

CHAPTER ONE

THE VISION OF A MORAINE-WIDE HIKING TRAIL

Where and What is the Oak Ridges Moraine?

Unlike the Niagara Escarpment, the Oak Ridges Moraine is not immediately observed when travelling through the region. During the 1990s when the Oak Ridges Moraine became a news item most people in the Greater Toronto Area had no idea where it was. Even local residents and visitors who enjoyed its particularly beautiful landscape characterized by steep rolling hills and substantial forests had little knowledge of its boundaries or its significance as a watershed.



Greater Toronto Bio-Region. Note the many rivers feeding Lake Ontario

The Oak Ridges Moraine is defined by a sub-surface geologic formation. It is evident as a 170 km long ridge, a watershed divide between Lake Ontario to the south and Lake Simcoe, Lake Scugog and Rice Lake to the north. Prior to most being harvested, Red Oak trees flourished along the ridge – hence its name.

Appended to this chapter is an account of the Moraine’s formation, nature and history written by two Founding Members of the Oak Ridges Trail Association.¹

The Seeds of the Vision

From the 1960s as the population and industrialization of Ontario, particularly around the Golden Horseshoe from Oshawa to Hamilton grew rapidly, there was an increasing awareness of the stress this placed on the environment, particularly on the congested Toronto Waterfront and the western shore of Lake Ontario.

The vision of a public footpath that would span the entire Niagara Escarpment - the Bruce Trail - came about in 1959 out of a meeting between Ray Lowes and Robert Bateman of the Federation of Ontario Naturalists. By 1963 Regional Clubs were established along the entire length of the trail. The Bruce Trail quickly became important in ensuring public access to and conservation of the Escarpment from Niagara to Tobermory and publicizing the joy of hiking.

In 1970 the Ontario Trail Riders Association (OTRA) was formed. In 1973, the *Great Pine Ridge Trail* was mapped and ridden by equestrians from the Trent River in the east to the Niagara Escarpment in the west. This trail closely followed the crest of the Oak Ridges Moraine.



The proximity of the Oak Ridges Moraine to the most densely populated area of Canada – the Greater Toronto Area – and the nature of this unique area of countryside led to a realization of its potential for recreational purposes; in particular for a moraine-wide hiking trail along similar lines to the Bruce Trail. We do not know who first expressed the idea in the late 1980s.

¹ Adapted from the Oak Ridges Moraine Trail Guidebook. Editors Fiona Cowles and Peter Attfield.

The Toronto Waterfront and the Oak Ridges Moraine



In 1988 the Federal Government set up the Royal Commission on the Future of the Toronto Waterfront, appointing as Commissioner the well respected former Mayor of Toronto, the Honourable David Crombie, P.C., to:

“... enhance the physical, environmental, legislative and administrative context governing the use, enjoyment and development of the Toronto Waterfront and related lands.”²

Adopting an Ecosystem Approach implied studying the issues across a wide area both geographically and socially.

Alongside nature in all its forms, people and human activities were recognised as integral components of the environment. Or, to put it simply: “in the ecosystem everything is connected to everything else.”

Thus in 1989 the Commission’s Interim Report emphasised:

“the ecological dependence of the waterfront on the headwaters, source areas and river valleys which drain into Lake Ontario . . .”

The Ontario Government recognised the findings as relevant to Provincial lands and joined in the Commission’s process, the detailed statement included:

“... ensuring that the natural environment is fully considered open space and continuous public access are fundamental components . . .”³

The Commission’s 530 page Final Report: *Regeneration: Toronto’s Waterfront and the Sustainable City* presented in December 1991 has become a widely used “textbook” on the practical application of the Ecosystem Approach. It envisaged the creation of the Waterfront Trail from Burlington to Newcastle. There are 25 references to the Oak Ridges Moraine, e.g. the summary on page 13 states:

“The waterfront, the Oak Ridges Moraine, and the river valleys of the Greater Toronto Area should be recognized as Provincial Resources in the public

debate and decisions made by all levels of government on the urban form and structure of the region . . .”

