

# **Toward an Ecological Monitoring Program for Ontario's Provincial Parks and Conservation Reserves**

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## **Introduction**

This paper provides a brief progress report on the historical growth of Ontario's network of provincial parks and conservation reserves. It focuses on the accomplishments of *Ontario's Living Legacy Land Use Strategy* and recent actions taken by the Ministry of Natural Resource to implement the protected area component of the strategy. Specifically, it reviews actions taken and steps proposed for an ecological monitoring program in protected areas. The paper also provides context for the workshop and presentation by Mirek Sharp and Brent Teglar who will describe the work undertaken by North-South Environmental Inc. and Arbor Vitae Environmental Services to develop an approach or framework for monitoring. My final intention is to seek your opinions, encourage your participation and ask for your help to advance a monitoring program for Ontario's protected areas.

## **A Growing Network of Protected Areas**

Ontario's Provincial Park system has evolved over last 100 years into one of the World's outstanding networks of protected areas. Starting with Algonquin Park in 1893, the number of parks in Ontario grew slowly in the first half of the 20<sup>th</sup> Century. After World War II, growth increased to meet demands for outdoor recreation opportunities. In the last 30 years, this demand and an increasing awareness of nature, wild spaces and the imperative to protect global biological diversity has resulted in exponential growth (Figure 1).

In the early 90's growth was impressive. The decade began with 261 provincial parks including 6.3 million hectares of lands and waters. Stirred-on by the World Wildlife Fund Canada's *Endangered Spaces Campaign*, Ontario agreed to *A Statement of Commitment to Complete Canada's Network of Protected Areas* and launched its *Keep it Wild Campaign*. Keep it Wild committed more than 60 new areas and 900,000 hectares to the province's protected area system. It also established conservation reserves under the *Public Lands Act*, approved an Old Growth Red and White Pine Conservation Strategy, formulated natural heritage policies under the *Planning Act* and amended the *Conservation Land Act* to permit the creation of conservation easements.

In the late 90's growth was even more impressive. *Ontario's Living Legacy* and its

