

## CANADIAN MODEL FOREST NETWORK **Forest Regions of Canada** Boreal — Predominantly Forest Boreal — Forest and Grassland Boreal — Forest and Barren Great Lakes — St. Lawrence Montane Coast Columbia Deciduous Subalpine Acadian Grassland Tundra Canadian Model Forest Network\* McGregor Model Forest Foothills Model Forest Prince Albert Model Forest Manitoba Model Forest Lake Abitibi Model Forest Eastern Ontario Model Forest Waswanipi Cree Model Forest Bas-Saint-Laurent Model Forest Fundy Model Forest **Special Project Areas** Nova Forest Alliance A Vancouver Island Non-Timber Forest Project Western Newfoundland Model Forest B PEI Model Forest Network Partnership Ltd. Forestry Centres and Headquarters © Labrador/Nitassinan Ecosystem-based Forest Management Plan

\* Please refer to the contact list on page 28.

of the Canadian Forest Service



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# Preface

### Beyond the Boundaries

Canada's Model Forest Program was created in 1992 as a federal government initiative under Canada's Green Plan. Each of the eleven Model Forests that comprise the Canadian Model Forest Network is governed by a unique partnership of local stakeholders, and concentrates on local issues and challenges. Yet all are similar in their common goal of developing and sharing innovative solutions for managing Canada's forests in a sustainable manner.

### What is a Model Forest?

A Model Forest is a place where sustainable forest management practices are developed, tested and shared. Each Model Forest is a not-for-profit organization and, except for a small administrative staff, all those involved in the Model Forest not only donate their time and expertise, but often also bring financial support.

At the heart of each Model Forest is a group of partners who have different perspectives on the social, economic and environmental dynamics within their forest — perspectives that are necessary to make more informed and fair decisions about how to manage the forest. The real "model" in these forests is the way the different partners have integrated their own interests into their common goal of developing approaches to sustainable forest management that do not sacrifice one interest for another.

Although the Model Forest organization itself does not have jurisdiction over the land it uses as a testing ground, those who do have jurisdiction are participants. By being involved from the outset in developing new, on-the-ground approaches and solutions for sustainable forest management, those with land management responsibilities are adopting many Model Forest innovations.

# What is the Canadian Model Forest Network?

The Canadian Model Forest Network (CMFN) comprises all of Canada's eleven Model Forests and three Special Project Areas, including the partner organizations associated with these sites. The CMFN provides a forum for individual sites to share their knowledge and experience, collaborate on projects of shared interest, and communicate results to a national and international audience.

#### Who is involved?

The eleven Canadian Model Forests bring diverse groups of individuals and organizations into working partnerships that include:

Government — Natural Resources Canada, through the Canadian Forest Service, is a key funding partner in Canada's Model Forest Program. Other federal departments and agencies are also actively involved, as are provincial natural resources agencies and regional, municipal and First Nation governments.

Forest industry — Each Canadian Model Forest has at least one industry partner who sits on the board of directors and offers significant contributions to Model Forest operations. Smaller companies, as well as forestry contractors and consultants, are also represented.

Aboriginal communities — Aboriginal communities, including First Nations and Metis communities and organizations, are supporters of, and active participants in, the Canadian Model Forest Network.

Non-governmental organizations — Model Forests have representatives from a variety of non-governmental organizations that provide significant input and insight. Some examples include environmental organizations, economic development councils, recreation and tourism associations and labour groups.

Academia — Significant linkages occur between universities, colleges and Model Forests. This includes board representation, research projects and student internships with almost 90 educational and research institutions across North America.

Communities — Representatives from local communities, such as members of recreational, youth and outdoors associations, business people and local politicians, offer valuable viewpoints in decision-making at Model Forests. Local involvement and support is critical for the success of Model Forests and the advancement of sustainable forest management.

Others — There are also a variety of other participants in the Canadian Model Forest Network. Individual woodlot owners, unaffiliated environmentalists and naturalists, and small business owners support the work of Canada's Model Forests. Model Forests are also at the forefront of involving industrial players from other resource sectors, such as mining and energy, in discussions on sustainable forest management.

For a full list of the Canadian Model Forest Network's partner organizations, please refer to page 23.

Visit the Canadian Model Forest Network on-line at www.modelforest.net

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# **Executive Summary**

Passing the mid-point of its third five-year phase, the Canadian Model Forest Network (CMFN) continues to offer and implement innovative solutions promoting healthy forest stewardship and a strong Canadian forest sector. This report presents an overview of some of the key achievements of Canada's Model Forests from 2002–2005. Activities are reported along ten important themes and highlight projects related to:

- involvement of Aboriginal peoples in sustainable forest management;
- · climate change awareness and carbon budget modeling;
- stewardship on privately-owned lands;
- · watershed-based planning and water quality;
- wildlife research, with a focus on species at risk;
- engaging and working with communities;
- work in Canada's boreal forest;
- indicators and forest certification;
- incorporating natural disturbance and biogeoclimatic information in forest management planning; and
- international partnerships.

Projects undertaken within individual Model Forests and associated special project areas are described, along with the collaborative activities that have occurred through the CMFN's national initiatives and in cooperation with the International Model Forest Network. The report concludes with an overview of program finances and provides a list of the CMFN's partner organizations.



# Message from the Canadian Forest Service

Since its inception in 1992, Canada's Model Forest Program has been instrumental in advancing knowledge, innovation and best practice in forest management, both in Canada and abroad. Inclusion and engagement of diverse forest stakeholders is a central tenet of the Model Forest concept, which is now being applied by 40 Model Forests in some 19 countries around the world. It continues to be a growing success.

At this mid-point of the program's third phase of operation (2002-2007), we celebrate the achievements of the Canadian Model Forest Network (CMFN). This report is a sampling of Model Forest projects and initiatives that are making a difference. They cover ten contemporary issues that are key to innovative sustainable forest management in Canada, ranging from watershed management to Aboriginal community engagement to managing climate change and wildlife habitat disturbance.

In Phase III, the CMFN has welcomed the Nova Forest Alliance Model Forest to the fold, and has expanded its membership through the inclusion of special project areas in Prince Edward Island, Labrador and British Columbia. As a Network of eleven Model Forests and three special project areas, the CMFN reaches communities and partners across the country and continues to work

with them to answer challenges and develop solutions that can benefit those within and beyond the boundaries of Model Forests.

The success of the program can be credited to the commitment, vision and synergy of the over 500 Model Forest partners across Canada. The cumulative contributions of funding partners, researchers and activists in the Network, drawn from industry, local, provincial and federal governments, NGOs, Aboriginal and non-Aboriginal communities, academia and research institutes, is both unique and inspiring. Over the past three years, for example, for each dollar contributed by the Government of Canada, Model Forests have received one dollar in cash contributions plus one dollar in services from partners and other sources.

As we take stock of the Network's successes, we are mindful that Canada's forest sector is

in transition, and that forest-based communities in rural Canada face serious adjustment challenges. Innovation in forest management, processing and new product development is key to meeting this challenge. As a proven community level tool, through its research and outreach activities, the Model Forests will have an important ongoing role in influencing the policies and best practices needed to effectively manage forest landscapes in the interests of all Canadians.

Dien Romet

Brian Emmett
Assistant Deputy Minister
Canadian Forest Service
Natural Resources Canada



# Aboriginal Involvement

The Canadian Model Forest Network has always been committed to strong working partnerships with Aboriginal communities. Model Forests continue to work with these communities on a variety of projects, including:

- generating Aboriginal Community Development Impact models in northern Ontario;
- identifying new eco-tourism opportunities with Brokenhead Ojibway First Nation in eastern Manitoba;
- improving relationships with the forest industry in western Alberta;
- preserving and regenerating black ash in the forests of eastern Ontario; and
- establishing Canada's first Aboriginal-led Model Forest, the Waswanipi Cree Model Forest in northern Québec.

### Aboriginal Strategic Initiative

The CMFN's Aboriginal Strategic Initiative has provided leadership in cross-cultural and collaborative learning opportunities regarding sustainable forest management in an Aboriginal context.

The Aboriginal Strategic Initiative, along with the First Nations Forestry Program of the Canadian Forest Service, hosted workshops in 2004 and 2005, entitled How to Measure Good Forest Management: An Aboriginal Perspective. These workshops brought together more than 150 participants from across Canada to share experiences related to the measurement of sustainable forest management from the perspective of Aboriginal people. Discussions addressed cultural research, indicator development, monitoring and certification within the context of sustainable forest management, and how indicators can be a unifying theme for communities working on these issues.

