

Victor Doyle - Evidence Outline

1. The Oak Ridges Moraine is one of two most significant and sensitive natural formations in south-central Ontario - the Niagara Escarpment being the other. This has led to its natural environment being the subject of a series of initiatives by the Ontario Government, involving all 3 political parties, dating back to the mid 1940's when it was subject of Ontario's first reforestation efforts and spawned the creation of the province's conservation authorities.
2. It regained prominence in the public eye in the late 1980's through the ground breaking work of the (federal) Royal Commission on the Ontario Waterfront led by David Crombie, as its fundamental environmental role in the ground and surface water resources/systems of the broader bio-region was recognized.
3. Commissioned by the Liberal Government of David Peterson, the 1990 report entitled "Greenspace for All – Options for a Greater Toronto Greenlands Strategy" by Ron Kanter, MPP specifically documented some of the key ecological functions of the moraine and identified it as a critical element in the Greater Toronto Area ecosystem which needed enhanced research, protection and management.
4. Acting on the above, on July 26, 1990 the Peterson Government announced two key measures. First, it announced a 2 year study of the moraine. Second, to protect the moraine during the study it identified the moraine as an area of provincial interest. It subsequently struck a multi-stakeholder Technical Working Committee which commissioned a series of 15 background reports by eminent scientists, ecologists, hydrogeologists and planners etc. to provide a comprehensive and updated evidence base on the ecological functions of the moraine - with a significant emphasis on its water and natural heritage systems and its role in the ecological integrity of the broader bio-region.
5. In June 1991, the Government released the Oak Ridges Moraine Implementation Guidelines as a means of implementing actions to respond to the provincial interest in protecting the environment of the moraine while it worked on a more permanent set of protective measures. Picking up the moraine baton subsequent to its election in Fall 1991, the NDP Government of Bob Rae maintained the Technical Working Committee and the ongoing research/study agenda. Highlights of this research included confirmation that the moraine:
 - was the source/headwaters of almost all the river/stream systems flowing south to Lake Ontario and north to Georgian Bay, Lake Simcoe and the Kawartha Lakes;
 - contained a vertically inter-connected system of aquifers that supplied drinking water for over 250,000 people and the origin of the baseflow for the aforementioned stream systems; these remained and still remain largely unmapped
 - was home to the largest concentration of natural features in the Greater Toronto Area - including 75% of the GTA's remaining forests and wetlands; and
 - had the highest concentration of bio-diversity (flora and fauna), including the majority of the threatened and endangered species.

The importance of protecting the environment of the moraine has therefore been a priority for more than thirty years.

6. Key protections were incorporated in the April 1994 draft Oak Ridges Moraine Area Strategy for the Greater Toronto Area and the final report in November 1994. The Strategy reflected the best advice of the time for “An Ecological Approach for Long Term Protection and Management” and drew heavily from the conclusions and findings of the 15 background studies.
7. The Strategy focussed on the significance and sensitivity of the Oak Ridges Moraine environment and the need to protect and manage it through a 3 lens system of water, natural heritage and landform. This systems approach was fundamental given that the hummocky terrain of the moraine is at the root of its extremely high ground water recharge function and thus critical to protect. Similarly, both the landform and the hydrological functions are directly inter-related with the woodlands and wetlands and the high diversity of plants and animals found on the moraine. These systems formed the backbone of the environmental protections set out in the Oak Ridges Moraine Conservation Plan, 2002.
8. However, in 1995 the Conservative Government of Mike Harris was elected and the moraine fell off the provincial radar screen – for a time. To fill the void, the Regions of York, Peel and Durham together with several conservation authorities engaged in a renewed effort to protect and manage the Moraine with additional research and guideline and policy development - thus reflecting the growing and ongoing public interest to protect this invaluable landscape. At the same time, urban development proposals continued to create significant public concern culminating in a major OMB hearing over a proposal in Richmond Hill which would have severed the moraine in two by urbanization along the Yonge Street corridor.
9. This hearing saw the Province lead the opposition to the proposal and, ultimately, the public outcry and government concern led the Harris Government to stay the hearing in 2000. It followed this in May 2001 with the imposition of a legislative freeze on urban development on the moraine (the Oak Ridges Moraine Protection Act) to provide a time out while it prepared a formal framework to protect the environment of the moraine which it did by passing the Oak Ridges Moraine Conservation Act in 2001, and the Oak Ridges Moraine Conservation Plan in April 2002.
10. For the purpose of this hearing, it is the existing environment and ecological functions of the Moraine, not the Plan itself, that require consideration. However, the objectives of the Act, which are reiterated in the Plan, are instructive as they identify the features of the Moraine requiring protection that led the Government to enact legislation.

