

Summary of Report

**SUSTAINABLE FOREST MANAGEMENT SURVEY OF  
NORTHUMBERLAND COUNTY**

By

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The Northumberland Stewardship Council  
March, 2000

## INTRODUCTION

The Northumberland Stewardship Council and Willow Beach Field Naturalists joined forces to undertake an extensive survey of woodlots in Northumberland County. Funded by the Ontario Trillium Foundation, the purpose of the study was to examine the level and type of forest management that has been occurring on rural lands in the County within the past five years. This project also examined what tools rural landowners require to manage their woodlots responsibly and recommend how sustainable forest management practices can be promoted on private lands.

Northumberland County is rich with a diversity of forest cover intermixed with agriculture and other land uses. However the remaining upland hardwood woodlots are small and fragmented by roads, fields and houses. Many woodlots have been over-harvested because of the demand for high quality hardwoods and high market prices for such timber.

In the past five years, extensive cutting, or high-grading, of these valuable woodlands has contributed to the loss of the ecological sustainability of the environment in the County. High-grading is defined as taking the trees with the highest commercial value and leaving the defective trees and species of lower value to grow and form a more prominent position in the forest. The high value species such as oak, black cherry, hickory, beech, and maple, which are beneficial to wildlife, are removed, leaving less desirable specimens and species such as poplar, white birch, ironwood, basswood and balsam fir. Regeneration of the high value species can be restricted and any resultant new stand often shows a dramatic species shift to low value species. This approach generates the greatest immediate financial return, but it reduces the future commercial value and health of the woodlots.

The Northumberland Stewardship Council would especially like to thank the Ontario Trillium Foundation for their support and say thank you to the landowners involved in the survey for volunteering information and their interest in the project. The Council would also like to thank the following organizations for their support:

- Willow Beach Field Naturalists
- Domtar Forest Resources
- Ont. Ministry of Natural Resources
- Ont. Ministry of Agriculture, Food and Rural Affairs
- Ontario Woodlot Association
- Ontario Forestry Association
- Ontario Professional Foresters Association
- Northumberland County Municipal Office
- Lower Trent Conservation Authority
- The Municipal Township Offices: Hope, Hamilton, Haldimand, Cramahe, Brighton, the Town of Brighton, Campbellford/Seymour, Percy, Alnwick, and Quinte West.

## **METHODS AND MATERIALS**

The Northumberland Woodlot Survey was divided into two segments: a) a landowner survey and b) a woodlot survey.

The “Landowner” survey was designed to examine what tools rural landowners require to manage their woodlots responsibly and to recommend how sustainable forest management practices can be promoted on private lands. This part was completed in two ways: a) mail survey inserted into newspapers in the County;

b) phone survey was used to expand on responses from landowners about their level of forest management and what tools they require for learning about sustainable forest management.

The “Woodlot” survey was created to examine the level and type of forest management that has been occurring on rural lands in the County. This part of the Survey was completed in two ways:

- a) road survey, used to examine woodlots accessible and close to a road and,

b) aerial survey, to assess woodlots located in the interior parts of the county.

Because the primary focus was on upland hardwood woodlots, these woodlots were identified using the Forest Resources Inventory (FRI) maps, from 1980, supplied by Domtar Forest Resources and the OMNR.

## RESULTS

The Survey results are provided for each of the four Survey segments: a) mail survey, b) phone survey, c) road survey, and d) aerial survey.

### MAIL SURVEY

There were 182 responses to the mail survey, representing over 7000 acres with the majority (62%) identifying hardwood as the predominant woodland type. Landowners responded with the following identified woodlot activities:

Table 1: Mail-In Survey - Landowner response to activities their woodlot provides.

Hiking Walkin g	Wildlife Watchin g	Firewoo d	Berry Pickin g	Incom e	Huntin g	Maple Syrup	Campin g
162 89%	148 81%	109 60%	37 20%	32 18%	22 12%	19 10%	15 8%

### Woodlot Objectives:

Landowners were also asked to rank eight objectives they hoped to achieve for their woodlot. The following is a summary of landowner rankings:

- |                             |                  |
|-----------------------------|------------------|
| 1. Maintain forest health   | 5. Wood products |
| 2. Environmental protection | 6. Investment    |
| 3. Wildlife habitat         | 7. Income        |

#### 4. Recreation

#### 8. Maple syrup

##### Harvesting Activity:

From the landowner survey, 45% responded as having their woodlot harvested at one time. The time frame ranged from 0 – 5 years up to 21+ years ago. Landowners were also asked if harvesting occurred, where they satisfied with the overall quality of the harvest. The response was 42% answered yes to being satisfied with the harvest.

##### Management Activities

The survey asked if landowners were willing to learn about sustainable forest management, and play an active part in the management of their woodlot.

- 69% of the landowners wanted to learn more about sustainable forest management;
- 21% of the landowners had some sort of management plan for their woodlot. This percent maybe a result of the “Managed Forest Tax Incentive Program” through MNR or the “Woodlot Management Program” through Domtar Forest Resources.

##### Tools for Learning

Landowners were asked what tools they would like access to for learning more about ‘sustainable forest management’. The responses included:

- 69% identified interest in information packages, (such as fact sheets, websites and pamphlets);
- 68% identified interest in outdoor learning, (field days, tours, and one on one consultation);
- 31% identified classroom learning (workshops, seminars, night classes).

The first two learning options were definitely more popular with landowners than the classroom delivery model.

