



Fundy Model Forest

~Partners in Sustainability~

Report Title: Watershed-Based Woodlot Management Planning

Author: M. Steeves, G. Forbes, M. Smith

Year of project: 2007

Principal contact information: Greater Fundy Ecosystem (GFE) Project
NB Cooperative Fish and Wildlife Research Unit
UNB Tweedale Center, 1350 Regent St.
University of New Brunswick
Fredericton, New Brunswick
E3C 2G6

File Name: Management_2007_Steeves_Watershed_Based_Woodlot_Management_Planning

***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

March, 2007

Project proponents:

Matthew Steeves

Dr. Graham Forbes

Matthew Smith

Greater Fundy Ecosystem (GFE) Project
N.B. Cooperative Fish & Wildlife Research Unit
UNB Tweeddale Centre, 1350 Regent St.
University of New Brunswick
Fredericton, NB, Canada
E3C 2G6
msteeves@unb.ca

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 23 land manager/owners representing 4600 hectares of forest land. These owners 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 2006-2007 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:** For the second straight year, the GFE secured a contract with Fundy National Park for the supply of the Park's 2006 campfire wood. All the wood came from woodlots participating in the PRWP. Forest harvesting following the PRWP Management Plans was conducted in the fall of 2005 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.

- (ii) Certification:** The GFE has continued to offer assistance to PRWP landowners interested in obtaining FSC certification of their woodlots. FSC certification opens new markets to woodlot owners and could help secure future firewood contracts with Fundy National Park.

No new landowners have come forward in the past year requesting FSC certification. However, one of the PRWP landowners that the GFE helped to

obtain FSC certification last year requested the GFE's assistance in preparing a management plan for an additional parcel of land that they wish to have certified. This plan was completed and the landowner is currently waiting to have it added to their certified lands.

(iii) Conservation Easements: George Fullerton (New Brunswick Community Land Trust) was working with one of the PRWP landowners in preparing a conservation easement for their land, but that landowner is now seriously ill and those plans are currently on hold.

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

This past year, the GFE completed 8 new forest management plans. There are now 23 land manager/owners (representing 4600 hectares of forest land) participating in the PRWP. These landowners have all agreed to manage their land according to the GFE guidelines and the landscape level biodiversity plan for the watershed (Fig. 1).

(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. A sample copy of these GFE management plans is on the CD included with this

report.

(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) 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.
- (2) Nova Scotia Woodlot Owners conference in Great Village, NS (March 2006). To encourage the implementation of the GFE biodiversity guidelines in NS.
- (3) Central Woodland Owners conference in Springhill, NS (April 2006). To promote implementation within the NS Isthmus.
- (4) Athol Forestry Cooperative Limited Annual General Meeting in Amherst, NS (June 2006). To encourage implementation within the NS Isthmus.
- (5) Meeting of woodlot owners within the NS isthmus (September 2006). There were two meetings in total; one in Truemanville, NS and the other in Amherst, NS. These presentations were designed to encourage implementation within the NS Isthmus.
- (6) Swedish researchers visiting the Fundy Model Forest (October 2006).
- (7) 4th year Forestry class at the University of New Brunswick November 2006).
- (8) Grade 7 class at the Petitcodiac Regional School (December 2006).
- (9) “Healthy Forests, Healthy Communities” community meeting in PEI (February 2007). To encourage implementation in PEI.

* See enclosed CD for a samples of a recent PRWP presentation.

(iii) The GFE 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 was completed in August, 2006. It focuses 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.

(iv) The 4th edition of the PRWP newsletter was mailed to 272 woodlot owners within the Pollett River watershed in September, 2006. This newsletter

provided information and updates on the PRWP. A copy of the newsletter is included with this final report.

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

Although JDI Ltd has expressed some interest in the project in the past, they remain uncommitted.

(5) Work with the Elgin Eco Association (EEA) and local researchers on projects designed to raise awareness about issues surrounding the Acadian Forest and promote community sustainability.

In addition to the development of the Acadian Forest Interpretive Site described above, the GFE lent assistance to the EEA for the planning and preparation of their snowshoe/ski event and their annual mountain bike race.

The GFE also assisted a researcher (Matt Smith) at Fundy National Park (now with the GFE) in setting up northern flying squirrel nest boxes on PRWP woodlots as part of a research project.

(6) Assist in starting a satellite project for the Nova Scotia Isthmus.

This past summer, the GFE started a project similar to the PRWP on the Nova Scotia isthmus. The first phase of this NS project was completed in September and included mapping of landscape features within the project area (Figs. 2-4), landowner contacts and educational workshops. From these initial contacts, 10 woodlot owners came forward as interested.