### Foothills Aboriginal Involvement Initiative

Sustainable forest management involves Aboriginal communities and respects their traditional use of the land. Foothills Model Forest's Aboriginal Involvement Initiative recognizes the importance of the Model Forest landbase for 17 Aboriginal communities. The same landbase includes areas that are active with forestry, recreation and oil and gas exploration, as well as large protected areas (including Jasper National Park and Willmore Wilderness Park). Since 2002, the Foothills Model Forest and its partners have been developing a process to conduct Traditional Cultural Knowledge Studies that will culminate in a referral process. By linking both of these elements, industry, government and Aboriginal communities will be more effective at respecting traditional uses of the land.

### Prince Albert Aboriginal-based tourism

Prince Albert Model Forest's Tourism Diversification project is undertaking an inventory and feasibility assessment of Aboriginal-based tourism and recreation potential with a number of Aboriginal communities connected to the Prince Albert Model Forest area

### Sustaining Nitassinan

The Western Newfoundland Model Forest (WNMF) facilitated the development of a Special Project Area involving the Innu Nation and the Government of Newfoundland and Labrador. Labrador's forests have been home to the Innu people for thousands of years. Drawing on this wealth of knowledge, the Innu are now actively involved in a unique partnership with the province, one that is facilated by WNMF, to provide tools for implementing the Strategic Forest Management Plan for District 19, known to the Innu people as Nitassinan, or "our home".



"We joined the Prince Albert Model Forest to be partners, to share knowledge across the country, because we should all be working together in our forests across Canada. For our bands, we need the training and technical capacity to manage our forests better, and we think the Model Forest can help. We'd also like to gain a better understanding of our wildlife and fisheries in order to maintain healthy ecosystems."

# Climate Change

Canada's commitment to the Kyoto Protocol has put climate change at the forefront of the national policy agenda. Canada's Model Forest Program, itself created in response to an international commitment following the Rio Earth Summit in 1992, recognizes the global importance of climate change and has directed substantial efforts to understanding it, as well as educating and acting on this timely topic at the local level.

## Climate Change Strategic Initiative

In 2004, the Canadian Model Forest Network launched its Climate Change Strategic Initiative, which focuses on helping Canadian forest communities understand and prepare for the effects of climate change. Forest communities, due to their proximity and dependence on local ecosystems, may be adversely affected by changes in climate. A changing climate will affect wildlife habitat, invasive pests and fire behaviour, tree distribution and regeneration, and cause fluctuations in international wood markets. All these factors may affect the health of smaller forest-based communities. The Climate Change Strategic Initiative is helping to establish a dialogue within forest dependent communities around climate change issues. A web-based guidebook is being developed that will allow these communities to conduct a self-assessment of their vulnerability to current climate and climate change, as well as determine some adaptation options.



## Community Workshops

In 2004, the Manitoba, Prince Albert and McGregor Model Forests held community and regional workshops to create awareness and educate local communities on climate change. Presentations were made on climate variability and change, vulnerability assessment, wildland/urban interfaces, social and economic impacts, and "FireSmarting" property (see page 13). Two video/DVD products that highlight the speakers at these workshops were produced and are available for future educational purposes.

## Carbon Budget Model

One major Canadian Model Forest Network project that adds to the understanding of climate change effects on local landscapes is the Carbon Budget Accounting project.

In 2002, the Network identified a need for the development of a carbon accounting tool at the operational scale to help forest managers incorporate carbon dynamics into stand management decisions. The Network teamed up with the Canadian Forest Service's Carbon Accounting Team to develop, test and implement an operational-scale carbon accounting model that enables forest managers to assess alternative management strategies based on carbon indicators.

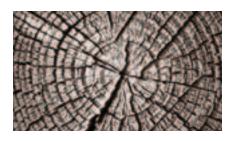
Western Newfoundland and Lake Abitibi Model Forests became pilot sites for testing the development of the Carbon Budget Model. During 2003, Model Forest partners across the network participated in testing the beta version of the model. Version 1.0 of the completed tool was launched in fall 2005.

The Carbon Budget Accounting project is an excellent example of how the Network's collaborative research environment and broad partnership turns ideas into on-theground solutions for the Canadian forest industry.

"The vulnerability of Canadian forest-based communities to climate change is a concern because of the close association of these communities to climate sensitive forest resources. One of the barriers to adaptation is a lack of information about the magnitude and timing of impacts at local levels. The main goal of this project is to develop tools that can be used by communities to understand the types of forest based impacts that might occur at local levels and to understand the kinds of factors and considerations that might influence the capacity of communities to adapt."

> — Tim Williamson, Sustainable Development Economist, Canadian Forest Service

# Private Land Stewardship



Private woodlots are an important part of the national wood supply, particularly in eastern Canada. There are approximately 450,000 woodlot owners in Canada who produce about 20 percent of the national commercial timber harvest. Private woodlot owners through their land stewardship activities also maintain and provide wildlife habitat, biodiversity, clean water and recreational opportunities.

Four of Canada's Model Forests — Fundy, Nova Forest Alliance, Bas-Saint-Laurent and Eastern Ontario — have significant private ownership within their landbases and have undertaken comprehensive projects and programs, which integrate and accentuate sustainable forest management initiatives on private lands.

### Private Woodlot Strategic Initiative

In 2002, the Canadian Model Forest Network created the Private Woodlot Strategic Initiative to assist individuals and woodlot organizations across Canada with the challenge of achieving sustainable forest management on private woodlots. Participation of woodlot owners in sustainable forest management is being enhanced through

electronic and printed material, as well as workshops that allow sharing of ideas and innovative practices. In addition, the Private Woodlot Strategic Initiative supported national private woodlot conferences in 2004 and 2005. An important focus of the Private Woodlot Strategic Initiative is the integration of woodlot values in landscapelevel forest management planning and the valuation of non-timber benefits that accrue from woodlots – such as clean water, wildlife habitat and recreational opportunities.

# A made-to-measure strategy for private forests in Bas-Saint-Laurent Model Forest

The Bas-Saint-Laurent Model Forest has taken a unique approach to private land management decisions for wildlife habitat. The Model Forest, with the support of the Fondation de la Faune du Québec (Quebec Wildlife Foundation) and others, has been testing a novel approach to wildlife management on private lands. The purpose is to educate private landowners about the importance of incorporating habitat protection and management strategies into the management plan for their properties.

The Bas-Saint-Laurent Model Forest project is being conducted in seven sub-watersheds. For a given woodlot within any of these sub-watersheds, a kit is produced which includes text, photographs and maps providing the owner with a detailed portrait of their property and associated wildlife habitats. The kit also highlights the main issues facing wildlife and proposes a series of recommendations

consistent with these observations. A number of regional stakeholder groups are applying this new approach in their areas.

### Stewardship on Prince Edward Island

The PEI Model Forest Network Partnership Ltd., launched in Prince Edward Island in July 2003, is associated with the Nova Forest Alliance Model Forest. The Partnership has undertaken a number of projects designed to encourage better forest stewardship on private lands, including developing a booklet entitled Voluntary Sustainable Management Practices for PEI Forest Contractors, demonstrating management options for riparian zones, exploring the potential for a Forest Learning Centre, and offering educational opportunities.

## Beyond timber

The Canadian Model Forest Network's Vancouver Island Special Project Area is supporting a remarkable network of organizations, researchers, educators, small-scale entrepreneurs and First Nations whose objective is to raise the profile and understanding of non-timber forest products. It is estimated that more than 200 non-timber forest products, such as wild mushrooms and floral greens, are harvested commercially in Canada and that the total annual value of the industry could be as high as one billion dollars. The partnership has developed a compendium of law and policy governing non-timber forest products for all regions of Canada, a directory of "who's who" in this sector and is organizing regional workshops.

# Private Woodland Owners: Meeting the Stewardship Challenge

Published in 2004 by the Canadian Model Forest Network, Meeting the Stewardship Challenge highlights the contributions woodlot owners have made to stewardship in Canada and provides background information to enhance discussion within the woodlot community. The CMFN's Private Woodlot Strategic Initiative is working to help foster new partnerships that improve landowners' capacity to carry out stewardship activities. To download a copy of this report, visit the Canadian Model Forest Network at: www.modelforest.net





# Watershed Management

The sustainability of the quality and quantity of the country's supply of fresh water is of paramount importance to Canadians. Because forests play an important role in filtering and storing water, sustainable forest management must integrate approaches that ensure the sustainability of water resources. Watershed management is an important topic in many Model Forests across the country.

## Hardisty Creek Restoration Project

The Foothills Model Forest's Hardisty Creek Restoration Project is a multi-stakeholder initiative with a mandate to restore the fish, wildlife, vegetation and overall health of the Hardisty Creek watershed. A wide range of stakeholder groups is participating, from municipalities to forest industry and not-forprofit organizations.

