



Section 2

Oak Ridges Moraine, Ontario, Canada

2.1 Introduction

This case study outlines the recent evolution of land-use planning and additional management tools for the Oak Ridges Moraine (the Moraine) in Ontario, Canada. The approach to managing development on the Moraine has undergone substantial change. Until recently, development was managed under a framework led by provincial government policy. Municipal authorities had to have regard to this provincial policy when developing and implementing their official plans for land-use management. This approach was seen to result in inconsistent management across municipality boundaries; lack of provincial leadership; inconsistent interpretation of policy by decision makers; no management of cumulative effects; and, ultimately compromised the ecological integrity of the Moraine.

In a remarkable change of approach, the Moraine is now managed subject to area-specific legislation that establishes a Moraine-wide conservation plan. All municipal official plans must conform with the new conservation plan, which has ecological considerations as its first and foremost focus.

This chapter describes the physical features of the Moraine, and briefly, the previous legislative and planning framework and events leading to the significant change in planning approach. For readers with a particular interest in community-led change and political agenda setting, a more comprehensive description of events is available in appendices 2A and 2B. The bulk of this chapter outlines the newly introduced area-specific legislative and planning requirements.

2.2 Location and description of the physical environment of the Oak Ridges Moraine

The Oak Ridges Moraine is 190,000 hectares in area and 160 kilometres in length. It stretches from the Trent River in the east to the Niagara

Escarpment in the west.⁴ The Moraine is one of the last continuous corridors of greenspace left in south-central Ontario - the most populated part of Canada. Together with the Niagara Escarpment, the Moraine forms the foundation of the area's natural heritage and greenspace systems.⁵ As a result of its proximity to Toronto, the eastern part of the Moraine is subject to intense development pressure. (See figures 2.1-2.3.)

Whilst the Niagara Escarpment is well known for its spectacular vistas, plunging cliffs and waterfalls, the values of the Moraine may be less immediately visible. However, within its landscape of bucolic rolling hills, is a host of diverse flora and fauna, including several species at risk, significant water features and below ground geology and hydrogeology that provide essential ecological and watershed services.

Below, local resident and campaigner for protection of the Moraine, Debbe Crandall describes the Moraine.

The Oak Ridges Moraine: A Provincial Treasure

Soaring north from Lake Ontario's northern shoreline, the landscape below leaves behind the tall office buildings and dense residential streets of Toronto's heart, passes over suburban sprawl of subdivision and industrial parks, and development coalesces along major roads and unseen pipelines that penetrate the countryside. The land below is flat, dissected by river valleys that deepen as they reach further into their headwaters. And then, abruptly, the country changes from flat till plains to rolling hills and valleys; splashes of green forests and blue waters, replacing the greys and blacks of pavement and rooftops. With a shift in perception through the lens of time, you can almost see the massive glacial rent in the ice sheet filling up with icy waters and a millennia worth of sand and gravel and boulders; these are the early days of the interlobate Oak Ridges Moraine, arcing like a huge eyebrow above the eye of Canada's largest city.

Seen directly from above, the first and most startling impression is "this is where the rivers begin!". All along the ridge of this regional surface water divide are many finger patterns of tiny headwater streams bubbling out of the ground in seeps and swales and springs. These trickles of water join forces, delivering cold clean water to the many rivers and streams that flow north and south from the Moraine. The river valleys are well forested, providing living corridors along which animals travel. Wetlands and kettle lakes along the length of the watersheds are home to hundreds of species of birds and amphibians and provide needed watering holes for all kinds of wildlife.

Deep within the ground is the true treasure of the Moraine - thick layers of sand and gravel many hundreds of metres from surface to bedrock. The waters in these aquifers span thousands of years in age; on the surface the water was yesterday's rain but deep deep down the water held in trust was once glacial ice. This is truly the lifeblood of the region, providing water to people, to rivers and to the oceans. It is these waters that may help us survive the warming of the years to come.

Strung along the rivers of the Moraine are historic towns that show similar patterns of conurbation - the classic village center ringed by modern subdivisions and schools and baseball diamonds. Up or downstream are remains of dams signifying how important the fast flowing rivers once were to the economy of a century ago. Today, the millponds perform a different role of attracting birds and wildlife, bringing eco-tourist dollars to these struggling centers.

The second startling impression is the sight of a long and narrow urban band stretching from the south to the north straight through the hills and valleys. The Big Pipe decision decades ago helped to bury the precious tributaries under acres of pavement and to bring thousands of people up to the Moraine. It was here where the Moraine was almost cut in half by

development. (Through provincial intervention, this significant section of the Moraine has been placed in the public trust, thus preserving a vital link in the regional natural heritage system.)

Fields of corn, hay, soybean, horses and cattle seem to drape themselves around large garrulous old forests. Decades of restoration efforts to re-connect the forest fragments are evident in the thousands of acres of pine plantations, the hedgerow artifacts and the newly planted saplings put there by school children. It's obvious now that many of these marginal farm fields high on the ridge should never have been cleared back in the early days of First Contact - like long lost friends the newly-planted roots re-secure the fine sands and silts and hold them close. More productive farms on the north and south slopes are thriving and contribute strongly to the economy of the area - tractors move more slowly up and down the Moraine hills than they do on the flat fields to the north and south.

The natural curves of the rivers and forest edges are rudely pushed aside by the long linear slashes of roads first built to bring the Europeans to this land. Like ribbons of death, the new four-lane highways do their best to stop the genetic movement of nature. But nature's resiliency proves too strong as plants and animals continue to move about the length of the Moraine.

Yes, sprawl is nibbling at the southern front of the Moraine and sprawl has been temporarily tamed. It will roar again in the future and its threat will never totally disappear. But for now, development has been beaten back to the boardroom.⁶

Figure 2.1: Canada (the arrow in the right corner indicates the approximate location of the Moraine)



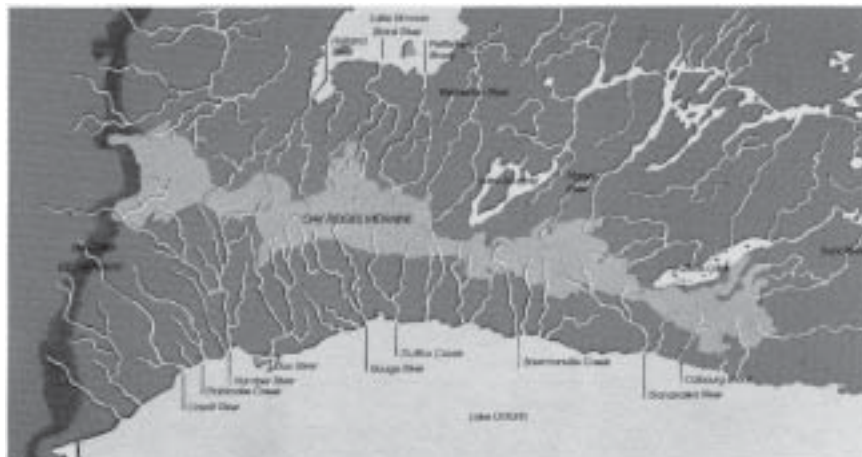
Source: www.curleat.com/curling/links-prov-map.htm.

