

**Woodland Owners' Perceptions and Attitudes toward Sustainable Forest  
Management: Central Nova Scotia, 2000**

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**August 2000**

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**This report was prepared under contract to the Nova Forest Alliance, Nova Scotia's Model Forest Project with funding supplied by Canada's Model Forest Program.**

## **Acknowledgements**

The authors would like to thank the members of the Research Team for their invaluable assistance in the elaboration of the initial questionnaire, and for comments and advice at other stages of the project development: Tom Beckley and Ian Millar from the Canadian Forest Service, Peter Duinker and Eldon Gunn from Dalhousie University, and Brian Sykes of the Nova Forest Alliance. In addition we would like to thank all the comments received from the partners who assisted in developing the final questionnaire in particular, Jonathan Porter, and Dave Barrett who spent an afternoon with us reviewing it. Further thanks is extended to the various researchers across the country who spent time critiquing the questionnaire.

Thanks is also due to Sandra Murphy of the Nova Scotia Agricultural College for her assistance with the project from its inception to completion.

We would like to express our appreciation to Bonnie Waddell, Head of the MacRae Library, Nova Scotia Agricultural College, for her help in our research, and to David Colborne, Public Services Librarian for the Nova Scotia Community College, our thanks for his time and expertise.

**Disclaimer:** The conclusions drawn in this report are those of the authors and should not be construed as representing the views of the Partners of the Nova Forest Alliance.

## Executive summary

Forests are an integral part of the economy and way of life of Nova Scotians. One of the groups most interested in the long-term viability of the forests is the group who own woodland. The beliefs and attitudes of woodland owners play an important role in how forests are managed and sustained. Yet a comprehensive study of the sociocultural character of woodland owners has not been undertaken in Nova Scotia in recent times. Within this context, the current research is directed at an in-depth understanding of the perceptions, beliefs, and behaviour of the people living in and near the Nova Forest Alliance (NFA), Nova Scotia's Model Forest Project area which constitutes an area of 458,000 ha or 1.3 million acres and stretches between Truro and Halifax and Windsor and Caribou Mines. In particular this study focuses on woodland owners' ideas about the sustainability of Nova Scotia's forests.

Several objectives helped to define the research initiative. First, the NFA recognized the importance of sociocultural research and the need to develop a research program capable of exploring questions and concerns over a period of several years. Secondly, the research in the first instance was aimed at developing baseline information on sociocultural dimensions of the NFA region, and thus an increased understanding of the area. Thirdly, the research was envisioned as contributing information useful to various committees within the NFA structure, such as the Criteria and Indicators and the Communications Committees. Finally the research program was seen as an opportunity to provide a benchmark for the evaluation of model forest programming.

More specific objectives related to the survey were as follows.

- to determine what sources of information the woodland owners use to get information on forestry issues and the value they place on these sources
- to assess the level of knowledge about the Nova Forest Alliance Project Area and to determine how the NFA might better serve the needs of woodland owners
- to assess views on sustainable forest management
- to ascertain views on a variety of forest issues and to determine what issues are considered important to the health of Nova Scotia's forests
- to determine the value placed on a variety of forest management practices, particularly clearcutting
- to ascertain what woodland owners perceive as threats to Nova Scotia's forests and the forest industry
- to obtain a demographic picture of woodland owners
- to find out what priorities woodland owners have for the use of the forest
- to determine what attitudinal differences exist, if any, between woodland owners and the general public

This report presents the findings of a major part of the second stage in the sociocultural research program supported by the NFA, a mail survey on woodland owners' opinions towards our forest. This report presents a brief summary of the methodology employed, detailed research results, and conclusions.

- The respondents consisted of 379 woodland owners with wooded property in the Nova Forest Alliance Project Area. The population is composed of both individual and collective (referring to corporations, societies, partnerships and farms) owners; therefore, the sample was drawn to reflect this ratio. Since the number of wooded property owners of acreages larger than 250 was very small in comparison to total numbers of woodland owners, a stratified sampling process was instituted. Three hundred and fifty owners were sampled from each of the following groups: owning from five to 49 acres, owning from 50 to 249 acres, and owning 250 acres or more. The response rate was 46 percent, with 379 owners responding to the questionnaire. This represents a margin of error of five percent (19 times out of 20).
- Respondents were older (54% over 55), largely male (78%), and reasonably well educated (30% were university or college graduates). Many (35%) were retired or employed in blue collar activities (32%).
- Due to the nature of the sample, respondents lived in, and had been raised in, rural areas.
- Most respondents owned medium to large woodland properties (78% over 50 acres). Seventy-seven percent had owned land for over ten years. Most had purchased their woodland. The average number of parcels of woodland owned was three. The ownership structure was primarily individually owned, which is representative of the population. Most respondents (55%) lived on their woodland property. More than 75% said that they owned woodland for the sake of future generations, to give to their children, or to enjoy wildlife. Few woodland owners (maximum 8%) were members of forest-related organizations.
- When asked about harvesting timber, most (64%) had harvested wood over the last three years, with an average of 1874 cords and an average of 99 acres harvested. Those who had not harvested wood indicated that they might harvest in case of a financial emergency (40%), if marketable timber was available (37%), or if woodland was damaged, diseased, or infested (8%).
- The key products harvested or gathered for personal use in the last three years were firewood (65%), Christmas trees (29%), and brush (28%). Products harvested for sale included sawlogs (63%) and pulpwood (40%). Most products were harvested by family members (51%) or contractors (25%). Most respondents (62%) did not rely on the sale of products for income, and it often represented a small proportion of their total income (24%). Most respondents (91%) did not derive income from non-timber activities.
- Most woodland owners (73%) did not have a formal plan for their woodland. The top five woodlot management activities undertaken on their property during the previous three years and the next three years included the removal of low quality trees and blowdowns, boundary line improvements, thinning, selection cutting, and planting. The timber harvesting methods used by most of the respondents

included salvaging dead and damaged trees, cutting a few trees here and there, clearcutting, and cutting softwood while leaving hardwood. On average, 3.5 different harvesting practices were utilized on a wooded property.

- A high proportion (88%) of respondents were interested or very interested in forest issues, and 62% felt that they are at least somewhat informed. This result is comparable to that found in the general public survey (Sanderson et al. 2000). Many respondents (47%) said that they had quite a lot of experience working in the woods.
- Sources of information important to woodland owners included other woodland owners, friends, families, and neighbours, and various forest professionals. Confidence in these sources was very high. Important media used to access information on forest issues were newspaper and television, comparable results to the general public survey (Sanderson et al. 2000). Internet use was not as prevalent among woodland owners as among the general public; however, younger owners are more likely to use this medium.
- Over half (55%) of the respondents to the woodland owners' survey had not taken any action to express their views on the use of Nova Scotia's forests. Among those who had, key activities involved discussing concerns with friends, neighbours, or coworkers, or contacting other landowners.
- When asked what topics they would like to learn more about, respondents (over 25%) indicated: best management practices, encouraging natural regeneration, age related management, forest regulations, and different types of woodland planning.
- A third of the respondents (30%) were familiar with the NFA. When asked what they considered the most important things the NFA could do to improve the management of Nova Scotia's forests, they rated the following the highest ( in order of importance): the promotion of reforestation, the promotion of sustainable forestry practices, and education of youth and woodland owners.
- The environmental benefits of forests were seen as significantly more important than economic benefits, which were rated more important than social benefits. However, all were seen as important forest values. Woodland owners scored social benefits considerably lower than did the general public.
- To the respondents, sustainable forest management was defined in terms of two main dimensions: the use or nonuse of certain management practices, such as balancing harvesting and reforestation and clearcutting, and the promotion of ecological values, such as forest preservation.
- The vast majority (84%) of respondents felt that it is very important to achieve sustainable forest management in Canada. However most did not believe that forest management is currently sustainable as practiced on private company

woodlands (70%), on privately-owned woodlands (50%), and on Crown lands (64%). On average, about 20% said that they did not know. This is a less optimistic perspective than that found in the general public survey. When asked about the commitment of various organizations to sustainable forest management in Nova Scotia, woodland owners scored the following with the highest commitment levels: woodland owners, the federal government, and environmental groups.

- Attitudes towards forest sustainability were reflected in the level of agreement or disagreement to a series of statements presented to respondents. Statements which rated the highest levels of agreement included: *Protecting jobs in the forest industry and protecting the forest environment are both possible* (91%); *Society has an obligation to protect endangered species* (89%); *Forest companies should do more to protect the environment* (85%); and *More forests need to be replanted* (84%).
- Support was evident for the regulation of timber harvest contractors (78%), for incentives to establish protected areas (74%), for environmental protection (64%), and for increased efforts to protect Old Growth forests (61%). About the same number of respondents were in favour of forest management that aimed primarily to produce quality wood products (62%), as for that which gave environmental protection top priority (64%). Respondents agreed that consumer demand for forest products threatens the environment (74%), and that Nova Scotia will have little harvestable wood in 10 to 20 years (62%). They felt that insufficient planting or natural regeneration was taking place to meet future timber needs (75%), and that there is not sufficient wood for all users (61%). There seems to be some question about the value of the forest as a landscape, about the abilities of woodland owners to manage the land, and about the long-term health and sustainability of the forest.
- Woodland owners were more likely to find the use of herbicides and pesticides acceptable than were respondents in the general public. However, 30 to 40% were against their use.
- Woodland owners were in favour of forest management practices such as selection and partial cutting (87%), leaving clumps of trees to protect wildlife (92%), using specialized equipment designed to protect the environment (70%), and closing forest roads to control garbage dumping (84%).
- Strong opinions were expressed about clearcutting. Given choices between several options, two thirds of respondents said they felt that clearcutting should be allowed only where suitable for the area and species, and one quarter said clearcutting should be banned. However, although initially opposed to clearcutting when asked general questions about it, woodland owners were more likely to perceive it as an acceptable practice given certain circumstances: they felt that clear cutting should be used to harvest dead and dying stands (83%), and that it was acceptable if replanting was to occur immediately afterwards (59%). Most did not consider clearcutting to be an acceptable practice on publicly owned (61%) or

privately owned land (55%). Most (65%) felt that the maximum size of a clearcut area should be less than 20 acres.

- Leading threats to the forest as perceived by woodland owners included harvesting faster than forest growth, too little planting, a lack of long range planning, and clearcutting (indicated by over 74% of respondents). Recreational uses and oil and gas pipeline activity were not considered threats by over 68 percent of users. On the other hand, current forest uses are perceived as threats to wildlife and fish habitat, and to waterways, by over 70% of respondents.
- Woodland owners were asked to indicate which types of problems they face. The top five included too much wood being cut, the lack of financial incentives for preservation, and a lack of knowledge about ecosystem management, forest regeneration, and wildlife management.
- Most respondents (54%) were not aware of woodlot management programs available to assist woodland owners in Nova Scotia.
- Finally, woodland owners have a strong wish to preserve the forests for future generations and to manage the forests sustainably.

To summarize, woodland owners are definitely worried about the forest environment. They expressed deep concern about the forest both as a productive resource and as a viable ecosystem. They are seriously concerned with the overcutting of forests and the future of the wood supply. This sample had strong reservations about certain management practices, such as clearcutting, particularly among landowners with smaller acreages. While they support a variety of practices or initiatives to foster sustainable management of the forest, they do not see current management as sustainable. This sentiment was expressed more strongly than in the general public sample. However, there was a definite ambivalence about what steps are required to achieve forest sustainability, particularly through legislative action.

There seem to be differences between the views of landowners with large acreages and those with smaller acreages, particularly in relation to harvesting practices and environmental protection strategies. Those owning more than 250 acres were less likely to favour environmental protection activities and more likely to find clearcutting acceptable.

Recreation, although valued, did not assume the same importance as it did with the general public. This sample used the forest in very traditional ways, such as hunting and fishing.

Woodland owners saw their land as an investment in the future of their family, an investment in the environment, and an investment in preserving a quality of life. If the NFA and its partners want to get the message about sustainable forest management across to woodland owners, energies must be focussed on using the mass media, since few of the respondents belonged to organizations or were likely to attend meetings.

Although this paper has not extensively compared the views of the general public sample and the woodland owners' sample, the overriding view is that there are more similarities than differences. In fact, woodland owners were more concerned than the general public about the future of the forest and how it is managed. The main differences in opinion appeared when discussing how preserving the forests would be achieved.

The recurring theme of the need for the protection of the forest for future generations reflects a deep appreciation and concern for Nova Scotia's forests. Woodland owners value their woodland, not only for the income it provides, but for its beauty, its wildlife, and its importance to the quality of life found in Nova Scotia.

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## Introduction

Forests are an integral part of the economy and way of life of Nova Scotians. One of the groups most interested in the long-term viability of the forests is the group who own woodland. The beliefs and attitudes of woodland owners play an important role in how forests are managed and sustained. Yet a comprehensive study of the sociocultural character of woodland owners has not been undertaken in Nova Scotia in recent times. Within this context, the current research is directed at an in-depth understanding of the perceptions, beliefs, and behaviour of the people living in and near the Nova Forest Alliance (NFA) Project Area which constitutes an area of 458,000 ha or 1.3 million acres and stretches between Truro and Halifax and Windsor and Caribou Mines. In particular the survey focuses on woodland owners' perceptions about the sustainability of Nova Scotia's forests.

Several objectives helped to define the research initiative. First, the NFA recognized the importance of sociocultural research and the need to develop a research program capable of exploring questions and concerns over a period of several years. Secondly, the research in the first instance was aimed at developing baseline information on sociocultural dimensions of the NFA region, and thus an increased understanding of the area. Thirdly, the research was envisioned as contributing information useful to various committees within the NFA structure, such as the Criteria and Indicators and the Communications Committees. Finally the research program was seen as an opportunity to provide a benchmark for the evaluation of model forest programming.

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This report presents the findings of a major part of the second stage in the sociocultural research program supported by the NFA, a mail survey on woodland owners' opinions towards our forest. This report presents a brief summary of the methodology employed, detailed research results, and conclusions.

## Materials and methods

A mail survey of woodland owners living in the Nova Forest Alliance Project Area was conducted in the spring of 2000. The initial process of questionnaire preparation began in the fall of 1999 with a meeting of the partners of the Nova Forest Alliance in Stewiacke. At this meeting the partners were asked to develop a list of questions which would serve as a basis for the questionnaires developed for both the woodland owners and the general public. After this session, the research team of the Nova Forest Alliance met to begin the initial process of developing the questionnaires. The research team consisted of Lauranne Sanderson, Ken Beesley, and Rebecca Colborne, of the Nova Scotia Agricultural College, Tom Beckley and Ian Millar from the Canadian Forest Service, Peter Duinker and Eldon Gunn from Dalhousie University, and Brian Sykes of the Nova Forest Alliance. When a final draft was prepared, it was circulated to all members of the NFA Partnership for review. Numerous suggestions were received from all sectors within the NFA Partnership and where possible incorporated into the final questionnaire. In addition, the questionnaire was peer reviewed by academics and researchers working in the forestry industry. The questionnaire was then revised and pretested on a small sample of woodland owners. See Appendix A for a sample questionnaire and cover letters. The first mailing took place in the second week of March, a postcard was sent two weeks later, and another questionnaire was sent out in April. To increase return rates, respondents were asked to send in a ballot to win one of three prizes.

The sample was chosen from a database of woodland owners in the Nova Forest Alliance Project Area. This database consisted of individuals and companies registered in the 1997 municipal tax records as owning woodland. The total number of woodland owners with property in the model forest consisted of 6238. Since a relatively small number (553) of people own large acreages of woodland (more than 250 acres), the Research Committee was concerned that the views of larger landowners would be under-represented. Therefore, a stratified sampling process was undertaken with 350 owners selected from each of the following three categories: 2 -19.9 ha (5 to 50 acres), 20 - 99.9 ha (50 to 250 acres), and 100 plus hectares (250 acres and more). The sample represents 9% of the 5 to 50 group, 18.5 % of the 50 to 250 group, and 73% of the 250 plus owners. The questionnaire was designed to filter out those owners who had less than 5 acres of woodland.

About 9 percent of the owners were indicated in the tax records as collective holdings. These holdings included golf courses, recreational organizations, forest companies, and realty companies. For the sampling process, the collective owners were separated from the original list of woodland owners, and a proportional sample of the 350 selected from each group was taken. From the list of collective holdings, 21, 34, and 69 were sampled for the 5 to 50 acres, 50 to 250 acres, and 250 plus groups respectively.

Overall, we achieved an exceptional response rate for a mail survey. Forty-eight percent of the individual owners responded, and 32 percent of collective owners returned the questionnaire for a total response of 46%. See Table 1 for a breakdown of the response rate. The responses were coded and analyzed using SPSS 10 (Statistical Package for the Social Sciences software). Cross-tabulation by gender, age, and number of acres owned were undertaken.

**Table 1: Response to the mail survey**

<b>Types of Responses - Individual Owners</b>	<b>Frequency</b>
completed questionnaires	348
no woods	76
undeliverable	92
deceased	14
unwilling/unable	11
Total returns from 922	541
<b>Types of Responses - Collective Holdings</b>	<b>Frequency</b>
completed questionnaires	31
no woods	7
undeliverable	15
unwilling/unable	6
total returns from 124	59

## **Demographics**

To provide a foundation for the interpretation of respondents' comments, an understanding of the demographics of the sample must be developed. A profile of the sample includes the following factors: age, gender, education, occupation, residence, acreage of woodland owned, and ownership patterns.

### **Age, Gender, Education, Occupation**

Over fifty percent of the sample was older than 55 (Table 2). Very few respondents were under the age of 34. The majority of the sample was male and well educated, with over half having reached a level of education past the secondary level (Tables 3 and 4). A third of the sample was retired. Employment in primary industries, followed by trade and transport jobs, were the most common occupations (Table 5).

**Table 2: Age of respondents**

<b>Age</b>	<b>Percent of respondents</b>
Under 25	1
25 - 34	5
35 - 44	17
45 - 54	23
55 - 64	23
65+	31
Total	100

$n = 365$

**Table 3: Gender of respondents**

<b>Gender</b>	<b>Percent of respondents</b>
Male	78
Female	22
Total	100

$n = 365$

**Table 4: Level of education of respondents**

<b>Level of education</b>	<b>Percent of respondents</b>
Some high school or less	25
High school diploma	20
Some post secondary	25
University or college graduate	22
Post graduate study	8
Total	100

$n = 359$

**Table 5: Occupation of respondent by Statistics Canada classification**

<b>Standard Occupational Classification</b>	<b>Frequency</b>	<b>Percent</b>
Retired	104	35.1
Primary industry	52	17.6
Trades, transport, and equipment operators	44	14.9
Business, finance, and administrative	19	6.4
Domestic occupations	15	5.1
Management occupations	12	4.1
Sales and service	10	3.4
Social science, education, Government service, and religion	8	2.7
Multiple occupations listed	7	2.4
Natural and applied sciences and related occupations	6	2
Processing, manufacturing, and utilities	5	1.7
Health occupations	2	0.7
Art, culture, recreation, and sport	1	0.3
Unemployed	1	0.3
Unclassified*	10	3.4
<b>Total</b>	<b>296</b>	<b>100</b>

\* disabled, cruiser, displaced government employee, looking around, self-employed, student  
*n* = 296

## **Residence**

Respondents were asked to indicate their current place of residence and the place where they grew up. Five settlement types were listed: city, town, village, rural non-farm, and farm. Very few lived in an urban settlement (Table 6). Almost a third lived on farms. When asked where they lived while growing up, proportionately more lived in a town, city, or farm, compared to where they currently reside (Table 7). Since the Nova Forest Alliance Project Area is primarily rural in nature, bordered by two urban centres, Truro and Halifax/Dartmouth, the large percentage of people living in rural areas is easily explained. Tables 8 and 9 illustrate the patterns associated with place of residence.