Hence the City of Toronto has a defined interest in ensuring the wellbeing of the Oak Ridges Moraine. Provincial ministries and municipal bodies similarly have duties to care for the Moraine; in particular landholders such as the Conservation Authorities and Regional Forests.

Recognition of Activist Citizens Groups Involvement

Save The **Oak Ridges Moraine** (STORM) formed in 1989 and similar groups were commended in the report for their role “in fighting insensitive development and protesting unsound environmental policies at all levels of government.”

It was pertinent to note that the central area of the moraine was not many miles north of Toronto and increasingly accessible by freeways and transit. The inevitable pressures for residential development in adjoining areas would also create a need for recreational opportunities for which the moraine is ideally suited.

When members of the general public got involved practical questions came to the fore, such as: How can we get involved in protecting the Moraine? And, how can we access and enjoy these open spaces? One answer was the creation of a hiking trail which would enable people to experience this significant land form in an unobtrusive manner.

Hence: an **Oak Ridges Moraine Trail**.

The Preliminary Meeting at Seneca College

In 1990 there had been some tentative suggestions about inter-regional trails between municipalities, as noted by Stu Koch of Seneca College. On October 6th, 1991, a group of people met by invitation at Recreation Island, Seneca College, King Campus, to discuss the development of a trail system across the Oak Ridges Moraine from the Bruce Trail in the west to the Ganaraska Trail in the east. The meeting was arranged through the co-operation of *STORM*, the *Metropolitan Toronto Region Conservation Authority* and *Hike Ontario*.

² A brief extract from the Order in Council P.C. 1988-589 dated 30th March 1988.

³ A brief extract from the Ontario Order in Council O.C. 2465/89 dated October 12, 1989.

David Crombie was the guest speaker, urging protective strategies for the Moraine which was part of the interconnection of the whole Toronto bio-region. He stressed that a trail system was an excellent way to educate the public on the need for conservation, and provide recreation opportunities in a scenic area.

Paul Peterson, of the Toronto branch of the BTA (Bruce Trail Association) told the gathering that the creation of a trail system is for the "obvious enjoyment of hiking and being in the country as well as protecting open space, and provides a focal point for preservation efforts."

Ian Deslauriers of the MTRCA provided some background information on trails and described his recent visits to Europe where he had investigated how the footpath systems were operated in Germany and Britain, and also recounted how the ranger system of trail supervision worked in Britain.

Kris Keating, a Trent University post-graduate student, displayed computer generated maps of vegetation and sensitive areas and her findings through resource analysis, leading to a possible route for a trail across the Oak Ridges Moraine.

The meeting ended on the positive note of naming a committee of twelve interested volunteers to address the process needed to get a trail 'on the ground.'

1991 – 1992 THE OAK RIDGES MORaine TRAIL ORGANIZING COMMITTEE

*Peter Scholefield (chair), Steven Greenland, Tom Rance, Klaus Wehrenberg, Peter Attfield, Stuart Koch, Paul Peterson, Fiona Cowles, Theresa Porter, Joy Pierce, Dan O'Reilly, Kris Keating.*⁴

The committee decided to meet on a monthly basis and, to ensure that everyone increased their knowledge of the Moraine's landscapes meetings were held in different locations along the Moraine and combined with a hike or ski for anyone interested in joining in. Several meetings were held in the Uxbridge area, where interest in the trail idea was strong, and additionally in Caledon, and King.

⁴ As far as can be determined from notes of meetings these are the twelve people who volunteered at the October 1991 meeting. They were joined by several other people who participated at various times – See Appendix 2.1. Paul Peterson provided professional services as Legal Advisor.

Meetings were often held in a member's home and were sociable, friendly events with home baking, and home-made wine an added incentive to attend! The Log-cabin on the Seneca King Campus was also used as a convenient location, as was the Agriculture office in Uxbridge.