Figure 2.2: Boundary of the Oak Ridges Moraine and regional and municipality boundaries (the Greater Toronto Area (GTA) includes the regions of Peel, York and Durham)



Source: Ontario Ministry of Municipal Affairs and Housing: www.mah.gov.on.ca/maps/full_map_merge.jpg.

Figure 2.3: Extent of rivers in the Oak Ridges Moraine watershed area (the Niagara Escarpment is shaded to the left of the Moraine)



Source: www.stormco.org/orm1.jpg.

2.2.1 Ecological values of the Moraine

"The Moraine has a unique concentration of environmental, geological and hydrological features that make its ecosystem vital to south-central Ontario ..."⁷ The Moraine supports amphibian, reptile, fish, mammal, dragonfly and damselfly species, butterflies, nesting birds, rare, threatened, vulnerable and endangered species, and vascular plants. It contains provincially significant wetlands and kettle lakes.⁸ Sixty-five streams and rivers have their headwaters on the Moraine; the headwaters of all of the watersheds in Toronto originate on the Moraine (see figure 2.3).⁹ The Moraine divides the watershed draining south into western Lake Ontario, from those draining north into Lake Simcoe, the Trent-Severn Waterway and ultimately Georgian Bay.¹⁰ There are 28 life and earth science Areas of Natural and Scientific Interest designated on the Moraine.¹¹ Twenty eight percent of the Moraine is covered in forest. The Moraine has up to 150 metres depth of sand and gravel deposits from glaciers that retreated some 12,000 years ago. It hosts a human population of approximately 100,000 and its underground aquifers supply drinking water to 250,000 people.

This ecological significance has been recognised in previous provincial planning documents.¹² The

values associated with the Moraine include:

- ecosystem functions such as the maintenance of healthy, clean and abundant water resources
- the long-term protection of watercourses within and associated with the Moraine
- the supply of precipitate water to the aquifer system¹³
- its contributions to other natural systems in the Greater Toronto Area (GTA) and beyond, such as river valleys and related watersheds, and adjacent wetland areas
- its support of the functioning of adjoining ecosystems through provision of biodiversity, clean air and clean water¹⁴
- the maintenance of natural heritage resources¹⁵
- healthy and diverse plant and animal habitat
- an attractive and distinct landscape
- prime agricultural areas
- sand and gravel resources close to market.¹⁶

2.3 Canadian government structure

Canada is an independent federal democracy. It has two primary levels of government: federal and provincial (see figure 2.4). These two levels are, in general, mutually exclusive.¹⁷ The province of Ontario has its own government that controls

issues affecting the province. For example, land-use planning is a provincial responsibility. Municipalities govern at the local level. At a municipal level there are two tiers; the upper tier (for example, regional municipalities) and the lower tier.

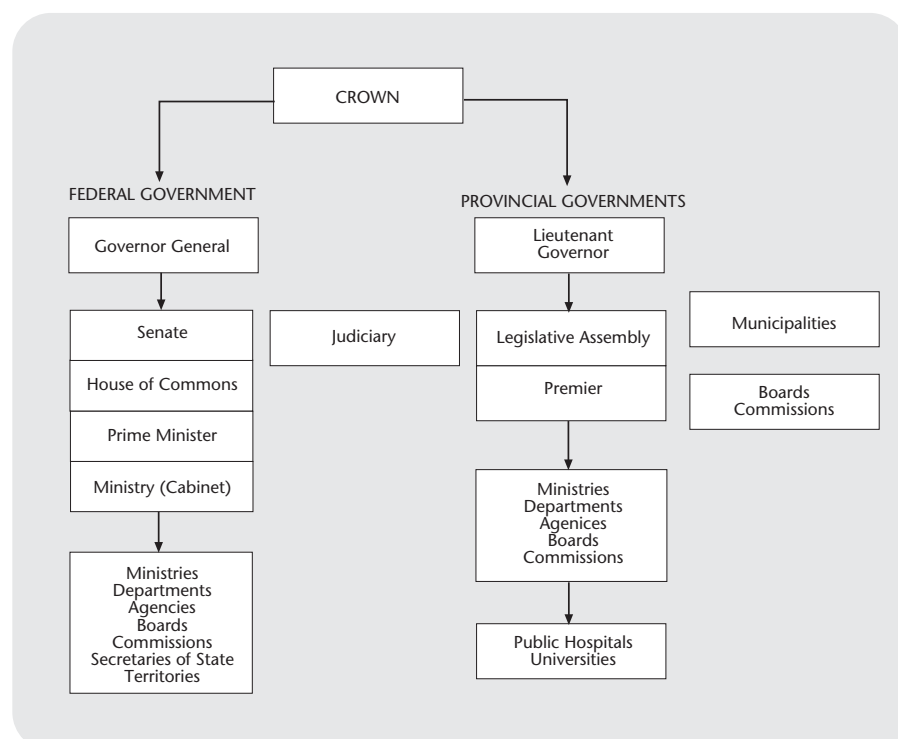
The planning system in Ontario is a policy-led system: the province sets out the broad policy framework and the municipalities (similar to regional or district councils in New Zealand) implement this through their own official plans, zoning by-laws and their decisions on development applications. The Ontario Municipal Board (OMB) resolves disputes and holds hearings under the Planning Act 1996. Decisions of the OMB are final and appeals to the Divisional Court can be made only on a point of law. The provincial government may be a party to hearings through the Ministry of Municipal Affairs and Housing (MMAH). Other ministries can participate in OMB hearings, however, the Planning Act 1996 allows only the MMAH to take party status on behalf of the province.¹⁸

2.4 Putting the Moraine on the political agenda

The campaign to improve management of the Moraine began 13 years ago under a previous provincial government.