**Table 6: Respondents' places of residence**

<b>Place</b>	<b>Percent of respondents</b>
City	10
Town	6
Village	15
Rural non farm	38
Farm	31
Total	100

$n = 359$

**Table 7: Respondents' residences when growing up**

<b>Place</b>	<b>Total (Percent)</b>
City	12
Town	9
Village	14
Rural non-farm	20
Farm	45
Total	100

$n = 364$

**Table 8: Current and former residences**

Where live (%)	Where grew up (%)				
	Urban / urban		Urban with rural		
	City	Town	Village	Rural nonfarm	Farm
City	25	10	8	14	4
Town	2	13	6	5	5
	Rural with urban		Rural / rural		
Village	7	10	50	13	9
Rural nonfarm	55	48	24	65	25
Farm	11	19	12	3	57
Total	100	100	100	100	100

*n* = 358

**Table 9: Residence and background of respondents\***

Locale	Percent of respondents
Urban residence / urban background	5
Rural residence / rural background	69
Urban residence / rural background	10
Rural residence / urban background	16
Total	100

*n* = 358

\*This is a recoded variable which was obtained by combining two variables: where respondents currently reside and where they grew up. Urban/urban refers to respondents living and having been raised in an urban setting. Rural/rural describes respondents who are living and have grown up in rural area. Rural with urban refers to respondents living in a rural area and having grown up in an urban setting.

### Woodland ownership characteristics

Discussion of woodland ownership encompasses a wide range of characteristics, including acreage owned, tenure, ownership patterns and structures, reasons for owning woodland, and membership in forest-related organizations. The fact that the sample was stratified to ensure adequate representation of owners of larger woodland properties should be kept in mind when interpreting the results.

The respondents were asked to indicate how much land (acreage) they owned. Mid-sized landowners were more likely to return the questionnaire (Table 10). A third of the property owners had owned the land for more than thirty years, with almost half owning woodland for between ten and thirty years (Table 11).

**Table 10: Woodland acreage owned by respondents**

<b>Acreage</b>	<b>Percent of respondents</b>
Less than 50 acres	22
50 - 249 acres	42
250 or more acres	36
Total	100
Mean	854.6

$n = 350$

**Table 11: Time span of woodland ownership**

<b>In what year did you first acquire woodland?</b>	<b>Percent of respondents</b>
before 1970	32
1970-1989	45
1990 or after	23
Total	100

$n = 303$

Most of their land had been purchased. Woodland owners with smaller acreages were more likely to inherit or receive land as a gift (Table 12). Only a very few owned more than five parcels of land (Table 13). Most of the property was individually owned, with seven percent corporately owned (Table 14).

Woodland owners were asked to indicate how close they lived to their nearest wooded property. Over half of the respondents lived on their wooded land. Only twelve percent lived more than an hour's drive from their woodland (Table 15).

**Table 12: Woodland acquisition**

	<i>n</i> =	Percent of respondents	Mean	Standard deviation
woodland acquired through inheritance or gift	145	38	196.4	228
woodland purchased	250	66	1080	6458
woodland acquired by other means*	10	3	231.8	226

*n* = 379

**Table 13: Parcels of woodland owned by respondents**

Number of parcels	Percent of respondents
1-5 parcels	92
6-50	8
Total	100
Mean	2.86

*n* = 328

**Table 14: Woodland ownership categories**

In which of the following ownership categories is the major portion of your woodland holding?	Percent of respondents
Individual ownership	79
Formal partnership agreement	6
Informal partnership agreement	6
Corporation	7
Other	2
Total	100

*n* = 354

**Table 15: Location of residence in relation to woodland**

<b>Where do you live in relation to your closest wooded property?</b>	<b>Percent of respondents</b>
On the property	55
Within 10 km of it	19
11- 25 km from it	8
26-50 km from it	6
51-100 km from it	8
101-200 km from it	1
More than 200 km from it	3
Total	100

*n* = 358

Woodland owners were asked to rate the importance of 23 potential reasons for owning woodland, and were given the option of adding an “other” (Table 16).

**Table 16: Reasons for owning woodland**

I own woodland ...	n =	Important to very important (percent)	Somewhat important to not important (percent)	Not applicable (frequency)
for the sake of future generations.	327	82	18	14
for wildlife enjoyment.	334	79	21	19
to give to my children.	304	75	25	32
because I inherited it.	312	72	28	131
to protect water quality.	319	71	29	39
to preserve forest ecosystems.	304	71	29	25
because the forested land is part of a farm.	324	67	33	138
for personal recreation.	320	64	36	43
as an investment.	314	61	39	32
for my retirement.	319	61	39	49
to harvest firewood for personal use.	330	57	43	46
for timber harvesting.	320	55	45	46
as a location for my permanent residence.	313	55	45	98
for hunting.	316	40	60	77
for extra income (in addition to regular job).	314	36	64	75
as a location for my cottage or camp.	311	35	65	113
to make a living.	311	34	66	83
for public education.	290	23	77	126
for commercial recreation.	288	21	79	125
for Christmas tree(s).	308	20	80	124
to harvest non-timber forest products (e.g. mushrooms and berries).	306	20	80	139
to harvest firewood for sale	310	13	87	105
for maple syrup production	305	12	88	
for other reasons	55	89	11	37

The first thing that strikes the reader about this ranking is that the first and third reasons in the rankings are very similar. The most important reason for owning woodland is *for the sake of future generations*. Eighty-nine percent of respondents identified this reason as important or very important. Closely related to this is the third-ranked reason, which gives a more personal slant to the same sentiment. Here, three quarters (75%) of respondents ranked *to give to my children* an important or very important reason for owning woodland. This concern with the future of forests and their link with family and heritage is consistent with concerns expressed in other parts of this survey.

A link between the third and fourth ranked reasons is also evident. Where three quarters of respondents wanted to pass woodlands onto their children, almost the same numbers (72%) said that they owned woodland *because [they] inherited it*. This comment conflicts with the results of the previous question, which asked them to list the number of acres among their current holdings that they had acquired through inheritance or gift. One hundred and forty-five respondents (40%) had indicated that they had inherited land. The reason for this discrepancy is not apparent. Regardless, a vital element in woodland ownership is this identification between family and land ownership.

A connection could also be made between the value respondents place on family-owned forests with an associated concern for the future of forests, which are next on the list of importance. Seventy-one percent of respondents ranked both *to protect water quality* and *to preserve forest ecosystems* as important or very important. Wildlife enjoyment was ranked the second most important reason for owning land.

Other reasons for owning woodland which received an important or very important rating from more than half of the woodland owners to whom such categories applied were *because the forested land is part of a farm* (67%), *for personal recreation* (64%), *as an investment* (61%), *for my retirement* (61%), *to harvest firewood for personal use* (57%), *for timber harvesting* (55%), and *as a location for my permanent residence* (55%).

Membership in organizations will have an impact on an owner's knowledge of educational opportunities and the availability of assistance programs. Respondents given a list of organizations were asked to indicate if they were a member of any of them. Fewer than ten percent belong to a forest organization (Table 17).

**Table 17: Membership in organizations**

Are you a member of any of the following organizations for woodland owners?	Percent of respondents
a Group Venture	8
a woodlot owners and operators association	8
another forest-related organization	5
a forest co-op	4
an environmental or conservation group	2
a landowners association	2
a land trust	1
a forest fibre producers association	1

*n* = 379

### Harvest practices

A number of questions dealt specifically with the harvesting of wood and other products from their property. The first question asked if the respondents had harvested wood from their woodland in the last three years.

**Table 18: Harvest from woodland**

Have you harvested wood from your woodland in the last three years?	Percent of respondents
Yes	64
No	36
Total	100

*n* = 355

About two-thirds (64%) of the respondents said that they had harvested wood (Table 18). Men were more likely than women to have harvested wood, while younger people (under 35) harvested more than the two older groups. Owners of 250 or more acres of woodland were more likely to have harvested than owners of less acreage (75% versus 47%).

Respondents who harvested wood from their forested land were then asked how many cords and acres they had harvested in the last three years (Tables 19 and 20). About two-thirds of those indicating that they had harvested wood answered this question. Almost twenty percent had harvested less than ten cords of wood in the last three years, and 14% had harvested more than a thousand cords. The average number of cords cut over the three-year period was about 1900.

Classified by acreage, nearly half of the respondents (46%) had cut between a tenth of an acre and 10 acres. Sixteen percent had harvested more than a hundred acres in the last three years (Table 20).

**Table 19: Harvest from woodland in past three years**

<b>Approximately how many cords of wood have you harvested in the past three years?</b>	<b>Percent of respondents</b>
1 - 10 cords	18
11 - 100 cords	41
101 - 1000 cords	27
more than 1000 cords	14
Total	100
Mean ( cords)	1873.6
standard deviation	8358

$n = 152$

**Table 20: Acreage harvested in last three years**

<b>Approximately how many acres of woodland have you harvested in the past three years?</b>	<b>Percent of respondents</b>
.1 - 10 acres	46
11 - 100 acres	38
more than 100 acres	16
Total	100
Mean ( acres)	99.1
standard deviation	327

$n = 167$

To determine under what conditions woodland owners would harvest wood in the future given that they had not harvested in the last three years, respondents were asked to check all that applied from a list of possible reasons.

**Table 21: Conditions of future harvest**

<b>If you have not harvested wood from your woodland in the last three years, under what conditions might you harvest in the future?</b>	<b>Percent of respondents</b>
if there were a financial emergency in my family	40
if there were marketable timber	37
if I could find a reliable contractor	24
if I had more time	21
if other conditions applied	19
if wood prices went up	6
to pay for my children's education	7

$n = 103$

From the results of Table 21 it is evident that a number of woodland owners think of their woodlots as an emergency fund to be drawn on when the need arises. Forty percent responded: *if there were a financial emergency in my family*. Slightly fewer (37%) said they would harvest *if there were marketable timber*, and a quarter of them (24%) would do so if *a reliable contractor* could be found. Time to harvest was the fourth ranked consideration, selected by 21% of respondents. In the “other” category were concerns about finding environmentally friendly methods of harvesting and people willing to harvest using these methods. Also in this category were a few respondents who planned to harvest mature and over-mature trees only.

The next question approached the same topic from another angle of what motivating factors affect whether a woodland owner would sell wood in the future. We asked respondents an open-ended question about the conditions which will affect their willingness to harvest wood from their woodlands: *what are the top three factors affecting the likelihood that you will sell wood from your woodland in the future?* The results show that the most common motivating factor was the need for income from the woodland (17.8%) (Table 22). Second in importance was the maturity of wood in the stands (15.7%) followed by the price of wood (12.6%). These top three factors together account for nearly half of the responses (46.1%). Other responses (less than 10%) include responses in the areas of woodlot management, the supply of and demand for wood, environmental concerns, and personal or family reasons. It is interesting to note that the provision of employment as a reason to harvest is very weak, accounting for only 0.3% of responses. The response to this question confirms the results presented in the earlier table.

If we categorize the top five responses, which are concerned with finances (*need for income + price of wood* = 30.4% of responses), and do the same with the responses that concern the exigencies of forest management (*maturity of wood + damaged / diseased / infested stands + woodlot management* = 29.4% of responses), these two broad categories are close to equal. The response to this open-ended question reveals, then, that the owners and managers of woodlands are primarily concerned with two things: their dependence on woodlands for income, and the need to manage their woodlands by harvesting when necessary.

**Table 22: Factors affecting future harvest**

<b>Factors affecting the likelihood that wood will be sold in the future</b>	<b>Frequency</b>	<b>Percent of respondents</b>
Need for income from harvest	109	17.8
Maturity of wood	96	15.7
Price of wood	77	12.6
Damaged / diseased / infested stand	48	7.8
Woodlot management	36	5.9
Method of harvesting	35	5.7
Market for wood	29	4.7
Demand for wood / wood products	29	4.7
Availability of wood	22	3.6
Need to clear land	21	3.4
Weather / time to harvest	17	2.8
Ability to find contractor who will meet requirements	17	2.8
Taxes	11	1.8
Environmental concerns	11	1.8
Owner's ability to do the work / age / health	10	1.6
Family reasons	7	1.1
Cost of harvesting (fuel, etc.)	6	1
Recommendation of forester / group venture / manager	5	0.8
Decision to sell / subdivide property	4	0.7
Access to woodland	4	0.7
Hobby / to keep busy	4	0.7
Provision of employment	2	0.3
Other	13	2.1
<b>Total</b>	<b>613</b>	<b>100</b>

$n = 258$

Woodland owners not only harvest wood but they gather other forest products as well. In order to obtain a picture of the types of products harvested from both their own woodland and those that they harvested from other properties, respondents were asked to indicate which products had they or a member of their household gathered or harvested from the forest for domestic use and for sale in the last three years (Table 23).

**Table 23: Harvest from Nova Scotia's forest in the last three years**

Product	from own woodland for own use: percent of cases	from own woodland for sale: percent of cases		from other woodland for own use: percent of cases	from other woodland for sale: percent of cases
Firewood	65	22		7	4
Christmas tree(s)	29	7		3	1
Boughs / brush	28	2		3	1
Sawlogs	24	53		3	8
Berries	23	3		5	1
Deer, moose, or bear	23	n/a		5	n/a
Rabbits	15	1		5	1
Game birds	13	n/a		6	n/a
Fish	13	n/a		8	n/a
Handcraft materials	10	1		1	1
Mushrooms	9	1		1	0
Maple sap	9	1		2	0
Peat moss, black earth, or soil	6	0		1	0
Fiddleheads	6	1		1	1
Pulp wood	3	40		1	6
Fur animals	2	1		1	1
Other	4	1		1	0

$n = 280$

Multiple responses were allowed. Woodland owners most commonly harvested firewood from their woodlands, most of it for their own use (65%), though about a quarter (22%) sold firewood from their land. The second most widespread harvested product was sawlogs, which 53% of respondents had harvested for sale from their own woodlands. Next in order of frequency comes pulp wood, which 40% of respondents had sold from their woodlands. Christmas trees (29% of respondents) were mostly cut for personal use. Many people also harvested boughs and brush (28% for their own use), and berries (23% from their own land). About a quarter of the woodland owners hunted for their own use.

To get a sense of who was actually conducting the harvest of products from the woods, we gave the respondents a list of possibilities and asked them to choose the person or group who harvested most of the products in the last three years (Table 24 ).

**Table 24: Harvester of forest products**

<b>Who harvested most of the products?</b>	<b>Percent of Respondents</b>
Myself and/or members of my family	51
A contractor that bought stumpage	25
A crew that I hired	9
My group venture or woodlot organization	7
A saw mill company	4
A contractor that leased the land	1
A pulp mill company	1
Other	2
Total	100

$n = 196$

More than half of the respondents (51%) harvesting products from their woodland replied that products had been harvested by themselves or members of their families. Another quarter of them (25%) said that a contractor who bought stumpage had harvested. Results indicate that woodland enterprises in the model forest area are still very much family concerns.

This sample was chosen as indicated earlier to ensure an adequate representation of larger land owners; therefore, we felt that it would be interesting to determine how reliant the woodland owners were on the income from their land. We asked: *If you sold products from your woodland in the last three years, how reliant are you on the income derived from their sale?* (Table 25).

**Table 25: Reliance on income from forest products**

<b>Reliance on the income derived from sale of products in last three years</b>	<b>Percent of respondents</b>
I do not rely on income from my woodland.	62
It is a small portion of my total income.	24
It is a significant part of my income, but not my only source.	12
I am completely reliant on the income from their sale.	2
Total	100

$n = 302$

Analysis of Table 25 reveals that very few of the woodland owners who filled out our survey questionnaire were actually dependent on the income from their woodlands. Fourteen percent consider the income from forest product sale as a *significant part* of their income. As expected, larger woodland owners were more reliant on the income, as were older respondents.

To further define the difference between income generated from the sale of forest products and that obtained from non-timber activities, we asked: *Do you or any of your household derive income from non-timber activities such as sugaring, trapping, berry picking, guiding, handcrafts or recreation on forested land?* The results are presented in Table 26. Most woodland owners stated that they did not derive income from non-timber activities on their land (91%).

**Table 26: Income from non-timber activities**

<b>Do you derive income from non-timber activities such as sugaring, trapping, berry-picking, guiding, handcrafts, or recreation on forested land?</b>	<b>Percent of respondents</b>
Yes	8
No	91
Don't know	1
Total	100

$n = 355$

### **Forest management practices**

The next series of questions dealt with the forest management strategies of woodland owners, to get a sense of what mechanisms they use to manage their forest (Table 27). The largest percentage did not use a formal planning process, but indicated that they gave careful consideration to the management of their woodland. About a third had formal

management plans, were in the process of preparing one, or were interested in having one. All in all, four out of five of the woodland owners (78%) were not using a management plan for their lands. Larger woodland owners were more likely to have a formal plan and also least likely to want one. The same trend was noted for older respondents.

**Table 27: Woodland management plans**

	Percent of respondents
I have given careful consideration to the management of my woodland, but I do not have a formal plan.	35
I do <b>not</b> have a formal (written) management plan and I <b>am not</b> interested in having one.	24
I am using a formal (written) management plan for some or all of my woodland.	22
I do <b>not</b> have a formal (written) management plan but I <b>am</b> interested in having one.	13
I have a formal (written) management plan that I do not use.	5
I am currently developing a formal (written) management plan for some or all of my woodland.	1
Total	100

*n* = 337

We then asked owners to tell us what forest management activities they had undertaken within the preceding three-year period, or planned to do in the next three years. The most common management activity, as an aggregate of activities performed in the past, to be performed in the future, or both, was the removal of low quality trees, blowdowns, brush, etc. (Table 28). This reflects the need for ongoing management of woodlots. Other common activities were surveying or upgrading boundary lines, thinning or spacing, and selection cutting.

It is interesting to see the difference between what woodland owners have actually done in the past, and what they plan or hope to do in the future. It is difficult to determine any particular pattern, other than that some activities are continuous processes, whereas others will have definite beginnings and endings, as, for example, the preparation of a management plan. Generally, the number of activities planned for the future outnumber those undertaken in the past. Often what we expect to do and what actually occurs are quite different. Perhaps the most unusual aspect of the question is the number of people who did not indicate any of the activities. One hundred and sixty woodland owners did not respond to this question. It can be speculated that essentially they do not conduct any type of management activity on their property.

**Table 28: Woodland activities undertaken by respondent**

Activities undertaken on woodland in the past three (3) years, or in the next three years	in the past 3 yrs: % of respondents	in the next 3 yrs: % of respondents	in both periods: % of respondents	Total %	n
Removal of low quality trees, blowdowns, brush, etc.	17	32	51	100	219
Surveying or upgrading boundary lines	25	44	31	100	154
Thinning or spacing	14	42	44	100	147
Selection cutting	18	30	52	100	122
Tree planting	17	48	35	100	111
Setting aside areas that will not be cut	30	36	34	100	102
Road construction	26	39	35	100	96
Clearcut harvesting	43	18	39	100	90
Preparation of self-designed management plan	25	46	29	100	68
Preparation of formal management plan	37	51	12	100	57
Site preparation (preparing soil, etc.)	30	43	27	100	56
Improvements for wildlife*	17	43	40	100	47
Cutting Christmas trees	12	37	51	100	43
Pesticide/herbicide application	32	27	41	100	37
Fencing	18	42	40	100	34
Cutting Christmas trees	12	37	51	100	43
Pesticide/herbicide application	32	27	41	100	37
Fencing	18	42	40	100	34
Subdividing any land parcel	16	56	28	100	32
Improvements for recreation*	18	50	32	100	28
Fertilization	13	44	43	100	23
Other	30	70	-	100	10

\*Appendix B contains a sample of the responses

We wanted to find out the most commonly used harvesting practices and what percentage of land had been harvested using each method over the past three years. The most common practice involved salvaging dead or damaged trees (Table 29). Harvesting a few trees here and there, clearcutting, and cutting for particular species such as softwood were the next most popular. Each of these practices took place on less than 25% of the land. However, of those who had harvested in the last three years (225), each respondent had utilized on average 3.5 practices on their woodland. Management of a woodland property is a continuous process; therefore, it is not surprising that harvesting, for the most part, occurred on less than 25 percent of the land.

