

To: Sean Fraser, Member of Parliament

From: Martin Willison, retired Professor of Biology and Environmental Studies, Dalhousie University

Re: Public lands at Owl's Head, Nova Scotia

Date: 28th January 2020

Dear Mr. Fraser (Sean)

You posted to the relevant Facebook page that you are interested to hear from Nova Scotians regarding the proposed sale of public land at Owl's Head. I am sure you were sincere when you stated that you want to protect the environment while also fostering appropriate economic development. I wrote to Iain Rankin, Minister of Natural Resources and Forestry (NS) two weeks ago and my letter to him is attached here.

I am a retired university professor of biology and environmental studies who taught nature conservation for around 25 years and conducted related scientific research. In addition to scientific publications, I've written reports for the Government of Canada. In addition to my letter to Iain Rankin, I've attached one of my reports because I think it fits with the consultative approach on protected areas planning that you recommend for our region of Canada. "Best practices related to public engagement and consultation in the establishment of marine protected areas in Canada" is an official report prepared under contract and solicited by Department of Fisheries and Oceans. It's a public document. Co-author Carolyn Hedley was my graduate student at the time this report was prepared in 2006 and 2007.

You wrote "... my view is that we should seek to determine whether this project can proceed in an environmentally responsible way (based on science, facts, and evidence), as we pursue an aggressive conservation agenda in our region and across Canada". It's not clear exactly what you mean by "this project", but I will assume you mean the development of golf courses rather than sale of public land. I will address "science, facts, and evidence" because that's what scientists like myself do.

The core of any conservation agenda is the establishment of systems of protected areas. While a lot can be achieved by means of recovery plans for species at risk and by including conservation principles in economic activities such as farming and forestry, these other approaches are ineffective in the absence of protected areas. There are two Biosphere Reserves in Nova Scotia that have incorporated these general principles into their programs founded on contemporary conservation science.

At one time, Nova Scotia was regarded as being among the leaders in protected areas planning in North America. We have slipped a bit since then. It is true, of course, that we live in a province that has challenges in this regard due to the relatively small amount of public land (only PEI has a smaller proportion). This means that conservation on private lands may have to play a greater role here than elsewhere. We have a wonderful organization, the Nova Scotia Nature Trust, to help with that aspect and their largest project is the 100 Wild Islands on the Eastern Shore. 100 Wild Islands includes the public lands at Owl's Head, including both the federal parcel and the provincial parcel known as Owl's Head Provincial Park. Throughout its existence, the Nova Scotia Nature Trust has worked hand-in-hand with the Government of Nova Scotia to enhance the government's conservation plans, such as by obtaining and conserving private lands adjacent to protected wilderness areas and nature reserves. This approach is completely supported by conservation science (both natural science and social science) because it incorporates the fundamental protected area concepts of core, buffer and corridor. I

am frankly baffled that the provincial government would endanger this special relationship by proposing to sell a parcel of land that the Nature Trust and members of the general public (such as academics like myself and conservation-oriented NGOs) had considered to be a secure land parcel having high conservation value that was included in the province's Parks and Protected Areas Plan.

Regarding the conservation value of the land at Owl's Head Provincial Park Reserve, an impression has been given by some people that it is of low value. This is simply false and has been countered by the only academic group that has studied the specific site (see third attachment by Porter and Lundholm). It's an area of relatively high biodiversity and is a globally rare coastal heathland ecosystem which Porter and Lundholm describe as "ecologically unique". Simply put, where other than on the Eastern Shore of Nova Scotia could you find an ecosystem of that sort? It's a "special place" (by the way, NS has a Special Places Protection Act that may be relevant here). If you wish to dig more deeply into the rarity of Nova Scotia's coastal heathlands, I recommend the scientific paper by R. Cameron and S. Bondrup-Nielsen entitled "Plant communities within Atlantic coastal heathlands in Nova Scotia" (Northeastern Naturalist 2013, 20, 694-709).

It appears that the developer proposes that three golf courses could be constructed at Owl's Head without producing damaging environmental impacts. I can find no support for this in the literature that I have found on golf course design. In 2008 the American Society of Golf Course Architects published a guidebook: An Environmental Approach to Golf Course Development. They provide a "check-list for an environmentally responsible approach to the development of a golf course". It does not seem to me that this check-list has been followed. For example, they noted the environmental benefits of developing golf courses in damaged ecosystems such as old mine sites or other brownfield areas, and that sensitive and rare ecosystems be avoided. Furthermore, sale of the provincial crown land appears to have been negotiated before even the first two steps (of at least 20) in the check-list have been fully accomplished. The publication also strongly recommends that the legislative bodies have regulations for golf course design, but there are none in Nova Scotia as far as I can tell.

Golf courses have significant environmental impacts due to changes in the natural landscape, elimination and alteration of plant communities and animal habitats, introduction of exotic species, invasion and trampling of sensitive and rare plant communities, alteration of wetlands and associated hydrology, run-off of turf-management chemicals (fertilizers, pesticides, and herbicides), eutrophication of water bodies, and others. These would impacts would severely alter the sensitive lands at Owl's Head. Add to this that the golf industry itself is in crisis due to over-supply of courses and focus on exclusivity (see Master of Landscape Architecture thesis at University of Guelph by Keith Cutten, 2016, entitled Exploring the History of Golf Course Design).

All in all, I think the Government of Nova Scotia is mistaken to rush into this and to do so in such secrecy. As a conservation scientist and Nova Scotia resident with some knowledge of ecology and of ecological engineering, I am distressed by it.

Sincerely,

Martin Willison, PhD

Three attachments; I can supply more on request but I don't wish to flood you with unnecessary reading