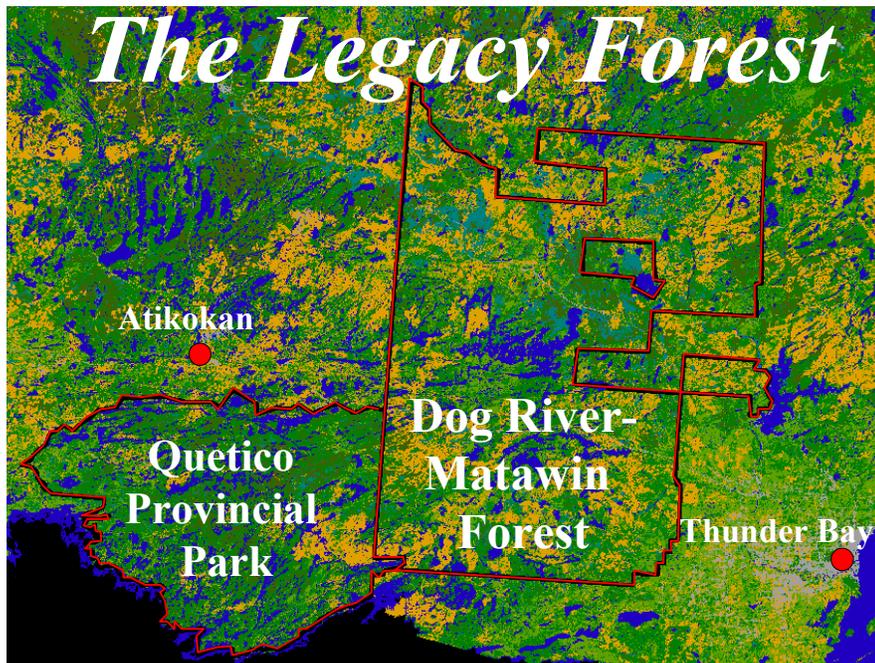


Legacy Forest Visions

A newsletter on the science and sustainable management of all forest values



WHAT IS THE “LEGACY FOREST”?

The Legacy Forest (LF) is a special area selected for research on sustainability of Intensive Forest Management (IFM) including fibre and other uses.

The Legacy Forest includes an area of approximately 1 million hectares. It is composed of Quetico Provincial Park (QPP) and the southern half of the Dog River-Matawin Forest. QPP provides a large wilderness area as a control to evaluate the effects of IFM in the Dog River-Matawin Forest. Together, these areas will be a “living field research laboratory.”

Within the area, researchers will study how IFM and varying levels of silvicultural intensity impact forest ecosystems and sustainability at the stand and landscape levels. A range of silvicultural treatments such as natural generation, planting, and thinning will be used. The goal is to concentrate silvicultural efforts on sites that will yield increases in trees and stand growth, while having a minimal impact on forest values.

On June 26, 2002, the Living Legacy Trust (LLT) approved funding for research proposals from Lakehead University.

Karan Aquino, Executive Director of the LLT, presented Lakehead University with cheques totaling over \$1.3 million.

The Faculty of Forestry and the Forest Environment received a grant to study how IFM affects sustainable forest management and health.

The Research Centre for Outdoor Recreation, Parks and Tourism received a grant to develop a Comprehensive Recreation Planning Framework. It will be used to examine how IFM will impact recreation in the region.

The Legacy Forest partners include: Lakehead University, Bowater Inc., Quetico Centre - Observatory Earth Inc. (QC-OEI), Ontario Ministry of Natural Resources, Ontario Parks, QPP, Northwest Science and Information, Centre for Northern Forest Ecosystem Research, Canadian Forest Service, Quetico Foundation, and Federation of Ontario Naturalists.

Together they will attract more projects and research to the LF. Lakehead University will assemble and manage a database as research information is collected. The Steering Committee of partners will ensure that knowledge is transferred to all stakeholders.

*- Kevin Crowe, Lakehead University
and Colleen McCauley, QC-OEI*

PRESENTING...



As of November 1, 2002, Kevin Crowe became the new Project Coordinator for the LF. He will also act as Secretary to the Steering Committee.