**Table 29: Timber harvesting methods used**

	less than 25% of land	25% - 50% of land	51% - 75% of land	more than 75% of land	Total	n =	Percent of respondents
salvaging dead or damaged	70	15	7	8	100	12	56
a few trees here and there	71	12	8	9	100	10	47
clearcut	59	16	14	11	100	96	42
cut softwood and left	54	19	17	10	100	88	39
small patch or strip cut	70	15	7	8	100	74	32
partial cut (certain species)	69	16	7	8	100	70	31
selection cut without prior	64	16	5	15	100	64	28
commercial thinning	73	23	-	4	100	52	23
shelterwood cut	71	16	3	10	100	31	14
diameter-limit cut	66	17	7	10	100	29	13
selection cut with prior	74	13	-	13	100	23	10
seed tree cut	88	12	-	-	100	16	7
other	88	12	-	-	100	8	4

*n* = 227

### Information, awareness, and participation

The first question on the questionnaire asked woodland owners how interested they were in issues concerning the forests of Nova Scotia. Not surprisingly, almost everyone expressed a substantial degree of interest in forest issues (Table 30). No significant differences were noted for age, gender or acreage. When we asked them how informed they felt they were about the forests of Nova Scotia today, about two-thirds considered themselves *very* to *somewhat informed* (Table 31). A substantial number of woodland owners felt that they were *not very* to *not at all informed*. Significant differences were noted for gender and acreage. Men and larger woodland owners considered themselves more informed.

**Table 30: Interest in forest issues**

<b>How interested are you in issues concerning the forests of Nova Scotia?</b>	<b>Percent of respondents</b>
Very interested	47
Interested	41
Somewhat interested	11
Not interested	1
Total	100
Don't know (frequency)	6

$n = 373$

**Table 31: Informed about forest issues**

<b>How informed are you about the forests of Nova Scotia today?</b>	<b>Percent of respondents</b>
Very informed	10
Somewhat informed	52
Not very informed	32
Not at all informed	6
Total	100
Don't know (frequency)	5

$n = 372$

To assist with the interpretation of the next questions, we wanted to find out how knowledgeable about forest management woodland owners perceived themselves to be, and how much direct experience they or members of their household had working in the woods (Tables 32 and 33). About a fifth considered themselves *knowledgeable* to *very knowledgeable*. Very few considered themselves *not knowledgeable at all*. Age had no significant effect; however, men and owners of large acreages considered themselves more knowledgeable. About half indicated that members of their household had a lot to quite bit of experience working in the woods. Age or gender did not play a role; however, larger land owners and their household were considered to have more experience.

**Table 32: Extent of knowledge about forest management**

<b>Extent of knowledge</b>	<b>Percent of respondents</b>
Very knowledgeable	4
Knowledgeable	16
Somewhat knowledgeable	34
Slightly knowledgeable	33
Not at all knowledgeable	13
Total	100

$n = 355$

**Table 33: Extent of experience working in the woods**

<b>Extent of experience</b>	<b>Percent of respondents</b>
A lot of experience	21
Quite a bit of experience	26
Some experience	30
Little experience	15
No experience	8
Total	100

$n = 358$

Our next set of questions dealt with the sources of information and the media woodland owners use to get information on forest issues. As expected, the most common sources of information expressed by the respondents were other woodland owners and friends and neighbours (Table 34). People value the opinion of those with common interests and concerns. The next group whose opinion and information was valued was comprised of those working in the forestry industry. Government forestry employees, forestry workers and contractors, and professional foresters were all considered valued sources of information. Environmental groups were consulted by a quarter of the respondents. The same was true for the Nova Forest Alliance. Differences were noted between men and women, among other owners. Larger landowners were more likely to consult personnel from the forest industry. Smaller land owners (under 50 acres) conferred more often with environmental groups and family. Men were more likely to consult forestry industry personnel and other woodland owners. Women were more likely to consult environmental groups and friends

and neighbours. Younger owners obtained information from the forest industry, and friends and neighbours, more than did respondents from other land categories. Woodland owners with between 50 and 250 acres were more likely to contact the NFA than any other grouping.

When asked which media they used to obtain information on forest issues, newspaper and television ranked the highest (Table 35). A substantial percentage (40%) read newsletters and magazines and listened to the radio. The same percentage valued one-on-one meetings. Women were more likely to seek information from the mass media. Men were more likely to attend meetings and workshops. Younger respondents valued television, the Internet, and magazines. Middle-aged owners listened to radio and read newsletters. Larger land owners (over 250 acres) were more likely to use field tours and one-on-one meetings. The smallest woodland owners used the following media more often: radio, television, the Internet, and newspapers. Clearly, the best way to reach the greatest number of woodland owners is through the mass media. Lectures and workshops are attended by a very small proportion of owners. The media chosen by an educational organization should be largely determined by the target audience.

**Table 34: Sources of information on forest issues**

<b>Source</b>	<b>Percent of respondents</b>
Woodland owners	68
Friends, family, neighbours	50
Government forestry employees	48
Forest industry employees	48
Professional foresters	43
Forest work contractors	40
Independent woods workers	35
Forest associations	33
Forestry consultants	33
Environmental groups	25
Nova Forest Alliance	23
Elders	21
Provincial politicians	12
Local politicians	10
Journalists	9
University / college professors	6
Federal politicians	5
Other sources	3
School teachers	2

*n* =379

**Table 35: Media used to access information on forest issues**

Medium	Percent of Respondents
Newspaper	61
Television	50
Newsletters	41
Magazines	41
Radio	40
One on one meetings	40
Pamphlets / flyers	29
Field tours	24
Books / reports	19
Internet	18
Workshops	15
Lectures / seminars	15
Other	1

$n = 358$

Not only did we want to find out what sources of information were utilized, but we also wanted to know how much confidence respondents had in a number of sources of information in Nova Scotia (Table 36 ). The top three trusted sources were woodland owners, professional foresters, and independent woods workers. The category of family, friends, and neighbours came next. The term *Elders* generated some confusion, since a quarter of the respondents indicated that they did not know. The Nova Forest Alliance ranked seventh; however, over a third did not appear to be familiar with this organization. Over a third had little or no confidence in environmental groups and academics, and politicians ranked lowest.

**Table 36: Relative confidence in information sources**

	<i>n</i> =	Little or no confidence	Moderate confidence	A lot of confidence	Total	Mean*	Don't know (percent)
Woodland owners	344	5	40	55	100	7.5	6
Professional foresters	335	9	41	50	100	7	10
Independent woods workers	328	9	52	39	100	6.6	8
Family, friends, neighbours	332	9	53	38	100	6.6	9
Elders	293	13	47	40	100	6.5	25
Forest associations	330	9	53	38	100	6.5	16
Nova Forest Alliance	311	15	46	39	100	6.2	36
Forestry industry employees	334	12	58	30	100	6.2	7
Forestry consultants	330	16	50	34	100	6	13
Government forestry employees	339	17	53	30	100	5.9	6
Forest work contractors	332	21	55	24	100	5.6	6
Environmental groups	324	33	48	19	100	4.8	11
College / university professors	315	41	47	12	100	4.1	21
Journalists	311	47	47	6	100	4	17
School teachers	309	48	46	6	100	3.7	21
Local politicians	322	62	33	5	100	3.1	7
Provincial politicians	341	65	32	3	100	3	7
Federal politicians	336	74	24	2	100	2.5	8
Other	58	-	29	71	100	8.4	88

\* Scale from one to ten; one is no confidence, ten is very confident.

The next series of questions concentrated on how woodland owners express their views on the use of Nova Scotia's forests over the last year. Almost half had undertaken some type of action (Table 37). There was no significant difference based on gender, age, or acreage owned. We provided a list of possible actions and asked respondents to indicate which ones they had taken (Table 39). The majority had discussed their views with friends, neighbours, and coworkers, and/or had contacted a landowner. Only about a third had attended a public meeting or lecture on forest issues. About a quarter had called someone working in the industry. Due to the small numbers who had indicated any action, the

differences between gender, age, and acreage owned cannot be considered very significant. However, men were more likely to contact industry personnel. Older people were often involved in public meetings and with forestry organizations. Larger landowners were active in contacting the industry, serving on committees, and dealing with politicians.

**Table 37: Expression of opinions**

In the past year, have you taken any action to express your views and opinions on the use of Nova Scotia's forests?	Percent of respondents
Yes	45
No	55
Total	100

$n = 352$

**Table 38: Actions undertaken to express opinions on forests**

Type of action	Percent of respondents
Discussing with friends, neighbours, co-workers	87
Contacting landowner	75
Attending a public meeting on forest issues	36
Attending a lecture or seminar on forest issues	31
Calling or writing to a forest industry representative	29
Joining a forest association	26
Calling or writing a government forestry official	20
Calling or writing to a politician	17
Giving money to environmental or conservation organization	12
Serving on a committee dealing with forest management	11
Joining an environmental or conservation organization	7
Attending public rally or protest about a forestry issue	4
Boycotting forest-related consumer products	4
Calling a 'phone-in' or 'talk-back' show	3
Writing to a newspaper or magazine	3
Other	3

$n = 162$

The final question in this series asks woodland owners to assess their level of knowledge regarding a variety of topics related to the practice of forestry, and to indicate about which they would like to learn more. We gave respondents a table to fill in, which gauged their familiarity with 27 forest management topics. The results are shown in Table 39.

The topics with which most woodland owners were familiar were those concerning forest practices, such as boundary line maintenance (69% professed *a lot or some knowledge*) and harvesting methods (84%). About half of the respondents indicated that they had *some or a lot of knowledge* of most forest management practices listed.

When asked which topics they were interested in learning more about, woodland owners (31%) wanted to know how to use the best management practices for their forests. They also asked for information on planning and forest regeneration. About a quarter of the respondents expressed interest in learning more about managing their woods for wildlife, bird habitat, and rare and unique plants. About a fifth expressed interest in topics related to recreation both for personal and commercial use. A quarter of the respondents were interested in income tax and estate planning. Since a large number of the respondents were older than 50, this result is not surprising. There were some differences based on age, gender and acreage owned. Older owners were more interested in topics related to the actual management of the resource such as harvesting methods, tree planting, and using pesticides. Mid-age respondents showed more interest in managing woodlands for rare or unique plants, for wildlife, for fish habitat, and for bird habitat. They were also more likely to want to know more about recreational opportunities and income tax and estate planning. Men were more interested in learning about forestry practices, such as using pesticides (herbicides, insecticides, fungicides, etc.), road building / maintenance, growing Christmas trees, and best management practices for woodlands. Managing woodlands for fish and bird habitat, and personal recreation were important to them as well. Women were more interested in managing woodlands for wildlife, managing old growth forests, and income tax and estate planning. Larger landowners wanted to know about the following topics: uneven and even-aged management, harvesting methods, tree planting, natural regeneration, pesticide use, and road building. Smaller landowners were more interested in managing for wildlife and rare plants.

**Table 39: Knowledge of forest management topics**

Forest Management Topics	A lot of knowledge (percent)	Some knowledge (percent)	Little or no knowledge (percent)	Total	n =	Percent who want to know more
best management practices for woodlands	5	49	46	100	314	31
encouraging natural regeneration	8	63	29	100	326	27
even-aged and uneven-aged management	6	32	62	100	319	26
forest regulations in Nova Scotia	3	45	52	100	321	26
different types of woodland planning	6	46	48	100	324	25

tree planting	9	68	23	100	332		22
boundary line maintenance	16	53	31	100	329		20
harvesting methods	13	71	16	100	334		19
road building / maintenance	12	53	35	100	329		17
growing Christmas trees	3	40	57	100	326		16
using pesticides (herbicides, insecticides, fungicides, etc.)	4	42	54	100	326		13
sugar bush management	1	22	77	100	314		8
<b>Ecosystem Management</b>							
managing woodlands for wildlife	4	54	42	100	322		23
managing woodlands for bird habitat	4	44	52	100	322		22
managing Old Growth forests	2	34	64	100	320		22
managing woodlands for rare or unique plants	1	17	82	100	321		21
managing woodlands for fish habitat	3	42	55	100	320		19
watershed protection	5	53	42	100	322		19
the role of woodlands in the global ecosystem	5	47	48	100	314		19
donating land to a conservation organization	1	17	82	100	313		10
<b>Recreation</b>							
public access to private woodlands	3	35	62	100	312		20
developing trails	4	45	51	100	326		19
improving woodlands for personal recreation	4	50	46	100	329		18
camp / cabin construction / rental	4	35	61	100	317		18
managing woodlands for ecotourism	1	16	83	100	300		17
developing backwoods campsites	4	29	67	100	322		14
<b>Other Topics</b>							
income tax and estate planning	3	43	54	100	286		24
other topic*	25	25	50	100	4		1

## Role of the Nova Forest Alliance

The Nova Forest Alliance has been operating in the Nova Forest Alliance project area region for three years. During this time, it has provided a number of educational opportunities within the region. Since its main clientele has been woodland owners, we needed to determine if woodland owners had heard or read about the Nova Forest Alliance model forest project before receiving the questionnaire. A third had heard about the project (Table 40). This compares favourably to a telephone survey completed in March of 1999, which asked the general public the same question. In that study, twenty-two percent of people indicating that they owned woodland had heard of the NFA (Sanderson et al. 1999). Upon further analysis of our results, it emerged that the age or gender of the respondent was not a factor here, but that owners of larger acreages of woodland tended to be more aware of the project than were other respondents.

**Table 40: Prior knowledge of the NFA project area**

<b>Had you heard or read about the Nova Forest Alliance model forest project before receiving this questionnaire?</b>	<b>Percent of respondents</b>
Yes	30
No	67
Not sure	3
Total	100

*n* = 355

*Which of the following do you consider the most important things the Nova Forest Alliance can do to improve the management of Nova Scotia's forests?* This question was designed to provide input into the priorities of the Alliance. The top four ranked responses to this question involved education (Table 41). Woodland owners wanted to see the NFA promote reforestation and sustainable forestry practices, and to educate woodland owners and youth about forests. Other areas which ranked highly were promoting a code of practice for contractors, encouraging owners to improve forests, and generally improving forest management.

**Table 41: Potential actions by the Nova Forest Alliance**

<b>Which of the following do you consider the most important things the Nova Forest Alliance can do to improve the management of Nova Scotia's forests?</b>	<b>Percent of responses</b>	<b>Percent of cases</b>
Promote reforestation	36	14
Promote sustainable forestry practices	33	13
Inform and educate woodland owners	32	12
Educate young people on the importance of forests	21	8
Encourage owners to improve woodlots	17	7
Promote a code of practice for contractors	17	6
Improve forest management	15	6
Inform and educate the public	13	5
Develop demonstration sites for best management practices	11	4
Promote a voluntary code of practice for forest management	9	4
Provide information on woodland planning	9	3
Advocate conservation	7	3
Address environmental problems	6	2
Promote co-operation among stakeholders	5	2
Inform and educate industry	5	2
Increase forest research	4	1
Survey the public on forest issues	2	1
Provide information on market and job opportunities	1	1
Other	1	1
I am not familiar with the Nova Forest Alliance and cannot answer this.	18	7

*n* = 311

### **Sustainability of the forest**

The primary focus of this survey was to assess opinions and attitudes toward forest sustainability and sustainable forest management, including perceptions of forest problems and forestry practices. The first question of this series of questions sets the context for the analysis of the remaining questions. Woodland owners were asked: *The following are three things people value about Nova Scotia's forests. On a scale of one to ten, please rate how important you think these are: economic benefits such as wealth and jobs, environmental benefits such as clean air and water and wildlife habitat, social benefits such as recreation and relaxation.* All three were considered moderately to very important (Table 42). Environmental benefits ranked significantly higher than economic benefits and social benefits. Statistical analysis showed the following results: environmental values ranked significantly higher than economic ( $p < .0001$ ) and social ( $p < .0001$ ). Economic values ranked

significantly higher than social values ( $p < .05$ ). Differences were noted among groups separated by age, gender, and acreage owned. Younger owners considered social benefits more important. Men and larger landowners considered economic benefits more important.

**Table 42: Relative importance of forest values**

	<i>n</i> =	Not to slightly important	Moderately important	Very important	Total	Mean *
Economic benefits such as wealth & jobs	362	6	36	58	100	7.48
Environmental benefits such as clean air and water and wildlife habitat	361	1	16	83	100	8.82
Social benefits such as recreation & relaxation	358	9	41	50	100	7.09

\*Scale from one to ten; one is not important, ten is very important.

Questions about sustainable forest management explore woodland owners' perspectives on the use, present and future, of the province's forests. This section begins with a question designed to ascertain respondents' understanding of the meaning of the term sustainable forest management, before continuing with questions that gauge their attitudes towards its practice.

To the question *what does sustainable forest management mean to you?* people responded in many ways. These often complex answers have been organized by their various components, so that the frequencies in the following table reflect components of response, and not each separate answer. That is to say, one response may contain several elements pertaining to more than one category. A considerable number (192) could not frame a response to this question, since they were not familiar with the term (Table 43).

The most prevalent theme in the answers is related to management practices. People related sustainable forest management to the rate of harvest and replenishment of the province's forests. Responses tended to be oriented towards the maintenance of a harvestable resource. They expressed a desire to see forests preserved for the future, frequently articulating a nostalgic wish for forests to be "the way they used to be". Future generations were frequently mentioned, often from a personal perspective when parents hoped for a forest for their descendants to enjoy. A strong connection between family and environment was doubled with a pride in the province, as respondents often wrote that the beauty of Nova Scotia's forests was integral to their enjoyment of life here. A small number of the definitions for sustainable forest management included references to the economic viability of the forest industry, as well as the need for multiple use forest.

**Table 43: What does sustainable forest management mean to you? (thematic organization)**

Category	SFM means...	Frequency	Percent
<b>Management Practices</b>		148	54.8
Balanced harvest	balancing harvesting and reforestation	40	14.8
Maintenance	providing for continuous harvest of a renewable resource	32	11.9
Management	having a management plan for the forest	15	5.6
Selection cutting	allowing only selection cutting in forests	13	4.8
Reforestation	replanting trees to replace those taken from forests	12	4.4
Thinning	cleaning out dead wood / thinning	10	3.7
No clearcutting	prohibiting clearcutting	9	3.3
Limited cutting	preventing over-cutting of trees	6	2.2
Increase	planting more than is removed from forests	5	1.9
Silviculture	practising silviculture	4	1.5
Low impact harvesting	using environmentally friendly methods / equipment	2	0.7
<b>Ecological Issues</b>		88	32.6
Forest preservation	making sure the forest lasts	27	10
Heritage	preserving forests for future generations	17	6.3
Protection of the environment / ecosystems	making protection of the environment a priority	13	4.8
Wildlife preservation	giving priority to protection of wildlife	11	4.1
Balance	balancing harvesting and environmental protection	8	3
Biodiversity	ensuring a diversity of species in forests	5	1.9
Riparian protection	protecting waterways	5	1.9
Forest health	giving priority to the health of forests	2	0.7
<b>Uses</b>		18	6.7
Diversity of use	providing for diverse uses of the forest	14	5.2
Regulated use	having laws / regulations which govern forestry practices	4	1.5
<b>Economic Issues</b>		16	5.9

Economic viability	making sure priority is given to economic uses of woodlands	11	4.1
Employment	providing for employment in forest industries	3	1.1
Profitability	obtaining profit from the forests	2	0.7
<b>Other*</b>		9	3.3
<b>Totals</b>		270	100

*n* = 187

Respondents who provided a definition for sustainable forest management were then asked how important they believed achieving sustainable forest management in Canada to be. The response was very close to unanimous in favour of sustainable forest management: 84% of respondents deemed it very important. When examined more closely, there were no significant differences between groups separated by age, gender, or woodland ownership.