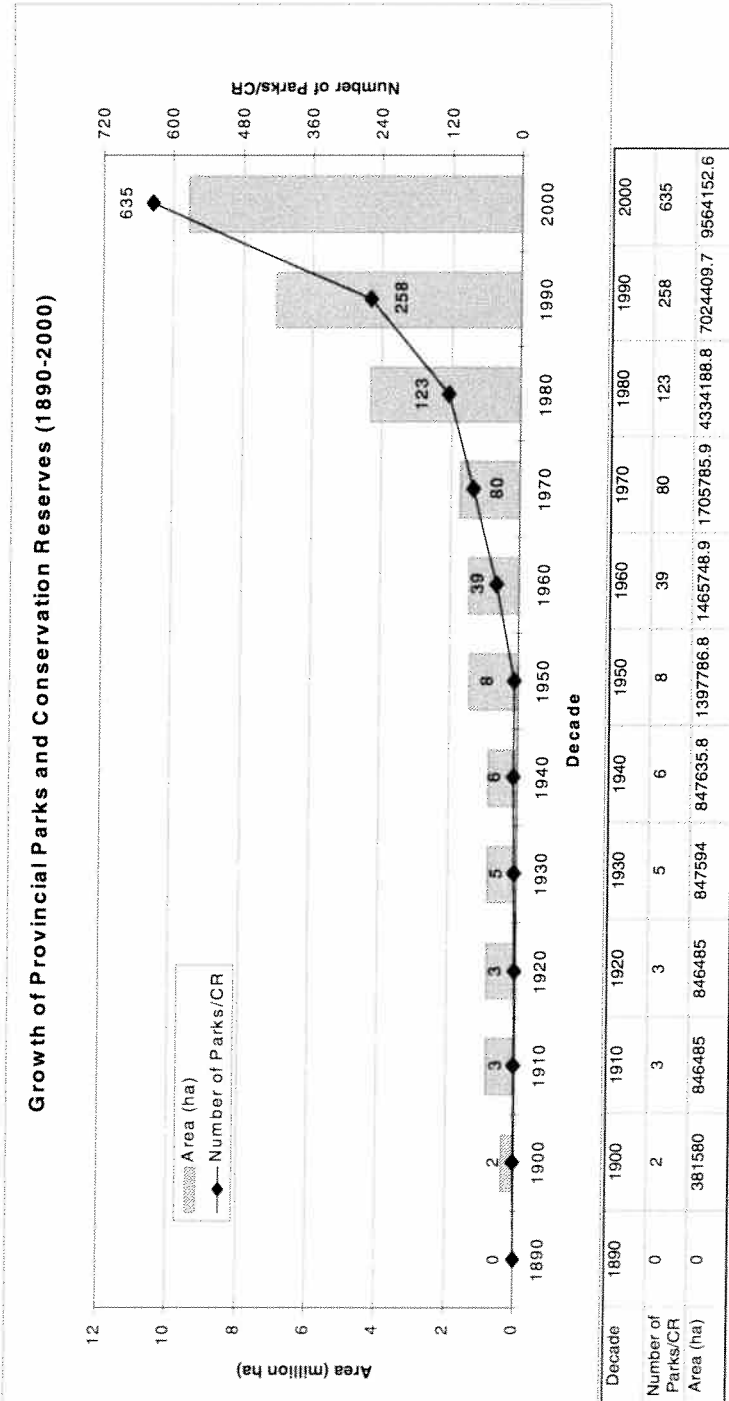


Figure 1. Growth of Ontario's System of Protected Areas

companion document *Natures Best* replaced the *Keep it Wild*. As part of this strategy, 378 new protected areas including 2.4 million hectares of lands and waters were added to the protected area system. In cooperation with the Nature Conservancy of Canada, Government also initiated *Ontario Parks Legacy 2000*. This partnership raised funds for the acquisition of several important natural areas in the southernmost parts of the province. The cumulative effects of all of these efforts committed to a system 636 provincial parks and conservation reserves, including 9.5 million hectares before the close of the decade. This includes close to 9 percent of the total area of Ontario's lands and waters.

## **Ontario's Living Legacy**

*Ontario's Living Legacy Land Use Strategy* was the product of a comprehensive two-year planning process. It began with Premier Mike Harris' announcement of *Lands for Life* at Bronte Creek Provincial Park on February 27, 1997. The purpose of *Lands for Life* was to develop strategy for the management of 39 million hectares of Crown lands and waters in a planning area covering 45 percent of the province. The strategy had four broad objectives.

- Completing Ontario's system of park and protected areas.
- Recognizing the land use needs of the resource-based tourism industry.
- Providing forest, mining and other resource industries with greater land and resource certainty.
- Enhancing angling, hunting and other Crown land recreational opportunities.

The first step taken to achieve these objectives had Boreal West, Boreal East and Great Lakes-St. Lawrence Round Tables consulting with the public and submitting 242 recommendations to Government (Lands for Life Round Tables, 1998). More intense consultation with MNR partners culminated with the signing of the *Ontario Forest Accord* and release of a *Proposed Land Use Strategy* (OMNR, 1999a). The Minister of Natural Resources released the final *Ontario's Living Legacy Land Use Strategy* in July (OMNR, 1999b).

After the release of the final strategy, MNR prepared and presented an OLL Implementation Plan to Management Board of Cabinet. These efforts resulted in a four-year, \$100 million Government commitment to expand "*Ontario's Living Legacy into the most comprehensive natural heritage program in provincial history*" (OMNR 2000). This included \$20 million to regulate, inventory, and provide interim management direction for all 378 new areas and to initiate management planning on selected areas. It also provided \$28.7 million to develop new visitor centres and other infrastructure at signature sites, provincial parks and conservation reserves. A variety of youth employment, science, information, species at risk, fish, wildlife and other resource management projects also received funding.

## Round Table and Public Expectations

The *OLL Implementation Plan* responds directly to the public's concern for the long-term ecological health and need to monitor this health in a rapidly changing landscape. This is clearly articulated by the following Lands for Life Round Table recommendations. Specifically, it was recommended that MNR should:

- Ensure that wildlife population and health monitoring strategies are developed for provincial parks and conservation reserves;
- Provide staff and funds needed to manage operating provincial parks to ensure long term sustainability of park resources and values and adequately monitor, protect and manage non-operating provincial parks;
- Provide district offices with the staff and funds needed to: employ staff ecologists; adequately plan, monitor and manage conservation reserves; and
- Ensure forest management planning establishes benchmark levels of site types in each ecological site district, estimates of biodiversity under natural conditions, prescribe practices that sustain all forms of diversity and applies biodiversity and habitat guidelines consistently, subject to monitoring of their effectiveness.