He will coordinate research projects, seek new ones, and find funding for future projects.

Kevin comes to Thunder Bay from the University of British Columbia where he is completing a Doctorate in Forest Resources Management.

He has worked with Lignum Ltd., Canfor Ltd., British Columbia's West Arm Demonstration Forest, and the Centre for Applied Conservation Biology.

He is a member of the Canadian Operational Research Society. His main interests are the design and application of decision support tools for forest management planning.

- Colleen McCauley

*Predicting the future is easy.
It's trying to figure out what's
going on now that's hard.*

- Fritz Dressler

RECREATION MANAGEMENT

Forest sustainability requires an integrated approach to forest management. More of us recognize this each day. To do this, all resource values in a forest should be considered in management plans.

Of all the non-commodity resource values on Crown Lands, recreation is least understood. Currently, neither provincial nor national governments use a systematic recreation management framework. Existing resource management decisions rarely consider recreation.

Over the past 20 years, demand for resource-based recreation use has increased substantially each year. Demand is expected to be greater in the future. Resource managers will need to take that into account.

The Comprehensive Recreation Management Plan (CRP) goal is to develop a comprehensive recreation planning framework.

The framework's design will:

1. Ensure that resource-based recreation opportunities on Crown lands are optimized, so users will have opportunities for satisfying experiences.
2. Fit into the broader Legacy Forest framework, by evaluating the effects of intensive forest management on recreation.

The framework will meet this goal by using the best parts of the Recreation Opportunity

Spectrum (ROS) and the Limits of Acceptable Change (LAC).

It will predict recreation resulting from differing intensive forest management practices. Plus, Crown Land managers will have a tool to address the effect of commodity production on recreation opportunities.

A hybrid ROS/LAC framework can also advance recreation planning. With it, Ontario would lead the recreation resource management field in North America.

- Jeff Moore
Lakehead University



CLIMATE CHANGE PERSPECTIVE

A pervasive factor that will affect the Legacy Forest research site is global climate change.

Fifty-year projections suggest that climatic change will happen faster than forests can follow. Resulting hotter and drier weather will bring shorter, milder winters, and more droughts and forest fires.

As a result, forestry operations will significantly change within the lifespan of many people.

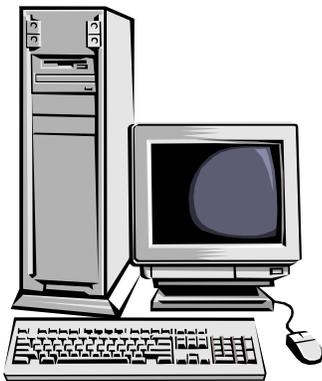
Continued next page

CLIMATE CHANGE PERSPECTIVE (cont'd)

To create sustainable and quality futures, regional planning and new thinking are required. Climate change predictions, resource use and reevaluation, and community involvement will need to be considered.

The Legacy Forest projects will provide basic data urgently needed to make reliable forecasts about what will happen in the region in the years to come.

- Gordon Ringius
QC-OEI



DATA ACCESS

Researchers and educators in the Quetico area may soon have a "One Stop Shop" due to the Legacy Forest data centre. The Legacy Forest data centre will have a comprehensive information base.

Users will gain access through the Legacy Forest web site at www.legacyforest.ca. They will be able to view and download layers of spatial data.

Users can browse satellite and aerial photographs on line at or near original resolutions. Also, they will be able to perform spatial analysis on line for customized map production and query.

A regular Microsoft Internet Explorer browser can access the data centre. Major server functions will utilize ESRI's, ArcIMS, and ER-Mapper's Image Web Server.

To date, the following data are available:

1. Data layers of Quetico Provincial Park (QPP) in the Fort Frances District and the Thunder Bay District from the Ministry of Natural Resources.
2. Lakes, streams and 10-metre contour shapefiles for both Thunder Bay and Fort Frances Districts. These will be the base layers of the data.
3. Landsat 7 ETM+ satellite imagery scenes from 2002 for the entire study area.
4. Colour-infrared photography (1:30,000 scale) and large-scale sampling, aerial photography (1:1,750 scale) from late summer of 2002.
5. Historical black-and-white photos from 1965 at 1:15,840 scale from the library of Quetico Provincial Park.