**Table 44: Importance of achieving sustainable forest management in Canada**

How important is achieving sustainable forest management in Canada?	Percent of respondents
Very important	84
Important	14
Somewhat important	1
Not important	-
Don't know	1
Total	100

*n* = 183

A follow-up question was aimed at discovering whether there were differences between peoples' perceptions of sustainable forest management across ownership boundaries. Separate questions asked about current sustainability on private lands, company-owned lands, and Crown lands in Nova Scotia. When asked *Is forest management on private forest company woodland currently sustainable?* close to three quarters of respondents said "no" (70%), with 17% in the "don't know" category (Table 45). Asked the same question about privately-owned woodlands, only half of respondents responded negatively (50%), with a larger percentage than previously, saying "don't know" (Table 46). Since this sample consists of woodland owners with the largest percentage of them individually owning woodland, the result is not surprising. When inquiring about Crown lands, 64% of respondents said they didn't believe forest management to be sustainable (Table 47). A quarter of the respondents indicated that they did not know. No significant differences were apparent when results were analyzed further by age, gender, and woodland ownership. Respondents therefore expressed the opinion that sustainable forest management, generally defined as a balance between harvesting and replenishing of forested areas, is very important in Canada, but that forest management is generally not currently sustainable

on the province's forested lands. They felt that forest management was more sustainable on privately-owned woodlands than on Crown lands, which in turn were managed more sustainably than company-owned woodlands. These results were similar to those found in the 1999 telephone survey of the general public (Sanderson et al. 1999). The main difference was that the general public were more likely to indicate that they did not know.

**Table 45: Sustainability on company lands**

Is forest management on private forest company woodland currently sustainable?	Percent of respondents
Yes	13
No	70
Don't know	17
Total	100

*n* = 180

**Table 46: Sustainability on private lands**

Is forest management on privately owned woodlands currently sustainable?	Percent of respondents
Yes	28
No	50
Don't know	22
Total	100

*n* = 180

**Table 47: Sustainability on Crown land**

Is forest management on Crown land currently sustainable?	Percent of respondents
Yes	12
No	64
Don't know	24
Total	100

*n* = 181

Further to this line of questioning, we asked all respondents to indicate on a scale of one (not committed) to ten (very committed), how committed each of the following groups is to sustainable forest management in Nova Scotia. The Nova Forest Alliance ranked the highest; however, it had the highest percentage of respondents who answered that they did not know. Woodland owners considered themselves to be next most committed, followed by the federal government, and environmental groups. All the rest averaged less than five on the scale, including the general public, which ranked the lowest.

**Table 48: Commitment to Sustainable Forest Management in Nova Scotia**

	<i>n</i>	Not at all to not very committed (percent)	Moderately committed (percent)	Very committed (percent)	Total (percent)	Mean*	Don't know (percent)
Nova Forest Alliance	352	9	33	58	100	7.3	46
Woodland owners	354	7	45	48	100	7	7
Federal government	357	13	37	50	100	6.9	9
Environmental groups	357	6	50	44	100	6.8	3
Provincial government	358	34	46	20	100	4.8	6
Forest associations	357	40	47	13	100	4.3	11
Forest sector companies	355	44	47	9	100	4	13
General public	358	47	46	7	100	3.9	6

\*Scale from one to ten, one is not committed, 10 is very committed.

The next set of questions focuses on attitudes toward forest sustainability by asking respondents to indicate their level of agreement, or disagreement, with a series of thirty-four statements which reflect a variety of attitudes and perceptions about forests. A number of the statements were paired to check the validity of the responses; for example, a statement would be framed once in a very positive tone and then further on in the questionnaire the same statement would be phrased in such a way to reflect the opposite viewpoint. This is a technique frequently used in questionnaire design to determine if respondents remain consistent in their responses. Other statements were phrased to reflect one particular viewpoint, to limit the number of statements respondents had to address. Table 49 provides a summary of the responses to the first group of statements. This grouping of statements reflects those that have an economic and legislative orientation. The categories of strongly agree and strongly disagree were combined with agree and disagree respectively. Each of these statements will be considered in turn.

**Table 49: Level of agreement with statements about economic values and legislative concerns**

	<i>n</i> =	Strongly agree to agree (%)	Disagree to strongly disagree	Don't know (%)
There is sufficient wood in central Nova Scotia for all users including paper mills, saw mills, and domestic firewood cutters.	357	13	61	26
More forests should be planted after harvesting.	356	84	7	9
Harvested areas should be allowed to regenerate naturally.	339	40	47	13
Nova Scotia will have very little harvestable wood in 10-20 years.	365	62	18	20
Enough harvested trees are being replaced by planting new ones or by natural seeding to meet our future timber needs.	361	13	75	12
Most woodland owners in Nova Scotia don't know how to look after their forests.	360	49	34	17
Woodland owners in Nova Scotia are good stewards of the forest.	348	42	34	24
I would be willing to accept timber cutting restrictions on my own land.	355	41	48	11
The provincial government should not regulate private woodlot cutting.	358	54	35	11
Timber harvesting contractors should be strictly regulated.	354	78	12	10
Ownership of forested land does not give people the right to do whatever they want with it.	351	61	33	6
Where forests are privately owned, society should not have any control over what the owners do with them.	354	45	47	8
Legislation should be enacted requiring forest landowners to adhere to best forest management practices on their own land.	348	37	51	12
The government should provide incentives for private landowners to establish protected areas on their land.	354	74	16	10
The use of ATVs in public forests should be banned.	355	49	41	10

The first five questions in Table 49 were designed to elicit information about woodland owners' attitudes towards the sustainability of Nova Scotia's wood supply. Respondents were asked to agree or disagree with five statements about the future of the supply of wood and wood products, and about the virtues of planting or allowing forests to regenerate after cutting.

When asked to respond to the statement, *there is sufficient wood in central Nova Scotia for all users, including paper mills, saw mills, and domestic firewood cutters*, a majority of respondents (61%) disagreed, with 26% replying that they did not know. It is interesting to note that women were more likely than men to say that they were unsure, while men were more likely to agree with the statement. There were no substantial differences between the attitudes of respondents according to their age or their ownership of forested land. A similar

result was noted in the 1999 telephone survey of the general public (Sanderson et al. 1999).

Related to the question of the adequacy of the wood supply is the second statement, that *more forests should be planted after harvesting*. The majority of the woodland owners believed that planting after harvesting is desirable (84%). When results were analyzed according to differences in age, gender, and acreage of woodland owned, the only significant difference noted was in the age group between 35 and 54, who were less convinced than others that planting should be done after harvesting.

Yet when we asked if *harvested areas should be allowed to regenerate naturally*, not quite half (47%) of the respondents agreed. Further analysis revealed no significant differences in response rates between respondents of different ages and genders, but did note that owners of large areas of woodland (250 or more acres) were more likely than other groups to agree that natural regeneration should be allowed to take place. The strong desire for planting trees after harvesting and the ambivalence shown towards natural regeneration are interesting findings. The respondents seem to be more inclined to approve of planting forests after cutting, rather than allowing them to regenerate naturally, which, in advocating active moves to replenish the forests, seems consistent with a high level of concern about future supply.

The two statements which followed related to perceived future trends, and elicited more polarized responses than the first statement, which asked about present requirements from our forests. Sixty-two percent of respondents agreed that *Nova Scotia will have very little harvestable wood in 10-20 years*. A fifth indicated that they did not know. Women were more likely than men to agree. There were no significant differences among the responses from different age groups and different land ownership categories.

The next statement articulated a slightly different perspective on the same issue. The statement was intended to complement the previous one and was phrased as follows: *enough harvested trees are being replaced by planting new ones or by natural seeding to meet our future timber needs*. Three quarters of respondents (75%) disagreed with this. Only a very small percentage said that they did not know. When respondents to this statement were examined according to age, gender, and woodland ownership, significant differences were found in the way that younger people responded: they were more likely to express concern that future needs could not be met if present practices continued. The results of these questions show that most respondents were not confident that present needs can be met, given current rates of forest use, and that they believe future needs are even less likely to be met.

The two questions which follow deal with respondents' opinions about the extent of woodland owners' competence in caring for the forest. Almost half of the respondents to the survey (49%) agreed with the statement that *most woodland owners in Nova Scotia don't know how to look after their forests*. However, only a third disagreed with the statement: *woodland owners in Nova Scotia are good stewards of the forest*. The percentage of respondents who were unsure about this issue was fairly high in both instances (17% and 24% respectively). No significant differences were noted when analyzed for age, gender, and woodland ownership. These two statements were intended to complement each other. It cannot be determined what accounts for the disparity in the results.

The reactions of respondents who themselves are woodland owners, and hence part of the group about which these two statements are made, are revealing when compared to the results of the general public survey. When asked to react to *most woodland owners in Nova Scotia don't know how to look after their forests*, about half of the general public (47%) agreed, which is similar to that of the woodland owners. The other statement about woodland owners' competence provoked a more even split between those who agreed and disagreed with the statement in the general public survey. There, only 26% agreed that *woodland owners in Nova Scotia are good stewards of the forest* (compared to 42% of woodland owners). Both statements elicited high percentages of the "don't know" response (31% and 41% respectively) from the general public (Sanderson et al. 2000).

The next questions deal with the rights of woodland owners to do as they wish with their land, and the rights of governments to regulate their activities. Respondents were first asked to agree or disagree with the statement, *I would be willing to accept timber cutting restrictions on my own land*. Almost half of the people who responded to the survey (48%) indicated that they would not be willing to accept such restrictions. Results were consistent when respondents were grouped by age, gender, and woodland ownership.

When asked the following: *The provincial government should not regulate private woodlot cutting*, more than half (54%) expressed their opposition to provincial regulation of cutting on private land. Only slightly more than a third of respondents indicated that they would be accepting of such regulation.

Results were quite different when respondents were asked about whether contractors should be strictly regulated by government. More than three quarters of respondents (78%) were in favour of regulating timber harvesting contractors. There were no significant differences between responses separated according to age, and gender. However, owners of smaller acreages were more likely to agree.

Somewhat inconsistent with the expressed opinions about owners' rights in response to earlier questions are the reactions to the statement, *ownership of forested land does not give people the right to do whatever they want with it*. Sixty-one percent of respondents agreed that ownership does not automatically confer these rights, while a third of respondents disagreed with the statement. It is interesting to note that the percentage of respondents who said that they weren't sure of their opinion on this issue was smaller for this than any other statement in this section. No significant differences were noted between age groups, gender and land ownership. In the mail survey of the general public, 75% agreed with this statement (Sanderson et al. 2000).

Next, the statement was rephrased as follows: *where forests are privately owned, society should not have any control over what the owners do with them*. This time, results were slightly different. While, in the previous case, 61% agreed that owners should not have unlimited rights on their land, this time only 47% of respondents were of the opinion that society should have some say in what owners do with their land. Only slightly fewer (45%) were inclined to deny society any role in this. When further analysis was done, no significant differences in perspectives of groups sorted by age, gender, or ownership were evident. Yet the same question asked to the general public in 1999 elicited the desire for a more active

role for society (71% agreed) (Sanderson et al. 1999). The same result was attained for the 2000 mail survey of the general public (Sanderson et al. 2000).

This seems to indicate that the woodland owners as a whole had mixed feelings about ownership and jurisdictional issues. The viewpoint of the general public appears to strongly favour some measure of control over what owners do with forested land.

The next question elicited an interesting response. Half of the survey respondents (51%) disagreed with the statement that *legislation should be enacted requiring forest landowners to adhere to best forest management practices on their own land*. Gender, age, and ownership of woodland seemed to have no significant impact on perspectives on this issue. As indicated in an earlier question, woodland owners own land for a variety of reasons. Some use it as an income source whereas others view it in terms of its environmental values. Those seeking to use their land for ecosystem protection or recreation may not be interested in forest management practices primarily suited to producing timber.

Moving from questions of legislation to one concerning government assistance, we seem to have found a government role more acceptable to woodland owners. Respondents were asked to react to the statement, *the government should provide incentives for private landowners to establish protected areas on their land*. This group of landowners was very inclined to agree. Seventy-four percent of them would like to see such incentives offered. No differences according to age, gender, and land ownership of respondents were found.

A final statement about regulation proposed a ban on All Terrain Vehicle use in public forests. Respondents were more evenly split on this issue than on the preceding ones. About half of them (49%) thought the ban a good idea. Older people were more likely to agree, and women were more likely to agree than men.

From this series of questions we can conclude that the woodland owners who responded to our survey have mixed feelings about the roles society and government have to play in the regulation of forested land in the Nova Forest Alliance project area. They think contractors should be regulated, but tend to be somewhat divided about societal or legislative intervention in the governance of private lands. Nevertheless, woodland owners are concerned about whether Nova Scotia's forests can stand up to present and future demands made upon them.

The next series of statements in Table 50 examines perspectives on the relationship between the forest industry and environmental concerns. In analysing the results, we keep in mind that two thirds of the woodland owners had harvested wood in the past three years. Although this is not a firm indicator of whether the owner is actively involved in the forest industry, it does indicate that approximately one third of owners may own woodland for purposes other than producing wood.

**Table 50: Level of agreement with environmental / economic statements**

	<i>n</i> =	Strongly agree to agree (%)	Disagree to strongly disagree (%)	Don't know (%)
Protecting jobs in the forest industry is more important than protecting endangered species.	356	13	81	6
Protecting jobs in the forest industry is more important than protecting the environment.	353	10	85	5
Protecting jobs in the forest industry and protecting the forest environment are both possible in Nova Scotia.	360	91	3	6
Forest companies should do more to protect the environment even if it results in the loss of some jobs.	355	85	9	6
The primary goal of forest management in Nova Scotia should be to produce quality wood products.	354	62	31	7
The most important objective of forest management should be to protect the environment.	353	64	29	7
I believe that woodland that is not actively managed is wasted.	356	47	46	7
The forest industry is taking a long-term interest in maintaining a healthy forest.	354	29	53	18
We are making progress in Nova Scotia towards sustainable forest management.	353	33	34	33

The opening statement, *protecting jobs in the forest industry is more important than protecting endangered species*, provoked a strong response from respondents. Eighty-one percent of them disagreed with this statement, and only 6% did not know enough to express an opinion. A similar result was noted in the 1999 telephone survey of the general public (Sanderson et al. 1999). When compared to other respondents on the basis of age, gender, and extent of woodland holdings, the only significant difference between groups was found in the acreage category: owners of more woodland were more likely to agree.

The next statement elicited a very similar response: *protecting jobs in the forest industry is more important than protecting the environment*. Eighty-five percent disagreed. This time as well, owners of more woodland were more likely to agree with the statement, while there were no significant differences between groups divided along age and gender lines. Answers to these questions demonstrate the strong environmental orientation indicated in an earlier question which asked owners to reflect on the environmental, economic, and social values of forests.

However, woodland owners obviously believe that it is possible to have a strong concern for the environment and a strong forest industry. A high rate of agreement with the third statement comes as no surprise. *Protecting jobs in the forest industry and protecting the forest environment are both possible in Nova Scotia*. The woodland owners who responded

to our survey were overwhelmingly in agreement with this statement: 91% of them agreed. Broken down into categories by age, gender, and woodland ownership, it was found that women were more likely than men to say they didn't know, while men were more apt to agree. Other significant differences were not evident.

Concern for the environment was also evident in the response to the next statement, *forest companies should do more to protect the environment even if it results in the loss of some jobs*. Eighty-five percent of respondents agreed that industry should be more concerned with environmental protection. Closer analysis showed no significant differences among groups sorted by age, gender, and woodland ownership.

Two further statements required respondents to choose what they perceived to be the most important objective of forest management. Paradoxically, statements giving environmental and economic objectives priority elicited a similar response. Sixty-two percent of respondents agreed that *the primary goal of forest management in Nova Scotia should be to produce quality wood products*, while only slightly more (64%) agreed that *the most important objective of forest management should be to protect the environment*. A few differences were found when results were analyzed by age, gender, and woodland ownership groups. Older respondents and women were more likely to agree that wood product production should be a primary goal. When the question involved environmental protection as the most important objective, larger landowners were more likely to disagree than were other owners. Obviously woodland owners don't consider these two statements mutually exclusive and this result reflects a desire to provide a quality product and protect the environment.

Respondents were quite evenly split in their reaction to the next statement, which contended that woodland not actively managed is wasted. Forty-seven percent agreed and 46% disagreed. Women were more inclined than men to say that they didn't know. Age and woodland ownership appeared to have little impact on their perspectives. Once again, the reasons why people own woodland would likely affect how they would respond to this statement.

The next statement came back to the issue of industry's responsibility in Nova Scotia's forests. More than half of the respondents disagreed (53%) with the statement that *the forest industry is taking a long-term interest in maintaining a healthy forest*. Also, the percentage of respondents who said that they were unsure was much higher for this statement than for any of the previous ones in this section. Age, gender and ownership made little difference to their opinions.

A final statement in this section changes the perspective slightly. This time, the statement was designed to draw out opinions about the progress being made toward sustainable forest management in Nova Scotia. Here, we found a three-way split between those who agreed (33%), disagreed (34%), or did not know (33%). A closer look at the results showed that people between 35 and 54 were more likely than other age groups to disagree with the statement: *We are making progress in Nova Scotia towards sustainable forest management*.

The reaction to statements in this section indicates that the woodland owners surveyed are very concerned with protection of the environment. They do not seem to believe that providing employment in the forest industry should be given priority over environmental

protection, and think that providing for employment and protecting the environment are not mutually exclusive. They seem to believe that the industry should be more cognizant of environmental impacts, and, as a group, seem to have ambivalent feelings about the progress of sustainable forest management in our province.

The following series of statements concern the role of society in dealing with environmental issues, and who speaks for the views of Nova Scotians.

**Table 51: Level of agreement with environmental / economic statements**

	<i>n</i> =	Strongly agree to agree (10%)	Disagree to strongly disagree (10%)	Don't know (%)
The view of a forested hill is more valuable than the timber harvested from it.	344	39	49	12
Scenic views are less important than the economic benefits of timber harvesting.	344	25	62	13
Greater efforts should be made to protect Old Growth forests.	355	61	26	13
Society has an obligation to protect endangered species.	358	89	6	5
There is too little "designated" wilderness in Nova Scotia.	357	51	23	26
Some existing wilderness areas should be opened to logging.	349	29	57	14
Environmentalists go too far in trying to restrict logging.	352	48	33	19
The environment is threatened by consumer demand for forest products.	353	74	18	8
Environmental groups represent a majority of Nova Scotians when they address forest issues.	355	16	54	30
The forest industry represents a majority of Nova Scotians when it addresses forest issues.	354	23	54	23

This section begins with two statements about aesthetic values. One controversy over timber harvesting concerns the impact that it has on the tourist industry. The following two statements attempt to address the issue of the forest as part of a landscape. The first is *the view of a forested hill is more valuable than the timber harvested from it*. Almost half of the woodland owners who responded to the survey disagreed with this statement (49%). Categorized by age, gender, and woodland ownership, the only significant difference found was that owners of larger acreages of woodland tended to disagree more than other respondents. This result is considerably different from that of the 1999 telephone survey, where 75% of the general public agreed, and the 2000 mail survey of the general public, where 63% agreed (Sanderson et al. 1999; 2000).

The second statement is a rephrasing of the previous assertion as *scenic views are less important than the economic benefits of timber harvesting*. The results are somewhat

different here. Close to two-thirds of our respondents (62%) disagreed that economics take precedence over scenic views. Further analysis showed that the only significant difference between groups organized by age, gender, or woodland ownership was that men were somewhat more inclined than women to agree. Seventy-five percent of respondents to the 2000 mail survey of the general public disagreed (Sanderson et al. 2000).

The next five statements concern environmental values, without linking them to economic or social issues. Sixty-one percent of respondents agreed that *greater efforts should be made to protect Old Growth forests*. Broken down into groups by age, gender, and woodland ownership, it was evident that owners of larger acreages of woodland were more likely than others to be among the quarter of respondents (26%) who disagreed. Other differences were not significant.

Respondents felt very strongly about society's obligation to protect endangered species: 89% agreed with the statement *society has an obligation to protect endangered species*, and very few (5%) said they did not know. Significant differences were found in two categories when results were cross-tabulated with age, gender, and woodland ownership variables: younger people and owners of less woodland were more inclined to agree than other respondents.

