

Wednesday, May 1, 2019

BEL 217165

LOBP Inc.
80 Macpherson Ave.
Toronto, ON, M5R 1W8

Attn: Aaron David, President

Re: Quarter Sessions Road – Natural Heritage Opinion

Dear Mr. David,

The purpose of this memorandum is to offer my professional opinion regarding natural heritage matters as they relate to the construction of the Quarter Sessions Road that will be used to access the proposed future resort development on Alexander Island.

As you are aware, Beacon Environmental Limited (Beacon) was retained in April 2017 to conduct ecological inventories and assessments of natural heritage features associated with Alexander Island and the Pleasant Bay shorelands that will be used to access the island. This information will be used to complete the following studies:

- a) Environmental Impact Study (EIS) for the proposal development on Alexander Island, and
- b) Environmental Study Report (ESR) to support the Class Environmental Assessment for construction of the access road.

Through this work, I have familiarized myself with the history of the road and process for selecting the alignment by reviewing various correspondences from PEC, QCA and others. I have also reviewed environmental impact studies that were previously prepared for the road and island development. Having directed and participated in the ecological assessments, I am familiar with the natural heritage features and functions associated with the study area. I have also met with QCA staff on site on August 9, 2017 to review the established road corridor and discuss environmental design elements.

It is my understanding that:

- PEC, MNRF and QCA staff participated in the selection of the 40' wide road corridor;
- Selection of the road corridor considered avoidance of sensitive and significant natural heritage features (e.g., vegetation, provincially significant wetlands, wildlife habitats);
- Selection of the road corridor also considered avoidance of natural hazards (e.g., flooding and dynamic beach);
- The previous EIS prepared for the road by Niblett Environmental Associates Inc. (2001) concluded that the road could be constructed with minimal impact to the environment provided appropriate mitigation measures are implemented;
- The road corridor was staked and surveyed, and the lands are now legally owned by PEC;

- The lands adjacent to the road corridor are owned by the province (crown);
- Portions of the crown lands are included within the regulated park boundary of North Beach Provincial Park;
- The North Beach Provincial Park Management Plan includes recommendations for managing the Pleasant Bay shoreland (south beach);
- The final road design will be completed through a Municipal Class Environmental Assessment and approved under the EA Act;
- The road construction will not require an application under the Planning Act and is therefore not directly subject to PPS policies.

Environmental Considerations

The established road corridor follows the baymouth bar that separates Pleasant Bay from Lake Ontario. The width of this baymouth bar ranges in from approximately 25 m at the north end to 200 m at the south end. The selected road location respects natural hazard constraints associated with Lake Ontario and avoids encroaching into the Pleasant Bay Provincially Significant Wetland. There are open and treed dune communities as well as pannes associated with the baymouth bar. The road corridor avoids the pannes and most of the treed dune communities but does traverse some of the more open dune environments. Based on my field observations of the road corridor, I am satisfied that PEC, QCA and MNRF have selected the most appropriate location for the road corridor and that the alignment avoids the more sensitive natural heritage features.

Notwithstanding the statement above, it is important to point out that much of the road corridor overlaps with a dune ecosystem. Great Lakes dune ecosystems are considered critically imperilled. These ecosystems are rare in the landscape and can support specialized vegetation and wildlife communities. While the Pleasant Bay dunes support many common vegetation species, conspicuously absent are endemic dune species such as dune grasses that are necessary to stabilize the foredune environment. This is certainly the direct consequence of decades of uncontrolled off-road vehicle activity in this area. These impacts are discussed in the 2015 North Beach Park Management Plan.

In my estimation, more than 80% of the open dune habitats at Pleasant Bay have been severely degraded by illegal off-road vehicle activity. These activities have stripped away much of the protective vegetation cover. While dunes can revegetate naturally over the long-term, the magnitude of impact at this site is too severe and widespread to allow rely upon natural recovery. Recovery potential is also limited because there is an absence of local source populations of native dune stabilizing vegetation.

Degradation of Great Lakes dune ecosystems has been recognized as a serious issue by conservationists for well over 100 years. Evidence of off-road vehicle impacts to the Pleasant Bay dunes is apparent even on 1956 aerial photographs of the site. Despite the crown land status and proximity to the North Beach Provincial Park which was established in 1970, there have been no efforts that I am aware of to restore and rehabilitate the Pleasant Bay dunes. During my field visits in 2017 and 2018, I was able to observe the extent of the disturbances first hand. It was immediately apparent to me that off-road vehicle activity represents the single greatest threat to maintaining the ecological integrity of the Pleasant Bay dune ecosystem.

While construction of the Quarter Sessions Road will also impact the dune habitats at Pleasant Bay, the associated habitat loss can be offset by implementing a long-term restoration, management and

monitoring program aimed at improving the condition and quality of the degraded dune environment which can have a positive impact over the long term. While a restoration initiative could also be implemented independently of this road project, it is apparent to me from the lack of intervention over the past 50 years, that insufficient resources are available to make this a management priority. In my opinion, the EA for this road project provides an opportunity to formally address the immediate restoration and management of the Pleasant Bay dunes. Should the province or PEC commit to a restoration program, LBOP could be contributing partner and assist by contributing resources.

While the road design has not yet been completed, my discussions with the consulting engineers on a preliminary design have satisfied me that there are options available to construct a non-standard road with a reduced footprint that incorporates elements that can reduce impacts to the ecosystem and compliment the long-term protection and management of the Pleasant Bay dunes. Wildlife passages can be integrated into the road design to facilitate the movement of reptiles, amphibians and small mammals. Wildlife mortality on the road can also be mitigated through speed controls and signage. More importantly, the presence of a travelled road will discourage illegal activities by allowing for increased patrolling and vigilance. Access to the dunes and beach can be restricted through grade separation, barriers and signage. Access to the dunes can also be controlled by integrating designate access points for authorized staff.

In summary, it is my opinion that the road corridor established by PEC, QCA and MNR is appropriately located and aligned to minimize impacts to the natural environment. I am also satisfied that the road can be designed to minimize loss of habitat and interference with local wildlife populations. The road construction will result in the loss of dune habitat however it is my opinion that this loss can be offset by restoring the ecological integrity of the degraded dunes. The Class EA process represents an opportunity to formalize partnerships and allocate resources to address the rehabilitation and restoration of the Pleasant Bay dunes and have a positive impact on this ecosystem.

I trust that the information presented in this memorandum is helpful and look forward to working on the Environmental Study Report for the Class EA.

Should you have any questions or points for discussion, please do not hesitate to contact me.

Yours truly,

Beacon Environmental



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