The aerial photographs are currently being converted to digital ortho-mosaics at a one metre spatial resolution.

The colour-infrared photography, with various auxiliary data sources, will form the foundation for a new forest unit data layer for QPP.

Additional Quetico data come from the Natural Resources and Values Information System (NRVIS) database and includes 65 separate layers.

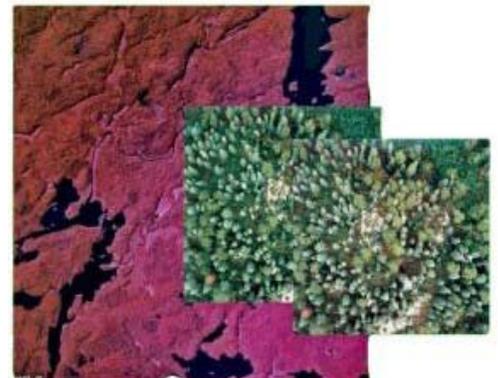
Examples of NRVIS information include: bear management areas, fire protection zones, aquatic feeding zones, and environmentally sensitive areas.

Similar data are available for the Dog River-Matawin Forest, as well as detailed forest management information including the 1996 Forest Resource Inventory provided by Bowater Inc.

The inclusion of other data sources is being considered based on need, technical complexity and cost.

Test versions of the database components are now being launched. Overall, this labour-intensive part of the Legacy Forest is going well.

- Ulf Runesson
Lakehead University



EVENTS

Atikokan Presentation November 8, 2002

Kevin Ride and Mike Yuan presented the LF to QPP and Ministry of Natural Resources staff, and to other interested community groups in Atikokan. They addressed questions about it and outlined project benefits.

Edmonton Conference November 13 - 15, 2002

Reino Pulkki and Kevin Ride attended a conference hosted by the Sustainable Forest Management Network in Edmonton. They explained the LF and made contact with potential, additional research partners.

Teleconference Meeting November 28, 2002

The Steering Committee explored and agreed on guidelines for sharing and access to data for new research and projects.

Soils Research Meeting December 5, 2002

The Soil Ecology Research Group will meet at the Centre for Northern Forest Ecosystem Research to discuss soil research within the Legacy Forest.

Forest Stratification Meeting December 10, 2002

The Stratification Committee will identify and define zones of potentially different silvicultural intensities.

LANDBASE STRATIFICATION

On November 7, 2002, the Stratification Committee of partners agreed on a set of criteria for stratifying the Dog River-Matawin Forest.

Representatives from Bowater Inc., Lakehead University, Ministry Natural Resources, and KBM Forestry Consultants Ltd. that form the Stratification Committee met at the Centre for Northern Forest Ecosystem Research.

Using a geographic information system, they explored options and reached a consensus on stratification guidelines.

Potentially intensive silvicultural treatment will be restricted to sites with both good soils and a prior history of intensive silviculture treatment.

Extensive silvicultural treatment will include all sites of poor soils and no history of intensive silviculture treatment.

Areas in between these extremes will be restricted to moderate silvicultural activities.

Zones selected will be crucial to the future of the Legacy Forest Project, and to the 2005-2025 Forest Management Plan for the Dog River-Matawin Forest.

- Kevin Crowe

Any plan is bad which is not susceptible to change.

- Italian Proverb

LIVING LEGACY TRUST

The Living Legacy Trust's (LLT) science-related programs in forestry and ecology funded the current Legacy Forest projects.

Created in March 1999, the LLT supports improvements in the management of forestry, and fish and wildlife resources on Ontario's public lands.

Its programs were established to fund strategic data collection and research to:

1. Increase our understanding of intensive forest management; and
2. Support an ecologically sustainable approach to resource management.

The \$30 million fund assists in realizing the goals of the Ontario Living Legacy Land Use Strategy. Its funds will also assist Lakehead University to be a leader of research in landscape ecology and management through the Legacy Forest.

- Kevin Crowe



Editor: Colleen McCauley
Photos: LF Partners
Product'n: Quetico Centre
Website: www.legacyforest.ca
Email: kevin.crowe@lakeheadu.ca