The goals of this project are to restore fish habitat and extend fish passage connectivity. Restoration efforts began in 2003 and a major milestone was reached in 2004 when the Canadian National Railway completed restoration and remediation work on the Hardisty Creek culvert. The culvert, installed in 1927, had been an absolute barrier to upstream fish passage. An additional small victory was experienced when, in the spring of 2005, a young bull trout was found in the creek as part of the Model Forest's monitoring efforts. Equally important is that the project provides many opportunities for the

public to become involved in restoration activities, such as planting willow wands, planting seed at the streambank or testing for water quality. Engaging the public in this project will best ensure that the watershed is healthy for generations to come.

#### Forest Land — Fish Conference II

The Foothills Model Forest in conjunction with Alberta Conservation Association. Alberta Sustainable Resource Development. Arc Incorporated, Fisheries and Oceans Canada, Millar Western Forest Products Limited and Trout Unlimited Canada sponsored the Forest Land — Fish Conference II: Ecosystem Stewardship Through Collaboration, in Edmonton, Alberta, in April 2004. Over 200 participants attended the conference, which presented an opportunity for interested researchers, resource managers and regulators, industry and special interest groups to share knowledge aimed at improving management practices at the forest-water interface.

# Watershed-based woodlot management planning in Fundy

In 2002–03, the Fundy Model Forest selected the Pollett River watershed to establish a pilot project with landowners. The pilot aims to engage small landholders in landscapelevel biodiversity conservation and a local decision-making process. Property data were collected and used to prepare management



plans. The project supports participating landowners in addressing wildlife habitat, water quality and forest fragmentation within the watershed.

# Fundy watershed conference

The Fundy Model Forest hosted a conference in June 2004 in Moncton, New Brunswick, entitled Water Quality and Integrated Watershed Planning: Charting the Future. The conference involved participants from the other eastern Canada Model Forests, as well as more than 130 delegates, speakers and partners representing both local

and international organizations. Topics ranged from public policy, community programs and current science to best on-the-ground water management practices. The conference facilitated plans for future collaborative efforts related to enhancing watershed planning and maintaining the delivery of water quality and quantity.

# Wildlife and Species at Risk



Canada's forests are home to thousands of species of wildlife. Ensuring that forest management is designed and implemented in such a way as to protect wildlife, while safeguarding the complex dynamics between wildlife species, is important to all of Canada's Model Forests. From habitat research on large mammals such as caribou, moose and bears, to projects investigating the distribution and abundance of tiny songbirds and amphibians, Model Forests and their partners are working to promote forest management that takes into account the needs of wildlife.

## Understanding caribou habitat in eastern Manitoba and central Saskatchewan

In 1995, Manitoba Model Forest partners initiated an ongoing integrated forestry/ woodland caribou management project. Understanding where woodland caribou occur in eastern Manitoba, as well as their habitat needs, is of critical importance if decision-makers are going to pursue forest policy that benefits this threatened species. Recent work concentrates on compilation of habitat information. Data collected in 2003/04 have been used to generate core use areas, to assess habitat use versus availability and to identify current habitat supply. These datasets form the basis of a regional conservation strategy and provincial

decision-makers have found the information generated by the Manitoba Model Forest partnership to be useful in the formulation of caribou-specific programs.

In 2004/05, the partners of the Prince Albert Model Forest supported research to ensure that forest management throughout central Saskatchewan provides for critical habitat and movement corridors for woodland caribou. Researchers fitted twenty caribou with global positioning system (GPS) collars to track their distribution and movements on the landscape. An innovative and noninvasive technique using DNA found in fecal pellets was used to provide a measure of genetic diversity and allowed biologists to estimate the population size. Analyzing caribou movements and locations on a digital forest cover map, will help biologists determine what types of forest, how much forest, and what forest patch sizes and corridors are important to these herds.

#### Grizzly bears in Alberta

The high profile Grizzly Bear Research Program at Foothills Model Forest is one of North America's largest, most comprehensive and innovative wildlife studies. The goal of the program is to provide managers with the necessary knowledge and planning tools to ensure the long-term conservation of grizzly bears in Alberta. Forty-seven partners from industry, government, academia, community groups, environmental groups and foundations have collaborated and invested over \$4.5 million in the program since 1999.

While it began with a study area of 10,000 square kilometres in the Foothills Model Forest landbase, the tremendous expansion of the Grizzly Bear Research Program is a testament to its success and importance within the province of Alberta. More than 100 bears have been captured and collared with global positioning system (GPS) collars in a research area that now spans 100,000 square kilometres, and there are plans to expand the study area to the whole of western Alberta, from the Northwest Territories south to the United States border. Data on grizzly bear movement and habitat use, population status and trends, and mortality rates have been collected and have been used to create habitat maps and movement models. Industry partners use these tools and knowledge to help minimize their impact on prime grizzly bear habitat. The tools are particularly useful as guides for the planning of roads and pipelines.

The application of sound science is guiding decisions around the management of grizzly bears and contributing to healthy forests and communities for generations to come — the essence of sustainable forest management.

### Cape Breton Canada Lynx Pilot Project

In late 2003, the Nova Forest Alliance began assisting the Unama'ki Institute of Natural Resources in a pilot study on the home range and habitat use of Canada Lynx in Unama'ki (Cape Breton). Once widespread in Nova Scotia, the current population is

now limited to the Cape Breton Highlands. In 2002 the province declared the lynx endangered. Factors affecting the decline are poorly understood and this has led to the development of a five-year study, coordinated through the Nova Scotia Lynx Recovery Team in collaboration with several partners. Data from the project will help determine the dispersal, home range and habitat use of lynx, and will guide future forest management planning. The project will also enhance both capacity within First Nations communities and partnering opportunities with resource management departments and organizations.

#### Moose habitat in Eenou Istchee

In 2003, a three-year project to better understand the needs and habitat of moose was initiated at the request of the Cree people of Waswanipi, who were concerned about the decline of moose populations in Eenou Istchee (the territory of the Crees). The goal of the project is to integrate Cree knowledge and scientific knowledge in order to develop moose habitat management strategies that are adapted to the socio-ecological context of the Cree people. The study is collecting and analyzing a variety of sources of information, including telemetry data from 15 radio-collared moose, a habitat inventory of more than 175 forest stands, and a series of in-depth interviews with Cree tallymen<sup>1</sup> and moose hunters.



# Beaver management in Bas-Saint-Laurent Model Forest

In 2002. Bas-Saint-Laurent Model Forest (BSLMF) initiated a beaver management pilot project to examine the effectiveness of existing beaver management techniques. The pilot project was conducted in all three of BSLMF's territories, as well as several sites along the St. Lawrence River. Beaver can substantially change riparian habitat, plug culverts and cause road flooding - all of which can be very costly to repair. The beaver management plan created by BSLMF outlines procedures that will help private woodlot owners monitor beaver, prevent beaver damage and mitigate negative effects. BSLMF has taken this project beyond its boundaries by creating a video on beaver management for private woodlot owners and has set up a series of demonstration sites in the Bas-Saint-Laurent region to show private woodlot owners strategies for properly managing their land for beaver.



# Grizzly Bear Research Program Wins Environmental Award

In recognition of its innovative and leading-edge research, the Foothills Model Forest Grizzly Bear Research Program won a 2004 Emerald Award for Environmental Excellence in the Research and Innovation category from the Alberta Foundation for Environmental Excellence.

# Communities



Forest-based communities have a big stake in how forest resources are managed. They depend on the forest for jobs, environmental services like drinking water, and for recreation. The Model Forest partnerships, located in forest regions across Canada, reflect the diversity of community interests and concerns related to forest management at the stand and landscape level. As a neutral forum, they promote dialogue and consensus-building at the community level on forest management issues and undertake research. demonstration and outreach activities to advance community knowledge, engagement and input to forest management planning processes.

# McGregor's Prince George Community Project

In 1999, the McGregor Model Forest committed to developing a healthy forest landscape within the 32,000-hectare boundary of the City of Prince George through the development of an Urban Forest Management Plan. In 2004, through their partnership with the McGregor Model Forest, the City of Prince George was able to access the skills and knowledge required to complete a plan that provides direction for citizens and staff when dealing with everything from street trees to greenbelts. City staff has already put the plan's principles to use in dealing with the Mountain Pine Beetle infestation in parks and other lands.

### Eastern Ontario Urban Forest Network

The Eastern Ontario Model Forest spearheaded the creation and development of the Eastern Ontario Urban Forest Network (EOUFN), a working group consisting of local communities, municipal agencies and interested individuals who promote healthy and sustainable urban forests. In facilitating linkages between these urban forest players, the EOUFN helps to share knowledge and aids in the transfer of science between communities. It also provides technical guidance, expertise and direction through a steering committee of urban forest experts and practitioners. For example, the EOUFN has assisted the Town of Carleton Place in establishing its own urban forest policy by facilitating the transfer of expertise and condensing existing policies from the nearby City of Ottawa.

