

**THE STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE
SITE EVALUATION COMMITTEE**

DOCKET NO. 2008-04

**APPLICATION OF GRANITE RELIABLE POWER, LLC
FOR CERTIFICATE OF SITE AND FACILITY
FOR GRANITE RELIABLE POWER WINDPARK
IN COOS COUNTY**

**SUPPLEMENTAL TESTIMONY OF DR. DAVID PUBLICOVER
ON BEHALF OF
APPALACHIAN MOUNTAIN CLUB**

February 24, 2009

The Appalachian Mountain Club offers supplemental pre-filed testimony in the following three areas.

Mitigation for impacts to high-elevation habitat

The AMC, in cooperation with the New Hampshire Fish and Game Department, is working to come to agreement on a Settlement Agreement with Granite Reliable Power by which GRP will amend its application to include an expanded mitigation package. If and when the Agreement is signed and the amendment is submitted to the Site Evaluation Committee, AMC will submit an addendum to this pre-filed testimony in support of the mitigation package.

We are hopeful that this agreement will be concluded in the near future in a form acceptable to AMC. However, in the event that this agreement is not concluded, the AMC would stand by its original pre-filed testimony. In addition, we submit the following source as additional information we would use in our testimony before the SEC should the agreement not be successfully concluded:

Desponts, M., G. Brunet, L. Belanger and M. Bouchard. 2004. The eastern boreal old-growth balsam-fir forest: a distinct ecosystem. *Canadian Journal of Botany* 82: 830-849.

Decommissioning

In our pre-filed testimony we expressed our concern with the draft decommissioning plan. In particular, we objected to the reduction of the amount to be posted as a decommissioning fund by the expected salvage value of project components. Because of the unpredictability of this salvage value (as evidenced by large and rapid fluctuations in scrap metal value in recent years),

the decommissioning fund could be left without sufficient funds to accomplish the decommissioning if the project owner was no longer capable of carrying out the decommissioning.

A final decommissioning plan has not yet been provided on the record. We thus reiterate the concerns expressed in our pre-filed testimony, and urge the Committee to require that the decommissioning fund be based on the estimated gross cost of decommissioning, regularly updated as necessary to reflect changes in expected costs.

Road construction techniques in high-elevation areas

In our pre-filed testimony we expressed our concern over the techniques proposed for road construction in high-elevation areas. In particular, we remain concerned that the proposed construction techniques do not adequately maintain the functioning of shallow seepage wetlands in high-elevation areas.

Unlike wetlands at lower elevations, which are generally found in areas of deeper till soils, wetlands on higher-elevation ridgelines exist in soils that are extremely shallow to bedrock. Wetlands in these areas may be maintained by broad shallow subsurface flows or ponding in shallow bedrock depressions. Seepage wetlands have important habitat values disproportionate to their actual extent in the landscape, particularly in the winter and spring. They are more likely to remain snow-free in the winter and are among the first areas to green up in the spring¹.

In his pre-filed testimony, Dr. George Sanford (witness for the Counsel to the Public) expressed similar concerns. He noted several examples of places where road construction would create a cut slope that intersects wetland flow, and stated², “The up-gradient wetland is likely to become drier because subsurface flows will bleed out of the cut surface into the ditch...It is likely therefore that secondary impacts will result to the up-gradient wetland by drying a portion of the wetland and to the down gradient Potential Vernal Pool #25 by altering vernal pool hydrology...This is but one example of many where additional secondary impacts to wetlands may occur, and are not minimized or addressed by the project design.”

In comments on the Redington wind power project to Maine’s Land Use Regulation Commission (filed as Attachment G of our pre-filed testimony), Maine State Soil Scientist David Rocque also stressed the need to minimize hydrologic alterations during road construction in high-elevation areas. Specifically, he suggested minimizing the use of road ditches and not using them when the ditch bottom would be below the depth to the seasonal water table (as would be the case in the above example described by Dr. Sanford). He recommended the use of “stone or rock sandwiches” to transport intercepted water across roads, which eliminates the need for ditches and culverts that channelize and divert shallow subsurface flows.

Mr. Rocque submitted similar comments and recommendations on the application to LURC for TransCanada’s Kibby Mountain wind power project, another project involving similar issues and

¹ Sperduto, D.D. and W.F. Nichols. 2004. Natural Communities of New Hampshire. New Hampshire Department of Resources and Economic Development, Natural Heritage Bureau, Concord, NH.

² Pre-filed testimony of Dr. George Sanford, page 10.

concerns regarding high-elevation road construction as the current proposal. This project was approved by LURC, and Mr. Rocque's recommendations were included as conditions of permit approval. Specifically, condition 10.D of the final development permit³ states:

“The rock sandwich road design recommended by the State Soil Scientist, or other measures described in the “toolbox” of erosion/sedimentation and stormwater control measures for this project, must be employed as proposed to maintain subsurface and surface hydrology where seepages and wetlands occur and to control runoff from all project areas. Existing stream crossings and drainage swales employing culverts may continue to be culverted.”

The proposed findings and conditions for the 401 Water Quality certificate, Wetlands permit and Alteration of Terrain permit submitted to the SEC by the New Hampshire Department of Environmental Services on February 10, 2009 focus primarily on water quality issues and the avoidance of erosion and sedimentation. They appear to give little consideration to maintaining natural hydrologic flows and wetland function in shallow high-elevation soils.

New Hampshire's high-elevation areas deserve the same stringent standards of road construction during wind power development as Maine's. It is AMC's position that the SEC, in cooperation with NHDES, needs to augment the proposed conditions by requiring road construction techniques that will maintain existing hydrologic patterns supporting shallow seepage wetlands in high-elevation areas.

The AMC thanks the SEC for the opportunity to present this testimony.

³ Maine Land Use Regulation Commission Final Development Plan Permit DP 4794, TransCanada Maine Wind Development, Inc., page 60.