

Westwind Forest Stewardship Inc. 74 Church St, Parry Sound, Ontario P2A 1Z1
Phone 705 746 6832, info@westwindforest.ca www.westwindforest.ca

High Conservation Value Forest in the French Severn SFL

An assessment of forest values and
their conservation in the French
Severn SFL from a global, regional
and local perspective based on the
Forest Stewardship Council's
Principle 9

Edited October 25, 2006

Tom Clark

Version 1.3

Executive Summary

A 'High Conservation Value Forest' assessment undertaken for the French Severn Forest in accordance with Principle 9 of the FSC principles and criteria and the National Boreal HCVF Framework for Canada resulted in the following HCV designations (Shaded entries indicate changes from previous reports):

Category 1

- | | | |
|----|----------------------|--|
| 1. | HCV: | Massassauga Rattlesnake
Red-shouldered Hawk |
| | Possible HCV: | Wood Turtle, Eastern Hog-nosed Snake, Fox snake
Northern Brook Lamprey, Butternut, Southern Flying
Squirrel, Rugulose Grapefern, Spotted intergreen,
Auricled Twayblade, Drooping Bluegrass |
| 2. | None. | |
| 3. | HCV: | White-tailed deer wintering areas
Moose aquatic feeding areas
Heronries |
| | Possible HCV: | Waterfowl staging areas |
| 4. | None | |
| 5. | None | |
| 6. | HCV: | Parks and Candidate protected areas from Living Legacy
process |

Category 2

7. **None.**

Category 3

- | | | |
|-----|----------------------|---|
| 8. | None | |
| 9. | HCV: | Late seral stage red and white pine
Late seral stage Hemlock |
| | Possible HCV: | Undisturbed late seral stage tolerant hardwood forest |
| 10. | None. | |
| 11. | None. | |

Category 4

- | | | |
|-----|--------------|------------------------------------|
| 12. | None. | |
| 13. | HCV: | Provincially Significant Wetlands. |
| 14. | None. | |
| 15. | None. | |
| 16. | None. | |

Category 5

- | | | |
|-----|----------------------|---|
| 17. | HCV: | Great Lakes Heritage Coast
Major Water bodies of Cultural or Historic Significance
French River, Big East River, Magnetewan River |
| | Possible HCV: | Areas adjacent to Cottage Lakes; Heritage, tourism and
recreation trails |

Category 6

- | | | |
|-----|-----------------------|------------------------------------|
| 18. | Possible HCVF: | First Nation Values, as identified |
|-----|-----------------------|------------------------------------|
-

Table of Contents

Overview	6
Purpose.....	7
Methodology	7
Toolkit.....	7
Consultation.....	8
Thresholds: Categorization as HCV, not HCV or <i>Possible</i> HCV	9
2006 HCVF Report Update	10
Phase 1: Process for assessing for the presence of HCV attributes.....	11
Category 1) Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values	11
Category 2) Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance	26
Category 3) Forest areas that are in or contain rare, threatened or endangered ecosystems	26
Category 4) Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)	31
Category 5) Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).	34
Category 6) Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).	38
Phase 2: Managing HCVF attributes	41
Phase 3: Process for Monitoring	49
Conclusion	49
References.....	50
Acknowledgements	51
Acronyms	52
Appendices	57
Appendix 1 Principle 9 and the Definition of HCVF.....	57

Appendix 2 List of Resource Management Guides for Ontario and a figure showing the evolution of the guides.	58
Appendix 3 Species Ranking.....	60
Appendix 4 HCVF Consultation report 2005 update.....	63
Appendix 5 Excerpt OMNR First Nation Consultation report.....	65
Appendix 6 Maps: Titles, Format and Location	67

List of Maps Location and format described in Appendix 6 Maps: Titles, Format and Location.

