

ESCARPMENT CENTRE ONTARIO (ECO)

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Abstract

Plans are now in place to build Escarpment Centre Ontario (ECO), an interpretive centre designed to promote the Niagara Escarpment and help educate people about the need to protect and preserve this unique landform. This paper introduces ECO and details its mission and interpretation objectives.

Mission

The mission of Escarpment Centre Ontario (ECO) is to provide educational opportunities, which promote the preservation and understanding of the Niagara Escarpment. The centre will be a 1,600 m² (17,000 square foot) facility that includes permanent and temporary exhibit halls, a multi-media theatre and programming resources for school groups, visitors, and environmental groups. Built using the latest green technologies, ECO will be an energy efficient, environmentally friendly centre that will:

- interpret the Niagara Escarpment for visitors, with emphasis on the northern portion, the most pristine and spectacular part of the escarpment;
- increase the public's understanding of the Niagara Escarpment and the need to protect it, and;
- create a high-quality, unique visitor experience that educates and entertains (ECO, 2003).

Planning for the construction of ECO began five years ago with the City of Owen Sound and the Grey Sauble Conservation Authority. Since then, many volunteers have worked to bring the ECO plan together. Over \$300,000 has been invested by Human Resources Development Canada in designing and studying the economic feasibility of the 17,000 sq. ft. interpretative centre for the Niagara Escarpment. The cost of developing and launching ECO is a total of \$7.3 million.

The Niagara Escarpment Story

The Niagara Escarpment is the dominant landform in Southern Ontario spanning 725 km from Niagara to Tobermory. It soars and rolls across the landscape. It divides the southern half of the province from Niagara Falls in the south, where the Great Lakes drain over the escarpment, to Tobermory at the northern tip of the Bruce Peninsula. At the top of the Bruce it plunges under the entrance to Georgian Bay, popping up to form small scattered islands and eventually it re-emerges as Manitoulin Island, the largest fresh water island on

earth. Its towering cliffs and rugged forests are primeval and mysterious, created over millions of years by the most powerful forces of nature. The centre will focus on the natural history and northern edge of the escarpment.

In 1990, the United Nations Educational Scientific and Cultural Organization (UNESCO) recognized the environmental significance of this wall of rock by designating it as a UNESCO Biosphere Reserve, an internationally significant system (UNESCO, 2003). This places it in the company of other remarkable habitats like the Galapagos Islands (off the coast of Ecuador,) the Serengeti in Africa, and the Florida Everglades.

There are several reasons the Niagara Escarpment has been given this recognition. In order to become a Biosphere Reserve, an area must meet certain criteria. In short, it must provide an exemplar to the rest of the world of how to preserve important/significant natural areas, while still allowing for the development and sustenance of human activities in the area. Along the escarpment we have been able to achieve this kind of scenario where people live in very close proximity to the escarpment, but in a manner in which we are also able to conserve it.

The escarpment is home to a diversity of plants and animals – some only found within the escarpment region. The escarpment supports a variety of rare plants, over 50 species of ferns and 40 species of orchids, more than half of all the orchid species found in Canada. Tourists come from all over the world to see and photograph these rare plants.

The Niagara Escarpment is one of the most diverse regions in Ontario. Many of Ontario's vertebrate animals live along the escarpment including more than 300 species of birds including 198, which breed in the protected areas of the escarpment. There are 52 species of mammals, 39 species of reptiles and amphibians, 100 fish and at least 1800 species of plants. The escarpment also protects several cold water streams and their headwater areas and supplies the many different species with wetlands.

In 1998 researchers from the University of Guelph led by Dr. Doug Larson discovered from cores of dead trees that the cedars up to 1,500 years old lived along the Niagara Escarpment (Larson *et al.*, 1991). These trees represent some of the oldest living trees in Eastern North America. Research showed that a stunted, slow growing old forest of cedars was present along the entire escarpment.