In mid 1990, the Liberal Party government declared a provincial interest in the Moraine. The New Democratic Party elected in late 1990 expressed interest in the management of the Moraine and commissioned in-depth research to inform future management (refer to section 2.5.1). The current Progressive Conservative Party government, was elected in 1995 and had, until recently (unlike their predecessor), shown little political will to address concerns regarding protection of the ecological and aesthetic values of the Moraine. When challenged by community members on the need for a new approach to Moraine management, the provincial-level politicians were of the opinion that the planning framework had “all the tools needed to better protect the Moraine, if only [municipalities] would use them”.¹⁹ (See also section 2.5.2.)

Figure 2.4: Structure of Canadian Government



Source: <http://learnnet.gc.ca/eng/lrncentr/online/hgw/structure1.htm>.

However, many community groups and citizens were campaigning against developments in their locale. Existing Moraine residents viewed additional residential developments as undermining their quality of life. From this initial concern came about a greater understanding amongst the public of “the importance of natural core areas, groundwater aquifers and headwaters protection, and the value of wildlife corridors”.²⁰ In addition, the community learned “... that when people get involved in a local issue, they can usually see that it’s a symptom of a larger problem. ... If provincial-level laws and policies were appropriate and enlightened, then all these little boils wouldn’t keep erupting”.²¹

In early 2000, over 450 scientists signed A *Protection Statement for the Oak Ridges Moraine* that called for a Moraine-wide strategy. Non-governmental organisations (NGOs) such as the Federation of Ontario Naturalists (FON) and Save the Oak Ridges Moraine Coalition (STORM) also lobbied for better cross-municipality planning to protect large natural features in the face of urban sprawl.²²

In mid 2001, the Ontario Government decided to address the ecologically sustainable development of the Moraine. This decision was a result of the focused attention on the management of the Moraine by environmental NGOs, Toronto City Councillors, the two opposition parties in the Ontario Legislature, Moraine residents, the media and the Environmental Commissioner of Ontario (ECO). In addition, the 1999 Tri-Regional Strategy (refer section 2.5.1), the Richmond Hill hearing (refer section 2.6.4) and several other big hearings waiting to be heard by the OMB also drew attention to the management of the Moraine.

A detailed timeline of the events from 1989-2002 is included in appendix 2A.

2.5 Pre-2001 legislative and planning framework

This section provides a brief outline of the legislative and planning framework for the

Ontario region, applicable to the Oak Ridges Moraine prior to 2001. A more detailed description of studies, documents and events is provided in appendix 2B.

2.5.1 Provincial policy

The Provincial Policy Statement²³ (PPS) is issued under the Planning Act 1996, and provides policy direction on matters of provincial interest related to land-use planning and development. The PPS is based on three principles aimed at achieving long-term economic prosperity, environmental health and social well-being in Ontario.²⁴ The Planning Act 1996 requires that municipalities developing their municipal plans “shall have regard to” the PPS.²⁵

In July 1990 a report entitled *Space For All: Options for a Greater Toronto Area Greenlands Strategy* was released. Commissioned by the Premier of Ontario, in the face of projected population growth, this report called on the province to declare its provincial interest and to initiate a comprehensive land-use planning study for the Moraine Area within the GTA (see figure 2.2.).²⁶

Following the declaration of provincial interest in the Moraine in 1990, the *Implementation Guidelines: provincial interest on the Oak Ridges Moraine Area of the Greater Toronto Area* were introduced in June 1991 by the Ontario Government. These guidelines were prepared to assist municipality planners and developers to implement the provincial interest.²⁷

In 1991, a three-year planning study commenced. This involved 15 background studies and culminated in the production of *The Oak Ridges Moraine Strategy for the Greater Toronto Area: an ecosystem approach for long-term protection and management* (the Strategy).²⁸ (See appendix 2B for details of the background studies.)

Despite the comprehensive nature of the research undertaken and the large financial investment in developing the Strategy it was not formally commented on or implemented by the Ontario

Government, as a result of the change in governing party in 1995.

In September 1999, *The Oak Ridges Moraine - Towards a Long Term Strategy*, commissioned by the Regional Municipalities of Peel, York and Durham, reiterated the need for a Moraine wide strategy, stating:

... There is still a need for the province to formalize its 1991 declaration of provincial interest through a long-term strategy.²⁹

2.5.2 Environmental Bill of Rights Review application

In March 2000, Toronto City Councillors Miller and Adams and, separately, FON and STORM, applied for a review of the need for a new policy, Act or regulation pursuant to the Environmental Bill of Rights (EBR). See appendix 2C for an outline of the purposes and principles of the EBR. The rationale for a review are included in appendix 2B.

Despite the expression of provincial interest, any clear and comprehensive approach from the province to management of the Moraine as a geographical feature had been lacking. However, the official response to the EBR applications for review from ministers of the provincial government was that:

Since this sound provincial and municipal framework of policy, guidelines and legislation exists, each of us does not believe that a further review is warranted.³⁰

The Environmental Commissioner of Ontario found that the:

... ministries' response completely disregard[ed] compelling arguments and evidence included in the application, such as:

- *evidence of the environmental significance of the ORM, increasing development pressure, and potential harm to the environment*
- *municipal and OMB decisions demonstrating*

a piecemeal approach and decisions contrary to ORM protection

- *statement in the 1991 ORM guidelines that they were an interim measure, pending completion of technical studies and adoption of a long-term strategy*
- *evidence that the studies were undertaken and a long-term strategy was drafted and endorsed by all stakeholders in 1994, but not adopted by the provincial government*
- *evidence that many other stakeholders, including several Regional Municipalities, the City of Toronto and the Greater Toronto Services Board also hold the opinion that the current Guidelines are inadequate and that a long-term strategy and provincial policy are still required.³¹*

2.6 Introduction of new legislation - the planning documents and approaches

The opportunity to develop a new approach to management of the Moraine came in May 2001 when the Oak Ridges Moraine Protection Act 2001 froze all development applications on the Moraine. It also stopped the OMB from making decisions on existing applications related to the Moraine.³² The Act established a six month moratorium on development whilst the government consulted on protection options for the Moraine.³³ An advisory panel of 13 members was appointed and an inter-ministerial team of senior Ontario Government officials worked with the advisory panel to advise the Minister of Municipal Affairs and Housing on a plan for the future of the Moraine.³⁴

In August of 2001, acting on advice from the advisory panel, the Minister released a public discussion document *Share Your Vision for the Oak Ridges Moraine*. This discussion document was widely consulted on - over 2,000 people attended public meetings and 600 written submissions were received.³⁵

The new planning approach is encapsulated in the Oak Ridges Moraine Conservation Plan (the Moraine Plan/the Plan). The Plan is established in law by the Ontario Government³⁶ as a regulation under the Oak Ridges Moraine Conservation Act 2001. The Act and the Moraine Plan emerged from the work of the provincial government’s advisory panel.