*Klaus Wehrenburg,
Dan O'Reilly and
Stephen Greenland*

The committee divided up into three main working groups:

1. to oversee the writing of a constitution, investigate incorporation, obtaining charitable status for fund-raising purposes, and liability insurance,
2. to undertake physical planning and mapping,
3. to promote the trail concept through a public relations committee, produce a brochure and identify a logo.

It was decided to call the group **Citizens for an Oak Ridges Trail** (CORT) dropping the word 'Moraine' since a trail was being described rather than a landform, and *Oak Ridges Trail* seemed less cumbersome for promotion purposes.



Kris Keating, Fiona Cowles and Stu Koch

The Minutes show they adopted the title The Steering Committee - Citizens for an Oak Ridges Trail (C.O.R.T.)

There were five formal meetings and many working sessions. The accomplishments of this committee over the next eight months were quite astounding.



Peter Attfield, Theresa Porter, Frank Bowman and Kris Keating

The Oak Ridges Moraine Technical Working Committee

In July 1991 a three-year planning study for the Oak Ridges Moraine was initiated by the province with the Technical Working Committee headed up by Fred Johnson of the Ontario Ministry of Natural Resources.⁵ The objective was

“to develop a strategy to protect and enhance the ecological integrity of the Moraine while allowing for the pursuit of appropriate socio-economic opportunities on the Moraine.”

The Oak Ridges Moraine Trail and Related Planning Strategies

The Steering Committee and subsequently the CORT Board kept abreast of the ideals of the Technical Working Committee and advice from members with BTA experience. Development of the trail based on sound environmental planning strategies is detailed in Chapter Five of Fiona Cowles’ Thesis.⁶ We are indebted to that document detailing the trail’s conception and the process which ensued.

⁵ See Appendix 1.2. Fred Johnson’s involvement over the years will be observed in future chapters.

⁶ Fiona Cowles. Planning Trail and Greenway Networks: *The Oak Ridges Moraine Trail*. Faculty of Environmental Studies, York University. 1995.

A hand drawn poster invited interested citizens to the Founding Meeting

The Steering Committee did an amazing job developing plans for the association in just the eight months October to May.

Below: Members of the Steering Committee presenting findings to the Founding Meeting on Saturday, 23 May, 1992:

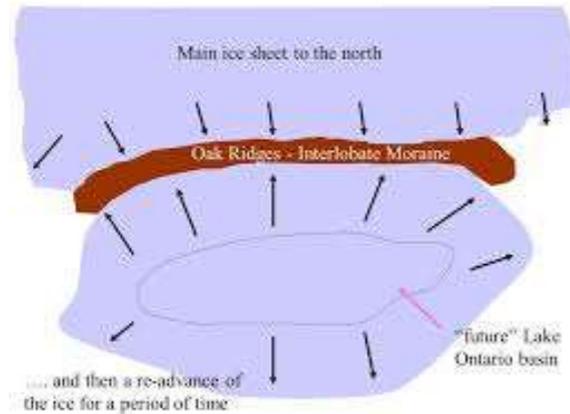
Peter Scholefield, Tom Rance, Joy Pierce, Steven Greenland, Peter Attfield, Paul Peterson, Kris Keating, Dan O’Reilly and Theresa Porter.



APPENDIX 1.1

WHAT IS THE OAK RIDGES MORAINE?

Formation



When a glacier melts, it deposits the rock fragments and debris it has been carrying. The thickest deposits left at the end or sides of a glacier are called *moraines*. The Oak Ridges Moraine was formed between two lobes of a glacier, and has been called an *interlobate moraine*. Where water was trapped between the melting ice lobes, the materials deposited were sorted into beds of sand and gravel.

The period of the Wisconsin glaciation was responsible for many of the major

relief features of Southern Ontario and Canada's largest moraine – the Oak Ridges Moraine. As the glacier finally retreated 10,000 to 12,000 years ago, it left behind this massive ridge which extends from the Niagara Escarpment to the Trent River watershed - 170 kilometres long with a width varying from two to thirty kilometres.