An additional and exciting development in 2005 was the establishment of a Canadian Urban Forest Network. The EOUFN, as a founding chapter of the national network, has been used as an example for other regions (e.g., a chapter in southern British Columbia was established using the EOUFN framework). The goal is to have ten similar chapters established throughout Canada in advance of the 7th Canadian Urban Forest Conference, which is to be held in Québec City in 2006.

## Lake Abitibi and Foothills Model Forest Economic Impact Models

Since the inception of the Model Forest Program, the Lake Abitibi and Foothills Model Forests have undertaken the development of economic impact models. These models are designed to predict economic shocks within local communities as a result of events like the opening of a new mill, changes in government policies or fluctuations in world markets.

The Lake Abitibi Model Forest led the development of a set of models, which together are referred to as the Regional Community Constellation Impact Model, that allows for the assessment of the socio-economic impacts of various development opportunities in local communities in and around the Model Forest area. Extensive work was undertaken to build models that allow for the assessment of the economic social and environmental impacts of forest management at local, regional and provincial scales. An integrated model for each of nine regional communities, including two First Nation communities, was completed in December 2003. The models can assess all aspects of resource-based economic sectors, including forestry, mining, hunting, fishing and commercial tourism. Users include local municipalities, the forest industry and provincial agencies.



The Foothills Model Forest has dedicated resources to designing a highly sophisticated regional economic model that is able to account for impacts to its highly diverse resource economy, which includes forestry, mining, oil and gas, and tourism. The novel design of these models has been chronicled in scholarly journals and the approach developed by Foothills Model Forest has been applied in other communities across Canada.

# FireSmart in Foothills, Prince Albert and Manitoba Model Forests

Forest fires act as agents of forest renewal and ecosystem health. The emphasis placed on forest fire suppression over the last 70 years has led to the creation of some forest landscapes with large accumulations of potential fuels that are susceptible to extreme wildfires. This, in turn, creates a risk for people, communities and infrastructure. The national *FireSmart* program was created to prompt communities to proactively reduce the risk of losses due to fire and to enhance

safety in the wildland-urban interface. Foothills, Prince Albert and Manitoba Model Forests are building on this program by helping to create awareness and initiate the use of FireSmart techniques in their local communities.

The Foothills Model Forest is a key player in the FireSmart–ForestWise project that is helping to protect people, communities and infrastructure from severe wildfires in Jasper National Park. The project merges the actions required for community wildfire protection and ecological restoration in the Athabasca Valley of Jasper National Park. Over a three-year period, the project will thin 350 hectares of forest using specialized logging equipment.

The Prince Albert Model Forest is involved in assessing *FireSmart* management strategies at the landscape-level in Prince Albert National Park and its surrounding communities. New strategies and techniques are being developed and communicated to local stakeholders to help them reduce their risk of losses due to forest fire.

In Manitoba Model Forest, a partnership between Manitoba Conservation and the community of Victoria Beach trained university students to assess fire risks in and around rural communities, as well as how to manage and reduce these risks. Students have performed risk assessments on 1,200 residences in and around the community, which are

helping in the development of community wildfire protection/emergency plans. These examples illustrate how through their partnerships, Canada's Model Forests are uniquely positioned to promote the implementation of a practical program such as FireSmart in local communities.

'The McGregor Model Forest has played an important role in assisting with the public consultation on our Mountain Pine Beetle Tree Removal Program for the city. As well, the McGregor Model Forest is front and center assisting a group of forest-dependent communities to form a coalition so the communities can build capacity and address the long-term economic implications of the mountain pine beetle epidemic. The Model Forest is supporting their partners so we can move forward in addressing other emerging issues that affect our forests and our important forest economy."

- Mayor Colin Kinsley, City of Prince George

# **Boreal Forest**

Canada's vast boreal forest stretches in a broad belt from the Province of Newfoundland and Labrador in the east to the Yukon Territory in the west. The boreal region is home to seven of Canada's Model Forests, and is of tremendous ecological and economic importance to the country. Many of Canada's Aboriginal communities are located here, and a large segment of the population is employed in the natural resource sectors. The boreal forest also provides wetlands that are crucial to North American waterfowl, intact forests that are the summer breeding grounds for migratory songbirds, habitat for migratory mammals like woodland caribou and other values.



#### Western Newfoundland Model Forest

Western Newfoundland Model Forest continues work to determine the influence of landscape fragmentation on Newfoundland pine marten and to predict landscape-scale habitat occupancy. It is also involved in developing a decision support system to assess different forest management strategies in terms of their impacts on biodiversity. Through a special project area, it also supports a co-management mechanism for forest resources in Labrador between the Innu Nation and the provincial natural resource agency.



### Waswanipi Cree Model Forest

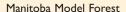
Waswanipi Cree Model Forest continues its mandate of enhancing Cree peoples' participation in forest management planning. This includes the examination of the demographics and land use of Cree traplines, and the development of management guidelines for wildlife — such as moose and marten — in forested areas. All of this work is being consolidated to produce a forest management plan that articulates and incorporates Cree needs and values. The integration of all these elements, called *Ndoho Istchee* by the Cree, will help to sustain the Cree way of life while contributing to today's economic needs.



#### Lake Abitibi Model Forest

Lake Abitibi Model Forest serves as one of two national test sites for the carbon budget accounting model. A special focus of the Model Forest is examining the ecological and economic impacts of a multi-cohort system for sustainable forest management in coniferous and mixed wood forest types. The Model Forest has also continued its research and reporting on socio-economic indicators, demonstrating the importance of the forest to communities in northern Ontario and helping them to cope with changes in the forest industry.





Manitoba Model Forest continues its long-standing work to understand the behaviour and habitat needs of woodland caribou, a threatened species in eastern Manitoba, through active research, monitoring, and management activities. The Model Forest's Stream Monitoring Network and Database Project builds knowledge and understanding of the dynamics of stream water quality and flow in response to short-term disturbances, long-term stresses and landscape features. The project also provides an opportunity for First Nation youth, trained as research assistants, to learn technical skills related to water monitoring.



#### Prince Albert Model Forest

Prince Albert Model Forest completed a study of how climate change might affect the levels of sustainable timber harvest in the boreal forest of central Saskatchewan. The general approach was to use a forest ecosystem simulation model to determine forest productivity under both current and future climatic conditions, and then to translate these results into wood supply impacts. A similar project was also undertaken in the grassland-mixed boreal-boreal forest transition zone. The Model Forest continues its work in monitoring and assessing caribou and moose habitat requirements and management. They are also involved in developing Aboriginalbased tourism opportunities and in supporting the establishment of a community-based resource management plan in the Athabasca region of northern Saskatchewan.



#### Foothills Model Forest

Foothills Model Forest continues its long-standing research on the impacts of industrial development on grizzly bears and their habitat on the eastern slopes of Canada's Rocky Mountains. The organization has wealth of knowledge on the patterns and processes of natural disturbances, and is working with many partners to integrate this knowledge "on-the-ground", most notably through the Highway 40 North Demonstration Project. The Model Forest continues to examine public values and attitudes about land management activities and ways to facilitate public involvement in decision-making.



### McGregor Model Forest

McGregor Model Forest continued its strong tradition of research focused on the impacts of natural disturbances on boreal landscapes and communities with the completion of a multi-year study on windthrow risk modeling and of a socio-economic study for communities currently affected by the mountain pine beetle epidemic. The Model Forest also focused on wildlife research on species of concern, with projects investigating the impacts of logging road networks on grizzly bears and the use of habitat by woodland caribou in the northern Rockies.



# **Indicators and Certification**

The pursuit of sustainable forest management requires ongoing assessment of impacts and changes resulting from forest management practices and other activities. Criteria and indicators of sustainable forest management allow for the measurement of progress at different scales — from local to international.

Canada's certified forest area is increasing and a sound criteria and indicators regime is needed to support forest certification efforts. The area certified to forestry-specific standards<sup>2</sup> has surpassed 100 million hectares<sup>3</sup>, about two-thirds of the area under active forest management.

# Sustainable Forest Certification in the Eastern Ontario and Bas-Saint-Laurent Model Forests

The certification of forests as sustainably managed, and the subsequent labeling of wood products from these certified forests is a growing trend. Model Forests have contributed knowledge and tools to the certification efforts of both forest industry partners and local landowners. In the Eastern Ontario and Bas-Saint-Laurent Model Forests, two sites with large numbers of small private landowners, the Model Forests have supported the certification efforts of groups of local landowners.

In 2002, the Groupement Forestier du l'Est du Lac Temiscouata (GFELT), a large group of private landowners working in partnership with the Bas-Saint-Laurent Model

Forest, achieved Forest Stewardship Council group certification. With a membership of 436 landowners managing 35,000 hectares of land, this is the largest group certificate in Canada. Since being awarded their certificate, GFELT has continued to make progress on expanding markets for their certified wood products and is engaged in building local capacity for certified wood processing.