Table 2.1: A new planning approach for the Moraine - the various legal documents, their purpose and relationship to each other

Document	Document purpose
The Oak Ridges Moraine Protection Act 2001	Established a six-month moratorium on development on the Moraine whilst the Government consulted on a new planning approach
The Oak Ridges Moraine Conservation Act 2001	Area-specific legislation that establishes the Oak Ridges Moraine Conservation Plan as a regulation under the Act.
The Oak Ridges Moraine Conservation Plan 2001	Sets out planning requirements. This Plan is a regulation under the Oak Ridges Moraine Conservation Act. The Plan document also includes non-regulatory sections outlining the Government’s vision and expectations for how the regulation (that is, the Plan) should be implemented.
Municipal Official Plans	Existing ‘regional and district’ plans that must be brought into conformity with the Oak Ridges Moraine Conservation Plan.

The Oak Ridges Moraine Conservation Plan was released in April 2002. It covers 190,000 hectares across three regions and five counties. All municipal decisions on planning and development applications that commenced on or after 17 November 2001 (the end date for the six-month development moratorium) are required to conform to the Plan.³⁷

2.6.1 New planning approach

The new planning approach is based primarily on the *Share Your Vision for the Oak Ridges Moraine* discussion document that builds on the work done for the 1994 Strategy (see section 2.5.1 and appendix 2B).

The regime is also modelled, in part, on the management of the Niagara Escarpment. Similarities to the management of the Niagara Escarpment include the use of specific land-use designations, permitted uses and lot creation policies. The Ontario portion of the Niagara Escarpment was designated a World Biosphere Reserve by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in 1990 (see appendix 2D). It is hoped that the new planning approach for the Moraine will also receive such recognition.

Interestingly, the management of the Niagara Escarpment has just undergone its second five-year review, with a call being made for greater protection measures - these are outlined in appendix 2E.

Unlike the approach used for the Niagara Escarpment that established a separate planning system, the Moraine Plan “was designed to work within the existing planning system where the province sets the broad policy direction and the municipalities are responsible for implementation”.³⁸ Regional municipalities in the GTA (York, Peel and Durham) are required to have their official plans conform with the Moraine Plan within a year of its introduction (that is, by April 2003). Lower-tier municipalities and other non-GTA municipalities of the Moraine have 18

months to bring their zoning by-laws into line with the Plan (that is, by November 2003).³⁹

The requirement to ‘conform’ is a main characteristic of the Moraine Plan that distinguishes it from other provincial planning policy that municipalities are only required to “have regard to”.⁴⁰ By bringing existing official plans into conformity with the provincial Moraine Plan, this allows municipalities to use their own planning documents to protect the Moraine.⁴¹ The Moraine Plan will prevail if there is a conflict with local plans.

Promoters at FON of the new planning approach for the Moraine consider it to be transferable to specific landforms or, potentially, all those parts of Ontario under municipal organisation. The Environmental Commissioner for Ontario also made the observation in his 2001/2002 annual report that the Government should consider applying this planning approach to the rest of southern Ontario.⁴²

2.6.2 Oak Ridges Moraine Conservation Plan

The Plan contains an introductory and implementation section that outlines the Government’s vision, and expectations for how the regulation (the Plan itself as established under the Oak Ridges Moraine Conservation Act 2001) should be implemented; it is intended that these always be read together with the regulation.⁴³

The purpose of the Plan is to:

... provide land use and resource management planning direction to provincial ministers, ministries, and agencies, municipalities, municipal planning authorities, landowners and other stakeholders on how to protect the Moraine’s ecological and hydrological features and functions.

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.*⁴⁴

The Oak Ridges Moraine Conservation Act 2001 establishes a number of objectives for the Plan as listed below.

- (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; and*
- (h) providing for other public recreation access to the Oak Ridges Moraine Area; and,*
- (i) and any other prescribed objectives.*⁴⁵

Section 5 of the Plan establishes a Prohibition that:

Table 2.2: Land-use designations for the Oak Ridges Moraine⁴⁸

	Natural Core Areas	Natural Linkage Areas	Countryside Areas	Settlement Areas
Percentage of Moraine area	38	24	30	8
Purpose	Protection of the most significant natural features.	Network of corridors to connect Natural Core Areas and allow for passage of wildlife and plant material.	Agriculture, recreation, parks and open space and existing rural settlements.	Land approved for urban use in official plans.
Description of natural features, values	The most significant natural features, including: forests, woodlots, valley lands, wetlands, streams, fish and wildlife habitat, kettle lakes, peatlands, seepage areas, species-at-risk habitat, springs and complex landforms.	Forested areas, river valleys, wetlands and other rural lands.	Rural and non-urban lands.	
Use controls and permitted uses	<p>Most restrictive with strict controls. Permitted uses (that meet the requirements) include:</p> <ul style="list-style-type: none"> • single residences on existing lots • low-impact recreation (e.g., hiking, picnic areas) • already existing site-specific uses • existing agricultural uses • conservation, flood and erosion control • forest, fish and wildlife management • accessory uses such as bed and breakfast operation, or home business in an existing permitted residence. 	<p>Areas must be a minimum of 2 kilometres wide (except where precluded by existing development). Permitted uses are the same as for Natural Core Areas.</p> <p>Some aggregate extraction also permitted (a 1.25 kilometre width must be free of aggregate extraction at all times).</p>	<p>Permitted uses include all uses permitted in Natural Core and Natural Linkage Areas, plus:</p> <ul style="list-style-type: none"> • aggregate extraction • intensive recreational uses (e.g., golf courses, ski fields, service campgrounds) • agriculture and agriculture related uses • outside of agricultural areas • small scale commercial, industrial and institutional uses such as schools and retirement homes • residential subdivision excluded, but 'minor' infilling within existing rural settlements provided for. 	<p>Permitted uses include those already approved in official plans, such as industrial, commercial and residential use. Development plans must protect significant natural heritage features and landforms.</p>

No person shall, except as permitted by this Plan,

(a) use land or any part of it;

(b) undertake development or site alteration with respect to land; or

(c) erect, move, alter or use a building or structure or any part of it.⁴⁶

The new planning approach designates land into four categories:

1. Natural Core Areas.
2. Natural Linkage Areas.
3. Countryside Areas.
4. Settlement Areas.

A description of each of these areas and the relevant planning controls is summarised in table 2.2 opposite.

