a construction phasing plan for review.
16. Because of the large disturbance associated with this project and the fact that numerous areas are within close proximity to wetlands and streams, please include the following monitoring notes into the erosion control detail sheets to ensure that water quality standards are held to the highest standards during construction:
  - a) A Certified Professional in Erosion and Sediment Control or a Professional Engineer licensed in the State of New Hampshire ("Monitor") shall be employed to inspect the site from the start of alteration of terrain activities until the site is in full compliance with the Alteration of Terrain Permit ("Permit").
  - b) During this period, the Monitor shall inspect the subject site at least once a week, and if possible, during any ½ inch or greater rain event (i.e. ½ inch of precipitation or more within a 24 hour period). If unable to be present during such a storm, the Monitor shall inspect the site within 24 hours of this event.
  - c) The Monitor shall provide technical assistance and recommendations to the Contractor on the appropriate Best Management Practices for Erosion and Sediment Controls required to meet the requirements of RSA 485-A:17 and all applicable DES permit conditions.
  - d) Within 24 hours of each inspection, the Monitor shall submit a report to DES via email (to Craig Rennie at: [craig.rennie@des.nh.gov](mailto:craig.rennie@des.nh.gov)). Reports shall include photographs of the site that are representative of the project.

- e) Prior to beginning construction, the contractor's name, address, and phone number shall be submitted to DES via email (see above).

Sincerely,  


Rene Pelletier, Assistant Director  
Water Division

cc: Service List