Budget summary for 2006-2007:

Expense	Partner/Funding Source			
	FMF	ETF	Product Premiums*	In-kind
Woodlot Resource Manager	\$17,000.00	\$15,200.00		
Travel	\$500.00	1,943.00	\$1,500.00	

Equipment and materials		2,863.00	\$1,000.00	
Consultation				\$1,000.00
TOTALS	\$17,500.00	\$20,000.00	\$2,500.00	\$1,000.00

* “Product Premiums” refers to money received by the PRWP as premiums on campfire wood sold to Fundy National Park.

Literature Cited:

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.

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.

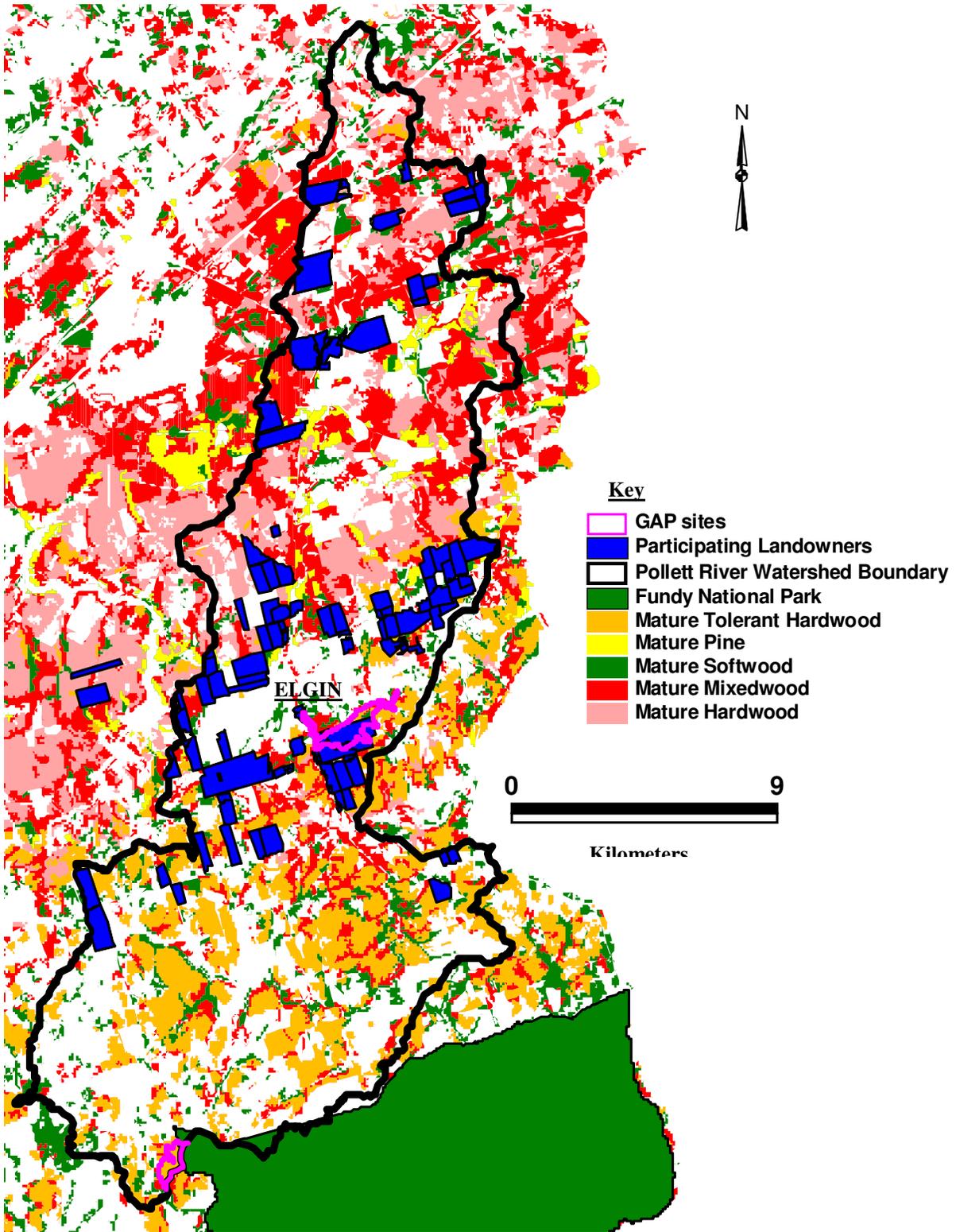


Fig. 1 Woodlot owners participating in the project as of March 1, 2007.