Private woodlots comprise more than threeguarters of the forest land in the Eastern Ontario Model Forest (EOMF) and are a significant source of wood supply. In response to the growing interest in certified wood products, the EOMF established a working group to investigate the challenges and potential opportunities associated with certification on private forest lands. Through the working group, EOMF was the catalyst in assembling a group of landowners now representing more than 5,000 hectares. In 2003, this group was also successful in obtaining certification in accordance with the principles and criteria established by the Forest Stewardship Council. This process has demonstrated the utility of certification as a highly effective tool in promoting sustainable forest management practices on the ground.

# Western Newfoundland Model Forest Biodiversity Assessment Project

Since 1999, the Western Newfoundland Model Forest has been adapting a suite of assessment models originally developed in Alberta to the forests of Newfoundland and Labrador. This system assists forest managers

"Being a member of this Icertification! group has been a thoroughly positive experience and has encouraged me to think about my land in a fundamentally different way."

— Susan McLenaghan, Eastern Ontario Certified Forest Owners

in assessing a variety of management scenarios and impacts on future forest conditions. One component examines ecosystem diversity and landscape structure indices, and another focuses on species-specific Habitat Suitability Models (HSMs). HSMs have been developed for Newfoundland pine marten, boreal owl and woodland caribou. Preliminary results show that forest management actions can have significant impact on various biodiversity indicators, depending on the selected management scenario. Biodiversity Assessment Project tools will be adapted to other Newfoundland and Labrador ecoregions so they can be used throughout the province. The assessment models have been incorporated into provincial wood supply analysis since 2005.

# Monitoring understory vegetation in the Fundy Model Forest

In 2005, the Fundy Model Forest marked the tenth year of a I2-year study monitoring vascular plants and bryophytes (mosses and liverworts) in the Hayward Brook watershed. By sampling the forest floor at a fine scale, researchers have gained a better understanding of the structure and diversity of understory plants, and a clearer picture of how vascular plants and bryophytes respond

to different forest management interventions. Results show that there are important changes in the species composition of understory plants in response to forest harvesting operations, particularly with respect to the most sensitive species, such as bryophytes. When complete, this study will provide recommendations with respect to forest management interventions to ensure that habitat for vascular plants and bryophytes is maintained.

# Testing Indicators of Sustainable Forest Management

The Lake Abitibi Model Forest collaborated with the Ontario Ministry of Natural Resources (OMNR) to test a variety of tools designed for provincial-level assessment of indicators of sustainable forest management. Of note, software developed by OMNR was deemed to have potential application at the local level. These tools perform complex calculations to rank paired indicators, thus facilitating refinement of indicator suites. The Model Forest was viewed as an ideal testing ground, allowing stakeholders the opportunity to evaluate the software and recommend improvements before OMNR distributed the tools to forest industry organizations across the province.

<sup>2</sup> In Canada, certification is generally achieved under Canadian Standards Association (CSA), Sustainable Forestry Initiative (SFI) or Forest Stewardship Council (FSC) standards.

<sup>3</sup> Source: Canadian Sustainable Forestry Certification Coalition, 2006, www.certificationcanada.org

# Model Forests on the International Stage

Canada is a global forest nation and Canadian Model Forests are at the forefront of exporting ideas and programs around the world. Knowledge created in Canadian Model Forests is routinely transferred beyond the country's border through exchanges, projects and joint research activities. Canadian Model Forests are strong players in the international forestry arena and the Model Forest concept is internationally recognized for its leadership in social forestry — the involvement of stakeholders and communities in sustainable forest management.

### Showcasing a strong international presence

The Canadian Model Forest Network had a strong presence at two landmark international gatherings — the World Forestry Congress in Quebec City in September 2003 and the joint Canadian Institute of Forestry/Society of American Foresters meeting in Edmonton in October 2004. At both events, the Network hosted an exceptional educational and promotional pavilion, staffed by personnel from across Canada's Model Forests.

#### The world visits Canadian Model Forests

Canada's Model Forests are frequent stops for international visitors seeking information about sustainable forest management in Canada. From 2002–2005, Canadian Model Forests hosted delegations from Argentina,

Australia, Austria, Chile, Costa Rica, Cuba, France, Ghana, Honduras, India, Indonesia, Japan, Malaysia, Philippines, Russia and Sweden. In turn, representatives from Model Forests in Canada have traveled abroad to support the continued development of Model Forest sites and projects in the international arena. Model Forests here in Canada have also supported international students through internships and by participating in the TRANSFOR<sup>4</sup> field course.

# Continued partnership between Manitoba and Mexico

Manitoba Model Forest's relationship with the Mariposa Monarca Model Forest in Mexico dates from the mid-1990s and continues today. The relationship began in response to the threat to the wintering habitat of the monarch butterfly. Illegal logging, wildfires and land clearing for agriculture are threatening the habitat and very existence of this wonderful migratory insect. The need to integrate economic development with habitat conservation continues to drive the partnership. Projects focus not only on reforestation efforts, but also on changing the standard of living. The project with Mariposa Monarca Model Forest stands as a shining example of how ideas and tools for sustainability have gone beyond the boundaries of the Manitoba Model Forest and are now positively influencing the lives of others.



Born in Canada, the Model Forest concept has spread around the world. Today, the growing International Model Forest Network includes 40 model forest sites (in place or in development) in 19 countries. Visit the International Model Forest Network on-line at www.imfn.net

<sup>4</sup> Transatlantic Education for Globally Sustainable Forest Sector Development (TRANSFOR) — A program facilitating learning exchanges (in the form of student and faculty exchanges, internships and field courses) between universities in Canada and Europe. The program began in 2005 and will run until 2007.

#### Connections to the Russian Far East

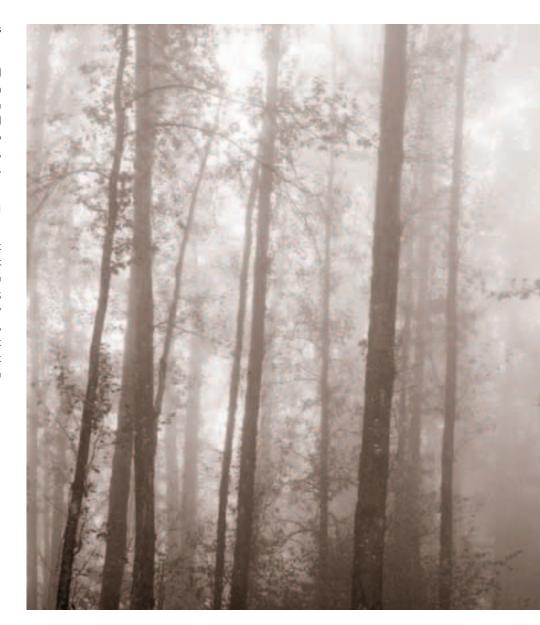
Linkages between the McGregor Model Forest and the Khabarovsk Region of fareastern Russia continue through the CIDA-McGregor Russia Project. Phase I of the project ran from 1999-2004, and was made possible through a contribution of \$3.5 million from the Canadian International Development Agency (CIDA). Phase 2 of the project began in 2005 and is again being funded through CIDA, which has committed more than one million dollars to this endeavour over the next two years. Together with its partners at the College of New Caledonia and the University of Northern British Columbia, McGregor Model Forest is helping Russia recover more value from its forests by providing training in Canadian wood-frame housing techniques, local governance and business to college instructors. In turn, these instructors are teaching students throughout the region. The recent harmonization of the Russian building code to the Canadian wood frame building code means that students can apply their new skills throughout the country. The project is creating jobs and helping communities in one of the poorest areas of Russia use their natural resources efficiently and sustainably.

# Waswanipi Cree Model Forest welcomes international students

In August 2004, the Waswanipi Cree Model Forest hosted 100 student delegates from countries all around the world who were in Canada to attend the 32nd International Forestry Students' Symposium. In addition to forestry tours and Model Forest information, students were treated to a Cree Cultural Night.

# Prince Albert Model Forest links with Sami in Sweden

In March 2004, Prince Albert Model Forest (PAMF) was invited to Sweden to help link the Woodland Cree people of Saskatchewan with the Sami people of Sweden. Subsequently, PAMF participated in an inaugural ceremony for the Vilhelmina Model Forest in Sweden, and signed an agreement to work with that group. This was followed by a two-day visit by a Swedish delegation to PAMF and an information-sharing tour in Sweden.



# Changes on the Landscape

Model Forests carry out their work on defined landscapes. These landscapes are not only affected by human-induced changes, but are also subject to ecological processes that shape forests and other natural environments. Understanding ecological processes — such as natural disturbances like fire or wind-throw, or ongoing processes like nutrient cycling or carbon sequestration — is key to the development and implementation of sustainable forest management.