Some of the key land-use policies of the plan are:

- no new aggregate resource extraction is permitted in Natural Core Areas and in other areas stringent review and approval standards need to be met;
- no new urban residential development in almost 92 percent of the Moraine;
- new major recreational developments such as golf courses, ski hills and serviced camping grounds are only permitted in Countryside Areas once stringent review and approval standards are met;
- new transportation and utility corridors or facilities will only be permitted in Natural Core Areas and Natural Linkage areas if it can be shown necessary and that there are no alternatives;
- the trail system is for non-motorised recreational access.⁴⁷

Although table 2.2 outlines the permitted uses for the four designated land areas, each new use or development proposal will be evaluated against key ecological and hydrological requirements, including consideration of impacts on:

- key natural heritage features
- key hydrological features, and

- landform conservation.⁴⁹

Plus, certain land uses are subject to additional specific development policies.

The eastern portion of the Moraine is not currently under the same intensity of development pressure as the western end of the Moraine. Consequently, municipalities at the east end,⁵⁰ outside of the GTA, will have greater flexibility to allow for more development in the Countryside Areas (specifically rural residential plans of subdivision). Conservation groups such as FON have roundly criticised this allowance for urban-type development via rural residential subdivisions.⁵¹ However, this development cannot occur in prime agricultural areas, and cannot be approved until the relevant municipality has completed a 'comprehensive growth management study' that includes a "rural economic development strategy, that demonstrates the need for residential development".⁵² Any development that does occur in these areas will also need to, amongst other requirements, "provide for large, continuous open space blocks linking key natural heritage features and hydrologically sensitive features, to ensure connectivity".⁵³

The Plan aims to fully protect all sensitive water resources. Kettle lakes and their catchments, permanent and intermittent streams, seepage areas, springs and wetlands will all be protected from development. Where development is allowed to occur, limits are placed on the amount of impervious surfaces within sub-watersheds. These limits aim to protect the natural hydrological cycle, groundwater recharge and reduce potential flooding and erosion.⁵⁴

Municipalities are required to delineate protection areas for all new and existing municipal wells, and are required to incorporate watershed plans into their official plans. Watershed plans must, as a minimum, include a water budget and conservation plan;⁵⁵ land and water-use management strategies; implementation framework; an environmental monitoring plan;

provisions requiring the use of programmes such as those that reduce pesticide use, prevent pollution and manage the use of road salt; and criteria for evaluating the protection of water quality and quantity, hydrological features and functions.⁵⁶

Each natural heritage feature (for example, a significant habitat) or a landform feature, has an “associated area of influence”. For example, surrounding a key natural feature is a designated area of “minimum vegetation protection zone” and beyond this the “minimum area of influence” may extend. All development or site alteration within a key natural feature or minimum vegetation protection zone is prohibited except for forest, fish and wildlife management, conservation and flood controls, transportation, infrastructure and low-intensity recreation (provided all of the additional requirements for these activities can be met).⁵⁷ Any applications for development or site alteration that fall within the area of influence around a natural feature have to meet certain requirements, depending on the feature, and must be accompanied by a ‘natural heritage evaluation’.⁵⁸ This evaluation will need to demonstrate that there will be “no adverse effects on the key natural heritage feature or on the related ecological functions”, and show how connectivity between natural heritage features will be maintained, improved or restored and so forth.⁵⁹ A similar approach is taken with hydrologically sensitive features. There is a requirement that a “hydrological evaluation” be undertaken for applications for land-use change within the minimum area of influence but outside the hydrologically sensitive feature itself and the related minimum vegetation protection zone.⁶⁰

Important landscape areas are designated on maps as “Landform Conservation Areas of the Oak Ridges Moraine” and classed as either ‘Category 1’ or ‘Category 2’ with more strict controls being applied to Category 1 areas.⁶¹ Any application for development or site alteration with respect to land

in a landform conservation area must identify planning, design and construction practices that will keep disturbance to landform character to a minimum.⁶² If the application is for ‘major development’,⁶³ then a landform conservation plan is required (s30(8) and (9) of the Plan).

The Oak Ridges Moraine Conservation Act 2001 requires that the Moraine Plan be reviewed after ten years. The ten-year review cannot consider removing land from Natural Core Areas or Natural Linkage Areas.⁶⁴

The Plan’s implementation section also places an obligation on the Ontario Government to update existing technical guidelines and develop new manuals on:

- natural heritage
- landform conservation
- stormwater management planning, design and implementation
- water budget and water conservation plan preparation, and
- watershed and sub-watershed plan preparation.⁶⁵

The Ontario Government is also developing a series of water policy related guides specific to the Moraine Plan and a major guide on road construction related to the Moraine.⁶⁶

Additionally, the Ontario Government, in partnership with municipalities, conservation authorities and some stakeholders, is required to “develop and maintain a data management system to collect, store, update and share natural heritage, water resources and geotechnical information needed to interpret, apply and monitor the policies of the Plan”.⁶⁷

The Ontario Government, in consultation with municipalities, is to identify performance indicators for monitoring the effectiveness of the Plan.⁶⁸ The Ontario Government, in partnership with stakeholders, will:

... establish a monitoring network to collect, summarize and evaluate performance indicator data to:

- assess changes in the ecological integrity of the Moraine;
- assess the effectiveness of the policies of the Plan in achieving the Plan's vision and objectives;
- help identify improvements that would address problems encountered in implementing the Plan.⁶⁹

2.6.3 Response to the new planning approach

The Environmental Commissioner of Ontario in his 2001-2002 *Annual Report: Developing Sustainability* commends the Government and other involved parties for making important steps forward in environmental land-use planning in Ontario. The report states:

*In the ECO's opinion, the Plan's provisions for protecting natural heritage features and hydrological features and functions are far superior to those of the Planning Act and the Provincial Policy Statement. MAH should consider using this model to improve land use planning and decision-making throughout Ontario.*⁷⁰