- Map 1 Ontario Living Legacy Sites, Proposed Sites Parry Sound MNR 67
- Map 2 Rare Species occurrences generic information from Natural Heritage Information Centre 67
- Map 3 Southern Flying Squirrel, Peregrine Falcon, Monarch Butterfly; generic NHIC information 67
- Map 4 Great Lakes Deep Water Sculpin, Branched Bartonia, Least Bittern, Northern Brook Lamprey, Engleman's quillwort generic NHIC information 67
- Map 5 Red-shouldered Hawk, Red headed woodpecker generic NHIC information 67
- Map 6 Cerulean Warbler, Fox snake, generic NHIC information 67
- Map 7 Eastern Massasauga Rattlesnake, Eastern Hognose Snake, Shortnose Cisco 67
- Map 8 Five lined skink; Wood turtle; Spotted turtle generic NHIC information 67
- Map 9 French Severn Forest Moose Aquatic Feeding Areas and Deer Yards from NRVIS 67
- Map 10 World Resource Institute "Intact Forests" 67
- Map 11 Old White Pine, Red Pine and Hemlock stands in the FSF 68
- Map 12 French Severn Forest Cultural Heritage Sites 68
- Map 13 French Severn Forest Fire History 68
- Map 14 Enduring Features 68
- Map 15 Important Bird Areas 68

List of Tables

- Table 1 Thresholds for HCV non HCV and possible HCV – a précis of Westwind's interpretation of toolkit questions for the FSF. 10

• Table 2. NHIC Species List for MNR District PARRY SOUND.	12
• Table 3 NHIC listed species (question 1), with annotations.	13
• Table 4 Featured species designated by in FMP as part of forest management objectives.	20
• Table 5 Focal species (Question 4 Regionally significant species).	22
• Table 6 HCV listing from question 4 regarding species at the edge of the natural range	24
• Table 7 Ranked vegetation communities identified in Parry Sound District (NHIC 2004).	27
• Table 8 Forest types that have declined (Question 9).	28
• Table 9 HCV listing from question 11 related to fragmentation	29
• Table 10 Basic Services of Nature assessment for the FSF (Category 4).	31
• Table 11 Known provincially significant wetlands in the FSF.	32
• Table 12 Economic and cultural considerations for HCV analysis.	36
• Table 13 Generic descriptions of First Nation and aboriginal values.	39
• Table 14 Management Prescriptions and monitoring for the selected HCV on the French Severn Forest.	42

Overview

Westwind Forest Stewardship Inc. manages the French Severn Forest (FSF) under the authority of a Sustainable Forest License (SFL) granted by the Government of Ontario. The FSF is certified by the Forest Stewardship Council (FSC) which requires the managers complete an assessment of High Conservation Value Forest (HCVF) using the definition of FSC Principle 9 (Appendix 1). There are six key attributes of a HCVF:

- Forest areas containing globally/nationally or regionally significant concentrations of biodiversity values
- Forests containing globally/nationally or regionally significant large landscape level forests
- Forest areas that are in or contain rare, threatened or endangered species or ecosystems
- Forest areas that provide basic services of nature in critical situations
- Forest areas fundamental to meeting basic needs of local communities (subsistence, health)
- Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities)

Two documents were useful in guiding this report. WWF Canada (2002) produced a "toolkit" which is a series of questions designed to ensure that all of the potential HCV attributes in the Canadian context are considered. Proforest (2002) produced a draft version of this toolkit that is a framework for producing national toolkits. In this report we have used the toolkit that is published in the FSC National Boreal Standard (2004, Appendix 4 of that standard), which is the latest version.

Understanding HCVF on public land in Ontario requires understanding of the Ontario's current approach to non-timber forest values. Ontario forest policy addresses a wide range of values using policy documents, or resource guides for special values (Appendix 2 List of Resource Management Guides for Ontario). The role of the FSC HCVF process in the FSF is to ensure that the regulated provincial planning and forest management system meet a global standard. There is no intention of revising the current values lexicon, which is quite mature in Ontario. The public consultation process will be based on the use of local terminology rather than the FSC terminology. It is the responsibility of the managers to ensure that the full FSC meaning of HCVF is conveyed to the forest management planning (FMP) process. Although this report will be public, it is not intended for wide distribution to the public.

Westwind Forest Stewardship Inc. regards all of the FSF forest to have conservation value. Environmental values are often prominent in conservation, and they figure prominently in this HCV analysis. But also, by definition, a forest has "high" conservation value when "local communities use the forest for their basic needs or livelihoods." This is no doubt the case for most of the FSF. This forest has been the mainstay of loggers, trappers, tourism establishments, and outfitters, resort owners for over a century. For some of our native communities, this has been so for much longer. The questions in the Proforest Toolkit, focused at the international level, cautiously suggest that if indeed people do depend on the forest for livelihood, then some consultation may be required. This is never an issue in the FSF –law and common sense require ongoing consultation, even though compromise and difference of opinion are routine. It follows that the FSF managers were very interested in the Proforest toolkit which discusses the importance of distinguishing between HCVs and non HCVs:

