

### Fundy Model Forest

### ~Partners in Sustainability~

Report Title: Watershed-Based V	Woodlot Management Planning
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### The Fundy Model Forest... ...Partners in Sustainability

"The Fundy Model Forest (FMF) is a partnership of 38 organizations that are promoting sustainable forest management practices in the Acadian Forest region."

Atlantic Society of Fish and Wildlife Biologists Canadian Institute of Forestry **Canadian Forest Service** City of Moncton Conservation Council of New Brunswick Fisheries and Oceans Canada Indian and Northern Affairs Canada Eel Ground First Nation Elgin Eco Association **Elmhurst Outdoors Environment** Canada Fawcett Lumber Company Fundy Environmental Action Group Fundy National Park Greater Fundy Ecosystem Research Group INFOR, Inc. J.D. Irving, Limited KC Irving Chair for Sustainable Development Maritime College of Forest Technology NB Department of the Environment and Local Government NB Department of Natural Resources NB Federation of Naturalists New Brunswick Federation of Woodlot Owners NB Premier's Round Table on the Environment & Economy New Brunswick School District 2 New Brunswick School District 6 Nova Forest Alliance Petitcodiac Sportsman's Club Red Bank First Nation Remsoft Inc. Southern New Brunswick Wood Cooperative Limited Sussex and District Chamber of Commerce Sussex Fish and Game Association Town of Sussex Université de Moncton University of NB, Fredericton - Faculty of Forestry University of NB - Saint John Campus Village of Petitcodiac Washademoak Environmentalists





### **Title: WATERSHED-BASED WOODLOT MANAGEMENT PLANNING**

### **Final Report to the Fundy Model Forest**

February, 2006

#### **Project proponents:**

Matthew Steeves Dr. Matthew Betts Dr. Graham Forbes

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### **Brief project overview:**

The Watershed-based Woodlot Management Planning Project, also known as the Pollett River Watershed Project (PRWP), is an initiative of the Greater Fundy Ecosystem Research Group (GFE) that encourages landscape-scale forest biodiversity conservation on private woodlots. The PRWP addresses the rapid rate of mature forest decline on private woodlots in the area (Betts *et al.* 2003). Currently the project is made up of a group of 38 landowners<sup>1</sup> (4,200 hectares of forest) who have committed to managing their woodlots in a way that is consistent with maintaining landscape-scale biodiversity. This includes management for: i) large wildlife habitats that cross property boundaries; ii) soil and water quality; iii) conservation of ecologically sensitive forested sites (Singleton *et al.* 2000); and iv) the protection of rare, threatened and endangered species. These management objectives are accomplished by following detailed woodlot management plans provided by the GFE. These woodlot plans fit within a broader landscape conservation plan that was completed in 2001 (Betts *et al.* 2002)

The following have been accomplished in the past year under FMF funding (as related to our 2005-2006 project objectives):

## (1) Research and develop an approach that will ensure financial sustainability to landowners who engage in landscape-level biodiversity conservation.

- (i) Timber Sales: The GFE completed a contract with Fundy National Park in which all campfire wood supplied to the Park during the 2005 tourist season originated from woodlots participating in the PRWP (see Figs. 1 and 2, as well as enclosed copy of the poster). Forest harvesting following the PRWP Management Plans was conducted in the fall of 2004 by selection harvesting. A contract was arranged with Walter Teehan of "Wally Wood To Go" to process (buck, split and wrap) and deliver the firewood to the Park. Special PRWP labels were designed to be placed on the firewood bundles. Posters were also made for display in the Park. We are currently negotiating with the Park for a contract to supply this coming summer's wood as well. The Park has expressed a desire to have campfire wood supplied by FSC certified lands within the PRWP in the future.
- (ii) Certification: The GFE has researched forest certification options. We have compared and contrasted the SFI, FSC and Pan Canadian systems. We have looked at the benefits and disadvantages of the certification systems. The results of this research have been put into a report and distributed to all landowners participating in the project (Appendix 2). For several reasons (availability, rigor, credibility, etc.) we have chosen to pursue FSC certification for the woodlot owners at this time. FSC certification will open new markets to the Project landowners (such as Marwood and Domtar) and help secure future firewood contracts with Fundy National Park.

So far, six landowners have expressed an interest in certification. To date, the GFE – in cooperation with Nagaya Forest Restoration Ltd. - has assisted 2 landowners (336 total acres) participating in the PRWP in becoming certified by

<sup>&</sup>lt;sup>1</sup> We consider a discrete name on a Property Identification number (PID) as constituting a woodlot owner.

the Forest Stewardship Council (FSC). To our knowledge, these are the first two FSC certified private woodlots in Albert County. We are currently completing another management plan for one of these landowners for a newly acquired property (92.6 acres) that will be added to the certified landbase. For these landowners to obtain FSC certification, the GFE prepared management plans based on standards set by FSC. In addition, we are currently in discussions with a third woodlot owner already participating in our landscape-level conservation project about the possibility of pursuing certification for his lands (990 acres). If all goes as planned, we will have assisted in the certification of 1419 acres of forested land by early summer of 2006. Funding to assist in the initial stages of the certification process was secured from the New Brunswick Environmental Trust Fund (ETF; \$20,000) for 2005-2006. Enclosed is a copy of the management plan we developed for the last woodlot owner that became certified (all landowner identifiers have been removed).