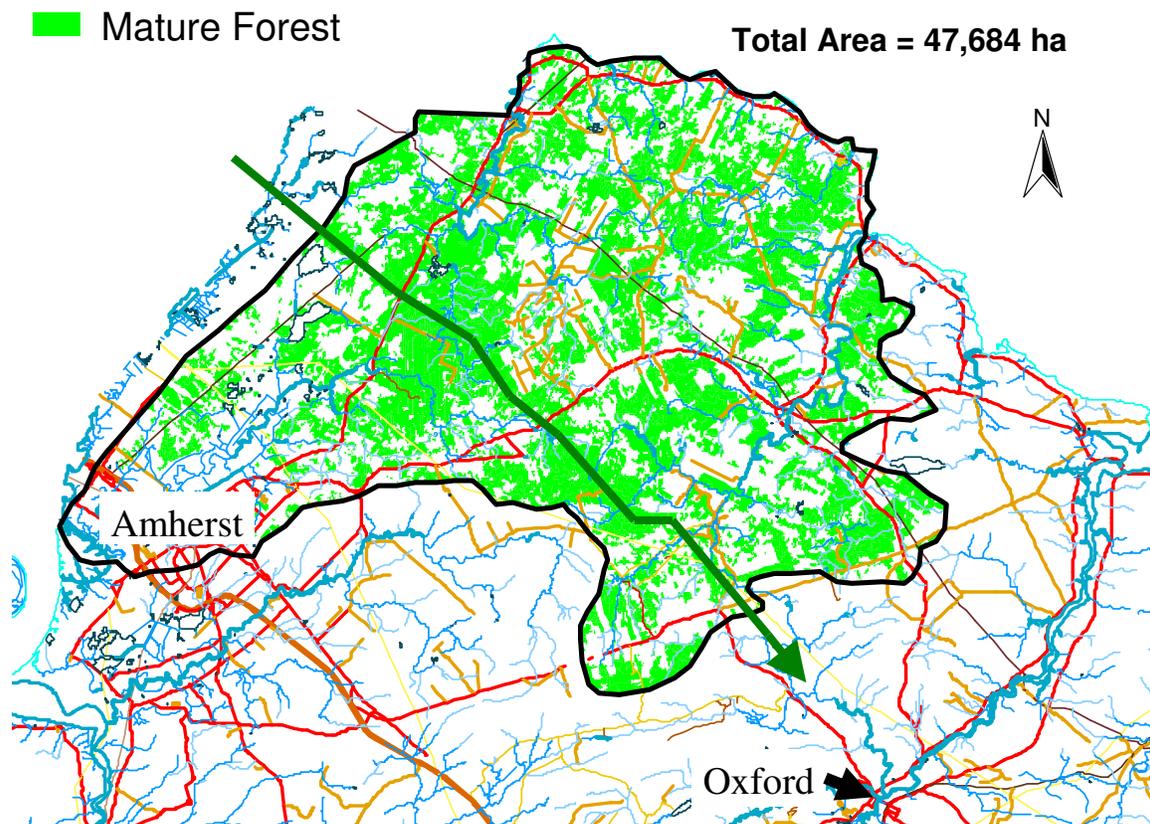


Figure 2. Mature forest habitat within the boundary of the Nova Scotia Isthmus Project. The boundary (thick black line) represents the boundaries of the Tidnish and Shinimicas watersheds. The green arrow represents what may be the best corridor for fragmentation-sensitive species.