Similar concerns have been expressed in recent polls. Environics International (1999) suggests that public concern for the environment is growing and predicts a new "green wave" within the next few years. Their polling show that Canadians increasingly believe that their personal health is affected by environment and that the environment's future is more important than jobs today. They also identify an increasing public awareness and urgency surrounding climate change, biodiversity and other legacy issues. Overwhelmingly, Canadians support protecting parks and expanding forests in responding to legacy issues. At the same time, Environics International reports that public confidence in government scientists and experts to respond to these issues is declining.

## An Approach to Monitoring in Protected Areas

As human population and demand for natural resources grow, new pressures will pose difficult challenges and demand innovative solutions from protected area managers. Ontarians will also demand that individual areas and the larger network of areas be managed in an ecologically sustainable manner. This can only be achieved in the context of the larger intervening landscape, or *Greater Park Ecosystem*. Provincial parks and other protected areas must play a key role as undisturbed benchmarks in Ontario's rapidly changing natural, social and economic landscape. A well thought-out, practical and affordable monitoring program is fundamental to meeting these demands and challenges.

Ontario Parks cannot meet these demands and challenges alone. Success will require good partners. We will need to strengthen relationships inside the MNR to take full advantage of scientific and administrative capacity. We will need to reach out to the academic community to help answer questions on *why* we should monitor; *what* we should be monitoring, *when* and *where* we should monitor and *who* should do the monitoring. We need to reach out to our corporate sponsors and explore innovative ways of fund inventory, monitoring assessment and reporting projects. We also need to reach out to concerned citizens and partner organizations to find ways to involve interested communities and volunteers.

In response to the growing demand for natural resources, heightened public awareness and expectations and the realization that effective monitoring cannot be accomplished in isolation, the Ontario Living Legacy Implementation Plan has initiated a four year project to develop a long-term monitoring program for provincial parks and conservation reserves (Figure 2).

The goal of this project is:

- To establish a long-term program to inventory, monitor and assess ecological sustainability and the cumulative effects of human activity in provincial parks and conservation reserves and to promote the use of these areas as natural benchmarks against which the health of the greater ecosystem can be assessed and measured.

To achieve this goal, an approach was needed to measure the ecological health of protected areas and the cumulative effects of human activities on their ecosystems. This approach needed a clear goal, objectives and set of monitoring questions to address the integrity of individual areas in the larger landscapes. It needed to set the context for which ecosystems should be monitored, what social and ecological indicators need to be monitored, who should monitor them, and how, where and how often they need to be monitored. The approach also needed to provide for innovative partnerships to share responsibilities, ensure accurate and defensible results and provide a framework for reporting results on a regular basis.

The first step taken to satisfy this goal was to prepare a Request for Proposal asking consultants to develop an approach to inventory, monitor assess and report on the long term health and integrity and the cumulative effects of human activities in Ontario's provincial parks and conservation reserves. This proposal generated considerable interest and several high quality submissions. After considerable evaluation, North-South Environmental Inc. in partnership with ArborVitea Environmental Services was awarded the contract. The consultant was asked to provide professional support to Ontario Parks to develop an approach for monitoring. They were also asked to help answer some fundamental questions (Text box 1).