## Highway 40 North Demonstration Project

This Foothills Model Forest project seeks to integrate years of natural disturbance research into a single cross-jurisdictional operational plan for a 70,000-hectare area. The area includes portions of the Willmore Wilderness Park and the forest management areas of Alberta Newsprint Company, Foothills Forest Products and Hinton Forest Products, a Division of West Fraser Mills Ltd. These lands are under the jurisdiction of two government departments: Alberta Sustainable

Resource Development and Alberta Community Development. The project is a positive step towards ecosystem-based management and a natural disturbance approach to forest management. It is also one of the first known attempts in Canada to integrate a full suite of natural patterns, those typically caused by natural disturbances, into a single operational plan that also includes all possible human disturbance activities, for example, forest harvesting, prescribed burns, roads and gas exploration.

## Windthrow risk modeling

In 2004, the McGregor Model Forest completed a three-year study on windthrow risk modeling, which is the modeling of the susceptibility of trees to being uprooted by persistent or extreme winds. This study, which was completed in partnership with the forest industry and research institutions, investigated the factors contributing to wind-throw risk and then built these factors into a computer modeling program. This software allows forest managers to lessen the risk of future windthrow by adjusting cutblock shape and orientation.

# Forest ecosystem classification in Nova Scotia

In 2004, the Nova Forest Alliance and the Province of Nova Scotia completed a project to develop ecotypes for the Model Forest landbase. A resulting publication, entitled Forest Ecosystem Classification of Nova Scotia's Model Forest, is providing landowners and forest managers with a valuable tool for planning how best to address the operational limitations associated with each forest ecotype. The manual is also providing a stepping-stone to a much larger goal by laying the foundation for ecosystembased management for all of Nova Scotia. The project partners are continuing this work by expanding the framework to include ecotypes for the entire province.

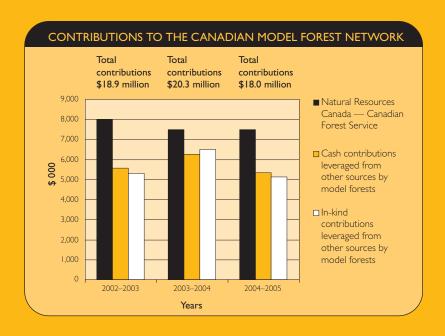


# Financial Overview 2002–2005

The Government of Canada, through Natural Resources Canada — Canadian Forest Service contributed \$500,000 a year to each Model Forest. These contribution agreements require that Model Forests secure at least \$250,000 per year in additional funds from partners and other sources. Most Model Forests far exceed this minimum requirement. Additional funding from sources other than the federal government increases the regional influence of each Model Forest, encourages broader and more committed partnerships, and allows Model Forests to operate on a larger scale.

On average, for each dollar invested by the Government of Canada, Model Forests receive one dollar in cash contributions plus one dollar in services from partners and other sources.

In addition to the core contributions to each Model Forest, Canada's Model Forest Program has an annual operating budget of approximately \$2 million. This is used for program coordination, strategic initiatives, joint activities between Model Forests and Special Project Areas.



# Models of Excellence

The eleven Model Forests that make up the Canadian Model Forest Network have worked at the forefront of innovation, research and implementation of sustainable forest management in Canada since 1992. Model Forests have influenced policy change at the provincial level, effected change in forestry practices and processes, and extended their influence beyond the local area.



Model Forests continue to serve as models of excellence in partnership, bringing together diverse sets of individuals, organizations and communities who work together to tackle problems and find solutions through a consensus-based decision-making framework.

The Canadian Model Forest Network continues to be an excellent vehicle for Natural Resources Canada and the Canadian Forest Service to undertake important forestry research and scientific inquiry. As living laboratories, Model Forests are a natural fit for scientists from the Canadian Forest Service, academic institutions and other research

organizations. In fact, 492 scientists were associated with the CMFN between 1999–2004<sup>5</sup>. And whether the field of inquiry is ecology, computer modeling or economics, the research facilitated by Model Forests is strongly supported by their partners. This support is most clearly exemplified by the funding — for every dollar of government investment, two additional dollars, in cash and in services, are generated to support research and outreach (see page 21).

The Model Forest concept has now been embraced world-wide. Canadian Model Forests helped establish the International Model Forest

Network, and continue to work with individual Model Forests around the world. Model Forests provide an exceptional forum to export Canadian forest policy and innovation.

# List of Partners

There are currently 527 partners represented within the Canadian Model Forest Network. These partners participate in the Network in different ways and are involved at different levels. Each Model Forest maintains a partnership list, but each defines the role of their partners in a unique way (e.g., founding partner versus project partner). The following is a snapshot of the official partners across all Model Forests as of spring 2005. Some project partners may not be represented in this list.

#### Federal

Agriculture and Agri-Food Canada
Canadian International Development
Agency
Environment Canada
Canadian Wildlife Service
Fisheries and Oceans Canada
Foreign Affairs and International Trade

Indian and Northern Affairs Canada National Capital Commission

Natural Resources Canada

Canada Centre for Remote Sensing Canadian Forest Service Petawawa Research Forest

Natural Sciences and Engineering Research Council

#### Parks Canada

Fundy National Park of Canada Gros Morne National Park of Canada Jasper National Park of Canada Prince Albert National Park of Canada St. Lawrence Islands National Park of Canada

#### Provincial

Alberta Aboriginal Affairs and Northern
Development
Alberta Community Development, Parks &
Protected Areas
Alberta Environment
Alberta Innovation & Science
Alberta Sustainable Resource Development
Fish and Wildlife Division
Forest Protection Division
Public Lands and Forest Division

Strategic Forestry Initiatives Division

British Columbia Ministry of Forests British Columbia Ministry of Sustainable Resource Management British Columbia Ministry of Water, Land and Air Protection Environnement Québec Forest Steward Council (PEI) Institute for Agriculture & Trade Policy lobs Ontario Manitoba Agriculture Manitoba Conservation Manitoba Culture, Heritage & Tourism Manitoba Intergovernmental Affairs Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec Ministère des Ressources naturelles et de la Faune du Québec New Brunswick Department of Natural Resources New Brunswick Department of the Environment and Local Government New Brunswick Premier's Round Table on the Environment and Economy

Environment and Conservation Newfoundland & Labrador Department of Natural Resources

Newfoundland & Labrador Department of

Nova Scotia Department of Environment and Labour

Nova Scotia Department of Natural Resources

Ontario Ministry of Agriculture, Food and Rural Affairs

Ontario Ministry of Natural Resources Natural Heritage Information Centre

## Ontario Stewardship

Community Stewardship Council of
Lanark County
Frontenac Stewardship Council
Grenville Land Stewardship Council
Hastings Stewardship Council
Leeds County Stewardship Council
Lennox & Addington Stewardship Council
Northumberland Stewardship Council
Ottawa Stewardship Council
Prescott-Russell Stewardship Council
Prince Edward Stewardship Council
Renfrew County Stewardship Council
Resource Stewardship Stormont, Dundas
& Glengarry
Victoria Land and Water Stewardship

Parks Ontario

Council

PEI Department of Agriculture, Fisheries and Aquaculture

PEI Department of Energy, Environment and Forestry

Saskatchewan Environment St. Lawrence Parks Commission

#### Municipal

City of Corner Brook
City of Moncton
City of Ottawa
City of Prince George
Cochrane & Area Community
Development Corporation
Cochrane Board of Trade
Community of Bissett
Community of Manigotagan
Community of Seymourville

Corporation of the Township of Black River-Matheson District of Fort St. James District of Vanderhoof Fraser-Fort George Regional District Halifax Regional Water Commission Iroquois Falls & District Chamber Of Commerce

Local Government District of Pinawa Municipalités régionales de comté de la Mitis

Municipalités régionales de comté de Rimouski-Neigette

Municipalités régionales de comté de Témiscouata

Municipality of Colchester Municipality of Jasper

Prescott-Russell Economic Development
Office

Resort Village of Candle Lake
Rural Municipality of Alexander
Rural Municipality of Lac du Bonnet
Rural Municipality of Victoria Beach
Sussex Chamber of Commerce
Town of Cochrane
Town of Hinton

Town of Iroquois Falls Town of Lac du Bonnet Town of Stewiacke

Town of Stewlacke

Town of Sussex

Township of South Dundas Township of Williamsburg

United Counties of Leeds & Grenville United Counties of Prescott & Russell

Village of Fraser Lake Village of Petitcodiac

## Education and Research Organizations

ACAP Humber Arm Environmental Association

Agricultural Research Institute of Ontario

ALBA Wilderness School

Alberta Conservation Association

Alberta Research Council

Alfred College (University of Guelph)

Aquatic Centre for Research and Education Bandaloop Landscape-Ecosystem Services

British Columbia School District #57

Carleton Place High School

Carleton University

Cégep de Rimouski

Cégep de St-Félicien

Centre de formation et d'extension en foresterie de l'Est du Québec

Centre d'enseignement et de recherche en foresterie de Sainte-Foy inc.