“Unfortunately, in reality there is seldom a clear division between ‘important’ and ‘critical’. Social and ecological values fall along a continuum of gradually increasing importance... it is likely to remain challenging because in the end, the exact location of the cut-off point will often be subjective”

In reality, especially on large public forests, managers do not have the option of treating any part of the forest in a less than optimal way. Financial resources are allocated to optimally address all values; hopefully these meet the management requirements. FSC's HCVF approach provides guidance to the FSF managers in identifying the FSC requirements. As the Proforest Toolkit points out:

Each Identified value should be properly managed. For FSC this should be done as part of the requirements for Principles 1-8.

These considerations mean that in assessing the FSF HCVs, the managers have been quite inclusive in their approach, in keeping with the FSC P&Cs and the precautionary principle. Because of the sensitivity around HCVs, “netting down” of HCVs was the main challenge of this report. Westwind and the OMNR biologists and planners and foresters responsible for HCVF do not claim that the prescriptions and approaches are perfect, but they have been thoughtfully prepared, and are operationally sound. The managers are always open to reconsidering any of the approaches to HCVs.

The FSF is a large forest, publicly owned and, by Canadian standards, intensely used by the forest residents and the large urban populations mainly to the south. The scale of the forest alone pushes the requirements for HCVF analysis to a high level as described by the Proforest toolkit (Section 2.1 The issue of scale).

The protected areas network in the FSF is also nearly complete, so it is not anticipated that HCVs will be a prime source for future parks, conservation reserves or other protected areas.

Purpose

The purpose of this report is to fill out the review of HCVF started after the initial work by McMartin (2001). McMartin's report was a preliminary assessment of the current state of information about HCVF in the FSF, and laid the groundwork for a plan to implement the full requirements of FSC over the next few years. McMartin does not offer management prescriptions in response to HCVF areas or attributes, but highlights those that require special consideration by Westwind Forest Stewardship Inc. His report precedes either the Proforest Toolkit, or the National Toolkit. In order to provide HCVF management prescriptions, Westwind, in partnership with OMNR, WWF Canada, and some other partners has collected part of the resource information that will be required in order to prepare a template for HCVF planning. The plan included in this report is the first attempt at outlining the steps necessary for careful management of HCVs. Comments and suggestions are welcome at any time and should be directed to Westwind.

Methodology

Toolkit

Basically, the toolkit provides a flowchart of the process for assessing HCVF. This is reproduced in Figure 1. There are three phases outlined that follow the FSC P9 requirements and the Proforest Toolkit as well. These are basically:

- 1) Assess presence of HCVs (P&C 9.1 and 9.2);
- 2) Set objectives and strategies to maintain (P&C 9.3);
- 3) Monitor (P&C 9.4). Heading levels in this document reflect the steps in this process.

The Proforest toolkit has a pre-assessment step for filtering HCVs and determining potential. We have gone directly to the full assessment using the WWF toolkit. This process is depicted in Figure 2 in the WWF toolkit (WWF2002).

Within the first phase a list of questions are provided by the toolkit to determine whether individual attributes are HCVs. The following sections answer these questions, or come to a conclusion that a species is HCV. The FSF managers, with some expert consultation, have defined thresholds for each value, for designating a High Conservation Value. Thresholds are levels, numbers, types or locations. The Proforest toolkit suggests that thresholds can relate to the number of species from a particular taxonomic group, a minimum size of a forest type, or the presence of a particularly important species.

During assessment, values are designated as HCV, Not HCV, or possible HCV.

HCV – follow guidance of P9 for management and monitoring

Not HCV – follows guidance of P1 to P8 for management and monitoring

Possible HCV – further research, and or consultation required; follows P9 and precautionary principle.

Consultation

There are four components to the HCVF consultation consisting of:

- 1) Broad review, based on the FMP process, to determine forest values generally in the FSF which will include as a minimum:
 - individuals
 - local stakeholder representatives including the Local Citizen's Committee
 - communities
- 2) Consultation with technical experts about species, ecosystems or values that are HCVF
- 3) Focused review by regional and provincial stakeholders of the values and the management approach
- 4) Open door policy – new HCVs and new management approaches will be considered at any time, if they meet the requirements of FSC P1—8, and OMNR regulations

OMNR public consultation in, bullet point 1, is documented in detail as part of the FMP process as part of the public record, in the Appendices to the plan. This will also serve as part of the HCVF documentation process.