However, ECO does have concerns regarding the Plan and its implementation. These include, the allowance for transportation and utilities throughout the Plan area, even in Natural Core Areas, which appear contrary to the objectives of the Plan. Additionally, ECO "shares the strong concerns of many commenters [sic] about implementation of the Plan". These concerns relate primarily to the ability of lower-tier municipalities (who lack resources and expertise) to carry out the studies and evaluations required by the Plan. The Environmental Commissioner of Ontario has urged the provincial government to assist municipalities through the provision of

baseline information, mapping, technical and policy guidelines, identification of performance indicators and monitoring and evaluation systems.⁷¹

2.6.4 Securing private land proposed for development as a protected publicly owned park

In April 2002 the Ministry of Municipal Affairs and Housing announced that nearly 550 hectares of "environmentally sensitive Oak Ridges Moraine land in Richmond Hill [would] be protected in public ownership as a spectacular park, as a result of an agreement among landowners, the provincial government and others with an interest in the Moraine".⁷² The park is being established through land dedications and exchanges for provincially owned, developable lands off the Moraine.⁷³

The formation of a Richmond Hill park is an outcome of what initially started as an OMB hearing - in early 2000 - on plans to develop more than 556 hectares of land in the area. The provincial government, environmental groups, York Region and the Town of Richmond Hill opposed the applications before the OMB. Their primary concern being that "the final natural link between the east and west ends of the Moraine would have been lost" had the development proceeded.⁷⁴

At the same time as the announcement of the first reading of the Oak Ridges Moraine Conservation Act on 1 November 2001, there was an announcement of a mediated settlement that had been reached regarding applications for development in Richmond Hill. The outcome of these mediated agreements meant that 431 hectares - about 65 percent of the land to be considered for development by the OMB - would be protected as Natural Core and Natural Linkage Areas under the Oak Ridges Moraine Conservation Plan, and be placed in public ownership.⁷⁵ The original private owners would be compensated with developable lands off the Moraine, in the

town of Pickering in the Regional Municipality of Durham, just east of Toronto. Only 35 percent of the land that was subject to development proposals was designated as Settlement Areas (where development can occur) in the Plan.⁷⁶

Whilst undertaking the above mediation, the negotiators saw the opportunity to protect additional adjacent land that contained the headwaters of the Rouge and Humber Rivers and other important natural heritage features. The owners of the land agreed to dedicate 119 hectares of land designated as Natural Core Areas to the park and public ownership, in exchange for the redesignation of 140 hectares of land owned by the developer from Countryside Area to Settlement Area.⁷⁷

2.6.5 Oak Ridges Moraine Foundation

The Oak Ridges Moraine Foundation (the Foundation) was first announced in November 2001 and formally established in March 2002 to “provide support and encouragement for activities that preserve, protect, and restore the environmental integrity of the ORM and support a trail along it”.⁷⁸ It funds public education, research, monitoring and a continuous recreational trail along the length of the Moraine.⁷⁹ The province of Ontario has allocated an initial \$15 million (Canadian) to the Foundation. This money is intended to help the Foundation’s interim board of directors develop programmes, determine actual funding requirements and seek partnership funding.⁸⁰ The Foundation’s interim directors include the science director of the Nature Conservancy of Canada,⁸¹ deputy minister of Natural Resources, a board member of Ontario’s Living Legacy Trust,⁸² chief administrative officer of the Central Lake Ontario Conservation Authority⁸³ and the director of the Schulich School of Business at York University.⁸⁴

2.6.6 Rights and responsibilities of indigenous people

The implementation notes of the Moraine Plan state:

The policies of the Plan do not affect any Aboriginal or treaty right recognized or affirmed by the Constitution Act. The Ontario government shall consult with Aboriginal peoples about decisions that may affect the use of Crown land and resources that are subject to Aboriginal and treaty rights within the Oak Ridges Moraine. (p. 9)

The Plan does not cover Reservations because these are federally regulated native reserves that do not come under provincial jurisdiction. However, there is a commitment to consult with the Aboriginal peoples about decisions that would affect lands that are subject to treaty rights on the Moraine.⁸⁵ Recently, Chief Goose of the Mississaugas of Scugog First Nations asserted that the Williams Treaty (date unknown) leaves the easternmost part of the Moraine in questionable ownership. The United Anishnaabeg Council (comprising eight First Nations) claim that their territory was never formally settled. It is possible that the First Nations may challenge some of the restrictive policies of the Plan.⁸⁶

2.7 Summary

2.7.1 Issues with the previous planning approach

- Cross-municipality boundary management lacked an integrated, comprehensive approach.
- Confusion over the provincial interest and lack of provincial-led planning.
- Confusion over who should carry planning responsibility - municipalities or the province.
- Failure to implement intention and values of provincial planning at a municipal level.
- Review of applications for development by OMB not seen to require strict adherence to policy documents.

- Ad hoc decision making via OMB hearings as a result of inconsistent interpretation of the provincial intention.
- Management of the Moraine has major implications for adjacent and adjoining areas.
- Environmental impacts felt beyond jurisdictional boundaries not catered for in management framework.
- Cumulative effects not managed, and presenting a serious threat to ecological integrity of the Moraine, ecological services, and quality of life of Moraine residents and recreational users.
- Development pressure resulting in adverse impacts on ecology and greenspace.

2.7.2 Characteristics of the new planning approach

Notable characteristics of the new management approach include:

- Area-specific legislation.
- Ecosystem-based plan philosophy.
- Prescriptive planning approach.
- Public ownership of key areas.
- Compensation for loss of development rights where development proposals were already under consideration before the OMB.
- Planning done at provincial level and to be implemented at regional and municipal level.
- Substantial research to support plan development.
- The Moraine Plan is seen as the catalyst for 'smart growth' throughout Ontario.
- An integration of land-use planning with a range of additional management tools, including guidelines, strategies, and education.