More than half of the respondents to the woodland owners' survey (51%) agreed that *there is too little "designated" wilderness in Nova Scotia*. A quarter of them said that they didn't know (26%). A closer look showed that owners of larger wooded areas tended more to disagree.

Fifty-seven percent of respondents to the survey disagreed that *some existing wilderness areas should be opened to logging*, while fewer than a third agreed (29%). Age, gender, and acreage owned had little apparent impact on opinions.

Almost half of the people who responded to the woodland owners' survey (48%) agreed that *environmentalists go too far in trying to restrict logging*. A third disagreed. Again, there was no apparent difference due to the age, gender, or land ownership of respondents.

Consistent with earlier views on the importance of environmental concerns, respondents also felt quite strongly that the environment was being threatened by forest use. Three quarters of them (74%) agreed with this statement: *the environment is threatened by consumer demand for forest products*. Response was unaffected by the respondent's age or gender. However, smaller landowners were more likely to agree.

Woodland owners were asked with the final two statements of this section to express their opinions on who speaks for Nova Scotians when forest issues are addressed. It is interesting to note that the rates of disagreement with the statements *environmental groups represent a majority of Nova Scotians when they address forest issues* and *the forest industry represents a majority of Nova Scotians when it addresses forest issues* were the same, at 54%. Sixteen percent agreed with the statement that environmental groups speak on behalf of a majority of Nova Scotians, while slightly more (23%) agreed that industry speaks for the majority. Owners of smaller acreages were more likely than others to agree with the first statement. It seems obvious that woodland owners have reservations about either group's ability to speak for Nova Scotians.

Woodland owners have expressed their concern with environmental issues in this section of the survey. They have some reservations about the actions of environmentalists, but feel that environmental protection is desirable, and feel even more strongly that society has a responsibility to protect the environment. They are reluctant to say that either environmentalists or industry represent a majority of Nova Scotians.

### **Attitudes towards forest management practices**

This section looks at a variety of current management practices and attempts to assess woodland owners' perception of the value and acceptability of these.

The first two statements in this section deal with the acceptability of pesticides. Reactions to the two statements were similar (Table 52). First of all, a little over half of the survey respondents (54%) agreed that *properly applied, insecticides are an acceptable management tool*, and slightly more (56%) agreed that *properly applied, herbicides are an acceptable management tool*. Women were more inclined than men to disagree. Concerning the second statement, women were more likely than men to disagree. Differences among the groups according to age and ownership of forested land were not significant.

**Table 52: Attitudes toward insecticides and herbicides**

Practice	<i>n</i> =	Strongly agree to agree (%)	Disagree to strongly disagree (%)	Don't know (%)
Properly applied, insecticides are an acceptable management tool.	357	54	30	16
Properly applied, herbicides are an acceptable management tool.	357	56	30	14

We then wanted to find out in which context the use of herbicides was most acceptable. Table 53 presents the responses.

**Table 53: Acceptability of herbicide use**

Practice	<i>n</i> =	Very acceptable to acceptable (%)	Unacceptable to very unacceptable (%)	Don't know (%)
Using herbicides to control growth of unwanted vegetation to improve survival of planted trees on public (Crown) land	359	49	41	10
Using herbicides to control growth of unwanted vegetation to improve survival of planted trees on private land	357	50	39	11

Results of both questions are very similar, with half of the respondents indicating that the use of herbicides on public (49%) and private (50%) land is acceptable, and leaving about 1 in 10 respondents uncertain. Significant differences between groups divided by age, gender, or land ownership were not found. It is interesting that the number of people indicating that use of herbicides in these contexts was unacceptable went up compared to the previous statements in Table 52.

The next section presents the viewpoints regarding various types of harvesting practices (Table 54).

**Table 54: Level of agreement with forestry practices**

Practice	<i>n</i> =	Very acceptable to acceptable (%)	Unacceptable to very unacceptable (%)	Don't know (%)
Using selection and other partial harvest techniques	344	87	4	9
Using large equipment to harvest timber	358	44	50	6
Using specialized equipment to prepare the soil for forest regeneration	352	70	9	21
Using large harvesting equipment that is designed to reduce its impact on the environment	356	69	22	9
Converting sites from mixed-wood to softwood to increase timber production	353	39	51	10
Leaving clumps of trees for wildlife habitat	359	92	5	3
Cutting selectively to maintain wildlife habitat	357	90	6	4
Closing forest access roads to control illegal dumping of garbage	358	84	12	4

Selection and other partial harvesting techniques achieved a high rating. Eighty-seven percent of respondents said they approved of this kind of harvesting.

The three management practices which followed all involve the use of equipment in the forests. Less than half (44%) of the woodland owners thought the practice of using large equipment to harvest timber in Nova Scotia's forests is acceptable. Response was unaffected by age. Men were more likely to find the practice acceptable, and owners of small acreages were less likely to think it acceptable.

The use of equipment to prepare the soil for regeneration was much more acceptable to respondents. Seventy percent of them approved. The age of respondents, their gender, and their ownership of woodland did not influence their attitudes.

The use of equipment designed to reduce environmental impact received about the same rate of approval, at 69% of respondents. On further analysis, results were not dependent on age or woodland ownership.

More than half of the woodland owners who responded to the survey were inclined to disapprove of the following practice: converting mixed-wood stands to softwood to increase timber production. This time, response varied within each category when respondents were divided into groups by age, gender, and woodland ownership. People in the mid-range according to age (35 to 54) found the practice less acceptable than other age groups, while the two younger and older age ranges were more likely to say they didn't know.

The last three practices in this table concern environmental impacts. The results of all three show woodland owners' high rate of concern about the forest environment. Ninety-two

percent of respondents thought that leaving clumps of trees for wildlife habitat is acceptable, with opinions unaffected by their age, gender, or woodland ownership. Cutting selectively to protect habitat was acceptable to a very high percentage of them also (90%). Again, breaking respondents into the three groups did not bring out any significant differences among them.

A lot of concern has been expressed lately in the press about the dumping of garbage in woodland areas. One possible solution is to close forest access roads to the public to control garbage dumping. This was acceptable to 84% of respondents. Age, gender, and woodland ownership did not significantly affect opinions about this issue.

## **Clearcutting**

Another subject of much discussion both in the forest industry and the general public is the issue of clearcutting. Therefore, we designed a number of questions to determine how woodland owners feel about clearcutting and under what conditions it is acceptable.

First, we asked respondents to classify their attitudes towards clearcutting, and then asked an open-ended question to elicit further comments. Respondents were given four choices, which summarized the scale of attitudes towards clearcutting: *I am unfamiliar with clearcutting and do not have an opinion at this time; there should be no restrictions placed upon clearcutting; clearcutting should be allowed only where suitable for the area and tree species; and clearcutting should not be allowed anywhere.*

An overwhelming majority of respondents to the survey opted for at least some restriction on clearcutting. Sixty-seven percent of them said that it should be allowed only in certain areas, where suitable for the area and tree species, and a quarter of them said that it should not be allowed anywhere. Only 3% of respondents expressed the opinion that there should be no restriction placed upon clearcutting, while 5% were unable to formulate an opinion. Further analysis revealed that age had no impact on opinions about clearcutting. Women were more likely to choose the ban than were men, and men were more likely to choose the category which allowed for some restrictions. When analyzed by the extent of respondents' woodland ownership, it was clear that owners of less acreage were more likely than others to want a ban on clearcutting.

This is evidently an issue about which Nova Scotian woodland owners feel very strongly. Comments on clearcutting ranged from rants against the "rape" of Nova Scotia's forests to unconditional support for this practice. Those with negative opinions about the practice made reference to the greed of companies and contractors, to the damage caused by large machinery to waterways and to young growth, and the dangers of erosion and forest fire, which they associate with clearcutting. Several comments compared the forest industry to the defunct cod fishery, issuing dire warnings about the depletion of another resource upon which Nova Scotians depend for their livelihood. Several respondents wrote about the "good old days" when horses were used in the woods.

Other comments reflected the concern of woodland owners for the future of their woodlands and their livelihoods. Emphasis in this type of response is on the potential damage to future harvests caused by indiscriminate clearcutting. Typical of this category of response is a

statement like the following: “Clearcutting is a valid, but grossly overused, management tool.” Large numbers of respondents advocated the use of clearcutting in areas of over-mature and dead trees, or where stands had been damaged by wind, insects, or disease. Many suggested that clearcutting was acceptable if land was replanted immediately afterwards.

Very few responses to the request for comments on clearcutting supported the practice unconditionally. All replies to the open-ended question are included in the appendices to this report (Appendix C).

**Table 55: Attitudes towards clearcutting**

<b>Classification of attitude</b>	<b>Percent of respondents</b>
I am unfamiliar with clearcutting and do not have an opinion at this time.	5
There should be no restrictions placed upon clearcutting.	3
Clearcutting should be allowed only where suitable for the area and tree species.	67
Clearcutting should not be allowed anywhere.	25
Total	100

$n = 359$

To determine more clearly under what circumstances clearcutting would be acceptable, respondents were asked to indicate whether they found the following practices acceptable (Table 56).

**Table 56: Acceptability of clearcutting practices**

Practice	n =	Very acceptable to acceptable (%)	Unacceptable to very unacceptable (%)	Don't know (%)
Using clearcuts to harvest timber on publicly owned (Crown) land	348	30	61	9
Using clearcuts to harvest timber on privately owned land	345	37	55	8
Using clearcuts to harvest dying or damaged stands	352	83	11	6
Using clearcuts to harvest if the area is planted immediately	353	59	30	11
Using clearcuts to harvest if the area is allowed to regenerate naturally	350	34	56	10

The results of this section show that there are conditions under which clearcutting is acceptable to the majority of woodland owners. Many of them do disapprove of clearcutting, especially on Crown land, though they are inclined to think that it is acceptable when it is used to harvest over-mature stands. They find it more acceptable when followed by planting, rather than by natural regeneration.

In the statements referring to clearcutting on Crown or private land, women were more likely to find clearcutting unacceptable than were men, while owners of smaller acreages were more likely to say they were unsure, and more likely to find it unacceptable on either public or private land. Age did not influence decisions significantly.

When it came to clearcutting dying or damaged stands, the results were very different. Opinions were not significantly affected by age or woodland ownership of respondents, but men were more likely than women to find the practice acceptable, while women were more likely to say they were unsure.

The next two questions on clearcutting tested respondents' opinions on this practice depending on whether clearcut areas are planted after harvesting or allowed to regenerate on their own. A closer look showed that response to these two options was unaffected by age or gender. Larger owners were more likely to feel clearcutting was acceptable when the area was allowed to regenerate naturally.

The final question asked the following: *If you practice clearcutting, what do you consider the maximum acceptable cut size?* The maximum cut size for the province is considered to be 125 acres.

**Table 57: Acceptable clearcut size**

<b>If you practice clearcutting, what do you consider the maximum acceptable cut size?</b>	<b>Percent of respondents</b>
less than 5 acres	34
5-19 acres	31
20-49 acres	15
50-99 acres	11
100 or more acres	9
Total	100

$n = 143$

When we asked woodland owners about the acceptable extent of clearcutting, the results were very interesting. The majority considered areas less than 20 acres acceptable. Only a small percentage approved of clearcuts of 100 or more acres (Table 57).

### **Threats to forests and forest industries**

Woodland owners appear to have many concerns about the future of the forests of Nova Scotia and the impact of forest use. In the section of the questionnaire on forest sustainability in Nova Scotia, respondents were asked to gauge the impact of forest use on five different facets of local environment: wildlife habitat, waterways, ecosystems, rare plant species, and Old Growth, as well as on the global environment as a whole. We have ranked the different aspects in Table 58 according to the perceived threat.

**Table 58: Extent of threat from forest use**

	<b><math>n =</math></b>	<b>Moderately to seriously threatened (%)</b>	<b>Slightly to not at all threatened (%)</b>	<b>Don't know (%)</b>
Wildlife / fish habitat	360	74	23	3
Waterways	358	71	24	5
Old Growth	359	63	25	12
Global environment	360	58	28	14
Ecosystems	353	58	21	21
Rare plant species	358	54	25	21

When asked about wildlife and fish habitat, three quarters of respondents (74%) expressed the view that it was moderately to seriously threatened by forest use. People in the age

range between 35 and 54 were more certain of the answer, since fewer numbers in this age category said “don’t know.” Younger people felt less strongly that habitats were threatened by current forest use. The gender of respondents seemed to have little impact on their opinion, but when results were analyzed by land ownership categories, it was found that owners of smaller acreages were more convinced than others that habitats are threatened.

When asked about waterways, 71% felt they are moderately to seriously threatened. Closer examination revealed that there were no significant differences between different genders and ages. Smaller landowners were more apt to feel that waterways were threatened.

The third aspect of the local environment that respondents felt was most threatened was Old Growth forests. In the opinion of 63% of respondents, Old Growth is threatened by forest use, while only a quarter of the respondents did not believe it threatened. Broken down into categories by age, gender, and woodland ownership, there were no significant differences between respondents.

Global environment and ecosystems were thought to be under threat from forest use by similar numbers of respondents. Fifty-eight percent felt that these were threatened, while the number of people unsure about it was slightly higher for ecosystems (21%) than for the global environment (14%). Closer analysis according to gender of respondents showed that, in both cases, women believed the threat to be greater than did their male counterparts. In both cases also, people in the mid-range according to age (35-54 years) were less likely to be unsure of their answer to these two questions. Acreage owned by respondents seemed to not have any impact on opinions about threats to the global environment, but in the case of ecosystems, owners of 250 or more acres were less likely to feel ecosystems were threatened by forest use.

Numbers were slightly smaller for threats to the last aspect of the environment that respondents were asked to rate. However, more than half of the respondents (54%) expressed the belief that rare plant species are under moderate to severe threat from forest use. One quarter of them felt that rare plants are under little or no threat. A closer look showed that, while the age of respondents did not seem to affect their opinions, owners of large acreages were less convinced of the threats to rare plants by forest use.

It is clear that the majority of woodland owners surveyed here are convinced that local and global environments are seriously threatened by current forest use.

We then asked about threats to forests in a different way. Respondents were asked to indicate their agreement or disagreement with 23 potential threats to the forest, and given the option of adding an “other” (Table 59).

By far the greatest perceived threat to forests according to the woodland owners was the uneven balance between harvesting and regrowth in Nova Scotia’s forests. Ninety-one percent of respondents termed *harvesting occurring faster than forest growth* a moderate to great threat. Separated by age and gender, it was evident that older respondents considered it more of a threat than others did, and that men were less convinced than women that it was a threat. Ownership of forested land had no influence on the results.

The second- and third-rated threats to forests are both from logging practices. Seventy-eight percent of respondents termed *current logging practices* and *clearcutting* the next most serious threats. A closer look indicated that the only significant difference among groups separated by age, gender, and ownership of forested land was that women were more likely than men to consider clearcutting a threat to forests.

Forest fires constituted the only threat to forests in the top eleven ranked threats that was not solely attributable to human agencies. Seventy-six percent of respondents considered forest fires a moderate to great threat, with older respondents perceiving fires as a greater threat than other groups, and men considering them less threatening to forests than did women. Woodland ownership had no impact on opinions about the threat of forest fires.

The next two threats are related. Three quarters of respondents to the survey expressed the opinion that *too little planting of trees* is a moderate to great threat to forests. Classified according to age, gender, and woodland acreage owned, the only significant difference between groups of respondents emerged in the acreage division: owners of 250 or more acres were less inclined to consider this a threat. Closely related to the fear that too little tree planting is going on is the perception that the province's forests are threatened by a *lack of long-range planning* for their future. Seventy-four percent of respondents thought it a threat. Differences due to age, gender, and woodland ownership of respondents did not influence their opinions.

High levels of concern about the forests were also expressed in reactions to questions about the extent of threat due to *having fewer and larger forest companies* (72%), *the loss of forested land to development* (67%), *inadequate forest management planning* (65%), and *garbage dumping* (60%). More than half of the woodland owners who filled out the questionnaire also felt that the forests were threatened by *insects and disease* (59%), *the export of timber* (56%), *acid rain* (55%), *the lack of protection of Old Growth forests* (55%), and *the loss of forested land to urban sprawl* (52%).

It is worth noting here that this survey of woodland owners was done before the well-publicized beetle infestation in Point Pleasant Park, Halifax, and its environs, and a stronger response to a question about the threat of insects in Nova Scotia's forests might be expected had the question been asked since this happened.

Woodland owners are concerned first about the rate of harvesting currently being done, then about the impact of management practices on the forests. Threats to forests are considered to be predominantly due to human use and misuse.

**Table 59: Threats to forests**

Potential threat	n =	Moderate to great threat (%)	Slight to no threat (%)	Don't know (%)
Harvesting occurring faster than forest growth	358	91	8	1
Current logging practices	358	78	17	5
Clearcutting	360	78	20	2
Forest fires	362	76	23	1
Too little planting of trees	361	75	20	5
Lack of long-range planning for the future of Nova Scotia's forests	357	74	15	11
Having fewer and larger forest companies	352	72	18	10
Loss of forested land to development	354	67	32	1
Inadequate forest management planning	353	65	24	11
Garbage dumping	358	60	37	3
Insects and diseases	354	59	35	6
Export of timber	348	56	32	12
Acid rain	358	55	32	13
Lack of protection of Old Growth forests	350	55	33	12
Loss of forested land to urban sprawl	350	52	40	8
Climate change or global warming	341	47	36	17
Public apathy	346	47	33	20
Lack of regulation by government	346	45	41	14
Theft, trespass, and vandalism	354	43	53	4
Amount of pesticide use in the forest	355	38	46	16
Negative publicity about forest management	349	37	47	16
The amount of recreation use in the forest	349	26	68	6
Construction of oil and gas pipelines	356	24	67	9
Other	18	61	6	33

The following question takes a different perspective on problems and issues in Nova Scotia's forests, by moving to a more personal level and asking woodland owners what they perceive to be the greatest problems facing them today. They were asked specifically to rate 25 different potential problems, and were provided with an "other" category to allow them to add anything that might have been missed in the list.

Concerns that show up in this list mirror those that have been noted in other parts of this report. The highest percentage of respondents who answered the question ranked two concerns of equal importance. Seventy-five percent of them agreed or strongly agreed that both *too much wood being cut* and *a lack of financial incentives for preservation* were serious problems for woodland owners. Levels of concern with these two problems were not affected by age, gender or acreage owned by respondents.

Sharing second place in the rankings of problems affecting woodland owners, and closely followed by a third, are three concerns about a lack of knowledge about *ecosystem management* (71%), *forest regeneration* (71%), and *wildlife management* (67%). Age, gender, and woodland acreage owned had no significant impact on these opinions. Bearing in mind that respondents to this survey were chosen exclusively from the ranks of woodland owners, it is interesting to note that the top five areas of concern all involve environmental issues. Problems due to such things as woodland taxes, regulations on practices, and low wood prices come further down the scale of concern. The majority of respondents were more concerned with impacts on the environment than they were with the effects of practices and policies on their personal interests.

The next problems on the scale of concern to woodland owners involve a lack of support for owner's activities. Sixty-five percent of respondents said that *too much pressure to harvest wood* is a problem, 62% perceived *the lack of knowledge about how to choose a reliable contractor* to be a problem, and 62% expressed the opinion that *the level of funding for management programs* causes concern.

The results of two questions concerning public perceptions are worth considering briefly before going on to the next series of questions. More than half of the participating woodland owners have registered their agreement (57%) with the statement that *public perceptions of timber harvesting* are a problem, but, at the same time, close to the same number (60%) disagree that there is *too much pressure from society to protect the forest*. This seems to indicate that, while woodland owners as a rule may not feel unduly pressured to refrain from harvesting the forest, they may feel that the methods they use are misunderstood by those who are not woodland owners themselves.