We have developed special labeling for maple products produced by one of our FSC certified landowners. These labels feature the FSC logo and a brief explanation of the certification. To our knowledge, this will be the first time maple products produced in Canada will carry an "FSC certified" label.

We are currently in discussions with a sawmill owner in the watershed who is considered being certified by FSC for "Chain of Custody" that will allow him to saw wood from certified woodlots and sell it as certified lumber. This would be a major step forward in the marketing of FSC certified forest products in the region.

(iii) Conservation Easements: George Fullerton (New Brunswick Community Land Trust) is in the process of completing an easement for one of the woodlot owners participating in the PRWP (completion date: spring 2007). These easements are currently being considered as one of the tools that could be used to protect the forest that surrounds some of the key forested riparian sites along the Pollett River.

## (2) Continue the development of watershed-scale and woodlot-scale plans in southeastern New Brunswick.

- (i) Currently 38 woodlot owners owning 4200 ha of land within the Pollett River Watershed have agreed to manage their land according to the GFE guidelines and the landscape level biodiversity plan for the watershed (Fig. 3). We are currently working to finish plans for three of these landowners (211 ha).
- (ii) There are 3 landowners (167+ ha) that are already on our waiting list to have the GFE develop management plan for their woodlots this coming summer (2006).

# (3) Continue education program for landowners and the general public that is focused on the importance of landscape-level biodiversity planning.

- (i) All woodlot management plans prepared for the PRWP contain information concerning many of the landscape-level concepts including:
  - (1) Section 6. Devoted to many of the important ecological features found on the individual woodlots and describe in which stand these features can be found and area these features occupy.
  - (2) Section 7. Management prescriptions describe how to maintain these features using forest management techniques.
  - (3) Appendices include Landscape Maps of the watershed and show how the individual woodlots fit into the watershed.
  - (4) General information about the PRWP, the GFE, and the importance of the Pollett River Watershed.

Various organizations involved in the project are also provided with examples of the plans.

- (ii) The Pollett River Watershed Project has been presented to many audiences in the past year while being supported by the Fundy Model Forest, including:
  - (1) Researchers at the Canadian Parks and Wilderness Society (CPAWS) private woodlot workshop in Fredericton (March 2005).
  - (2) Members of the New Brunswick Community Land Trust at AGM. Also included a tour of a woodlot that is part of the Pollett River Watershed Project (April 2005).
  - (3) Keynote address and presentation at the "Private Woodlots and the Conservation Challenge" conference in Debert Nova Scotia (organized by the Fundy Model Forest and Nova Forest Alliance). Over 80 woodlot owners and woodlot managers from across the Maritimes attended.
  - (4) Fundy Model Forest partners at 2005 AGM. Also to include a tour of a woodlots that are part of the Pollett River Watershed Project (June 2005).
  - (5) Community of Elgin Senior Citizens Group (October 2005).
  - (6) National Woodlands Conference in British Columbia (October 2005).
  - (7) Fundy Model Forest Sustainable Forest Management group in Sussex (October 2005).
  - (8) Athol Forestry Co-op (November 2005). To solicit support for project expansion into Nova Scotia.
  - (9) Nova Forest Alliance (December 2005). To encourage partnership for implementation of the PRWP model on the Nova Scotia Isthmus.
  - (10) City of Saint John Planning (January 2006). To solicit support for implementation in the S.J. city watershed.
  - (11) Fundy Model Forest Sustainable Forest Management group in Sussex (January 2006).
  - (12) Prince Edward Island Model Forest/ PEI Public Forest Council. Healthy Forests Healthy Communities: Landscape-Level Planning Workshop (March 2006). To encourage implementation within the PEI Model Forest.
- \* See enclosed CD for samples of recent PRWP presentations.

- (iii) As part of the aforementioned contract to supply wood to Fundy National Park, we produced posters for display in the Park that briefly described the project (enclosed).
- (iv) The GFE has embarked on a joint project with the EEA to construct an Acadian Forest Interpretive trail on lands held by a participant in our project. This 3 km trail will focus on the uniqueness and ecological importance of the Acadian Forest as well as ways that Acadian Forest biodiversity can be maintained and restored through forest management practices and the introduction of wildlife structures such as nesting boxes, artificial coarse woody debris, etc. This trail should be completed early in the summer of 2006.

# (4) Work with Irving and DNRE to promote co-operation between all major landowner groups in the Pollett River Watershed.