The other three steps of the consultation process will be documented in this report and in subsequent updates to this report.

The FSF managers decided on the following guidelines in designing the process:

- 1) Forest Management Plan is the road map; HCVF report is a mirror of the FMP

- 2) Scale of HCVs range from 10's of m² to 100's of km²
- 3) Initial HCV Attribute list is long and threshold is set low because on public forest, there is an expectation of caution
- 4) Consultation process is regulated in the FMP, but extra HCV consultation will be done as required; The FSC HCVF lexicon is not used in public discussion.
- 5) HCVF is unlikely to be a source of new protected areas because representation is almost complete (WWF 2003).
- 6) Westwind is using the national (WWF 2002) toolkit as the template, available from Appendix 4 of the National Boreal Standard.

Thresholds: Categorization as HCV, not HCV or *Possible* HCV

The concept of threshold for HCV is important. In practice, during preparation of this report there were certain factors that became critical in deciding whether a value required HCV designation. In Table 1 is a discussion of the general thresholds. Thresholds for individual values are described more specifically in the Tables in the Phase 1 assessment.

- Table 1 Thresholds for HCV non HCV and possible HCV – a précis of Westwind’s interpretation of toolkit questions for the FSF.

	Threshold	Quantifiable -- Frequency of Occurrence and Location	Management and Monitoring
Not HCV	<p>1) Common values -- addressed in day to day operations as Areas of Concern. There is low or no risk that a management error will cause long term loss or harm to this type of value on the forest.</p> <p>2) Rare – Although value occurs, all known sites are recorded and protected. Designation as HCV is not meaningful because forest operations do not occur near such rare values; monitoring is not required when no operations occur.</p>	<p>1) Frequent occurrences with fair predictability. Values are either listed in FMP documentation in advance or staff are trained to observe, record and adjust for unrecorded occurrences.</p> <p>2) Usually less than 10 occurrences in the FSF. Biological values that are rare and maybe unpredictable, but small likelihood of an impact</p>	<p>1) Management is by an accepted FMP prescription consistent with P1 to P8; that is well tested and does not need monitoring.</p> <p>2) All known locations of these values in FSF are protected. Therefore, the management approach is as a “fine filter” occurrence consistent with P1-P8.</p>
HCV	<p>1) Common – but known to be particularly sensitive from past history. Value provides multiple benefits – especially if there is a commercial value.</p> <p>2) Uncommon – and at risk either listed or identified by toolkit filter. Past history indicates risk of harm. The precautionary principle requires HCV designation if there is poor information and a significant risk</p>	<p>1) Occurs in a particular forest type. If it is wildlife, the niche is well documented. E.G. MNR featured species; some commercial trees (pine)</p> <p>2) When occurrence is uncommon but somewhat predictable. (eg Red Shouldered Hawks; Massasauga Rattlesnake Hibernacula) (When occurrence is <i>unpredictable</i> and forestry impact likely, designation as possible HCV below)</p>	<p>1) Special consideration as HCV managed under P9; consistent with P1 to P8. Monitoring (not every site every year)</p> <p>2) Training requirement for vigilance from field staff. (e.g. Key’s provided to tree markers)</p>
Possible HCV	<p>“Possible” designation means that the forest managers will not be expected to be aware of these values unless they are brought to their attention, and there is a case for designation as HCV. E.g. rare plants in upland sites at risk from operations; or areas of significant cultural or social importance.</p>	<p>Likely only one or a few occurrences. This designation is intended for distinctive values.</p> <p>Possible examples are tourism values that are used as a source of livelihood – possibly trails or water bodies. For example some Resource Stewardship Agreements will be HCV. First Nations values; Very rare plants.</p>	<p>As a one of a kind designation , there is a range of possibilities for management that could be negotiated with non timber commercial interests, First Nations, or other parties.</p> <p>When designated HCV a monitoring program will be designed that may use affected parties to ensure compliance.</p>

As part of the HCV Commitment, in our original version 1.0,

"The contents of this HCVF report needs to be reviewed periodically to ensure that it is up to date with FMP, and is in keeping with FSC P9. Westwind will ensure, as part of the responsibilities of the designated staff member for certification, that HCV is regularly updated. Annual maintenance audits by the certifier will ensure that this is fulfilled."