**Table 60: Problems facing woodland owners**

<b>A problem affecting woodland owners today is...</b>	<b>n =</b>	<b>Strongly agree to agree (%)</b>	<b>Disagree to strongly disagree (%)</b>	<b>Don't know (%)</b>
too much wood being cut	350	75	10	15
a lack of financial incentives for preservation	343	75	8	17
a lack of knowledge about ecosystem management	349	71	12	17
a lack of knowledge about forest regeneration	350	71	21	8
a lack of knowledge about wildlife management	342	67	21	12
too much pressure to harvest wood	349	65	23	12
a lack of knowledge about how to choose a reliable contractor	347	62	14	24
the low level of funding for forest management programs	340	62	15	23
a lack of knowledge about what wood products are worth	343	59	25	16
public perceptions of timber harvesting	333	57	20	23
the high cost of silviculture	341	55	17	28
taxation of woodland income	345	53	24	23
a lack of knowledge of cutting methods	347	50	34	16
too few good contractors	345	49	20	31
a lack of strong landowner organizations	340	48	26	26
too many regulations (red tape)	341	42	37	21
woodland property taxes	346	42	45	13
too much concern about private land management	337	37	41	22
low wood prices	345	37	46	17
high interest rates	335	33	34	33
too much pressure from society to protect the forest	341	28	60	12
the lack of a strong contractor organization	327	21	29	50
a lack of wood markets	340	21	62	17
requirements for protected areas	336	31	38	31
high wood prices	325	23	51	26
other	42	67	n/a	33

Although not directly related to the question of threats to the forest, the preceding table indicates that woodland owners perceive a lack of assistance from the government in helping manage their woodlands. Therefore, the following question was asked: *Are you aware of any woodlot management programs available to assist woodland owners in Nova Scotia?* More than half did not know about any program assistance (Table 61). Older respondents and those with larger acreages were more familiar with these programs.

**Table 61: Awareness of woodlot management programs**

<b>Are you aware of any woodlot management programs available to assist woodland owners in Nova Scotia?</b>	<b>Percent of respondents</b>
Yes	46
No	54
Total	100

*n* = 354

### **One wish for the future**

The final question asked respondents to indicate their one wish for the future of Nova Scotia's forests. Essentially, they express the desire that the forest be preserved and protected for the enjoyment of future generations. Furthermore, they wished for responsible management practices and economic viability for the industry. Table 62 lists the categories of responses. Respondents' answers may have fit into more than one category due to the depth and detail provided in the answers.

**Table 62: If you had one "wish" for the future of Nova Scotia's forest, what would it be? (thematic organization)**

<b>Theme</b>	<b><i>I want...</i></b>	<b>Frequency</b>	<b>Percent</b>
<b><i>Ecological issues</i></b>		177	40.1
Forest preservation	the forest to last	36	8.2
Sustainability	woodlands sustainable	33	7.5
Heritage	forests preserved for future generations	30	6.8
Balanced use	forestry activities balanced with environmental protection	14	3.2
Biodiversity	a diversity of species in forests	11	2.5
Improvement	forests better than they are now / like they used to be	10	2.3
Environmental protection	protection of the environment / ecosystems to be a priority	10	2.3
Forest health	priority given to the health of forests	9	2
Wildlife preservation	priority given to protection of wildlife habitat	7	1.6
No spraying	spraying of forests stopped	5	1.1

Abundance	forests as abundant as they are now, or more abundant	4	0.9
Forest hygiene	the forest cleaned up	3	0.7
Riparian protection	protection of waterways and wetlands	3	0.7
Recycling	more recycling to reduce demand for wood	2	0.5
<b>Management practices</b>		<b>148</b>	<b>33.6</b>
No clearcutting	clearcutting prohibited	30	6.8
Management	a management plan for the forest	20	4.5
Balance	cutting and regrowth balanced	14	3.2
Selection harvesting	selection cutting only in forests	13	2.9
Reforestation	trees replanted to replace those taken from forests	12	2.7
Less harvesting	harvesting rates decreased	11	2.5
Limited clearcutting	clearcutting restricted	11	2.5
Low impact harvesting	heavy equipment kept out of the woods	8	1.8
Maintenance	provision for continuous harvest of a renewable resource	6	1.4
Small-scale operations	no large companies working the woodlands	5	1.1
Fewer exports	only value-added products sent out of province	4	0.9
Owner's responsibility	woodland owners to practice good management	3	0.7
Responsible harvesting	better harvesting practices	3	0.7
Silviculture	silviculture practised	3	0.7
Waste control	less waste of forest resources	3	0.7
Corporate responsibility	companies to operate responsibly in the forests	2	0.5
<b>Economic issues</b>		<b>42</b>	<b>9.5</b>
Economic limits	forests protected from exploitation for profit	12	2.7
Government assistance	more assistance / tax incentives	9	2
Woodlot taxation	fair woodlot taxation policy	6	1.4
Economic viability	priority given to economic uses of woodlands	4	0.9
Markets for wood	more markets for low-grade wood	3	0.7
Employment	provision of employment in forest industries	3	0.7
Market access	better access to markets for woodlot owners	3	0.7
Less demand	less consumer demand for forest products	2	0.5
<b>Public's role</b>		<b>35</b>	<b>7.9</b>
Regulated use	laws / regulations to govern forestry practices	14	3.2
No government	government to stay out of forestry	5	1.1

Restricted public access	restricted access to forests	3	0.7
Education of woodland owners	woodland owners taught about forest management	3	0.7
Education	the public / children taught about forests	3	0.7
Stewardship	caring for the forests to be a public responsibility	3	0.7
Crown land management	restricted access to Crown lands for loggers	2	0.5
Responsible government	government to use tax dollars wisely in the forests	2	0.5
<b>Use of Forests</b>		<b>24</b>	<b>5.4</b>
Diversity of use	provision made for diverse uses of forests	19	4.3
First Nations' use	First Nations use of Crown lands restricted	3	0.7
Stakeholder cooperation	importance given to promoting cooperation among forest stakeholders	2	0.5
<b>Other</b>	don't know / other	<b>15</b>	<b>3.4</b>
<b>Totals</b>		<b>441</b>	<b>100</b>

$n = 441$

## Summary of results

- The sample consists of 379 woodland owners with wooded property in the Nova Forest Alliance Project Area. The population is composed of both individual and collective owners; therefore, the sample was drawn to reflect this ratio. Since the number of wooded property owners of acreages larger than 250 was very small in comparison to total numbers of woodland owners, a stratified sampling process was instituted. Three hundred and fifty owners were sampled from each of the following groups: owning from 5 to 49 acres, owning from 50 to 249 acres, and owning 250 acres or more. The response rate was 46 percent, with 379 owners responding to the questionnaire. This represents a margin of error of five percent (19 times out of 20).
- Respondents were older (54% over 55), largely male (78%), and reasonably well educated (30% with post secondary). Many (35%) were retired or employed in blue collar activities (32%).
- Due to the nature of the sample, respondents lived in, and had been raised in, rural areas.
- Most respondents owned medium to large woodland properties (78% over 50 acres). Seventy-seven percent had owned land for over ten years. Most had purchased their woodland. The average number of parcels of woodland owned was three. The ownership structure was primarily individually owned, which is representative of the population. Most respondents (55%) lived on their woodland property. More than 75%

said that they owned woodland for the sake of future generations, to give to their children, or to enjoy wildlife. Few woodland owners (maximum 8%) were members of forest-related organizations.

- When asked about harvesting timber, most (64%) had harvested wood over the last three years, with an average of 1874 cords and an average of 99 acres harvested. Those who had not harvested wood indicated that they might harvest in case of financial emergency (40%), if marketable timber was available (37%), or if woodland was damaged, diseased, or infested (8%).
- The key products harvested or gathered for personal use in the last three years were firewood (65%), brush (28%), and Christmas trees (29%). Products harvested for sale included sawlogs (63%) and pulpwood (40%). Most products were harvested by family members (51%) or contractors (25%). Most respondents (62%) did not rely on the sale of products for income, and it often represented a small proportion of their total income (24%). Most respondents (91%) did not derive income from non-timber activities.
- Most woodland owners (73%) did not have a formal plan for their woodland. The top five woodlot management activities undertaken on their property during the previous three years and the next three years included the removal of low quality trees and blowdowns, boundary line improvements, thinning, selection cutting, and planting. The timber harvesting methods used by most of the respondents included salvaging dead and damaged trees, cutting a few trees here and there, clearcutting, and cutting softwood while leaving hardwood. On average, 3.5 different harvesting practices were utilized on a wooded property.
- A high proportion (88%) of respondents were interested or very interested in forest issues, and 62% felt that they are at least somewhat informed. This result is comparable to that found in the general public survey (Sanderson et al. 2000). Many respondents (47%) said that they had quite a lot of experience working in the woods.
- Sources of information important to woodland owners included other woodland owners, friends, families, and neighbours, and various forest professionals. Confidence in these sources was very high. Important media used to access information on forest issues were newspaper and television, comparable results to the general public survey (Sanderson et al. 2000). Internet use was not as prevalent among woodland owners as among the general public; however, younger owners are more likely to use this medium.
- Over half (55%) of the respondents to the woodland owners' survey had not taken any action to express their views on the use of Nova Scotia's forests. Among those who had, key activities involved discussing concerns with friends, neighbours, or coworkers, or contacting other landowners.
- When asked what topics they would like to learn more about, respondents (over 25%) indicated: best management practices, encouraging natural regeneration, age related management, forest regulations, and different types of woodland planning.

- A third of the respondents (30%) were familiar with the NFA. When asked what they considered the most important things the NFA could do to improve the management of Nova Scotia's forests, they rated the following the highest (in order of importance): the promotion of reforestation, the promotion of sustainable forestry practices, and education of youth and woodland owners.
- The environmental benefits of forests were seen as significantly more important than economic benefits, which were rated more important than social benefits. However, all were seen as important forest values. Woodland owners scored social benefits considerably lower than did the general public.
- To the respondents, sustainable forest management was defined in terms of two main dimensions: the use or nonuse of certain management practices, such as balancing harvesting and reforestation and clearcutting, and the promotion of ecological values, such as forest preservation.
- The vast majority (84%) of respondents felt that it is very important to achieve sustainable forest management in Canada. However most did not believe that forest management is currently sustainable as practiced on private company woodlands (70%), on privately-owned woodlands (50%), and on Crown lands (64%). On average, about 20% said that they did not know. This is a less optimistic perspective than that found in the general public survey. When asked about the commitment of various organizations to sustainable forest management in Nova Scotia, woodland owners scored the following with the highest commitment levels: woodland owners, the federal government, and environmental groups.
- Attitudes towards forest sustainability were reflected in the level of agreement or disagreement to a series of statements presented to respondents. Statements which rated the highest levels of agreement included: *Protecting jobs in the forest industry and protecting the forest environment are both possible* (91%); *Society has an obligation to protect endangered species* (89%); *Forest companies should do more to protect the environment* (85%); and *More forests need to be replanted* (84%).
- Support was evident for the regulation of timber harvest contractors (78%), for incentives to establish protected areas (74%), for environmental protection (64%), and for increased efforts to protect Old Growth forests (61%). About the same number of respondents were in favour of forest management that aimed primarily to produce quality wood products (62%), as for that which gave environmental protection top priority (64%). Respondents agreed that consumer demand for forest products threatens the environment (74%), and that Nova Scotia will have little harvestable wood in 10 to 20 years (62%). They felt that insufficient planting or natural regeneration was taking place to meet future timber needs (75%), and that there is not sufficient wood for all users (61%). There seems to be some question about the value of the forest as a landscape, about the abilities of woodland owners to manage the land, and about the long-term health and sustainability of the forest.
- Woodland owners were more likely to find the use of herbicides and pesticides acceptable than were respondents in the general public. However, 30 to 40% were

against their use.

- Woodland owners were in favour of forest management practices such as selection and partial cutting (87%), leaving clumps of trees to protect wildlife (92%), using specialized equipment designed to protect the environment (70%), and closing forest roads to control garbage dumping (84%).
- Strong opinions were expressed about clearcutting. Given choices between several options, two thirds of respondents said they felt that clearcutting should be allowed only where suitable for the area and species, and one quarter said clearcutting should be banned. However, although initially opposed to clearcutting when asked general questions about it, woodland owners were more likely to perceive it as an acceptable practice given certain circumstances: they felt that clear cutting should be used to harvest dead and dying stands (83%), and that it was acceptable if replanting was to occur immediately afterwards (59%). Most did not consider clearcutting to be an acceptable practice on publicly owned (61%) or privately owned land (55%). Most (65%) felt that the maximum size of a clearcut area should be less than 20 acres.
- Leading threats to the forest as perceived by woodland owners included harvesting faster than forest growth, too little planting, a lack of long range planning, and clearcutting (indicated by over 74% of respondents). Recreational uses and oil and gas pipeline activity were not considered threats by over 68 percent of users. On the other hand, current forest uses are perceived as threats to wildlife and fish habitat, and to waterways, by over 70% of respondents.
- Woodland owners were asked to indicate which types of problems they face. The top five included too much wood being cut, the lack of financial incentives for preservation, and a lack of knowledge about ecosystem management, forest regeneration, and wildlife management.
- Most respondents (54%) were not aware of woodlot management programs available to assist woodland owners in Nova Scotia.
- Finally, woodland owners have a strong wish to preserve the forests for future generations and to manage the forests sustainably.

## Conclusions

Woodland owners are definitely worried about the forest environment. They expressed deep concern about the forest both as a productive resource and as a viable ecosystem. They are seriously concerned with the overcutting of forests and the future of the wood supply. This sample had strong reservations about certain management practices, such as clearcutting, particularly among landowners with smaller acreages. While they support a variety of practices or initiatives to foster sustainable management of the forest, they do not see current management as sustainable. This sentiment was expressed more strongly than in the general public sample. However, there was a definite ambivalence about what steps are

required to achieve forest sustainability, particularly through legislative action.

There seem to be differences between the views of landowners with large acreages and those with smaller acreages, particularly in relation to harvesting practices and environmental protection strategies. Those owning more than 250 acres were less likely to favour environmental protection activities and more likely to find clearcutting acceptable.

Recreation, although valued, did not assume the same importance as it did with the general public. This sample used the forest in very traditional ways, such as hunting and fishing.

Woodland owners saw their land as an investment in the future of their family, an investment in the environment, and an investment in preserving a quality of life. If the NFA and its partners want to get the message about sustainable forest management across to woodland owners, energies must be focussed on using the mass media, since few of the respondents belonged to organizations or were likely to attend meetings.

Although this paper has not extensively compared the views of the general public sample and the woodland owners' sample, the overriding view is that there are more similarities than differences. In fact, woodland owners were more concerned than the general public about the future of the forest and how it is managed. The main differences in opinion appeared when discussing how preserving the forests would be achieved.

Finally the recurring theme of the need for the protection of the forest for future generations reflects a deep appreciation and concern for Nova Scotia's forests. Woodland owners value their woodland, not only for the income it provides, but for its beauty, its wildlife, and its importance to the quality of life found in Nova Scotia.

**References**

Sanderson, L. et al. 1999. Public perceptions and attitudes towards forestry issues: Public opinion survey in central Nova Scotia, 1999. Nova Forest Alliance and Nova Scotia Agricultural College.

Sanderson, L. et al. 2000. Public perceptions and attitudes towards sustainable forest management: Central Nova Scotia, 2000. Nova Forest Alliance and Nova Scotia Agricultural College.

## **Appendices**

## Appendix A: Sample questionnaire

### Woodland Owners and the Forests of Nova Scotia

Thank you for completing the enclosed questionnaire. It will only take about twenty minutes of your time. Your response is important to understanding how woodland owners in Nova Scotia feel about our forests. At the same time, your participation in the survey is completely voluntary. Individual responses are kept in strictest confidence, and the results are presented only on a group basis. If you find any particular question a problem in some way, please feel free to skip it and go on to the next. We encourage you to write additional comments on any aspect of the survey. We would like to thank you in advance for your thoughtful consideration of the questions and for your quick return of the questionnaire.

#### **Part I Information and participation:** *the ways people like to participate in decision-making about forests*

1. Do you currently own 5 acres or more of woodland in central Nova Scotia?

- Yes → Please go on to question 2
- No → **There is no need to proceed further. In order to ensure that you do not receive other mailings from us, please return this questionnaire to us in the attached envelope. Thank you very much for participating in our survey.**

2. How **interested** are you in issues concerning the forests of Nova Scotia? (Circle **one only**.)

Very interested	Interested	Somewhat interested	Not interested	Don't know
--------------------	------------	------------------------	-------------------	---------------

3. How **informed** are you about the forests of Nova Scotia today? (Circle **one only**.)

Very informed	Somewhat informed	Not very informed	Not at all informed	Don't know
------------------	----------------------	----------------------	------------------------	---------------

4. Which of the following sources and media would you use to get information on forest issues? (Check (✓) **all that apply**.)

- | <b>Source</b> (the original source of the message)     | <b>Medium</b> (the means used to receive the message) |
|--|---|
| <input type="checkbox"/> federal politicians           | <input type="checkbox"/> radio                        |
| <input type="checkbox"/> provincial politicians        | <input type="checkbox"/> television                   |
| <input type="checkbox"/> local politicians             | <input type="checkbox"/> Internet                     |
| <input type="checkbox"/> government forestry employees | <input type="checkbox"/> field tours                  |
| <input type="checkbox"/> Elders                        | <input type="checkbox"/> newspaper                    |
| <input type="checkbox"/> forest industry employees     | <input type="checkbox"/> magazines                    |
| <input type="checkbox"/> forest-work contractors       | <input type="checkbox"/> pamphlets/flyers             |
| <input type="checkbox"/> forestry consultants          | <input type="checkbox"/> newsletters                  |
| <input type="checkbox"/> environmental groups          | <input type="checkbox"/> books/reports                |

- |  |   |
|--|---|
| <input type="checkbox"/> school teachers                 | <input type="checkbox"/> lectures/seminars  |
| <input type="checkbox"/> college / university professors | <input type="checkbox"/> workshops  |
| <input type="checkbox"/> woodland owners                 | <input type="checkbox"/> one-on-one meetings (in person, by phone, mail, or e-mail) |
| <input type="checkbox"/> professional foresters          | <input type="checkbox"/> other (please specify):                                    |
| <input type="checkbox"/> independent woods workers       |   |
| <input type="checkbox"/> Nova Forest Alliance            |   |
| <input type="checkbox"/> journalists                     |   |
| <input type="checkbox"/> forest associations             |   |
| <input type="checkbox"/> family, friends, and neighbours |   |
| <input type="checkbox"/> other (please specify):         |   |

5. Please indicate how much confidence you have in the following sources of information in Nova Scotia. (Circle the appropriate number for each information source.)

Source	No confidence					A lot of confidence					Don't know
	1	2	3	4	5	6	7	8	9	10	
federal politicians	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
provincial politicians	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
local politicians	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
government forestry employees	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
Elders	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
forest industry employees	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
forest-work contractors	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
forestry consultants	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
environmental groups	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
school teachers	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
college / university professors	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
woodland owners	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
professional foresters	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
independent woods workers	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
Nova Forest Alliance	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
journalists	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>

forest associations	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
family, friends, and neighbours	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
other (please specify)*	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>

\* \_\_\_\_\_

6. In the past year, have you taken any action to express your views and opinions on the use of Nova Scotia's forests? (Circle answer.)

Yes

No → **please skip the next question and go on to question 8**

7. Did your actions include any of the following? (Check (✓) **all that apply.**)

	Yes	No
discussing forest issues with friends, neighbours, co-workers	<input type="checkbox"/>	<input type="checkbox"/>
calling or writing to a politician	<input type="checkbox"/>	<input type="checkbox"/>
calling or writing to a government forestry official	<input type="checkbox"/>	<input type="checkbox"/>
calling or writing to a forest industry representative	<input type="checkbox"/>	<input type="checkbox"/>
attending a public meeting on forest issues	<input type="checkbox"/>	<input type="checkbox"/>
serving on a committee dealing with forest management	<input type="checkbox"/>	<input type="checkbox"/>
calling a 'phone-in' or 'talk-back' show	<input type="checkbox"/>	<input type="checkbox"/>
writing to a newspaper or magazine	<input type="checkbox"/>	<input type="checkbox"/>
attending a lecture or seminar related to forest issues	<input type="checkbox"/>	<input type="checkbox"/>
joining an environmental or conservation organization	<input type="checkbox"/>	<input type="checkbox"/>
donating money to a conservation or environmental organization	<input type="checkbox"/>	<input type="checkbox"/>
boycotting forest-related consumer products	<input type="checkbox"/>	<input type="checkbox"/>
attending a public rally or protest about a management issue	<input type="checkbox"/>	<input type="checkbox"/>
joining a forest association	<input type="checkbox"/>	<input type="checkbox"/>
calling or talking to a landowner	<input type="checkbox"/>	<input type="checkbox"/>
other (please specify) _____		

## **Part II Your woodland**

1. Please indicate how important the following are to you as reasons for owning woodland. Please check (✓) the appropriate box for **each reason**.