The Moraine has a number of high points, including the Caledon Hills and Mount Wolfe at the west end (360 metres above sea level); the Happy Valley Sandhills and Glenville Hills (364 metres) in King; and hills in Uxbridge Township which rise over 400 metres. It passes to the south of Lake Scugog, widens out in the Ganaraska Forest area, narrows again at the southern end of Rice Lake and finally peters out east of the Northumberland Forest.

Rolling Hills of Happy Valley, King



Much of the surface is said to have a *kame and kettle* relief. Hummocky hills (*kames*) are interspersed with hollows (*kettles*). The hills are composed of sandy and gravelly materials with the underlying till or boulder clay sometimes protruding to form high ridges. A kettle forms where a huge block of ice broken off the glacier is surrounded or buried by materials released by the melting glacier. When the ice melts, a hole is left, often forming a lake, pond, or wetland. Lake Wilcox is the largest kettle lake on the Moraine.



Because of its altitude, the Oak Ridges Moraine is an important watershed divide. It is the source area of more than sixty rivers and streams which drain across the till plains to the north and south. The Moraine itself, however, has few surface streams. Rain and snowmelt sink vertically through the sand and gravel until they reach less pervious beds, then flow laterally to reappear as springs on the lower slopes of the Moraine. The largest streams are the Credit, Humber, Don, Rouge,

Nottawasaga, Holland, Duffins, Nonquon, Pigeon and Ganaraska. All are important area resources. The southern edge of the Moraine is fairly regular but the northern edge is deeply indented by swamp-floored valleys which are typical of a lobate ice front.



Living Nature

After the glaciers retreated, a forest grew over most of the Moraine. Despite deforestation by settlement, about twenty-five percent of the Moraine is covered by forest today. In contrast, only about five percent forest cover remains on neighbouring lands to the north and south. These were more fully settled because they had flatter, richer land, more suitable for farming; and larger streams that could support water-powered mills for villages.



The Moraine includes some of the largest areas of upland forest in southern Ontario. They shelter birds, such as Red-shouldered Hawks, Scarlet Tanagers and Ovenbirds, which require large, undisturbed forest interiors to nest in.

Red Oak trees, symbolically incorporated into ORTA's logo, were common across the ridge prior to harvesting in the 1800s. A few magnificent specimens remain. Oaks are most noticeable in October when

their acorns fall or in November while their leaves hold on to their branches much later than most trees. Most of the Moraine's forest is mature hardwood, dominated by Sugar Maple and Beech trees. In sandy areas, White Pines tower over their neighbours. This mixed hardwood forest sprouts a lovely carpet of wildflowers each May. Trilliums blossom in unusual patterns of green and white near the Moraine's oaks.

Stands of White Birch, and other trees which need much sunshine to thrive, grow in younger forests. Eventually the birches will be succeeded by trees that can grow in shade, such as maples or beeches.



The Oak Ridges Moraine is located in the southern edge of the Great Lakes - St. Lawrence forest region, just north of the Deciduous (Carolinian) forest region. It provides forest habitat for northern plants and creatures near the southern limit of their range (e.g. Balsam Fir and Black-throated Green Warbler) and for southern plants and creatures near the northern limit of their range (e.g. Witch-hazel and the Yellow-billed Cuckoo). A difference is often clearly seen between the forest on sunny, south-facing ravine slopes (trees such as Sugar Maple), and that on the opposite, north facing slopes (trees such as Eastern Hemlock).

Beginning in the 1920s and 1930s, abandoned farmlands with large exposed areas of blowing sand were reforested with rows of pines or white spruce. There are large plantations in the York Regional Forest, Ganaraska Forest, Durham Regional Forest, and Northumberland County Forest. Many have been harvested for lumber over the years. Some are now left or managed as "nurseries" to provide the shade and shelter needed for a native mixed forest to regrow. In the meantime, these conifers attract birds more typical of a northern Boreal forest: Red-breasted Nuthatch, White-throated Sparrow, Pine Siskin, Hermit Thrush, Pine Warbler, Yellow-rumped Warbler, Purple Finch, Red Crossbill and Northern Goshawk. Clearings in the forest echo with the song of the Whip-poor-will on summer nights.