List of abbreviations and acronyms

ANSI	Areas of Natural and Scientific Interest
EBR	Environmental Bill of Rights
ECO	Environmental of Commissioner of Ontario
FON	Federation of Ontario Naturalists
GTA	Greater Toronto Area
MMAH /MAH	Ministry of Municipal Affairs and Housing
NEP	Niagara Escarpment Plan
NGO	Non-governmental organisation
OMB	Ontario Municipal Board
ORMCP	Oak Ridges Moraine Conservation Plan
PPS	Provincial Policy Statement (for Ontario)
STORM	Save the Oak Ridges Moraine Coalition
The Escarpment	Niagara Escarpment
The Foundation	Oak Ridges Moraine Foundation
The Guidelines	Implementation Guidelines: provincial interest on the Oak Ridges Moraine Area of the Greater Toronto Area
The Moraine	Oak Ridges Moraine
The Plan/Moraine Plan	Oak Ridges Moraine Conservation Plan
The Strategy	The Oak Ridges Moraine Strategy for the Greater Toronto Area: an ecosystem approach for long-term protection and management, 1994
TWC	Technical Working Committee

Useful websites

Ministry of Municipal Affairs and Housing

Oak Ridges Moraine Conservation Plan and zoning maps

www.mah.gov.on.ca

Environmental Commissioner of Ontario

Concise description and comment on the new ORM Conservation Plan

www.eco.on.ca

Federation of Ontario Naturalists (FON)

www.ontarionature.org

Save the Oak Ridges Moraine Coalition (STORM)

www.storm.co.org

Appendices

The appendices can be viewed on the Parliamentary Commissioner for the Environment's website at www.pce.govt.nz.

- 2A Timeline of significant events and reports leading to change of planning approach
- 2B Pre-2001 legislative and planning framework
- 2C Environmental Bill of Rights
- 2D UNESCO World Biosphere Reserves
- 2E Niagara Escarpment Plan Review

¹ Parliamentary Commissioner for the Environment. 2001. *Managing Change in Paradise: sustainable development in peri-urban areas*.

² The Commissioner's recent report *Creating Our Future: Sustainable Development for New Zealand* points out:

The extensive criticisms of the RMA have largely been about process, rather than the substance of the Act, and the broader goal of advancing the country towards sustainability has largely been forgotten in disputes over detail with the RMA. The RMA was a farsighted piece of legislation. However other mechanisms are also needed to advance sustainable development.

Parliamentary Commissioner for the Environment. 2002, p. 121.

³ Parliamentary Commissioner for the Environment. 2001, op. cit., p. 91.

⁴ Oak Ridges Moraine Conservation Plan (ORMCP).

⁵ Oak Ridges Moraine Conservation Plan.

⁶ Debbe Crandall, STORM (Save the Oak Ridges Moraine) Coalition.

⁷ Oak Ridges Moraine Conservation Plan.

⁸ Kettle lake - a water-filled depression in glacial drift, especially outwash formed by the melting of a detached block of stagnant ice that was buried in the drift. (Source: *Dictionary of Geological Terms* prepared by the American Geological Institute.)