I own woodland ...	Very important	Important	Somewhat important	Not important	Not applicable
to give to my children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

for maple syrup production.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for commercial recreation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
because I inherited it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to preserve forest ecosystems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for the sake of future generations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for Christmas tree(s).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for my retirement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
as an investment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
as a location for my cottage or camp.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
as a location for my permanent residence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for wildlife enjoyment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to make a living.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for extra income (in addition to regular job).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to harvest firewood for personal use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to harvest firewood for sale.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
because the forested land is part of a farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for personal recreation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for timber harvesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for hunting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to protect water quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to harvest non-timber forest products (e.g. mushrooms and berries).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for public education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
for other reasons (please specify).*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* \_\_\_\_\_

2. Please check the statement that most closely matches your current situation. (Check (✓) **one only**.)

- I am using a formal (written) management plan for some or all of my woodland.
- I have a formal (written) management plan that I do not use.
- I do **not** have a formal (written) management plan and I **am not** interested in having one.
- I am currently developing a formal (written) management plan for some or all of my woodland.
- I do **not** have a formal (written) management plan but I **am** interested in having one.
- I have given careful consideration to the management of my woodland, but I do not have a formal plan.

3. Have you **harvested** wood from your woodland in the last three years?

- Yes → **please go to question 5**     No

4. If you have not harvested wood from your woodland in the last three years, under what conditions might you harvest in the future? (Check (✓) all that apply, then **proceed to question 8.**)

- if there were a financial emergency in my family
- if there were marketable timber
- if I could find a reliable contractor
- if other conditions applied (please specify) \*
- if wood prices went up
- to pay for my children's education
- if I had more time

\*

\_\_\_\_\_

5. Approximately how many cords of wood **and** acres of woodland have you harvested in the past three years?

\_\_\_\_\_ acres

\_\_\_\_\_ cords

6. Which method(s) of timber harvesting most closely describe(s) your harvesting practice over the past three years? Please indicate the percentage of your land that you harvested by each method. (Check (✓) **all that apply.**)

	Not Applicable	less than 25% of my land	25% - 50% of my land	51% - 75% of my land	more than 75% of my land
clearcut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a few trees here and there	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seed tree cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
commercial thinning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
salvaging dead or damaged trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
selection cut without prior marking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
diameter-limit cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
small patch or strip cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shelterwood cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

selection cut with prior marking of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
cut softwood and left hardwood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
partial cut (certain species only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other (please specify) *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* \_\_\_\_\_

7. If you practice clearcutting, what do you consider the maximum acceptable cut size? Check (✓) **one only**.

less than 5 acres     5-19 acres     20-49 acres     50-99 acres     100 or more acres

8. What are the top three factors affecting the likelihood that you will **sell** wood from your woodland in the future?

- 1.
- 2.
- 3.

9. Which of the following, if any, did you or a member of your household gather or harvest from the forest in the last three years? Please specify whether products harvested were for your own use, for sale, or both, and check the appropriate boxes according to whether these items were harvested or gathered from your own or other woodlands. Check (✓) all that apply. If you have **not** gathered or harvested anything, please tick this box  and **proceed to question 10**.

Product	from my own woodland			from other woodland	
	for own use	for sale		for own use	for sale
Sawlogs	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Firewood	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Pulp wood	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Game birds	<input type="checkbox"/>	n/a		<input type="checkbox"/>	n/a
Fur animals (mink, beaver, etc.)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Rabbits	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Deer, moose, or bear	<input type="checkbox"/>	n/a		<input type="checkbox"/>	n/a
Mushrooms	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Maple sap	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Berries	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Fiddleheads	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Boughs / brush	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Fish	<input type="checkbox"/>	n/a		<input type="checkbox"/>	n/a
Handcraft materials	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Christmas tree or trees	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Peat moss, black earth, or soil	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)*					
* _____	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
_____					

10. If you sold products from your woodland in the last three years, how reliant are you on the income derived from their sale? (Check (✓) **one only**.)

- I am completely reliant on the income from their sale.
- It is a significant part of my income, but not my only source.
- It is a small portion of my total income.
- I do not rely on income from my woodland.

11. If you sold products from your woodland in the last three years, who harvested most of the products? (Please check (✓) **one only**.)

- Myself and/or members of my family
- A contractor that bought stumpage
- A pulp mill company
- My group venture or woodlot organization
- A crew that I hired
- A contractor that leased the land
- A saw mill company
- Other (please specify)

12. Do you or any of your household derive income from non-timber activities such as sugaring, trapping, berry-picking, guiding, handcrafts, or recreation on forested land? (Circle **one only**.)

Yes                      No                      Don't know

13. Have you undertaken any of the following activities on your woodland in the **past** three (3) years, or do you have plans to undertake any of them in the **next** three years? (Please check (✓) each activity you have undertaken or plan to undertake.)

- | in the<br><b>past</b> 3<br>yrs | in the<br><b>next</b> 3<br>yrs |  |
|--------------------------------|--------------------------------|--|
| <input type="checkbox"/>       | <input type="checkbox"/>       | Preparation of formal management plan                |
| <input type="checkbox"/>       | <input type="checkbox"/>       | Preparation of self-designed management plan         |
| <input type="checkbox"/>       | <input type="checkbox"/>       | Setting aside areas that will not be cut             |
| <input type="checkbox"/>       | <input type="checkbox"/>       | Site preparation (preparing soil for planting, etc.) |
| <input type="checkbox"/>       | <input type="checkbox"/>       | Pesticide/herbicide application                      |

- Clearcut harvesting
- Fertilization
- Cutting Christmas trees
- Surveying or upgrading boundary lines
- Tree planting
- Removal of low quality trees, blowdowns, brush, etc.
- Thinning or spacing
- Selection cutting
- Fencing
- Subdividing any land parcel
- Road construction
- Improvements for wildlife (please specify)
- Improvements for recreation (please specify)
- Other (please specify)
- None

### **Part III Forest values and practices**

1. What does **sustainable forest management** mean to you? If you are **not** familiar with the term, please check (✓) this box  and **go on to question 4.**

---

2. How important is achieving sustainable forest management in Canada?

Very important	Important	Somewhat important	Not	Don't important	know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Do you think forest management in Nova Scotia is currently sustainable:

- |  |                          |     |                          |    |                          |            |
|--|--------------------------|-----|--------------------------|----|--------------------------|------------|
| a) as practised on private forest company woodlands? | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | Don't know |
| b) as practised on privately owned woodlands?        | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | Don't know |
| c) as practised on public (Crown) woodlands?         | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | Don't know |

4. The following statements reflect how some people feel about forests in Nova Scotia. Please indicate your level of agreement or disagreement with each statement. Please check (✓) the appropriate box.

<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Don't Know</b>
---------------------------	--------------	-----------------	------------------------------	-----------------------

Enough harvested trees are being replaced by planting new ones or by natural seeding to meet our future timber needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Properly applied, insecticides are an acceptable management tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmentalists go too far in trying to restrict logging.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forest companies should do more to protect the environment even if it results in the loss of some jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greater efforts should be made to protect Old Growth forests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Harvested areas should be allowed to regenerate naturally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that woodland that is not actively managed is wasted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would be willing to accept timber cutting restrictions on my own land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Legislation should be enacted requiring forest landowners to adhere to best forest management practices on their own land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More forests should be planted after harvesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most woodland owners in Nova Scotia don't know how to look after their forests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nova Scotia will have very little harvestable wood in 10-20 years.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental groups represent a majority of Nova Scotians when they address forest issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. The following are three things people value about Nova Scotia's forests. On a scale of one to ten, please rate how important you think these are.

	Not important					Very important				
	1	2	3	4	5	6	7	8	9	10
Economic benefits such as wealth and jobs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental benefits such as clean air and water and wildlife habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social benefits such as recreation and relaxation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate your level of agreement or disagreement with each of the following statements. Please check (✓) the appropriate box.

A problem affecting woodland owners today is...	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
a lack of knowledge of cutting methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
public perceptions of timber harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

too much pressure from society to protect the forest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
too much pressure to harvest wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
taxation of woodland income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of knowledge about forest regeneration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of knowledge about ecosystem management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of knowledge about wildlife management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
too much concern about private land management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of strong landowner organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of wood markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
too many regulations (red tape)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the low level of funding for forest management programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of knowledge about what wood products are worth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
low wood prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of financial incentives for preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the high cost of silviculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
too much wood being cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
too few good contractors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a lack of knowledge about how to choose a reliable contractor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
high interest rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
woodland property taxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the lack of a strong contractor organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
requirements for protected areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
high wood prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.a. Which of the following statements comes closest to describing your attitude towards clearcutting? (Check (✓) **one only**.)

- I am unfamiliar with clearcutting and do not have an opinion on it at this time.
- There should be no restrictions placed upon clearcutting.
- Clearcutting should be allowed only where suitable for the area and tree species.
- Clearcutting should not be allowed anywhere.

b. Do you have any comments on clearcutting?

8. The following statements reflect some different perspectives on forest issues in Nova Scotia. Please indicate your level of agreement or disagreement with each statement. Please check (✓) the appropriate box.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
The primary goal of forest management in Nova Scotia should be to produce quality wood products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protecting jobs in the forest industry is more important than protecting endangered species.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Some existing wilderness areas should be opened to logging.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The environment is threatened by consumer demand for forest products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The provincial government should not regulate private woodlot cutting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The most important objective of forest management should be to protect the environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The view of a forested hill is more valuable than the timber harvested from it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The forest industry is taking a long-term interest in maintaining a healthy forest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The forest industry represents a majority of Nova Scotians when it addresses forest issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Properly applied, herbicides are an acceptable management tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protecting jobs in the forest industry is more important than protecting the environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is sufficient wood in central Nova Scotia for all users including paper mills, saw mills, and domestic firewood cutters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is too little "designated" wilderness in Nova Scotia.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timber harvesting contractors should be strictly regulated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are making progress in Nova Scotia towards sustainable forest management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where forests are privately owned, society should not have any control over what the owners do with them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Woodland owners in Nova Scotia are good stewards of the forest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protecting jobs in the forest industry and protecting the forest environment are both possible in Nova Scotia.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scenic views are less important than the economic benefits of timber harvesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Society has an obligation to protect endangered species.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ownership of forested land does not give people the right to do whatever they want with it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The government should provide incentives for private landowners to establish protected areas on their land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of ATVs in public forests should be banned.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Please indicate how acceptable you feel the following forest management practices are in Nova Scotia. Please check (✓) the appropriate box.

Practice	Very Acceptable	Acceptable	Unacceptable	Very Unacceptable	Don't know
Using specialized equipment to prepare the soil for forest regeneration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using clearcuts to harvest timber on publicly owned (Crown) land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using clearcuts to harvest timber on privately owned land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using herbicides to control growth of unwanted vegetation to improve survival of planted trees on public (Crown) land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using herbicides to control growth of unwanted vegetation to improve survival of planted trees on private land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leaving clumps of trees for wildlife habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closing forest access roads to control illegal dumping of garbage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Converting sites from mixed-wood to softwood to increase timber production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using selection and other partial harvest techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using clearcuts to harvest dying or damaged stands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using clearcuts to harvest if the area is planted immediately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Using clearcuts to harvest if the area is allowed to regenerate naturally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using large equipment to harvest timber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cutting selectively to maintain wildlife habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using large harvesting equipment that is designed to reduce its impact on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Part IV Forest sustainability in Nova Scotia**

1. Do you consider any of the following threatened by current forest use? Please check (✓) **one box for each**.

	<b>Seriously threatened</b>	<b>Moderately threatened</b>	<b>Slightly threatened</b>	<b>Not at all threatened</b>	<b>Don't know</b>
Wildlife / fish habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waterways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Global environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ecosystems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rare plant species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Old Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Listed below are things that are sometimes seen as threats to our forests. Please indicate how much of a long-term threat you think each item is by checking the appropriate box.

	<b>Not a threat</b>	<b>A slight threat</b>	<b>A moderate threat</b>	<b>A great threat</b>	<b>Don't know</b>
Forest fires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Harvesting occurring faster than forest growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change or global warming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loss of forested land to development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current logging practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insects and diseases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The amount of recreation use in the forest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction of oil and gas pipelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Negative publicity about forest management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acid rain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of pesticide use in the forest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Too little planting of trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of regulation by government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public apathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clearcutting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Garbage dumping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of long-range planning for the future of Nova Scotia's forests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having fewer and larger forest companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Export of timber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inadequate forest management planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of protection of Old Growth forests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theft, trespass, and vandalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loss of forested land to urban sprawl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. On a scale of one to ten, please rate how committed you think the following people are to sustainable forest management in Nova Scotia, by circling **one number for each**.

	Not committed					Very committed					Don't know
	1	2	3	4	5	6	7	8	9	10	<input type="checkbox"/>
General public											<input type="checkbox"/>
Forest associations											<input type="checkbox"/>
Woodland owners											<input type="checkbox"/>
Environmental groups											<input type="checkbox"/>
Federal government											<input type="checkbox"/>
Forest companies											<input type="checkbox"/>
Provincial government											<input type="checkbox"/>
Nova Forest Alliance											<input type="checkbox"/>

**Part V The Nova Forest Alliance**

1. Had you heard or read about the Nova Forest Alliance model forest project before receiving this questionnaire?

- Yes                       No                       Don't know

2. Are you aware of any woodlot management programs available to assist woodland owners in Nova Scotia?

- Yes                       No

3. Are you a member of any of the following organizations for woodland owners? (Check (✓) **as many as apply.**)

- |  |   |
|--|---|
| <input type="checkbox"/> a Group Venture                                       | <input type="checkbox"/> a forest co-op                             |
| <input type="checkbox"/> a land trust  | <input type="checkbox"/> a woodlot owners and operators association |
| <input type="checkbox"/> a landowners association                              | <input type="checkbox"/> a forest fibre producers association       |
| <input type="checkbox"/> another forest-related organization (please specify)* | <input type="checkbox"/> an environmental or conservation group     |
|  | <input type="checkbox"/> none                                       |

4. Please indicate how much you know about the topics listed **and** if you are interested in learning more about each topic. Place check (✓) in appropriate box(es) for **each topic**.

<b>Forest Management Topics</b>	<b>I know a lot</b>	<b>I know some</b>	<b>I know little or nothing</b>	<b>AND</b>	<b>I'd like to know more</b>
even-aged and uneven-aged management					
harvesting methods					
tree planting					
encouraging natural regeneration					
different types of woodland planning					
using pesticides (herbicides, insecticides, fungicides, etc.)					
road building / maintenance					
boundary line maintenance					
sugar bush management					
growing Christmas trees					
forest regulations in Nova Scotia					
best management practices for woodlands					
<b>Ecosystem Management</b>					
managing woodlands for rare or unique plants					
managing woodlands for wildlife					
donating land to a conservation organization					
managing woodlands for fish habitat					
managing woodlands for bird habitat					
watershed protection					
managing Old Growth forests					

the role of woodlands in the global ecosystem					
<b>Recreation</b>					
improving woodlands for personal recreation					
developing trails					
developing backwoods campsites					
camp / cabin construction / rental					
public access to private woodlands					
managing woodlands for ecotourism					
<b>Other Topics</b>					
income tax and estate planning					
other (please specify) _____ _____					

5. Please indicate how knowledgeable about forest management you consider yourself. (Circle **one only**.)

Very knowledgeable      Knowledgeable      Somewhat knowledgeable      Slightly knowledgeable      Not at all knowledgeable

6. Please indicate how much direct experience you or members of your household have had working in the woods. (Circle **one only**.)

A lot of experience      Quite a bit of experience      Some experience      Little experience      No experience

7. Which three of the following do you consider the most important things the Nova Forest Alliance can do to improve the management of Nova Scotia's forests? (Check (✓) **three of the following**.)

- Promote reforestation
- Develop demonstration sites for best management
- Inform and educate the public
- Inform and educate woodland owners
- Advocate conservation
- Address environmental problems
- Educate young people on the importance of forests
- Promote a code of practice for contractors
- Promote sustainable forestry practices
- Other (please specify) \*
- Encourage owners to improve woodlots
- Promote a voluntary code of practice for forest
- Inform and educate industry
- Promote co-operation among stakeholders
- Provide information on woodland planning
- Improve forest management
- Provide information on market and job opportunities
- Survey the public on forest issues
- Increase forest research
- I am not familiar with the Nova Forest Alliance and cannot answer this question.



## **Appendix B**

### **Other woodland activities**

#### **Improvements for wildlife**

\*Audubon Cooperative Sanctuary System  
 browse for deer, grouse, and rabbits; young thickets for cover  
 brush piles for small animals  
 clean out brook for fishing  
 creating a pond  
 cutting small area every year  
 Ducks Unlimited  
 fish pond  
 gates for protection  
 harvesting done with upgrading habitat in mind  
 leave areas for shelter  
 leave thickets standing  
 make ponds  
 meet wildlife guidelines  
 nest boxes, ponds  
 no clearcutting  
 plant trees, shrubs for berries, birds  
 planted berry bushes, built brush piles  
 planting clover fields  
 planting grain for birds  
 planting of climax species in patch cuts of inferior trees  
 planting trees and shrubs for food  
 pond  
 pond and alders  
 posted land "no hunting"  
 promotion of hardwood growth  
 provide shelter for animals  
 providing cover  
 pruning and grafting apple trees  
 road to lake for boating  
 stream improvement  
 thinning  
 thinning so that deer not driven onto roadways  
 tree spacing  
 trees on road to protect from hunters  
 tried to get D.V. to do surveys  
 unspecified (eight responses)  
 want to find best way to maintain wildlife habitat  
 water ponds  
 wetland management, nest boxes, etc.