Interpreting the Escarpment

Escarpment Centre Ontario will be located on highways 6 and 10 just south of Owen Sound. The 70 acre property is part of the 500 acre Inglis Falls Conservation Area which is managed by the Grey Sauble Conservation Authority. Inglis Falls Conservation Area is designated as a Nodal Park under the Niagara Escarpment Plan. There are nine Nodal Parks in total, each demonstrating the diverse environments found along the escarpment. Nodal Parks provide a place for orientation, education, interpretation and recreation. Other examples of Nodal Parks include Terra Cotta Conservation Area and Bruce Peninsula National Park. To minimize disturbance to the site, the building will be located

1,000 feet away from the cliff edge, adjacent to the ANSI (area of natural and scientific interest) boundary.

Escarpment Centre Ontario will revolve around four central themes: geology, the flora and fauna, the people of the area, and protection. The 1,700 sq. ft centre will present a simple time scale on the walls showing visitors the creation of the Niagara Escarpment in geologic time. In the exhibit hall the walls will be made of rock with a waterfall tumbling over it in one area. There are many 'Bridal Veil Falls' along the escarpment. There will be a huge map embedded in the middle of the floor showing the whole Niagara Escarpment. Hands on exhibits include kids doing fern rubbings and rocks and fossils that can be touched. A diorama will show a scene with a First Nations person several hundred years ago mining chert from the escarpment cliff face using a deer antler as a tool. A display of building stone will demonstrate how buildings like the Ontario Parliament had been built out of stone from the Niagara Escarpment. A cave showing a video made in an underwater cave on the northern Bruce Peninsula will also be on display.

The Ice Age Exhibit will detail water levels over the years and the effect on the escarpment, such as Manitoulin Island was still attached to the Bruce Peninsula 7,000 years ago. You can see a display of a turkey vulture nest and two babies with the mother preparing to feed them carrion. Dioramas in the floor will show four important escarpment features including skiing on the Blue Mountains, Tobermory's Flower Pots in the north and vineyards in the south. Exhibits explaining the ecosystem zone like different kinds of ferns and where they can be found on the escarpment, cedars and their age, and rare and unusual plants of the escarpment such as the ram's-head lady's-slipper (*Cypripedium arietinum*) and lakeside daisy (*Hymenoxys acaulis*).

There will be a multi-media, state-of-the-art production, incorporation film with special sound and visual effects, 3-D figures and still scenery images, to bring the escarpment history to life. It will also relate the effect that the Niagara Escarpment has had on the settlement and development of Southern Ontario. The significance of the escarpment as a spiritual place for Aboriginal people in the past, and its role today, will also be told. Up the ramp and on the second floor is a big interactive globe in the middle of the floor with photos of Biosphere Reserves from around the world – from the Serengeti Plain to the Everglades to the Niagara Escarpment. The visitor can find out what it is about these places that make them globally significant.

Along with the indoor experiences there will be access through the forest to the cliff edge with interpretative panels, boardwalks and railings. This will encourage visitors to stay on the trails and protect the escarpment. There will be a lookout deck from the cliff edge and a staircase down to the unique talus slope environment at the bottom of the cliff. From the deck you can see Owen Sound, Georgian Bay, the Sydenham River Valley and the patchwork of farm fields. The trails are just metres away from the famous Bruce Trail and the Inglis Falls Trails.

The delicate balance of recreation and conservation meet head on, along this delicate ecosystem that we call the Niagara Escarpment. Managing the activities of people exploring the many parks along the Niagara Escarpment is truly challenging. Hiking, rock

climbing, cycling, camping, off road vehicles, bouldering – authorized and unauthorized - its all happening. To conserve these unique areas we must rely on sound management and education. Escarpment Centre Ontario will be an important place for people to learn better understand and respect our natural world. The phrase “stay on the trail” or “ take only photographs” may have greater meaning after a trip to Escarpment Centre Ontario.

References

- ECO (Escarpment Centre Ontario). 2003. *About ECO*. Available: www.escarpmentcentre.org/abouteco.htm.
- Larson, D.W. and P.E. Kelly. 1991. The extent of old-growth Thuja occidentalis on cliffs of the Niagara Escarpment. *Canadian Journal of Botany*, 69: 1628-1636.
- UNESCO (United Nations Educational, Scientific and Cultural Organization). 2003. *Niagara Escarpment Biosphere Reserve*. Available: www2.unesco.org/mab/br/brdir/directory/biores.asp?mode=all&code=CAN+06