“Objectives

4. The objectives of the Act and Oak Ridges Moraine Conservation Plan are:

- (a) protecting the ecological and hydrological integrity of the Oak Ridges Moraine Area;
- (b) ensuring that only land and resource uses that maintain, improve or restore the ecological and hydrological functions of the Oak Ridges Moraine Area are permitted;

(c) maintaining, improving or restoring all the elements that contribute to the ecological and hydrological functions of the Oak Ridges Moraine Area, including the quality and quantity of its water and its other resources;

(d) ensuring that the Oak Ridges Moraine Area is maintained as a continuous natural landform and environment for the benefit of present and future generations;

(e) providing for land and resource uses and development that are compatible with the other objectives of the Plan;

(f) providing for continued development within existing urban settlement areas and recognizing existing rural settlements;

(g) providing for a continuous recreational trail through the Oak Ridges Moraine Area that is accessible to all including persons with disabilities;

(h) providing for other public recreational access to the Oak Ridges Moraine Area; and

(i) any other prescribed objectives.”

9. The environmental sensitivities and concerns are reflected in the Plan which contains the following vision of a protected natural environment that the objectives and policies are intended to achieve:

“The Vision for the Oak Ridges Moraine

The Ontario government's vision for the Oak Ridges Moraine is that of "a continuous band of green rolling hills that provides form and structure to south-central Ontario, while protecting the ecological and hydrological features and functions that support the health and well-being of the region's residents and ecosystems".

10. This is followed by a section on **Protecting Moraine Integrity** which reads as follows:

“The Plan identifies key natural heritage features (such as wetlands and woodlands) and hydrologically sensitive features (such as kettle lakes and springs). In Natural Core Areas, Natural Linkage Areas and Countryside Areas, only very restricted new resource management, recreational, transportation, infrastructure and utility uses are permitted within these features. Development near these key natural heritage features and hydrologically sensitive features is only allowed if it will not adversely affect these features. In areas with significant landscape character (called landform conservation areas) in Natural Core Areas, Natural Linkage Areas and Countryside Areas, development will have to meet particularly stringent review and approval standards to ensure that the Moraine is protected. Over 85 per cent of the key natural heritage features are within Natural Core Areas or Natural Linkage Areas.”

Some Key Land Use Policies

No new aggregate resource extraction is permitted in Natural Core Areas. In Natural Linkage Areas and Countryside Areas, new aggregate resource operations shall have to meet stringent review and approval standards. New major recreation developments such as golf courses are only permitted in the Countryside Areas and shall be required to meet stringent review and approval standards. New transportation and utility corridors or facilities shall only be allowed in Natural Core Areas and Natural Linkage Areas if they are shown to be necessary and there is no reasonable alternative. They shall also have to meet stringent review and approval standards.

11. There is a definition of “ecological integrity”, “which includes hydrological integrity, and means the condition of ecosystems in which,
(a) the structure, composition and function of the ecosystems are unimpaired by stresses from human activity,
(b) natural ecological processes are intact and self-sustaining, and
(c) the ecosystems evolve naturally;”

12. These are augmented by Section 20 under **PART III - PROTECTING ECOLOGICAL AND HYDROLOGICAL INTEGRITY** which reads:

Supporting connectivity

20. Every application for development or site alteration shall identify planning, design and construction practices that ensure that no buildings or other site alterations impede the movement of plants and animals among key natural heritage features, hydrologically sensitive features and adjacent land within Natural Core Areas and Natural Linkage Areas.