As described at the time, the primary driver for this must be the FMP process, which is the open public record of how and why the forest is managed as it is. It is a public record of forest management process and decision-making. It is mandated by the Crown Forest Sustainability Act (Government of Ontario, 1994). The process for keeping that system up to date is part of the FMP manual.

Most of the text of this report is the same as the 2004, and 2005 report, since there has not been a new FMP. For the purposes of clarity substantial changes are highlighted in grey as in this section. As the FMP process commences during 2006, this HCVF report will be updated accordingly.

Phase 1: Process for assessing for the presence of HCV attributes

The following assessment of the presence of HCV attributes is based on questions posed by the toolkit, and suggested avenues for collecting information. The questions are divided into five separate areas related to the definition of HCVF above. The questions are numbered sequentially to 18, but are in five groups.

Category 1) Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values

1) Does the forest management unit contain species at risk or potential habitat of species at risk as listed by international, national or state/regional/provincial authorities?

Assessment Methodology:

- NHIC Species Lists
- IUCN Red List
- COSEWIC -- Committee on the Status of Endangered Wildlife in Canada
- Supplementary Literature Review (FishBase, Environment Canada Species at Risk & other)
- Interviews with local experts¹

The toolkit requires that managers identify critical habitat for rare threatened or endangered species. Our approach was to review all of the available lists. The primary source is the list of species provided (Table 3) by the Natural Heritage information Centre (NHIC). This list was updated in October and November of 2002, and is the most up to date list for this forest. NHIC is a partnership of OMNR, The Nature Conservancy, The Nature Conservancy of Canada and the Natural Heritage League. The list is used routinely for providing forest values information to the forest planning system in Ontario.

The NHIC list includes the latest information from COSEWIC (Committee on the Status of Endangered Wildlife In Canada; COSEWIC 2003). A discussion of the methods used for assessing the status of species is provided in the Glossary, and includes the definitions

¹ Discussion with OMNR biologists

used in Table 3. The information in this table was updated from the NHIC database in May of 2004. OMNR updated the information to include some historical information and revise the listing in 2003. Element occurrences from the Muskoka Heritage Areas Study (Reid and Bergsma 1994) were included, which are mostly from private land in the southern portion of the unit.

• Table 2. NHIC Species List for MNR District PARRYSOUND.

Only species that are G3 or less, or are in a category (Eg THR or END) are listed.
Complete file: Report 2004 CD/ background/ NHIC Parry Sound and Muskoka 04Ma25.

Parry Sound and Muskoka Muskoka Only (Shaded)					
Scientific Name	Common Name	COSEWIC	MNR	Srank	Grank
Birds					
<i>Ixobrychus exilis</i>	Least Bittern	THR	VUL	S3B,SZN	G5
<i>Haliaeetus leucocephalus</i>	Bald Eagle	NAR	END	S4B,SZN	G4
<i>Buteo lineatus</i>	Red-shouldered Hawk	SC	VUL	S4B,SZN	G5
<i>Falco peregrinus anatum</i>	Peregrine Falcon	THR	END	S2S3B,SZN	G4T3
<i>Sterna caspia</i>	Caspian Tern	NAR	NIAC	S3B,SZN	G5
<i>Empidonax virescens</i>	Acadian Flycatcher	END		S2B,SZN	G5
<i>Dendroica cerulea</i>	Cerulean Warbler	SC	VUL	S3B,SZN	G4
<i>Ammodramus henslowii</i>	Henslow's Sparrow	END	END	S1B,SZN	G4
Fish					
<i>Ichthyomyzon fossor</i>	Northern Brook Lamprey	SC	VUL	S3	G4
<i>Myoxocephalus thompsoni</i>	Deepwater Sculpin	THR	NIAC	S4	G5
<i>Acipenser fulvescens</i>	Lake Sturgeon	NAR	NIAC	S3	G3G4
<i>Coregonus kiyi</i>	Kiyi	SC	THR	S3?	G3
<i>Noturus insignis</i>	Margined Madtom	DD	IND	SU	G5
<i>Coregonus reighardi</i>	Shortnose Cisco	THR	EXP	SX	G1
Mammals					
<i>Myotis leibii</i>	Small-footed Bat			S2S3	G3
<i>Glaucomys volans</i>	Southern Flying Squirrel	SC	VUL	S3	G5
Reptiles					
<i>Clemmys guttata</i>	Spotted Turtle	SC	VUL	S3	G5
<i>Eumeces fasciatus</i>	Common Five-lined Skink	SC	VUL	S3	G5
<i>Elaphe gloydi</i>	Eastern Foxsnake	THR	THR	S3	G3
<i>Heterodon platirhinos</i>	Eastern Hog-nosed Snake	THR	VUL	S3	G5
<i>Sistrurus catenatus</i>	Massasauga	THR	THR	S3	G3G4
Arthropod					
<i>Ophiogomphus anomalus</i>	Extra-striped Snaketail			S2	G3
<i>Erora laeta</i>	Early Hairstreak			S1	G3G4
Plants					
<i>Marsipella sparsifolia</i>	A Liverwort			S1S2	G3G4
<i>Grimmia hermannii</i>	A Moss			S1	G3G5
<i>Botrychium rugulosum</i>	Rugulose Grapefern			S2	G3
<i>Chimaphila maculata</i>	Spotted Wintergreen	END	END	S1	G5
<i>Listera auriculata</i>	Auricled Twayblade			S3	G3
<i>Poa languida</i>	Drooping Bluegrass			S3	G3G4 Q

