

Defining Green



The spectacular shores of Lake Superior are not some rural backyard, neither are they simply one of Canada's finest Natural Heritage Treasures; Superior, the cleanest of the Great Lakes, still graced with a minimally impacted watershed for much of its great northern arc is a cold water ecosystem



marvellously evolved to thrive in ever changing conditions. Nonetheless her eastern shore is about to go from being iconically scenic and unspoiled to a being a veritable industrial corridor, blighted with Industrial wind developments. The fact that it is ecologically more vital to a greener future as a healthy wilderness and wetland ecosystem, and should not be fragmented and degraded, is immediately obvious to all who truly understand natural processes.



Superior's eastern coast is a Canadian natural and cultural heritage treasure and has become this nation's front yard to all travellers of the Trans Canada Highway. Its complex geological past is displayed through visible billion year old lava flows and rock formations unique to Ontario. Its resilient bedrock has been protecting this coast from the impact of large wave events for over ten thousand years. Visually it's the waves, the sunsets and the unblemished Group of Seven vistas that make this coast so special to the general public. The onset of wind turbines will destroy this cherished landscape. The huge concrete bases rising from eroding hillsides like ugly versions of Easter Island statues, will evidence the folly of this dark age for generations to come.





The eastern shore of Lake Superior had its beginnings over a billion years ago; it has been the cutting edge of climate change for millennia. It is the "transition forest" between the Great Lakes-St Lawrence and the Boreal; in any changing climate the free movement of species is an essential part of adaptation and survival.



The connectedness of ecosystems correlates well with the maintenance of biodiversity. The moderating influence of the Great Lake in conjunction with varied topography has the potential to provide micro refugia in the future as in the past. Paleo-ecology offers a phlegmatic and much needed look at the natural resilience of species as illustrated by the fossil record.

Kathy Willis is but one researcher who has examined climate change in "4 °C and beyond: what did this mean for biodiversity in the past?"¹ in the context of empirical evidence with the 20/20 vision of hindsight. Compared to the dismal fog of IPCC modelling, projections, and prevarication this is a refreshingly clear perspective.



¹ <http://www.informaworld.com/smpp/title~content=t913521959> Kathy J. Willis ab; Keith D. Bennett cd; Shonil A. Bhagwat a; H. John B. Birks b a Long-term Ecology Laboratory, Biodiversity Research Group, Oxford University Centre for the Environment, Oxford, UK b Department of Biology, University of Bergen, Bergen, Norway c School of Geography, Palaeoecology and Archaeology, Queen's University, Belfast, UK d Department of Earth Sciences, Uppsala, Sweden

It is abundantly clear that Industrial Wind Turbines (IWT) have nothing to do with "GREEN" and everything to do with GREED; the desecration of Lake Superior is all the proof of which anyone should need.

The Main Stream Media is busy with "THE SKY IS FALLING" headlines when it should be concerned with industrial ham-stringing of naturally resilient wilderness and wetland ecosystems.

"Wetlands are amongst the Earth's most productive ecosystems. They have been described both as "the kidneys of the landscape", because of the functions they perform in the hydrological and chemical cycles, and as "biological supermarkets" because of the extensive food webs and rich biodiversity they support."²



2 Economic Valuation Of Wetlands: A Guide For Policy Makers And Planners by Edward B. Barbier, Mike Acreman And Duncan Knowler.

The forest wetland complexes of Lake Superior's watershed have survived the challenges of past unsustainable logging practices and fire. Now is not the time to cut out wide roads and establish power corridors in this very important ecosystem. With an increase in roads and corridors comes forest fragmentation which is very disruptive to large numbers of breeding birds that require a continuous forest cover. This forest is linked to the lake in many ways by offering corridors for species migration and a special climate that has allowed for a number of site specific plants to flourish. This forest needs a continuance of canopy for its, and Lake Superior's, health and diversity.³



Quoting Kathy Willis again on the need, "to prioritize resilient areas in conservation planning, since these regions are likely to be more robust in the face of future climate change (West and Salm, 2003); and second, to try to build resilience into ecosystems, thereby creating conditions that might enable greater persistence in the face of environmental change.