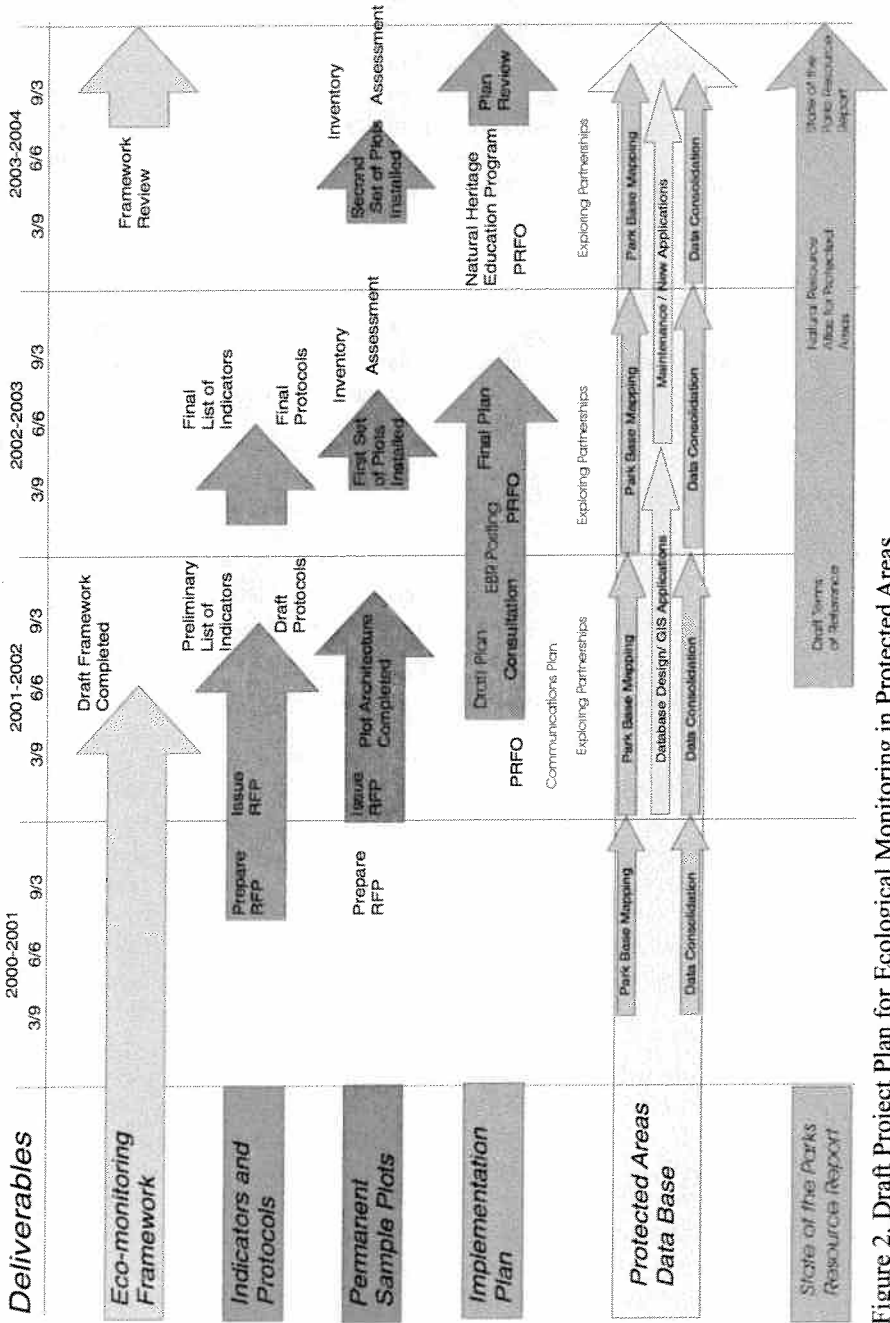


Figure 2. Draft Project Plan for Ecological Monitoring in Protected Areas

### Fundamental Questions

Why should we monitor?  
What should we monitor?  
How should it be monitored?  
Where should it be monitored?  
Who should do the monitoring?

### The Purpose of Today's PRFO Workshop

Firstly, we are here to provide our PRFO partners with a progress report. Specifically, we wish to present preliminary results of the consultant's work on establishing an approach for monitoring in provincial parks and conservation reserves. This work has been led by Mirek Sharp, Brent Tegler and Derek Armitage of North-South Environmental and Chris Wedeles and Jeremy Williams of ArborVitea Environmental Services. Daryl Cowell, Sarah Mainguy, Mary Ann Johnson and Rob Delorme also made significant contributions on the part of the consultant. MNR staff contributing to the project included Dan Mulrooney Tom Beechey, Tim Bellhouse, Paul Gray, Bill Crins, Scott Jones and Barton Feilders.

Secondly, we seek your review and comments. It is important that Ontario Parks builds an approach that makes both common and scientific sense. We need an approach to monitoring that will stand up to academic scrutiny and which allows universities and colleges to contribute in a meaningful way. Without your support and contributions, the chance of succeeding will be significantly reduced. We view this workshop as an opportunity share our work and build partnerships with the participants of today's session. We invite you to listen, speak your mind – take your best shot, and provide us with the input that we need to move forward.

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