• Table 3 NHIC listed species (question 1), with annotations.

For illustration this list includes some species that are not G3 or less, and would simply be considered rare, or “coarse filter” species. They are included here for information purposes. For the complete listing of species see the file: /Report 2004 CD/ background/ NHIC Parry Sound and Muskoka 04Ma25, on the CD.

Species Group/ Source (NHIC or COSEWIC)	Species	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2)risk 3)quantifiable threshold 4)other
Mammals/ NHIC	Southern Flying Squirrel Map 3	1) Upland hardwoods 2) FSF occurrence mainly in south on private lands; some new reports; 3) Appears stable, no detailed population studies, but FSF is the northern limit. 4) Potential risk from logging, but enhanced management of tolerant hardwoods probably increases habitat 5) Managed as coarse filter, via leaving quality cavity trees in all stands	1) Low occurrence in FSF harvest areas 2) Following appropriate cavity trees allocation minimizes risk; likely enhances availability of large trees 3) Threshold Primary occurrence south of the most harvest areas, and on private land; good prescription, little information but appears stable Possible HCV
Top Predator / Committee on International Trade in Endangered Species CITES	Red Wolf (<i>Canis rufus</i>)	1) Wide ranging, depending on prey 2) unknown distribution on FSF; based on Algonquin Park info; genetic background in FSF unclear. 3) Special Concern in Canada according to COSEWIC; note not listed in Parry Sound according to NHIC which includes COSEWIC info. 4) Increased road access may increase hunting mortality 5) No Prescription; coarse filter	1) Population stable based on anecdotal information; 2) Possible risk from access; and increased hunting; no direct impact from forestry; 3) No immediate conservation issue identified, or course of action, based on Algonquin approach Not HCVF
Waterbirds / NHIC	Least Bittern; Black-crowned Night-heron; Caspian Tern Map 4	1) Primarily water and wetland species 2) Very Rare in FSF 3) Species info sparse 4) Not directly impacted by operations; low risk 5) Currently no special prescriptions	1) Almost no occurrence 2) No direct risk from forestry 3) Minimal occurrence or interaction with forest operations Not HCV
Raptors /NHIC	Red-shouldered Hawk Map 5	1) Upland species with particular site characteristics 2) Wide distribution in FSF, although not abundant; diminished elsewhere 3) Species appears stable 4) Directly impacted by operations 5) Prescription requires large reserve; as per OMNR hawk guide	1) Appears stable in FSF 2) Risk to nest sites; listed as threatened 3) Reduced numbers elsewhere; listed as threatened; forestry an impact HCV
Upland songbirds – non forest / NHIC	Acadian Flycatcher Prairie Warbler Cerulean Warbler Henslow's Sparrow	1) Upland species; fields, scrub 2) Uncommon FSF; south end only 3) Species are stable 4) Directly impacted by operations 5) No Prescription; coarse filter spp	1) Uncommon in FSF 2) Low risk to nest sites 3) Forestry not primary impact Not HCV