Since the first national park was established in 1872, there are now over 100 000 reserves covering more than 18 million km² – over 12% of the Earth's land surface (WCMC, 2007). However, these reserves are spatially fixed, meaning that migration beyond reserves in response to climate change may not be possible for many species, particularly because reserves are also surrounded by highly human-dominated landscape matrix (Wittermeier et al., 2009).

³ Questions of importance to the conservation of biological diversity: answers from the past, by K. J. Willis^{1,3,4} and S. A. Bhagwat^{1,2,3}
¹Long-term Ecology Laboratory, Department of Zoology, University of Oxford, Oxford OX1 3PS, UK ²School of Geography and the Environment, University of Oxford, Oxford OX1 3QY, UK ³Institute of Biodiversity, Oxford Martin School, University of Oxford, Oxford OX1 3PS, UK ⁴Department of Biology, University of Bergen, P.O. Box 7803, 5020 Bergen, Norway Published in Clim. Past Discuss.: 18 November 2010



Furthermore, in order to migrate beyond reserves, many species will have to travel through novel ecosystems in anthropogenic landscapes. In such ecosystems, plant and animal communities are often influenced by people's preferences (e.g., cultivated and domesticated species) and alien or invasive species are also common. How can we then create conditions that will protect native species beyond reserves and in novel ecosystems? This may require a whole new approach to conservation, restoring ecological processes and enhancing the quality of landscape matrix surrounding reserves."⁴



⁴ Questions of importance to the conservation of biological diversity: answers from the past, by K. J. Willis^{1,3,4} and S. A. Bhagwat^{1,2,3}
¹Long-term Ecology Laboratory, Department of Zoology, University of Oxford, Oxford OX1 3PS, UK ²School of Geography and the Environment, University of Oxford, Oxford OX1 3QY, UK ³Institute of Biodiversity, Oxford Martin School, University of Oxford, Oxford OX1 3PS, UK ⁴Department of Biology, University of Bergen, P.O. Box 7803, 5020 Bergen, Norway, Published in *Clim. Past Discuss.*: 18 November 2010



In 2000 a previous Ontario Government created the Great Lakes Heritage Coast to protect the shorelines of Lake Superior, northern Lake Huron and Georgian Bay from inappropriate developments such as wind turbines. In 2004 the present government removed that designation, much to the surprise of the many communities and residents who accepted the designation with open arms. Then the same government created the "Green Energy Act".

<http://ontario-wind-resistance.org/2011/11/08/threats-from-industrial-wind-turbines-to-ontario%E2%80%99s-wildlife-and-biodiversity/>

<http://ontario-wind-resistance.org/2012/02/01/threats-from-industrial-wind-turbines-to-ontarios-wildlife-and-biodiversity/>

Members of today's government should be called to account for what Prince Phillip, the Duke of Edinburgh calls "useless and a "disgrace" since there has never been a true cost/benefit analysis and full environmental valuation which substantiates the industrial scale renewables policy. I believe this should be done before we all have to account to future generations for allowing their best hopes for a greener future to be destroyed, and along with it parts of our natural heritage which are so precious they have shaped our self-image.



This area is of particularly high value as the visual amenity and natural heritage values carry strong cultural bonds for all peoples as it represents the wilderness we know and which informs our self-image as Canadians.

Some of our area Parks come to us under the aptly named "Living Legacy" program. The government of Ontario and First Nations have invested heavily in educating the population to associate conservation of wilderness and wetland with the Seventh Generation. Many of us view Lake Superior and her watershed as our most treasured birthright and are profoundly grateful for the miracle of its continued wildness.

The 1987 amendment to the Great Lakes Water Quality Agreement required the development of Lake-wide Management Plans (LaMPs) to "restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin Ecosystem". *That is just one of many costly and elaborate programs instituted over the years to protect our natural heritage endowment.*





The role of economic valuation in decision-making:

"Loss of environmental resources is an economic problem because important values are lost, some perhaps irreversibly, when these resources are degraded or lost.