## **PHONE SURVEY**

The phone survey was used to ask the landowners from the mail survey, specific questions pertaining to their knowledge of forest management. Some of the highlights are:

- majority of landowners would like to practice sustainable forest management and would like direction on how to achieve a healthy woodlot;
- landowners would like to see more outdoor information sessions, felt the Council should advertise their programs more broadly and would like to see information such as fact sheets more accessible.

Many landowners were unaware of the Northumberland Stewardship Council and its involvement in forest management for private landowners.

## **ROAD SURVEY**

There were 373 upland hardwood forest stands surveyed, representing over 7,084 acres. Each woodlot surveyed was identified as one of the following categories:

- untouched or not harvested (no harvesting activity in the last twenty years)
- harvested / managed (harvesting carried out on a sustainable basis)
- high-graded (over harvesting especially in the higher quality categories leaving lower grade material behind to perpetuate the stand)
- other, which includes farmed or cleared for development or other purposes

Table 2: Road Survey – Harvest status of upland hardwood stands in Northumberland County.

<b>Harvest Status<sup>1</sup></b>	<b>Forest Stands</b>	
	<b>#</b>	<b>%</b>

High-Graded	148	40%
Untouched	101	27%
Harvested	89	24%
Other	35	9%
<b>Total</b>	<b>373</b>	

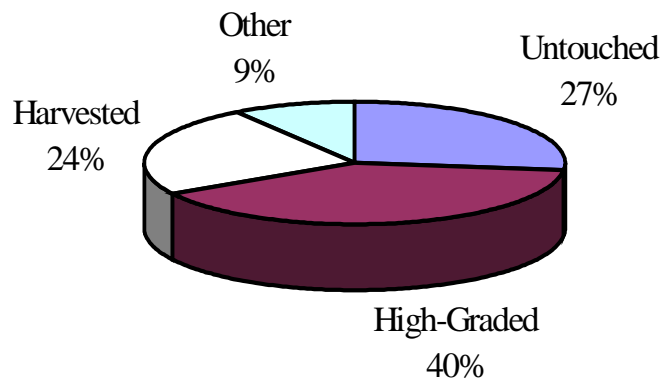


Figure #1: Road Survey – Harvest status of upland hardwood stands in Northumberland County

Harvesting activities varied greatly in the nine Townships surveyed. This is presented in the following Table #3.

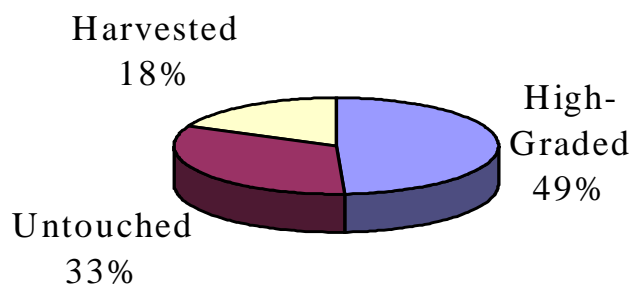
Table #3: Road Survey – The number and percent of forest stands surveyed by township.

Township	High-graded		Untouched		Harvested		Other	
	#	%	#	%	#	%	#	%
Hope	5	16%	9	29%	15	48%	2	7%
Hamilton	16	50%	7	22%	8	25%	1	3%
Haldimand	15	33%	5	11%	22	49%	3	7%
Cramahe	11	44%	6	24%	7	28%	1	4%

Brighton	37	45%	23	28%	12	14%	11	13%
Camp./Seymour	36	54%	5	8%	11	17%	14	21%
Percy	17	33%	20	39%	14	28%	0	0%
Alnwick	5	42%	1	8%	5	42%	1	8%
Murray	6	21%	13	46%	7	25%	2	7%
<b>North'd Cty.</b>		<b>40%</b>		<b>24%</b>		<b>27%</b>		<b>24%</b>

## AERIAL SURVEY

The aerial survey examined those woodlots not accessible from the road. The survey supplemented the road survey and produced comparable results. The results for the aerial survey are rough estimates of area, based on the FRI data. Due to flight restrictions and flight time constraints, 6 Townships were



completed and 3 could not be done (Campbellford/Seymour, Alnwick & Murray).  
 Figure 2: Aerial Survey – harvest status of forest stands by percent of area.

## DISCUSSION

A road and an aerial survey was used to assess woodlots in the County. The road survey showed 40% of upland hardwood woodlots were high-graded and the aerial survey showed similar results with 49% high-graded.

The majority of the high-graded upland hardwood stands were found in the townships of Brighton, Campbellford/Seymour and Percy. These townships have a higher percentage of farms and farmland than the other six townships. Many farmers depend on the revenue generated from harvesting high-quality upland hardwood woodlots. However high-grading harvest practices will degenerate the quality of these stands and the future commercial value significantly.

The overall response to the mail survey and the phone survey was positive. Many landowners would like to see more programs advertised and implemented to help them understand how to manage their woodlots responsibly. Landowners are generally unaware of the dollar value of their woodlot and would like to learn how to assess their woodlot to receive fair value from logging contractors. Learning tools such as outdoor workshops and reading material available by mail or on the Internet would be the most beneficial to landowners. Landowners are aware of the necessity of responsible forest management, but often do not know how to implement programs to achieve their desired results.

Northumberland County has had over 40% of its upland hardwood forests high-graded in the last 5 years. Between the landowner interest in responsible forest management, and the growing urgency to sustain these high-value woodlands, Northumberland County has the potential to move beyond the statistics, and take the initiative to set new standards for sustainable woodlot harvesting.