Species Group/ Source (NHIC or COSEWIC)	Species	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2)risk 3)quantifiable threshold 4)other
Fish / NHIC	Northern Brook Lamprey; Lake Sturgeon; Margined Madtom Map 4	1) Aquatic 2) Uncommon in FSF; 3) Species are stable 4) Impacted by water crossings 5) Prescriptions based on fish guide;	1) Uncommon in FSF 2) Low risk to spawning sites 3) Forestry not primary impact Not HCV
Reptiles upland / NHIC	Five-lined Skink Map 8	1) Rock upland species; barrens 2) Uncommon FSF; south 3) Species are stable 4) Does not occur in logging areas 5) No prescription	1) Uncommon in FSF; stable 2) Low risk to habitat from forestry 3) No overlap with forestry Not HCV
Reptiles aquatic / NHIC	Spotted Turtle Map 8	1) Bogs and marshes 2) Very rare FSF; poor distribution info 3) Long term decline (vulnerable) 4) Breeding season impact on roads 5) No prescription; coarse filter	1) Uncommon in FSF; stable 2) Low risk to habitat from forestry 3) Minimal opportunity for impact Not HCV
Snakes -- poorly defined life requirements / NHIC	Eastern Fox Snake Eastern Hognose Snake Map 6, Map 7	1) Uplands; habitat not well known 2) Rare FSF; poor distribution info 3) Long term decline; vulnerable (Hognose) threatened (Fox) 4) Logging impacts possible 5) No prescription; coarse filter, but significant sites important for critical life requirements would receive HCV status	1) Unknown populations in FSF 2) Risk unknown 3) Reduced numbers generally; forestry possible impact possible HCV
Snakes -- defined habitats / NHIC	Eastern Massasauga Rattlesnake Map 7	1) Uplands; Rocky areas, dry forest 2) Rare FSF; good distribution info 3) Long term decline; threatened 4) Logging impacts possible 5) Prescription	1) Appears stable in FSF 2) Risk to breeding sites 3) Reduced numbers elsewhere; listed as threatened; forestry possible impact HCV
Non forest / NHIC	Persius Duskywing; Olympia Marble; Pepper and Salt Skipper; Early Hairstreak	1) Fields open areas 2) FSF very rare; poor distribution info 3) Globally stable 4) Unlikely logging impacts 5) No prescription	1) Very rare in FSF; little information 2) Risk unknown but unlikely because breeding sites not forest areas. 3) Very uncommon; no overlap with forestry operations Not HCV
Aquatic Plants / NHIC	Branched Bartonina; Hidden-fruited Bladderwort; Lizard's Tail; Pale Great Club-rush; Smith's Club-rush; Panic Grass;	1) Riparian and aquatic 2) very rare; poor distribution info 3) Globally stable 4) Unlikely logging impacts 5) No prescription; coarse filter species	1) Little information in FSF; 2) Aquatic; low risk from forestry 3) Very uncommon; does not overlap with forestry Not HCV

Species Group/ Source (NHIC or COSEWIC)	Species	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2)risk 3)quantifiable threshold 4)other
	Tuckerman's Quillwort; Map 4		
Non forest / NHIC	Small-flowered Blue-eyed Mary; Crested Arrowhead; Field Sedge; Southern Twayblade; Longleaf Dropseed; Northern Dropseed; Engelmann's Quillwort Map 4	1) Open areas 2) very rare; poor distribution info 3) Globally stable 4) Unlikely logging impacts 5) No prescription; coarse filter species	1) Little information in FSF; 2) Open areas; low risk from forestry 3) Very uncommon; does not overlap with forestry Not HCV
Rare Forest Plants / NHIC	Yellow Screwstem; Ridged Yellow Flax; Giant Pinedrops; Spotted Wintergreen; Long Sedge; Cloud Sedge; Puttyroot; Goldie's Round-leaved Orchid; Lance-leaved Grapefern; Broad Beech Fern	1) Uplands; Rocky areas, dry forest 2) Very rare FSF; poor distribution info 3) Stable globally (G5); 4) Logging impacts possible 5) No prescription; coarse filter species	1) Little information in FSF; 2) forest areas; possible risk from forestry 3) Although locally uncommon, no conservation issue identified globally; possible forestry impact, but none known at this time; Not HCV
Rare upland plants / NHIC	Rugulose Grapefern Spotted Wintergreen Auricled Twayblade Drooping Bluegrass	1) Upland forest 2) Very rare; poor distribution info 3) Rare (G3) or locally (S1); 4) Logging impacts possible 5) No Prescription; Coarse filter spp	1) Little information in FSF; 2) forest areas; possible risk from forestry 3) Locally uncommon, conservation issue globally (G3); possible forestry impact, but none known at this time; Possible HCV

Species listed by the Provincial Endangered Species Act that are in the FSF include only the Peregrine Falcon. This species is not nesting in the FSF currently, but has historical nest records from the FSF. OMNR is monitoring its recovery provincially and is monitoring the traditional nest locations in FSF. Peregrine Falcon is not HCV.