The decision as to what use to pursue for a given environmental resource, and ultimately whether current rates of resource loss are 'excessive', can only be made if these gains and losses are properly analyzed and evaluated. This requires that all the values that are gained and lost under each resource use option are carefully considered...the failure to account more fully for the economic costs of conversion or degradation of environmental resources is a major factor behind the design of inappropriate development policies. The result is too much conversion and over-exploitation of environmental resources.

...not only should the direct costs of conversion be included as part of the costs of this development option but so must the foregone values that the converted resource can no longer provide. These may include the loss of both important environmental functions and, in the case of complex resource systems such as wetlands, many important biological resources and amenity values as well.

Many environmental resources are complex and multi-functional, and it is not obvious how the myriad goods and services provided by these resources affect human welfare."⁵

5 Economic Valuation of Wetlands: a Guide for Policy Makers and Planners by Edward B Barbier, Mike Acreman and Duncan Knowler
RAMSAR Convention Bureau, Department of Environmental Economics and Environmental Management, University of York Institute of Hydrology
IUCN- The World Conservation Union 1997, pp 78 - 79



he Auditor General 2011 Report on renewable energy found:

Although the Ministry consulted with stakeholders in developing the supply-mix directives, the LTEP, and the Green Energy and Green Economy Act, billions of dollars were committed to renewable energy without fully evaluating the impact, the trade-offs, and the alternatives through a comprehensive business-case analysis. Specifically, the OPA, the OEB, and the IESO acknowledged that:

- no independent, objective, expert investigation had been done to examine the potential effects of renewable-energy policies on prices, job creation, and greenhouse gas emissions; and
- no thorough and professional cost/benefit analysis had been conducted to identify potentially cleaner, more economically productive, and cost-effective alternatives to renewable energy, such as energy imports and increased conservation.

Good decision-making involves, at the very least, adopting criteria by which a policy, project or programme is judged to be 'good', and then doing an appraisal of how the alternative options compare. Analysis should begin with a performance matrix (also known as a criteria-alternatives matrix). This provides the basic building block of rational decision-making.⁶

⁶ *Economic Valuation with Stated Preference Techniques Summary Guide*, p20, by David Pearce and Ece O'Zdemiroglu et al. March 2002 Department for Transport, Local Government and the Regions: London



This rational essential foundation has been shown to be lacking, so all that is proposed here must be weighed against the value of a house of cards..or a crap shoot. Since the European Union is now faced with repercussions of similar lapses in valuation, here we have a vital resource being threatened by ideology and industry-generated mass hysteria. We ALL have a duty to demand the proper decision-making foundation be in place.

The economic value of something can be regarded as the extent to which people would be prepared to sacrifice something else in order to obtain or safeguard a quantity of it. Total economic value comprises the sum of use and non-use values. Use values may be direct (e.g. by consuming the good, visiting a site) or indirect (e.g. by securing some benefit from the good). A forest, for example, serves both direct and indirect use functions. Visitors to the forest make direct use of it. The role of the forest in protecting the regional watershed would be an example of an indirect use, as would the role of the forest in sequestering carbon dioxide.⁷

In this context it should be mentioned that the use of Bow Lake and area extends to a huge seasonal population which enjoys free access to Crown land away from urban influences.

⁷ *Economic Valuation with Stated Preference Techniques Summary Guide*, p23, by David Pearce and Ece O'Zdemiroglu et al. March 2002 Department for Transport, Local Government and the Regions: London

The experience of Prince Wind Farm has shown that promised access is NOT assured and willingness to report species of interest has declined because the MNR is seen to be willing to destroy habitat while treating all citizens as potential criminals.

Great indirect benefits accrue from this intact forest which can serve to maintain connectivity between protected park areas and provide important micro refugia, particularly here where they reach the ecologically strategic edge of the Lake Superior migratory barrier.

This is an area which defines *Green*.



All images pictured in this document were captured in the Bow Lake area and environs of the eastern shore of Lake Superior which is threatened with Industrial Wind developments.

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