#### ***Improvements for recreation***

allowing access  
 camp  
 clearing lakefront  
 clearing old logging roads for horseback riding  
 cross country ski trails  
 cross country trail  
 cut paths  
 developing trails for ATVs  
 for hunting, leaving cover  
 golf course

hiking trails (two responses)  
pond  
ponds  
road improvement  
roads for Christmas tree u-pick  
son may build cottage  
trails (two responses)  
unspecified (five responses)  
walking trails (three responses)  
walking trails, footbridge

**Other**

apple trees planted  
commercial thinning  
ditching edges of woodlots  
land clearing  
negotiating with municipality for placement of water main  
plan to do some (unspecified type) harvesting  
possible construction of cottage  
reclaimed fields for haying, cleared bushes and alders  
road upgrade  
unspecified

## Appendix C

### Comments on clearcutting

a good forest management tool
a good harvesting method; should be used when land and forest dictate, and have a restricted size
a most disturbing, destructive practice. Our future is jeopardized where natural habitat & moisture retention are concerned. There is nothing short of countries devastated by war that is as sickening to look at as a clearcut area.
acceptable and misunderstood practice
After clearcutting, clean site up and plant within a short time.
against clearcutting and strip cutting; doing it within 100' of adjoining woodlots is like throwing garbage on your neighbor's land; these methods should be firmly regulated and replanting should be mandatory within a twelve-month period
although the most economical method of harvesting, it is short-term-effective only; not the best method for preservation of the land, or for wildlife or companion plants, and it does not have the sanitizing effect of forest fires
an absolute blight on the land, done by greedy people who have no concern for the environment or what is going to be left for future generations
Any clearcutting should have to be replanted.
Areas should be cleaned up after the cut.
As long as shade and seed trees are left, and it's not done on large acreages unless buffered by uncut areas, it is quite suitable to harvest trees economically. It should not be done on steep slopes near waterways where it will cause erosion.
Big company clearcutting is detrimental to the environment; heavy equipment cuts deep tracks that carry rainwater and mud from hillsides into our lakes and streams.
Call me.
careless use of clearcutting machinery that destroys everything in its path, such is the "tree farmer"!
causes erosion, replanting should be done as soon as possible
Certain areas have to be clearcut to get old, trashy wood out of the way so that it can be replanted or regenerated naturally.
Clearcuts should be kept small. Clearcutting and then planting doesn't allow the more natural, stronger seed bed to grow. Planting is great when necessary but I think we are going to grow too many forests in the future.
Clearcuts should be reseeded.
Clearcuts sour the land and destroy wildlife habitat, runoff smothers the streams for fish, & if not replanted, the area is taken over by the dominant species of tree; possibility of harvesting sawlogs in the next eighty years is nil.
Clearcutting allows no chance for forest regrowth, and upsets the ecological balance of nature for animals and plants.
Clearcutting along with replanting should be one option.
Clearcutting can, in some cases, be the best method of cutting, provided a new crop is established and proper guidelines are followed.
Clearcutting destroys natural habitat for birds and animals. Where will these animals go? Into our yards: I've seen lynx, fox, coyotes, and deer in the daytime. This worries me.
Clearcutting has a negative impact on ecology, and introduces future problems like diseases and insects, if not closely managed. NS forests will regenerate if cuts are kept small. Selective cutting is the best way to manage forests.
Clearcutting if done properly and in the right place is a silviculture treatment.
Clearcutting is a blight on the land. We should be ashamed. It turns the forest into an unnatural plantation, susceptible to disease and the whims of markets.
Clearcutting is a good harvesting tool; it's the size of clearcuts that is a problem.
Clearcutting is a good tool, if used right. I think that clearcuts should be limited in size and location; no need for large clearcuts - they should be banned.
Clearcutting is a suitable system for degraded forests. Of course, it degrades them even further. So if we want to improve our forests, we must choose alternative systems that lead to more valuable forests. It's not complicated.
Clearcutting is a valid, but grossly overused, management tool.

Clearcutting is a worse disaster than a forest fire.
Clearcutting is all right if it is done properly, leaving strips that won't blow down, young growth along roads to preserve scenery, replanting with a mixture of trees, rather than only one kind of tree in huge areas.
Clearcutting is all right if the land is replanted afterwards to restore the property.
Clearcutting is an acceptable method of harvesting, especially in areas of mature, diseased, and insect-damaged stands.
Clearcutting is an effective management tool and the only restriction should be size - not more than 50 acres.
Clearcutting is an end to the forest.
Clearcutting is another management tool that has its place when used properly. Some lots are better clearcut and replanted.
Clearcutting is destroying the land, and is a quick, easy way for some people to make money.
Clearcutting is necessary under some circumstances, salvaging diseased trees, where over-mature stands will fall down anyway, or to establish a new growth cycle without high-grading.
Clearcutting is not good for the environment. It does not benefit wildlife. It can ruin the look of an area. I feel that forests are very valuable to our province and country, and not just for monetary reasons.
Clearcutting is okay where suitable for the area and tree species, as long as it is replanted as soon as possible.
Clearcutting is raping our forests. Wildlife have less shelter, global warming increases with less forest, trees next to clearcut areas blow down, etc. Money seems to rule over common sense in these matters.
Clearcutting is so ugly, scaring away all hope for wildlife, retention of water on our land, and when those big machines finish with the ground, even a tree would hesitate to relocate there. Don't forget our tourists, who come to see beauty.
Clearcutting is the most destructive thing happening to the land, and should not be allowed. We need to bring horses back into the woods. This would create a new industry in itself.
Clearcutting is the ruination of our forests.
Clearcutting is useful in moderation and when a stand needs to be repaired.
Clearcutting leaves too much good wood, and it ruins the forest.
Clearcutting looks terrible, but I don't know enough about it to know how quickly the forest recovers, and what benefits there are to clearcutting.
Clearcutting of over-mature woodlots cannot be helped. Forest fires and disease usually occur in our mature stands.
Clearcutting seems to be the only way to go with the machinery of today. Now it only makes sense (to some people) to strip the woods. It will have to grow up new. Some places, it just grows. Some places, it has to be planted.
Clearcutting seems to work fine in small areas. What I have cut has regenerated well, but I think that large areas do not regenerate as well, since the land dries out and the water table drops.
Clearcutting should be allowed by permit only. Some areas, notably in NB, have been clearcut, replanted, managed, and show signs of becoming a healthy forest for the future.
Clearcutting should be allowed when fire, disease, old age, etc. destroys the forest, like the spruce budworm in Cape Breton, or the tussock moth in other counties
Clearcutting should be done in areas where the trees are old, small, and close together.
Clearcutting should be followed immediately by replanting and prevention of erosion.
Clearcutting should only be done if replanting follows.
Clearcutting should only be done in small amounts, with areas left to serve as wind breaks and shelter. In areas where roots are very shallow, clearcutting should be practised.
Clearcutting should only be done where poor species are growing or on over-mature stands: replanting should be done on sites where poor species had been growing, not wholesale re-planting.
Clearcutting small areas is not a bad thing. The stand growing at one rate will need to be harvested at the same time. If you leave a few big ones, in 10-15 yrs., the younger ones will be smashed down.
Clearcutting stands of red spruce should only be done if the average diameter is 18" or larger.
Clearcutting when the ground is soft with heavy machinery is like the draggers fishing: not only is young growth destroyed, but the environment for new growth is too.
Clearcutting will work if the harvest is done when the ground is frozen, with lighter machinery than is used today. If done right, it works. If you screw with nature we all lose in the end.
Decisions on clearcutting have to be made for each separate location, with concern for species, age,

environmental effects, soil conditions, wildlife habitat, erosion, and effects on water supply.
destroys forests and upsets wildlife and beauty
destroys our forest beds; it should be hand-cleared like it was in the old days so that the forest is not destroyed, and cleaned and cleared so that the new growth can continue to grow and be healthy
destroys the beauty of the land, and leaves an eyesore for many years; destroys other natural resources (animals, rivers, etc.)
do not plan to use it in the future. Our governments in the past have "given away" huge tracts of land to pulp companies - which were clearcut - depleting much of the province's forest reserves, without replanting. It will never be the same.
don't agree with it unless an expert deems it necessary and only in extreme cases
ecosystem and wildlife habitat either destroyed or severely restricted; not pleasing to the eye; soil erosion problems; regrowth of undesirable species
environmental concerns: fresh water, air, erosion, etc.
extremely unsightly; should be banned; minimum 200 ft. from all highways, brooks, rivers, lakes, shores, cottages, houses; clearcutting should not be allowed past daylight hours for the sake of humans and wildlife
Far too many woodlot owners and/or cutters have no regard for managed cutting plans; they clearcut for easy and fast money; it must be policed very, very soon.
forested land is all different - clearcutting is right for some and not others
Government should stop large forest companies from clearcutting; they leave nothing but "moonscapes" and are in it only for the money. It is a destructive and short-sighted practice.
Hants Woodlot Assoc. convinced me to clearcut a mature stand, and the sight left made me feel I'd violated the forest. They tell me natural regeneration will change it in 5-6 years. I hope they're right. I would have preferred selective cutting.
I am strongly against clearcutting, because no-one can make me believe that by cutting all trees down and replanting one species where there was a mixture of hardwood and softwood is natural. No animal can live in a stand of spruce or jack pine.
I am very certain that having large tree farmers operating in our forests 24 hours a day only hastens the demise of our forests, and though beneficial to large companies such as Bowater and Irving, it does little to help local employment.
I disagree strongly with clearcutting. It destroys a significant part of Nova Scotia's best asset - natural beauty.
I do alot of hunting and fishing, and it bothers me to see beautiful tree stands destroyed and the mess of brush left behind.
I do not approve of clearcutting.
I do not believe that clearcutting is a way to maintain a sustainable woodlot.
I do not like clearcutting, because they leave such a mess, and they do not leave anything small to grow.
I do not like clearcutting. The forest is gone, the birds and animals are gone for years to come. The little strips left do not protect the waterways. It is very unsightly to see these places through the strips left along the highways.
I do not like it. The land is cleared and much good wood is wasted, many young trees destroyed; great damage is done to wildlife and waterways.
I do not like to see contractors come in and clearcut large acreages and just walk away with the profits. Tree replacement should be required, either by the contractor or the owner. More lanes for wildlife, regeneration, and shade
I do not like to see this practice. I fear the ground will never recover from the water loss.
I don't agree with it, because what they don't cut down, they destroy with their large machinery.
I don't have a problem with clearcutting, as long as regeneration is soon to follow; otherwise, replanting should be mandatory.
I don't have any problem with small clearcuts (under 20 acres), or strip cutting (under 200 ft.).
I don't understand why everything has to go if the land is not being cleared for farming. It leaves the land so barren, takes a long time to re-grow, and doesn't leave anywhere for the animals. It may contribute to erosion in places.
I feel we need wood for many things, but harvesting is happening too fast. The machinery is so quick. If doing it with a power saw and replanting the woods afterwards, I'm okay with it.
I have been clearcutting small areas all my life. Some of these areas have regenerated, been thinned, and later commercially thinned.

I have been travelling in the woods all my life, and I have never seen a clearcut that grew back to look even remotely like it did before it was cut. In short, clearcuts are a mess and do not work.
I have no problem with clearcutting if the area is re-seeded, seed trees left, and the property managed in the future (thinning, spraying for insects, etc.).
I have observed it over the last decade in southern and northern Nova Scotia. It's disgusting. Presently it's going on at a rate that can never be sustained. Take a small plane and fly over - see for yourselves.
I have seen what it has done to our property in terms of growth since ours was done over 20 years ago. Clearcutting is being done now all around us, and it is leaving the land in a mess of mud and broken branches, not worth anything for man nor beast
I know some areas are a sight from what I've been told is clearcutting.
I live in an area where a lot of clearcutting is done, and I can tell you from the looks of the countryside, it is a very unappealing practice.
I look around the countryside and see bad spots where once there were beautiful forests.
I think clearcutting is suitable for some forests where the timber is mature and the land is to be replanted or will reseed on its own quite quickly.
I think it is essential from an economic point of view, and in most cases if you cut half of it, the other half will blow down anyway.
I think it is very unfortunate that the laws were changed, permitting clearcutting. In Hants county alone the forests look like war zones. I think the interest in our forests is coming far too late.
I think there should be restrictions on clearcutting prime young stands of spruce, and more harvesting of over-mature balsam fir, a product of poor quality and low price.
I understand that some clearcutting is not necessarily detrimental, but I have no confidence that greedy and irresponsible industry, woodlot owners, or gov't can or will properly manage this.
I will admit that I was strongly against clearcutting, because I was misinformed by "environmentalists": each area must be looked at on its own merits.
I would consider clearcutting followed by re-planting. I have seen too many ugly examples of clearcutting around this province and it is terrible to see the destruction caused.
If a person clearcuts an area, they should return in the second and fifth year to thin the area, cutting brush and some, not all, of the hardwoods. This would create work, a mixed forest, and shelter for animals and birds.
If clearcutting has taken place, the area cut should be as small as possible to prevent wind damage to the surrounding trees, and area should be replanted as soon as possible
If done properly in areas where forests are over-mature, and over smaller areas, clearcuts can be the way to go. However, I have seen areas where acres of small spruce had been cut in order to salvage a few dead fir.
If regeneration has started and trees are beginning to regress in wood quality, clearcutting must be done.
If that's the way the contractor I want to do mine does it, fine.
If you clearcut an area, after a few years you have to do some silviculture, or you will end up with worthless woodland.
In 1996-7, a contractor cut everything on my land, took the best, and left the rest in the woods to rot. Years ago, nothing was wasted. I don't go along with the use of large machines in the woods. They destroy young growth.
In areas where clearcutting is done, environment and animal habitat should be major considerations. There should be restrictions on cutting near roads, rivers, ponds, etc.
In certain conditions it is an acceptable procedure, if kept small.
In many cases I think it is good as new growth will all be the same age.
In some places clearcutting is the only way to cut, when all of the trees are of a size to be cut and leaving some will just result in blowdowns.
It's destroying our air environment - trees help to protect us from germs.
It's okay as long as it is followed up by replanting.
It's pretty stupid. No effort is ever made to chip the trash. It hurts the watershed. It encourages herbicide application to control colonizing species. It destroys wildlife.
It's really a question of clearcut size.
It can and is used to slow down disease and insects in over-mature stands that would otherwise go to waste. Most of our wood is balsam fir and red spruce that are short-lived tree species.
It destroys our whole ecosystem. The practice should be stopped at once.

It has a purpose, if done right and provisions are made to prevent soil erosion, maintain water quality, and plans for reforestation - a logical management decision rather than rapping.
It is devastating to the land, probably due in large part to irresponsible contractors. If there is clearcutting, it should be done in small strips and only when weather and soil conditions are favorable. Selective cutting must be encouraged.
It is lazy and lacks any consideration for wildlife and for our children.
It is nice to see planting of trees in an area where clearcutting has been done.
It is ruining our forests, as the little trees are not left.
It is sometimes necessary, e.g. to expand farm fields.
It scares me to see the way our forests are being clearcut, and I think the only reason is greed and ignorance of what can happen to our province if this continues. They are not leaving anything for future generations, and they don't seem to care.
It should be selective, in limited sized patches, and it should not be done within 100 feet of roads.
It should never be allowed.
It should not be done.
It will eventually defoliate the province; for the benefit of foreign-owned corporations.
Large clearcuts are a problem that no-one wants to talk about in the forest industry, because most people that are against clearcutting have no other plan for harvesting. We can't let the forest rot and fall down because clearcutting doesn't appeal.
leaving a big mess
legislate a ban on clearcutting
long term effects on wildlife; replanting
means plain rape of all growth in most instances
More effort should be made to save the little trees that can still grow instead of driving over them.
more shelterwood cuts and natural regeneration would help
must be aware of sight planes; shelter strips next to roads a must; an appraiser knocked 20% off value of 300AC for a 5AC cut!
My biggest problems with clearcutting are looks, wildlife, and exploring wooded areas and small streams and brooks. I don't think laws are followed on how close to cut to streams.
My idea of clearcutting is for small areas up to 20 AC only. These should be planted in 3 years at no cost to woodlot owners. Larger areas than 20AC should be strip-cut to allow protection and food for wildlife.
need more public education on the need for clearcutting in certain areas - it should not be damned, as seems to be the case
No clearcutting should be permitted in NS, as the surface is not suitable for this kind of machinery.
no problem with clearcutting if it is diseased or trees have grown to their limit
not against clearcutting if wood is mature and there is little damage (erosion)
not fit to print
nothing left for the next generation; not enough money put back into replanting; shouldn't be allowed to clearcut without replanting
NS forests are too quickly disappearing and not regenerating or being replanted because of greedy landowners and more greedy contractors.
okay in nearly pure balsam fir stands, on Cape Breton barrens, in white spruce stands where regeneration doesn't follow naturally, on bedrock, or over-mature stands of softwood which will blow over after selective cutting
On the areas I had clearcut, a very good reseeding is occurring naturally. It's coming back mainly in spruce.
only in approved situations
only on decaying trees
only shallow-rooted softwood please
only where mandatory, such as in twinning hwy 101, sub-division development, etc.
Please stop.
Pure stands of balsam fir should be clearcut, but not more than 50-100 acres. Old pasture white "cat spruce" should be clearcut. Steep slopes should never be clearcut.
Put a stop to it.
Recently several landowners in our area sold forest products to large contractors. It has resulted in the devastation of those properties. The forest floor is heavily damaged, leaving litter and no shade.
Reforest the area, or study the ecosystem to be sure that the area will re-forest on its own.

Replanting should be compulsory
required in a good many cases to salvage dying fir
Reseed the clearcut area.
Rotting or diseased trees should be clearcut and replanted to save whatever wood is salvageable, but some areas in our woodland are now being clearcut when they are just starting to grow.
salvage and evenage should be considered
should be replanted as soon as possible
should be very tightly controlled and replanting required on every clearcut
should never be allowed
should not be allowed
should not be allowed on Crown land or areas over 20 acres
should not be done in certain areas
should only be cutting mature trees; this would allow for a continual harvest, and maintain ground moisture and habitat for wildlife
shouldn't be allowed to cut a tree under 6" in diameter
Sick! It destroys wildlife habitat, ruins brooks and rivers, and will eventually affect air quality.
Size of clearcuts does not matter. What is left does; i.e. small islands of trees in a huge cut are okay.
small area to control erosion, wildlife, fire danger, regrowth (sic)
So much of Nova Scotia has been high-graded and hacked at for so long that sometimes clearcutting is the only thing to do, but if the forest site offers any other options, clearcutting would be my last choice.
Some areas need clearcutting, but other areas need to be protected.
Some areas need to be clearcut and replanted, but it should not be done over a large area.
Some areas require clearcutting and replanting.
Some forest stands need to be clearcut, but clearcutting is not necessary in all stands as is being done when companies buy stumpage from woodlot owners and clearcut the whole lot.
Some stands are very susceptible to wind, and in some cases clearcutting is the only way to protect against wind damage.
sometimes appropriate, sometimes not
Sometimes it has to be done.
The brush should be left in the cut for new growth shelter.
The last time I flew over Cape Breton the forests were cut to a short distance from the roads to make it appear that there had been no clearcutting going on.
the proper cut in the proper place
The size of clearcuts should be restricted.
There are areas of forest that are over-mature and are not mixed age stands, where there is no alternative but to clearcut. This will bring about regeneration or planting that will enhance quality forest for the future.
There are areas where it is the only viable method, and it should be incorporated into an overall silviculture program.
There are places where mature timber should be cut, but at least on my property not every living tree must be cut. Over 5 acres of clearcut makes it difficult to reseed and the ground has no protection for seedlings.
There should be a percentage of healthy trees left for natural re-seeding and to protect the soil from erosion.
There should be more consideration taken when cutting around lakes. Take big trees with care close to the lake, and leave 10" and under 300' from the lake. I have seen some lakes destroyed by clearcutting.
They are needed in certain areas. We don't believe in large clearcuts, only clearing an area that can be naturally seeded from neighboring seed trees. The amount of wind in an area must be considered.
to allow for farm land; where canopy of mature trees is too heavy for young trees to grow
to me it's bad forest management and hurts the environment
too few clearcut areas are being replanted with proper tree species
too much brush left - a potential fire hazard
too much done
Too much has been done. NS's forests are being depleted.
Too much of it is going on at present.
totally against clearcutting
Unfortunately, what will replace clearcut trees is a plantation, not a truly natural forest. To me,

clearcutting is completely inconsistent with the vision of most Nova Scotians that this is an environmentally pristine province.
We are appalled by clearcutting in Hants Co.: much environmental damage, damage to habitat, disgusting to the eye, and no air to breathe. Many landowners cannot pay exorbitant inheritance taxes and have to clearcut to pay the taxes.
What is the distinction between a clearcut and a patch cut? As suggested in #7a, clearcutting is applicable (ecologically) to a very small number of forest types in the Acadian forest of NS (e.g. balsam fir in the Cape Breton Highlands).
When you drive our highways it is an eyesore.
Where clearcutting takes place, more effort should be taken to protect new growth, and the area should be replanted within one year.
where regeneration is not good, tree planting should be encouraged
Who is to say that cutting all this fir and white spruce is the answer? The forest, as some of us know, is complex. The industry is having trouble making ends meet, and works on a one-year time frame. Going larger does not always mean better.
With the use of the "state of the art" mills today, I truly believe that our forests will end up like the fishery. There are few 40lb. cod, and there will be no 40' trees. We are cutting anything 10' long with a 3" top.
You should not be allowed to cut strips, because they leave timber that blows over.