Other man-made habitats on the Moraine include pastures (good places to see bluebirds), hedge-rows, Christmas tree farms, and former farm fields at different stages of succession back to forest. Prairies are rare in southern Ontario, but remnants of a large prairie are found on a dry, sandy area of the Moraine south of Rice Lake. Big bluestem grass and wild Lupines grow under the scattered trees of a Black Oak Savanna.

The Oak Ridges Moraine is well known for its stores of fresh water, used for drinking by 250,000 people. These help to create natural habitats too. Cool water seeps from Moraine soils and springs from its aquifers. Forest cover keeps these streams shaded, cool and clean. This ensures that at least the Moraine headwaters of the streams are pristine, and can shelter such sensitive fish as Mottled Sculpin and Redside Dace. Springs that emerge in stream beds create ideal spawning beds for brook trout. Kettle Lakes provide habitat for warm-water fish such as Large-mouth Bass and Northern Pike. These same lakes are important resting and feeding areas for gatherings of waterfowl during fall migration. Hundreds of wetlands evolved on the Moraine around the edges of Kettle Lakes or in groups or complexes of smaller kettles. These include Cattail marshes, shrub marshes, and wooded swamps. Ontario has few bogs south of the



rocky Canadian Shield, but there are many on the Moraine. These fascinating peatlands have floating mats of Sphagnum Moss that can be thick enough to support trees such as Tamarack and Black Spruce. They also grow other northern plants such as Bog Laurel, Labrador Tea, Pitcher Plants and Cotton Grass.

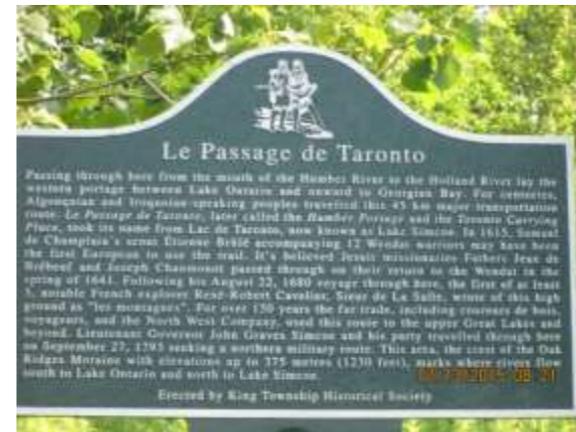
Red Neft in Happy Valley – NCC Photo

Many of the Moraine’s wetlands have been evaluated and classified as Provincially Significant. Numerous places on the Moraine have been designated as Areas of Natural and Scientific Interest (ANSIs) or Environmentally Significant Areas (ESAs), because of their rare plants or animals or other special features. Natural areas are sensitive to human disturbance. Do not pick plants and do not approach or disturb wildlife. Protect small mammals and ground-nesting birds by keeping dogs on leashes. Always stay on the trail to avoid compacting adjacent soils or trampling plants. Soils are most vulnerable to erosion or compaction during spring thaw or after rains. During these times, hikers can avoid hiking on trail sections they know will be mucky. The Ice Age left a hilly moraine composed of materials ranging from clay to sand to gravel. This produced a variety of micro-climates, moisture levels, and soil types, which in turn created a tremendous variety of habitats and species. The Oak Ridges Moraine is renowned for this bio-diversity. Trail users can experience and appreciate this richness in all seasons. At the same time they must respect and protect the Moraine’s natural features.