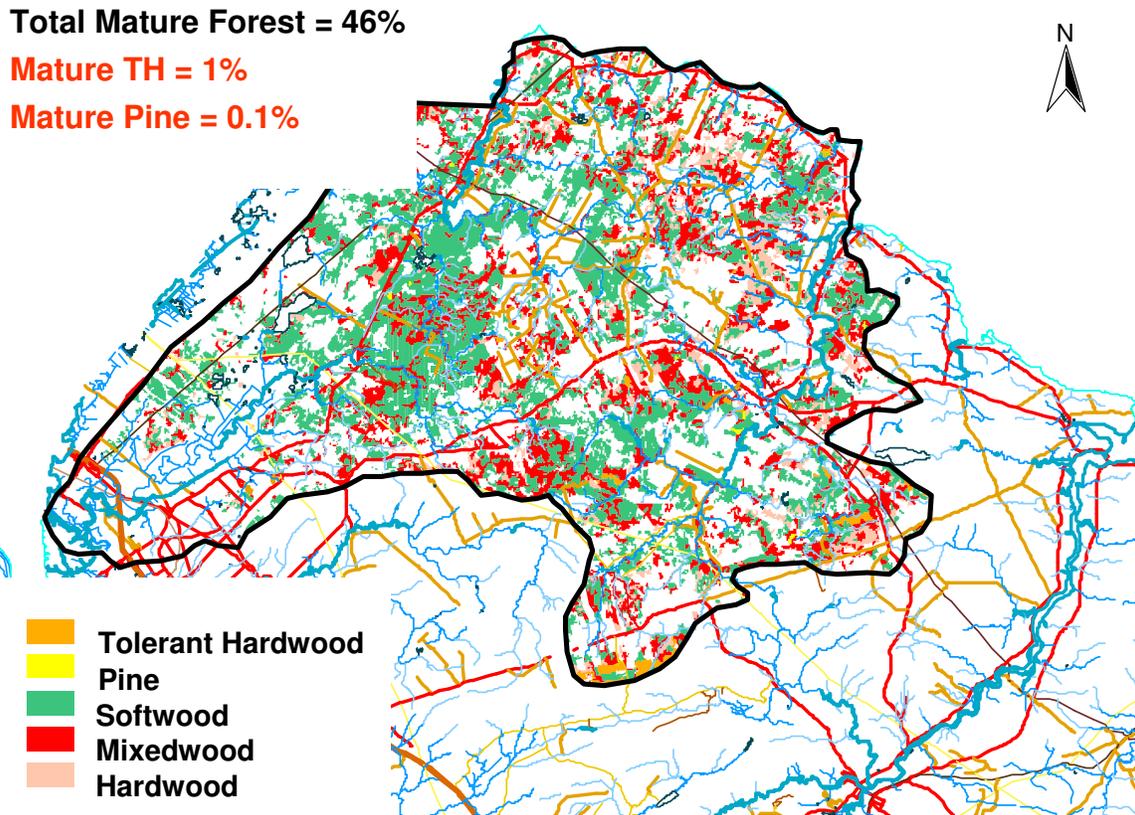


Figure 3. Mature forest habitat by forest type within the Nova Scotia Isthmus project area.

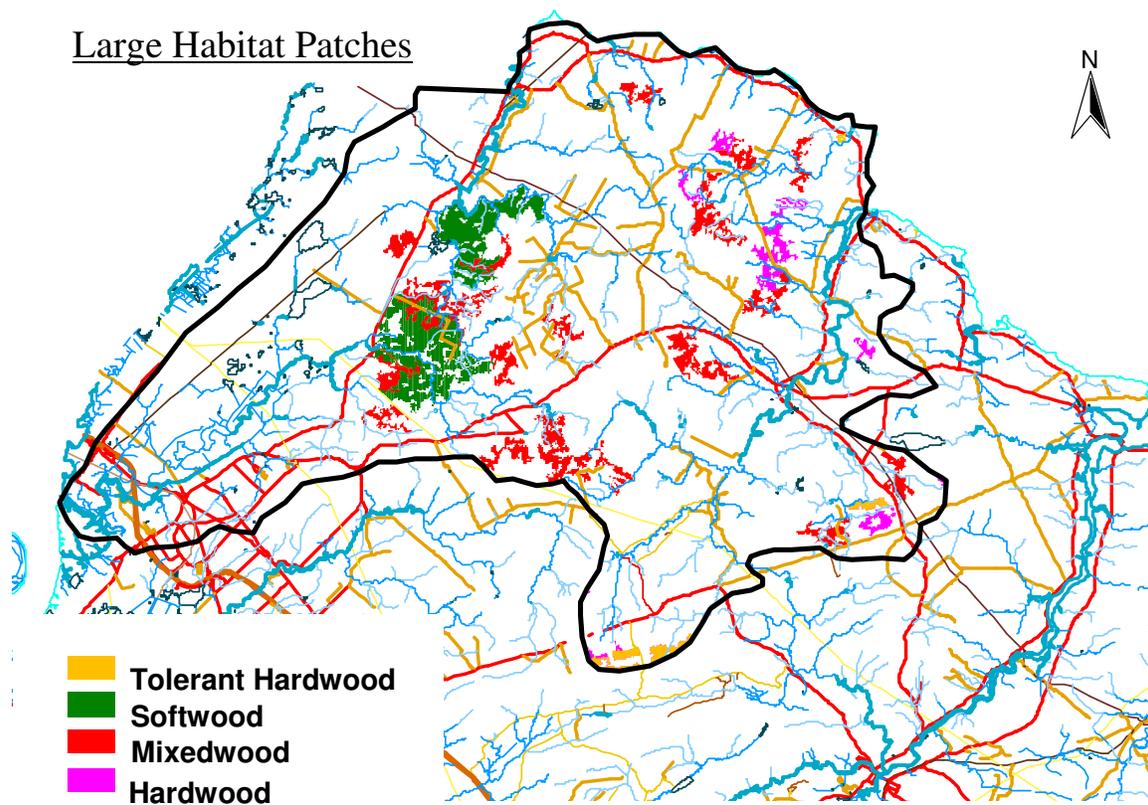


Figure 4. Large patches of critical wildlife habitat within the Nova Scotia Isthmus project area. Patch size is based on the spatial requirements of indicator species.