The above sections of the ORMCP clearly reflect its fundamental and principled focus on ecological integrity and this is the central issue which I will speak to in my conclusions. This focus needs to be considered in the context of massive urbanization of the south central Ontario landscape over the last 100 years and the fact that the ORM provides the only remaining east-west linkage for genetic material, flora and fauna to move and migrate between the north-south running river valleys emanating from it.

12. The environmental concerns and sensitivities reflected in the Oak Ridges Moraine Conservation Plan were and remain ground breaking. It was an “environment first” plan and entrenched the importance of a systems approach to water and natural heritage management. Its policies are the means to implement the objectives set out above. It is based on a series of 4 land use designations which are all subject to the overarching goals and objectives of the Plan - noting that Natural Core and Linkage Area designations are subject to the most stringent of the plan's policies. Some of key provisions are summarized below.

13. In relation to water the ORMCP:

- requires the identification and protection of hydrological features, as well as vegetation protection zones, including kettle lakes, wetlands, river/streams - including intermittent ones, as well as seeps and springs which emanate from the slopes of the moraine to form the headwaters for the permanent streams;

- identifies landform conservation areas - to protect the hummocky terrain that supports the unprecedented groundwater recharge that occurs on the moraine as well as vulnerable aquifer areas - with restrictions on certain uses which could contaminate the aquifers (the forerunner to Source Protection Planning under the Clean Water Act); and
- mandates the preparation of watershed plans and prohibits rapid infiltration basins which were being proposed by development interests as the means to discharge storm water since there are few flowing streams on the moraine and such infiltration posed a critical risk to the aquifer systems.

14. In relation to natural heritage:

- it requires the identification and protection of key natural heritage features (wetlands, fish habitat, significant portions of the habitat of endangered, rare and threatened species, areas of natural and scientific interest (ANSI's), significant woodlands, valley lands and wildlife habitat and sand barrens , savannahs and tallgrass prairies) together with areas of influence and minimum vegetation protection zones.
- it identified a series of Natural Core areas (which were the forests planted in the 1940's where this story began) and which had the highest concentration of features, biota and ecological function - together with a series of Linkage Areas which provided for the connectivity for flora and fauna and genetic material to move between the watersheds over the fullness of time.

15. In relation to settlement areas:

- it essentially froze the boundaries of all settlements and deferred to the respective municipal official plan policies

16. In relation to infrastructure:

- The ORMCP has a specific section on infrastructure wherein it lists the types of infrastructure and utilities that the Plan contemplates (see excerpt below).

"Transportation, infrastructure and utilities

41. (1) Transportation, infrastructure and utilities uses include,

- (a) public highways;
- (b) transit lines, railways and related facilities;
- (c) gas and oil pipelines;
- (d) sewage and water service systems and lines and stormwater management facilities;
- (e) power transmission lines;
- (f) telecommunications lines and facilities, including broadcasting towers;
- (g) bridges, interchanges, stations, and other structures, above and below ground, that are required for the construction, operation or use of the facilities listed in clauses (a) to (f); and
- (h) rights of way required for the facilities listed in clauses (a) to (g)."