We continue to be in contact with JDI Ltd. about the possibility of their participation in the PRWP. They have expressed some interest, but as yet, remain uncommitted.

### (5) Work with the Petitcodiac Watershed Monitoring Group and Elgin Eco Association on stream restoration projects.

This objective of restoring a local streambed severely disturbed by a contractor's forest harvesting equipment and using it as a demonstration site was not met because of problems obtaining control of the property. Instead, the GFE embarked on a joint project with the Elgin Eco Association to develop an Acadian Forest Interpretive Site as described under objective #3.

	Partner/Funding Source		
Expense	Environmental Trust	FMF	Metcalf
	Fund		Foundation
Woodlot Plans/ landowner	\$20K	\$16K	\$20K
contact			
Travel		\$2K	\$2K
Meeting expenses		\$2K	
Equipment and materials			\$8K
Socio-economic research			\$4K
Professional contract			\$6K
services (to SNB Wood			
Coop for assistance with			
management plans)			
TOTALS	20K	\$20K	\$40K

### Budget summary for 2005-2006:

### **Future Plans:**

This project is ongoing. The duration of the project will depend on funding sources. We plan to continue providing assistance to landowners interested in landscapelevel planning and forest certification. Now that we have a certified landbase started, we will be focusing increased energy toward securing local markets for certified products from these woodlots.

We have also applied for funding with the Nova Forest Alliance that, if successful, will allow us to set up a satellite project on the Nova Scotia Isthmus and in the Saint John Watershed using the PRWP as a template. The Nova Scotia Isthmus is particularly important ecologically in that it likely serves as a movement zone for wildlife between New Brunswick and N.S. (Beazley et al. 2005, MacDonald and Clowater 2005).

#### Literature Cited:

- Beazley, K., Smandych, L., Snaith, T., MacKinnon, F., Austen-smith, P., and Duinker, P. 2005. Biodiversity considerations in conservation system planning: map-based approach for Nova Scotia, Canada. Ecological Applications 15: 2192-2208.
- Betts, M.G., Knox, J., Forbes, G. 2002. A Landscape Ecological Approach to Private Woodlot Planning in New Brunswick. Natural Areas Journal. Volume 22 (4), 311-317.
- Betts, M.G., Franklin, S., Taylor, R. 2003. Interpretation of landscape pattern and habitat change for local indicator species using satellite imagery and geographic information system data in New Brunswick, Canada. Canadian Journal of Forest Research. 33:1821-1831.
- MacDonald, A. and Clowater, R. 2005. Natural Ecosystem Connectivity Across the Nova Scotia Isthmus – Opportunities and Challenges. Canadian Parks and Wilderness Society.
- Singleton, J., Loo, J., Foley, J. 2000. Conservation Guidelines for Ecologically Sensitive Forested Sites on Private Woodlots within the Fundy Model Forest. Information Report M-X-207E. Canadian Forest Service – Atlantic Forestry Centre, Natural Resources Canada. 57 pp.



Fig. 1. This sugar maple stand is the source of Fundy National Park's 2005 campfire wood. The stand is part of the Pollett River Watershed Project and was selection harvested with a 30% removal shortly before this photo was taken.



Fig. 2. Firewood bundled for Fundy National Park. The 2005 firewood supply was provided by landowners participating in the Pollett River Watershed Project, and was sold for a price premium that will be split between the project and supplying landowners.

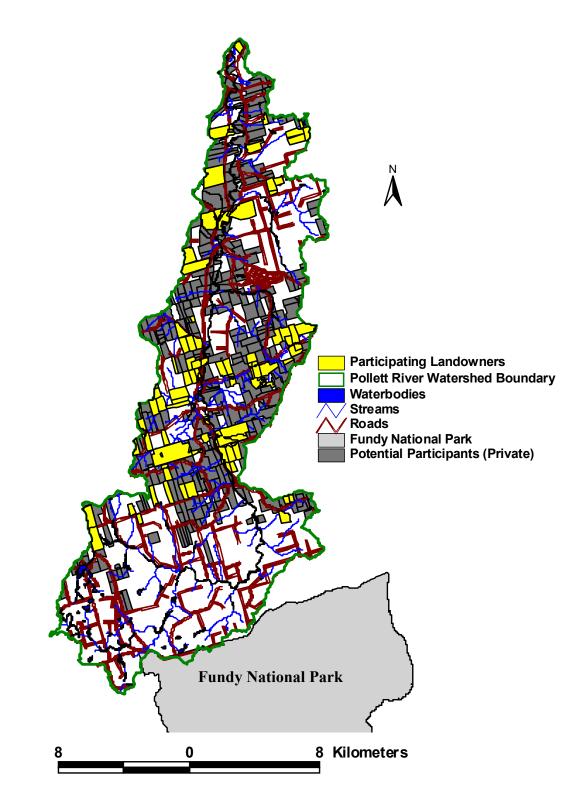


Fig. 3 Woodlot owners participating in the project as of February 1, 2006.