College of New Caledonia

College of the North Atlantic

Dalhousie University

District School Board Ontario Northeast

Eastern Ontario Biodiversity Museum Ember Research Services Ltd.

ESRI Canada Limited

Faculté de foresterie et géomatique

Forest Ecosystem Science Cooperative

Forest Education BC

Forest Engineering Research Institute of Canada

Forest History Society, Durham, NC Forintek Canada Corporation

FORREX

Frontier School Division Geoanalytic Inc. — Calgary

Greater Fundy Ecosystem Research Group

Hinton General Hospital Laboratory

Hinton Training Centre

Holland College

INFOR Inc.

International Centre for Research in

Agroforestry

Jasper Yellowhead Museum & Archives

K.C. Irving Chair in Sustainable

Development, Université de Moncton

Kemptville College (University of Guelph)

Komex International Ltd.

La Cité Collégiale

Manitoba Education

Manitoba Sunrise School Division

Maritime College of Forest Technology

McGill University

Nationview Outdoor Education Centre

New Brunswick School District 2

New Brunswick School District 6

North Grenville District High School

Nova Scotia Agricultural College

Ontario Forest Research Institute

Pulp and Paper Research Institute of

Canada (PAPRICAN)

Queen's University, Biology Department

Saskatchewan Research Council

 ${\it Sir\,Wilfred\,\,Grenfell\,\,College-Memorial}$ 

University of Newfoundland

St. Francis Xavier University

St. Lawrence River Institute of Environmental Sciences

Stanford University, Centre for

Conservation Biology State University of New York, College of

Environmental Science and Forestry Sustainable Forest Management Network

The Exploration Place

The Forestry Corp

Trent University
Université de Moncton

Université de Moncton — École des

sciences forestières

Université du Ouébec à Rimouski

Université Laval

University of Alberta, Faculty of Agriculture,

Forestry, & Human Ecology

University of British Columbia

University of Calgary

University of Guelph

University of Lethbridge, Department of

Geography

University of Manitoba

University of New Brunswick, Faculty of

Forestry & Environmental Management

University of New Brunswick, Saint John

University of Northern British Columbia

University of Ottawa

University of Saskatchewan, Western

College of Veterinary Medicine

University of Toronto, Faculty of Forestry

University of Washington, Centre for

Wildlife Conservation

University of Waterloo

University of Winnipeg

Upper Canada Board of Education

Wanakena Ranger School

Western School District, Newfoundland & Labrador

Labrador

Wilfrid Laurier University

York University, Department of

Anthropology

### Aboriginal organizations

Algonquin First Nation of Golden Lake Aseniwuche Winewak Nation

Big Horn First Nation

Black River First Nation

Brokenhead Ojibway First Nation Confederacy of MainLand Mi'kmaq

Eel Ground First Nation

Ekohawk

Eskasoni Fish & Wildlife Commission

Federation of Saskatchewan Indian Nations

Foothills Ojibway Society

Hollow Water First Nation

Kitigan Zibi Anishinabeg

Lac La Ronge Indian Band

Lheidli T'enneh First Nation

Mohawk Council of Akwesasne,

Environmental Division

Montreal Lake Cree Nation

Moose Band Development Corporation

National Aboriginal Forestry Association

National Indigenous Institute of Mexico

O'Chiese First Nation

Prince Albert Grand Council

Red Bank First Nation

Sagkeeng First Nation

Saik'uz First Nation

Sunchild First Nation

Waswanipi Cree First Nation

Waswanipi Forest Authority

# Forest Products Companies

and Organizations
Abitibi-Consolidated Inc.

Ainsworth Engineered Canada

Alberta Forest Products Association

Alberta Newsprint Company

Alpin Engineering Inc.

Arbex Forest Development Company Ltd.

Athol Forestry Cooperative

Barrett Lumber Company

Bégin & Bégin inc.

Blue Ridge Lumber (1981) Ltd.

Bowater

Bowater Mersey Paper Company Limited Canadian Federation of Woodlot Owners

Canfor Corporation

Christmas Tree Council of Nova Scotia

Cobjon Entreprises Inc.

Copeaux de la Vallée inc.

Corner Brook Pulp & Paper Ltd.

Daishowa-Marubeni International Ltd.

Delcan Engineers Planners

Dendron Resource Surveys Inc.

Domtar Inc.

Drentex Field Services

DuPont

E & M Burgess Enterprises Limited

Ecologistics Ltd.

Elmsdale Lumber Company Ltd.

Fawcett Lumber Company

Félix Huard inc.

Forest Group Venture Association

Forest Products Association of Nova Scotia

Groupe Lebel

Groupe Savoie-Westville Division

Hinton Wood Products, a Division of West

Fraser Mills Ltd.

United Steelworkers

Interforest Inc.

Interior Lumber Manufacturers Association

J.D. Irving, Limited

L & M Lumber Ltd.

Ledwidge Lumber Ltd.

Louisiana Pacific

MacTara Limited

Manning Diversified Forest Products
Millar Western Forest Products Ltd.

Mishtuk Corporation

Norampac inc. Division Cabano

North Nova Forest Owners Co-op Ltd.

Northern Forest Products Association

Nova Scotia Wood Product Manufacturing

Association

Russell White Lumber

Seburn Ecological Services

Slave Lake Pulp

Southern New Brunswick Wood

Cooperative Limited

Spray Lake Sawmills

Stora Enso Port Hawkesbury Ltd.

Sundance Forest Industries Ltd.

Sundre Forest Products Ltd.

Syndicat des producteurs forestiers du Bas-Saint-Laurent

Tembec Inc.

Tembec-Pine Falls Paper Group Unions

Tembec-Pine Falls, Paper Group

Tolko Industries

West Fraser Mills Ltd.

Westwind Forest Stewardship Inc.

Weyerhaeuser

Winton Global

### Wildlife organizations

Atlantic Society of Fish and Wildlife

Biologists

BC Wildlife Federation

Centre for Wildlife and Conservation

Biology

Cobequid Salmon Association

Cree Trappers Association

Fondation de la faune du Québec

Fur Institute of Canada

Hinton Fish & Game Association

Lac du Bonnet Fish & Game

Lanark & District Fish & Game Club

Manitoba Archers & Bowhunters

Manitoba Trappers Association

Newfoundland & Labrador Trappers

Association

Ontario Federation of Anglers & Hunters

Petitcodiac Sportsman's Club

Pinawa Game & Fish

Rocky Mountain Elk Foundation Canada

Ruffed Grouse Society

Spruce City Wildlife Association

St. Jo's Wildlife Association

Sussex Fish and Game Association

Trout Unlimited

Upper Canada Migratory Bird Sanctuary

Wildlife Habitat Canada

Woodcock Conservation Society

World Wildlife Fund

### Consultants

Aménagement forestier Beaufor inc.

Consultants forestiers DGR Inc.

Del Degan, Massé & associés

Demers, Gobeil, Mercier & associés inc.

Gill Forestry Inc.

Golder Associates

Groupe McNeil inc.

Industrial Forestry Service Ltd.

Integrated ForesTree Services

Integrated Silviculture Services Ltd.

I. S. Thrower & Associates Ltd.

King's Forestry Service

Miette Environmental Consulting

Pierre Mathieu, foresterie conseils inc. Pinegrove Biotechnical R. Keith Jones & Associates Remsoft Inc **REXFOR** Roche Itée, groupe-conseil Sandra S. Lawn & Associates Steve Rand Consulting and Forestry Services Tesera Systems Inc. Timberline Forest Inventory Consultants TJG Consulting Treeworks and Resource Management V.J. Nordin and Associates Ltd. Venture Forestry Consulting Inc. Whiskey Jack Forest Sciences

Miller Forestry Consulting

# Non-governmental Organizations

1000 Islands Field Naturalists

Canadian Forestry Association

Canadian Institute of Forestry

Canadian Lumbermen's Association

Canadian Parks and Wilderness Society

Alberta Conservation Association Association forestière du Bas-Saint-Laurent et de la Gaspésie inc. Barbara Heck Foundation (Landon Bay Environmental Learning Centre) Bedeque Bay Environmental Association Biological Checklist of the Kemptville Creek Drainage Basin Bluebird Acres Boisés Est Canadian 1000 Islands Heritage Conservancy Canadian Biodiversity Institute