17. Having been involved in the preparation of the Plan, I can attest that the discussion focussed on only allowing infrastructure that needed to cross the moraine (ie. to connect communities or ensure continuity of linear infrastructure) and/or to service the communities located within the Plan. I can further advise that the Moraine was not intended to form a reserve for any sort of infrastructure serving the major urban agglomerations beyond its boundary.
18. I can also advise that wind farms were never contemplated in the deliberations of the infrastructure policies as the technology had not arisen in any meaningful way in Ontario at the time.
19. Section 41 of the ORMCP contains a variety of additional policies in relation to infrastructure aimed at requiring the demonstration of need and the absence of any reasonable alternative (within Natural Core and Linkage Area designations), avoidance of the key natural heritage or hydrological features, and the minimization of impact - including to the ecological integrity and connectivity of both the features and the Moraine as a whole.
20. The Green Energy and Economy Act, 2009 established the Green Energy Act and amended many other acts to establish a renewable energy framework and program for Ontario. Of note, in Schedule L to the Act it specifically amended the definition of "utility" in Niagara Escarpment and Development Act to read "the generation, transmission and distribution of electric power, including renewable energy projects" as defined in the *Green Energy Act, 2009*. No amendments were made to the ORMCP Act or Plan.
21. Much of the detail of the renewable energy framework and process is found in Ontario Regulation 359/09 issued under the Environmental Protection Act. This includes Section 32 of the Regulation which essentially defers in its entirety to the Niagara Escarpment Plan and the development permit process administered by the Niagara Escarpment Commission. While the amendment to the Act allows consideration of renewable energy projects as they are now defined as a utility, all such projects require a development permit and would therefore be subject to the entirety of the provisions and policies, goals and objectives of the Niagara Escarpment Plan. Given its overall objectives are similar to the ORMCP, it is noteworthy that there have been no formal applications for wind farms within the NEP.
22. Section 42 of O Reg 359/09 deals with the Oak Ridges Moraine. In effect, it reiterates the policies of the ORMCP in relation to prohibiting development or site alteration within a hydrologic feature or key natural heritage feature in the ORM or within the 120 metre area of influence. However, it would potentially allow for such if an environmental impact study determines impact, identifies acceptable mitigation measures and sets out an environmental monitoring reporting framework.
23. Section 9.3 of the Ministry of the Environment's 201 Technical Guide to Renewable Energy Approvals provides some further guidance in relation to renewable projects on the ORM. While referring to the "minimum" requirements set out in O Reg 359/09 discussed above, it also states that "applicants are expected to consider the full intent of the ORMCP when evaluating effects that will or are likely to occur as a result of the proposed project". It is my view that this direction applies to decision makers as well, including the Environmental Review Tribunal.

Conclusions/Opinion

24. Wind farms are a form of infrastructure that are inconsistent with the government's vision, intent and policy for the protection of the environment of the moraine.
25. While the Niagara Escarpment Planning and Development Act was specifically amended to allow renewable energy projects, the ORMCP Act was not. Further, while OReg 359/09 essentially deferred to the existing development permit process administered by the Niagara Escarpment Commission and the thus the application of all the policies of the Niagara Escarpment Plan to renewable energy projects, OReg 359/09 only extracted provisions of the ORMCP while also allowing for divergence based on environmental impact statements undertaken by proponents and an environmental monitoring program. As such, the ORMCP was treated quite differently than the NEP in two key respects.
26. While O Reg 359/09 incorporates specific provisions of the ORMCP in relation to hydrologic features and key natural heritage features, these policies were never developed with any the consideration of future wind farms and thus relying on them to adequately consider impacts is not sufficient.
27. MOE's Technical Guide to Renewable Energy Approvals speaks to proponents, and in my view decision makers, considering the full intent of the ORMCP. This is at odds with the limited provisions in O Reg 359/09 which were extracted from the ORMCP.
28. Given the ecological significance of the Oak Ridges Moraine and the overarching environmental protection objectives of the ORM Act and Conservation Plan - particularly in relation to ecological integrity and a continuous, connected landform and environment, it is my opinion that the full intent of the Plan cannot be met in relation to wind farms.
29. It is my view that opening up the Oak Ridges Moraine to windfarms and their supporting road and transmission infrastructure will have a negative effect on the overall ecological integrity of the moraine - particularly with respect to the long term movement of fauna.
30. It is my understanding that this is the first of several applications within the ORMCP area and thus this first decision for a wind farm on the moraine will be precedent setting. In my opinion, the potential for the cumulative effects of multiple applications/wind farms on the moraine to create serious, permanent and irreversible effects on the ecological integrity of the ORM is very significant and contrary to the broader public interest, an issue that has never been directly contemplated by the government or the ORMCP itself.
31. Given all of the above, it is my view that the Tribunal should apply the precautionary principle to this proposal and not allow it to proceed prior to the Government expressly turning its mind to the appropriateness of wind farms on the Oak Ridges Moraine through the upcoming review of the Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan and the Greenbelt Plan - which was recently announced through the release of the Minister Mandate letters.

LIST OF DOCUMENTS

1. Oak Ridges Moraine Conservation Plan
2. Green Energy and Economy Act
3. Green Energy Act
4. Ontario Regulation 359/09
5. Technical Guide to Renewable Energy Approvals
6. Minister of Municipal Affairs and Housing Mandate Letter
7. Satellite image of central Ontario with ORMCP boundary