Human History

The closeness of the Moraine to Lake Ontario combined with its soils and topography has produced a distinct and diverse history. It appears to have been continuously occupied since shortly after the glaciers receded. A number of Palaeo-Indian sites dating from 11,000 years ago have been discovered, including Caribou hunting sites beside kettle lakes. Artifacts from the later Archaic and Woodland periods have also been found distributed throughout the Moraine. Not until after the ninth century, however, with the introduction of corn and other crops, was there any significant population increase and the development of year ‘round villages. Excavations have unearthed many artifacts; remains of hearths, middens, burial grounds; and outlines of long-houses and palisades.

With the arrival of Europeans after 1600, the trails across the Moraine and elsewhere in southern Ontario became important for fur-trading and exploration. In the following two centuries, warfare, disease and the depletion of traditional food supplies due to restrictions on use of the land, all drastically reduced aboriginal populations. Finally, in the 1800s and early 1900s, treaties were signed with the Native peoples and control of the land passed to the Crown. The trail routes they had established continued to be used, and some formed the area’s initial road network.



Mennonites and Huguenots in the land around present-day Oak Ridges, and Quakers in Newmarket and Uxbridge Township. Settlers faced daunting tasks: clearing land, constructing fences, and establishing rights of way - many of which remain today. On most of the Moraine, agriculture was never very prosperous and many farms were abandoned because of the poor sandy soils and hilly topography. Small villages developed around saw-mills, grist mills and



Permanent settlement of the Moraine began in earnest in 1783 with the arrival of United Empire Loyalists from the United States who were granted land or purchased it in the newly-surveyed townships. Other groups followed: Lutherans,





taverns, but few grew into larger settlements such as Stouffville. In fact, many have actually diminished in population since 1900. They have, however, left us a legacy of fine homes and churches to enhance the landscape.

The arrival of the railways in southern Ontario in the mid-nineteenth century led to increased agricultural trade and the growth of resource industries. The sands and gravels of the Moraine continue to be in demand and quarries which are found throughout the area. When motor travel grew after World War I, the Moraine became much more accessible. This prompted more development of recreational opportunities and the expansion of residential uses with associated services. Starting in the 1950s, Conservation Authorities established public recreation areas which attracted more residents and day-visitors.

The Toronto area continues to grow rapidly. Suburbs have been spreading onto the Moraine and rural residential estates are reaching further into the countryside. Demand grows for sand and gravel to build roads and houses, for groundwater, and for recreational facilities such as golf courses. The trend has been for farms and forests to be replaced by other uses.

The changes we see around us and the historic features we encounter help us to appreciate the rich heritage of the Oak Ridges Moraine. On the reverse of each of our trail maps there are notes of Key Points of Interest.



Just some more examples of the bio-diversity of the Oak Ridges Moraine which can be enjoyed when hiking the trail. From ORMF Photo Files.

APPENDIX 1.2 EXISTING TRAILS ON THE MORaine MTRCA Oak Ridges Moraine Trail Study

In December 1994 the Ministry of Natural Resources published Background Study No. 9 to The Oak Ridges Moraine Area Planning Study prepared for The Oak Ridges Moraine Technical Working Committee by The Metropolitan Toronto & Region Conservation Authority. The opening paragraph of the Executive Summary says:

“The development of a trail system requires an appropriate landscape setting, strong community interest and good technical information on resources – both cultural and natural.”

The report is 18 pages long and presents clear guidelines which were well received by the CORT Founding Committee through informal conversations prior to its publication. It focused on the moraine area between Caledon in the northwest and the Northumberland County in the east. It includes three maps; two are too detailed for reproduction in this book. *Below: their Figure 1 showing existing trails on the moraine between Palgrave and the Ganaraska Forest.*

Of particular relevance to the ORMT's development is that they recognized the problems encountered in crossing the Yonge Street Corridor. They envisaged two routes: one north of Bloomington Road and another other south of Lake Wilcox.