Provincially significant wetland - is one that has been

- evaluated under a points system as being especially important - they are protected under section 2.3 of the Principle Policy Statement.
- ⁹ Adams, J. and Miller, D. 2000.
- ¹⁰ Linda Pim, pers. comm. ORMCP.
- ¹¹ Areas of Natural Scientific Interest (ANSI) are designated by the Ontario Government. Areas of Natural Scientific Interest are areas of land and water recognised by the Ontario Government as containing natural landscapes or features that have been identified as having values related to natural heritage protection, scientific study or education. Areas of Natural Scientific Interest vary in their level of significance and their vulnerability to environmental impact. They may be classified as either regionally or provincially significant. The 'ANSI' is not a municipal land-use designation but rather an identification of land as having natural heritage significance that may be helpful in deciding on municipal official plan designations. (Linda Pim, pers. comm.)
- ¹² Ministry of Natural Resources, Ministry of the Environment, Ministry of Municipal Affairs. 1991. *Implementation Guidelines: provincial interest on the Oak Ridges Moraine Area of the Greater Toronto Area*. Oak Ridges Moraine Technical Working Committee. 1994. *The Oak Ridges Moraine Strategy for the Greater Toronto Area: an ecosystem approach for long-term protection and management*, 1994.
- ¹³ Ministry of Natural Resources, Ministry of the Environment, Ministry of Municipal Affairs, 1991, *ibid*.
- ¹⁴ Oak Ridges Moraine Technical Working Committee, 1994, *op. cit*.
- ¹⁵ Ministry of Natural Resources, Ministry of the Environment, Ministry of Municipal Affairs, 1991, *op. cit*.
- ¹⁶ Oak Ridges Moraine Conservation Plan.
- ¹⁷ <http://www/dbic.com/guide/tm7-1.html>.
- ¹⁸ Barb Konyi, MMAH, pers. comm. via email. 16/10/02 - all information in paragraph quoted or paraphrased.
- ¹⁹ Pim, L. and Beck, G. 2002. Saving the Moraine. *Seasons*. Spring.
- ²⁰ Pim and Beck, 2002, *op. cit*.
- ²¹ Pim and Beck, 2002, *op. cit*.
- ²² The Federation of Ontario Naturalists (FON) - a conservation organisation established in 1931 representing 25,000 members and over 120 member groups across Ontario. Undertakes research, conservation action and education aimed at protecting Ontario's natural environment. The Federation has a network of habitat and wildlife reserves.
- ²³ Provincial Policy Statement. 1996 revised. 1997 version.
- ²⁴ The three principles of the PPS are:
1. *managing change and promoting efficient, cost-effective development and land use patterns which stimulate economic growth and protect the environment and public health*
 2. *protecting resources for their economic use and/or environmental benefits; and*
 3. *reducing the potential for public cost or risk to Ontario's residents by directing development away from areas where there is a risk to public health or safety or of property damage.*
- Provincial Policy Statement, *op. cit.*, p. 1.
- ²⁵ This requirement was briefly strengthened in 1995-1996 to require municipal plans be "consistent with" the PPS, but was then reverted back to the lesser requirement of "shall have regard to", in 1996 with the change in provincial government and subsequent amendment of the Planning Act 1996.
- ²⁶ Debbe Crandall, pers. comm.
- ²⁷ Ministry of Natural Resources, Ministry of the Environment, Ministry of Municipal Affairs, 1991, *op. cit*.
- ²⁸ Oak Ridges Moraine Technical Working Committee, 1994, *op. cit*.
- ²⁹ Cited in Adams and Miller. 2000. Schedule A.
- ³⁰ Letter to the applicants from the Minister of Municipal Affairs and Housing, Minister of Natural Resources, Minister of the Environment responding to the application for review. 29 May 2000.
- ³¹ Environmental Commissioner of Ontario. (Date unknown.)
- Review of Applications R99011-16: Oak Ridges Moraine Review Denied by MMAH, MOE and MNR, p. 4.
- ³² Ministry of Municipal Affairs and Housing. 2002a. The Proposed Oak Ridges Moraine Conservation Plan.
- ³³ Oak Ridges Moraine Conservation Plan.
- ³⁴ Oak Ridges Moraine Conservation Plan.
- ³⁵ Oak Ridges Moraine Conservation Plan.
- ³⁶ Oak Ridges Moraine Conservation Plan.
- ³⁷ Ministry of Municipal Affairs and Housing. 2002b. Province Release Oak Ridges Moraine Conservation Plan.
- ³⁸ Barb Konyi, pers. comm.
- ³⁹ In Ontario the upper-tier municipalities (regions) have the power to approve lower-tier municipalities' official plans and most planning decisions.
- ⁴⁰ Barb Konyi, pers. comm. via email. 16/10/02.
- ⁴¹ Barb Konyi, pers. comm. via email. 16/10/02.
- ⁴² Lisa Shultz, pers. comm. via email. 23/10/02.
- ⁴³ Ministry of Municipal Affairs and Housing. 2002c. Refinements Clarify Oak Ridges Moraine Conservation Plan.
- ⁴⁴ Oak Ridges Moraine Conservation Plan, p. 3.
- ⁴⁵ Oak Ridges Moraine Conservation Plan, p. 4.
- ⁴⁶ Oak Ridges Moraine Conservation Plan, p. 15.
- ⁴⁷ Oak Ridges Moraine Conservation Plan.
- ⁴⁸ The information in this table is largely quoted from Pim and Beck, 2002. With additional information from the Ministry of Municipal Affairs and Housing, 2001a, *op. cit*.
- ⁴⁹ Oak Ridges Moraine Conservation Plan.
- ⁵⁰ Peterborough and Northumberland Counties, City of Kawartha Lakes.
- ⁵¹ Linda Pim, pers. comm.
- ⁵² Oak Ridges Moraine Conservation Plan, s14(2) and s14(3), p. 34.
- ⁵³ Oak Ridges Moraine Conservation Plan, s16(1)a, p. 25.
- ⁵⁴ Ministry of Municipal Affairs and Housing, 2001b, *op. cit*.
- ⁵⁵ The requirements of which are set out in s25 of the Plan.
- ⁵⁶ Oak Ridges Moraine Conservation Plan, s24(3)a-f, p. 32.
- ⁵⁷ Oak Ridges Moraine Conservation Plan, s22(2), p. 30.
- ⁵⁸ Oak Ridges Moraine Conservation Plan, s22(3), p. 30.
- ⁵⁹ Oak Ridges Moraine Conservation Plan, s23(1)a-f, p. 31.
- ⁶⁰ Oak Ridges Moraine Conservation Plan, 26(4). Debbe Crandall, pers. comm.
- ⁶¹ Oak Ridges Moraine Conservation Plan, s30, pp. 38-39.
- ⁶² This requires:
- (a) *maintaining significant landform features such as steep slopes, kames, kettles, ravines and ridges in their natural undisturbed form;*
 - (b) *limiting the portion of the net developable area of the site that is disturbed to not more than 25 percent of the total area of the site [50 percent for Category 2]; and*
 - (c) *limiting the portion of the net developable area of the site that has impervious surfaces to not more than 15 percent of the total area of the site [20 percent for Category 2].*
- Oak Ridges Moraine Conservation Plan, s30(5)a-c, p. 39.
- ⁶³ That is four or more lot subdivision, a building of 500m² floor size, or a major recreational use (see ORMCP, s38).
- ⁶⁴ Oak Ridges Moraine Conservation Plan, p. 7.
- ⁶⁵ Oak Ridges Moraine Conservation Plan, p. 9.
- ⁶⁶ Barb Konyi, pers. comm.
- ⁶⁷ Oak Ridges Moraine Conservation Plan, p. 9.
- ⁶⁸ Oak Ridges Moraine Conservation Plan, p. 10.
- ⁶⁹ Oak Ridges Moraine Conservation Plan, p. 10.
- ⁷⁰ Environmental Commissioner of Ontario. 2002. Review of Posted Decision: Oak Ridges Moraine Conservation Act, 2001 (Bill 122) in 2001-2002 Annual Report Supplement - Developing Sustainability, p. 123. www.wco.on.ca/english/publicat/ar2001su.pdf.
- ⁷¹ Environmental Commissioner of Ontario, *ibid.*, p. 123.

- ⁷² Ministry of Municipal Affairs and Housing, 2002a, *op. cit.*
- ⁷³ Ministry of Municipal Affairs and Housing, 2002a, *ibid.*
- ⁷⁴ Ministry of Municipal Affairs and Housing, 2002a, *ibid.*
- ⁷⁵ Ministry of Municipal Affairs and Housing, 2002a, *ibid.*
- ⁷⁶ Ministry of Municipal Affairs and Housing, 2002a, *ibid.*
- ⁷⁷ Ministry of Municipal Affairs and Housing, 2002a, *ibid.*, and Debbe Crandall, pers. comm.
- ⁷⁸ Barb Konyi, pers. comm.
- ⁷⁹ Ernie Eves, Premier, Ontario Government. 2002: Oak Ridges Moraine Foundation will receive \$15 million to preserve Moraine for future generations: Eves. 24 May. Ontario: <http://www.premier.gov.on.ca/english/news/Moraine052402.htm>.
- ⁸⁰ Ernie Eves, *ibid.*
- ⁸¹ The Nature Conservancy Canada is a national charitable organisation working to preserve ecologically significant areas through purchase, donations and conservation easements. Since 1962 it has secured a long-term future for some 1.67 million acres of woodlands, seashores, wetlands and prairies. <http://www.natureconservancy.ca>.
- ⁸² Ontario's Living Legacy Trust is an 'arm's length' organisation overseeing a \$30 million (Canadian) fund established in 1999. It has a five-year sunset date with funding to be completed in 2004. The fund was established by the Province of Ontario for investment in natural resource management projects. Two-thirds of the funds go toward improving forest management, with the remaining third allocated to fish and wildlife access and resource management. http://www.livinglegacytrust.org/about_03.html.
- ⁸³ Established in 1958, the Central Lake Ontario Conservation Authority has a mandate to establish and undertake programmes to promote conservation, restoration, development and management of natural resources in partnership with local municipalities and the Province, with a focus on watershed resources. <http://www.cloca.com/>.
- ⁸⁴ Ernie Eves, Premier, Ontario Government, 2002, *op. cit.*
- ⁸⁵ Barb Konyi, pers. comm.
- ⁸⁶ Linda Pim, pers. comm. Debbe Crandall, pers. comm.