College of Alberta Professional Foresters Conservation Council of New Brunswick Coopérative forestière Haut Plan Vert Domtar Forestry Centre **Ducks Unlimited** Eastern Chapter of the Society of Ontario Nut Growers Eastern Habitat Joint Ventures Eastern Ontario Certified Forest Owners Eco-Future Ecology Action Centre Environmental Coalition of PEI Fédération de l'UPA du Bas-Saint-Laurent Federation of British Columbia Naturalists Federation of British Columbia Woodlot. Associations Federation of Nova Scotia Naturalists Federation of Nova Scotia Woodland Owners Ferguson Forest Centre Forest Gene Conservation Association Forest Resource Improvement Association of Alberta Forest Stewardship Council Forestry Safety Society of Nova Scotia Fundy Environmental Action Group Gananogue Forestree Advisory Committee Girl Guides of Canada Groupement forestier de l'est du lac Temiscouata Inc. Humber Natural History Society Inside Education Institut Québécois d'aménagement de la forêt feuillue du Ouébec International Environmental Youth Corps

Island Nature Trust

Kaizer Meadow Brook Preservation Group Lanark & Leeds Green Community Program LandOwner Resource Centre Leeds & Grenville Environmental Roundtable Manitoba Forestry Association Manitoba Naturalist Society Mississippi Valley Field Naturalists Mutual Association for the Protection of Lake Environments National Union of Community Forestry Associations Natural Heritage League Private Land Stewardship Program Nature Conservancy of Canada Nature Nova Scotia New Brunswick Federation of Naturalists New Brunswick Federation of Woodlot **Owners** North American Maple Syrup Council North American Maple Syrup Producers' Association North Leeds Community Development Corporation Nova Scotia Environmental Network Nova Scotia Forest Technicians Association Nova Scotia Forestry Association Nova Scotia Silviculture Contractors Association Ontario Maple Syrup Producers' Association Ontario Professional Foresters Association Ontario Wetland Habitat Fund Ontario Woodlot Association

PEI Federation of Agriculture PEI Forest Improvement Association PEI Soil and Crop Association PRONARE (National Reforestation Program, Mexico) PRONATURA. Peninsula Yucatan Public Forest Council Registered Professional Foresters Association of Nova Scotia Regroupement des sociétés d'aménagement forestier du Québec (RESAM) Resource Efficient Agricultural Production Canada (REAP) Richard Ivey Foundation Rideau Trail Association Rideau Valley Field Naturalist Club Saskatchewan Forest Centre Sierra Club of Canada Société de la Faune et des Parcs Société de la Vallée de la rivière Humqui Société de Protection des Forêts contre le feu Société d'exploitation des ressources de la Métis Société d'exploitation des ressources de la Neigette Société d'exploitation des ressources de Société d'exploitation des ressources des Monts South Grenville Economic Development Corporation Southeast Environmental Association Stormont Soil and Crop Improvement Association Ottawa Field Naturalists Time to Respect Earth's Ecosystems

Union québécoise pour la conservation de la nature UNOFOC (National Union of Community Forestry Associations) Urban Forest Citizen's Committee Vankleek Hill Nature Society

Westport and Area Outdoor Association

Recreation and Tourism

Washademoak Environmentalists

Woodlot Association of Manitoba

Tree Canada Foundation

Association touristique du Bas-Saint-Laurent Central Nova Tourist Association Cooper Marsh Conservation Area Elgin Eco Association

Huble Homestead / Giscome Portage Heritage Society Lanark County Tourism

 ${\it Musquodoboit\,Valley\,Tourism\,Association}$ 

Outdoor Recreation Council of BC Polar Bear Riders Snowmobile Club

Strider Adventures

Tourism Association of PEI

Tourism Industry Association of

Nova Scotia

Wassaabiyaa Shining Waters Heritage Region

**Energy and Mining** 

ConocoPhillips

BC Oil & Gas Commision
BP Canada Energy Company
Burlington Resources
Canadian Association of Petroleum
Producers
Canadian Hunter Exploration

Devon Canada

 ${\it Elk\, Valley\, Coal---Cardinal\,\,River\,\,Operations}$ 

G&A Petroleum Services

Hydro One (Ontario Hydro)

Luscar Limited Obed Mountain Coal Ltd.

Manitoba Hydro

Northrock Resources

Petro-Canada

Petroleum Technology Alliance Canada

Suncor Energy Inc.

Talisman Energy Inc.

TransCanada Pipelines Ltd.

Veritas DGC Inc.

Others

Alberta Chamber of Resources

ATCO Electric

Atlantic Forestry Review

AVID Canada

Colchester Regional Development Agency Communications, Energy & Paperworkers

Union

Conform Ltd

Conservation Ontario

Cataraqui Region Conservation Authority Lake Simcoe Region Conservation

Authority

Mississippi Valley Conservation Authority Raisin Region Conservation Authority

Rideau Valley Conservation Authority

South Nation Conservation

Drummonds Sugarbush

ESRI Canada

Fédération des Caisses populaires

Desjardins du Bas-Saint-Laurent

Forem Technologies Ltd.

Fortune Farms

Fowler Tree Farms

Fulton's Pancake House & Sugar Bush

GDG Environnement et Sylvico

GFG-Camint inc.

Grenville Community Development Centre

Groupe Alta (filiale Sylvitec)

Groupe Sygif inc.

Guysborough County Regional

Development Authority

Humber Economic Development Board

Iroquois Enterprises

Jim Pattison Broadcast Group

John Tanner & Son

Lanark & District Maple Syrup Producers'

Association

Lehigh Inland Cement Limited

Linnet — The Land Systems Company

Micro-Forêt

Peregrine Helicopters

Société d'aide au développement des

collectivités de la Neigette inc.

Telemetry Solutions

The fishin' hole

**UBC** Press

Unaffiliated Environmentalists

Unafilliated Landowners

Western Valley Development Authority

Wheeler's Pancake House & Sugar Camp

Winnipeg River Brokenhead Community

Futures Development Corporation

# Contact List



NETWORK

RÉSEAU DE
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## Canada's Model Forest Program Secretariat

Natural Resources Canada Canadian Forest Service 580 Booth Street, 7th Floor Ottawa, Ontario KIA 0E4 Tel: (613) 992-5874 Fax: (613) 992-5390 www.modelforest.net

# Pacific Forestry Centre

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# Northern Forestry Centre

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Natural Resources Canada Canadian Forest Service 1219 Queen Street East, P.O. Box 490 Sault Ste. Marie, Ontario P6A 5M7 Tel: (705) 949-9461 Fax: (705) 541-5700 www.glfc.cfs.nrcan.gc.ca

## Laurentian Forestry Centre

Natural Resources Canada Canadian Forest Service 1055 P.E.P.S. Street, P.O. Box 3800 Sainte-Foy, Québec GIV 4C7 Tel: (418) 648-5788 Fax: (418) 648-5849 www.fl.scf.mcan.gc.ca

## Atlantic Forestry Centre

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## McGregor Model Forest

P.O. Box 2640 Prince George, British Columbia V2N 4T5 Tel: (250) 612-5840 Fax: (250) 612-5848 www.mcgregor.bc.ca

## 2 Foothills Model Forest

1176 Switzer Drive, P.O. Box 6330 Hinton, Alberta T7V 1X6 Tel: (780) 865-8330 Fax: (780) 865-8331 www.fmf.ca

### 3 Prince Albert Model Forest

139 – 1061 Central Avenue, P.O. Box 2406 Prince Albert, Saskatchewan S6V 7G3 Tel: (306) 922-1944 Fax: (306) 763-6456 www.pamodelforest.sk.ca

## 4 Manitoba Model Forest

P.O. Box 6500 Pine Falls, Manitoba ROE IMO Tel: (204) 367-5232 Fax: (204) 367-8897 www.manitobamodelforest.net

### 5 Lake Abitibi Model Forest

143 Third Street Cochrane, Ontario POL 1C0 Tel: (705) 272-7800 Fax: (705) 272-2744 www.lamf.net

# 6 Eastern Ontario Model Forest

P.O. Bag 2111, 10 Campus Drive Kemptville, Ontario KOG 1J0 Tel: (613) 258-8241 Fax: (613) 258-8363 www.eomf.on.ca

# 7 Waswanipi Cree Model Forest

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## 8 Bas-Saint-Laurent Model Forest

Université du Québec à Rimouski 300 allée des Ursulines, Room J-463 Rimouski, Québec G5L 3A1 Tel: (418) 722-7211 Fax: (418) 721-5630 wwwforet.fmodbsl.qc.ca

## 9 Fundy Model Forest

701 Main Street, Suite 2 Sussex, New Brunswick E4E 7H7 Tel: (506) 432-7575 or 1-800-546-4838 Fax: (506) 432-7562 www.fundymodelforest.net

### Nova Forest Alliance

285 George Street, P.O. Box 208 Stewiacke, Nova Scotia BON 2JO Tel: (902) 639-2921 Fax: (902) 639-2981 www.novaforestalliance.com

### Western Newfoundland Model Forest

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