CHAPTER 1, APPENDIX 1.2 – EXISTING TRAILS

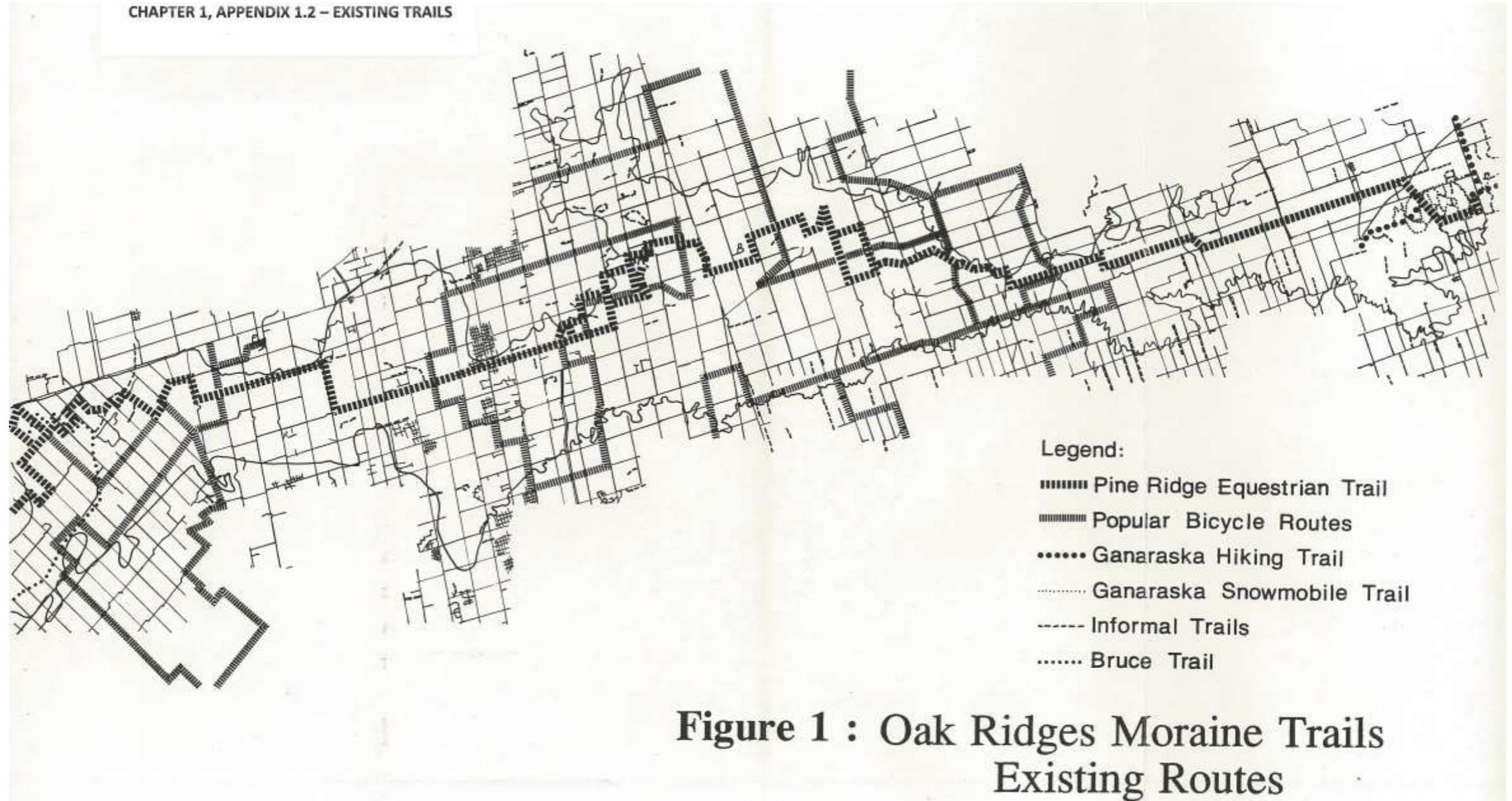


Figure 1 : Oak Ridges Moraine Trails Existing Routes