COSEWIC species are almost entirely the same as the NHIC list, with the exception of the Monarch Butterfly which COSEWIC lists as a species of special concern (SC), and the Red Wolf. The Monarch range covers the forest, in suitable habitat – primarily fields containing suitable species such as milkweed. The open field requirement of Monarch's precludes overlap with harvest operations and consequently it is not regarded as a HCV (Map 3). The debate about the Eastern Canadian Wolf or Red Wolf continues, and COSEWIC listed this species as special concern in 2001. The Southern Wolf is not listed. The actual population of either species in the FSF is not studied. Overall the population of wolves is anecdotally reported to be stable in FSF. Access and the effects of hunting are the main concern. The area near Algonquin Park is already accessed by various road networks. There is little mitigation than can occur by forestry at this time.

The toolkit also asks if any of the rare, threatened or endangered species found in the forest is a keystone or focal species. A keystone species is defined by Paine (1966) as a species that plays a disproportionately large role (relative to numerical abundance or biomass) in ecosystem function. Focal species (Lambeck 1997) are a group of species whose requirements for persistence define the attributes that must be present if a landscape is to meet the requirements of the species that occur there. Practical definitions of keystone and focal species can be fairly difficult.

Ontario officially uses two related concepts. Featured species (Thomas et al 1979) are species whose habitat and sometimes populations are managed for their importance to society – either as game species or species chosen for the habitat they represent or for other reasons. Regional indicator species are selected for a wide range of attributes that are similar in purpose to the description of focal species. Biologists make selections with input from various experts. No direct habitat or population management occurs for these species but their habitat is monitored to determine the long term regional effect of forest management.

These two lists are surrogates for focal and keystone species. All of the species on the list, regardless of whether they are focal species or keystone species will receive the appropriate conservation measures.

For completeness, the following points are mentioned because they address particular questions posed by the toolkit:

- Several taxa are represented among the rare, threatened and endangered species. There is no pattern or focus on a particular group.
- No single taxon is represented by more than one rare, threatened and endangered species.
- Top predator or focal species that are on a list include all three snakes, the red-shouldered hawk, the wolf and the lynx. Only the wolf could be considered to be a keystone species because it is a significant population control on deer and beaver.
- All of the species on the list have a narrow habitat range with the exception of the wolf. As a wide ranging species and a top predator, the wolf is fairly opportunistic and uses a range of habitat depending on the prey species. The wolf is not regarded as rare or in danger by COSEWIC. The Algonquin Wolf management research program has provided some new information, but wolves in the French Severn Forest are still common, and appear stable.
- A review of the WWF Ecoregion Conservation Assessment provided background information on determining range limitations. There are no endemic species in the FSF that have been identified at this time.

HCVF Designation Decision

The two species which are designated HCVs are Red-shouldered Hawk, Eastern Massasauga Rattlesnake which are high profile species in this forest. Possible HCVs, dependent on locating the particular species, include Southern Flying Squirrel, Eastern Fox Snake Eastern Hognose Snake.

Although there is a long list of rare plants on the forest, most are not threatened by forestry activities. Four upland species were regarded as possible HCVs including: Rugulose Grapefern, Spotted Wintergreen, Auricled Twayblade, Drooping Bluegrass, all of which are either Globally rare (G3 or lower), or locally rare (S1).

2) Is the forest within an ecoregion that contains a concentration of endemic species?

Assessment Methodology:

- WWF Ecoregion Conservation Assessment
- Conservation International Biodiversity "Hotspots"
- Terrestrial Ecosystems of North America (Ricketts et al.1999)
- Birdlife International

As with most northern temperate forests, which have evolved with short-term disturbance (fire and wind) and long term disturbance (continental glaciers) endemism is rare. Species tend to be spread across large areas. There were no endemic species identified in the FSF. Although there may be some invertebrates in this category, none have been identified. We note that in February 2004 COSEWIC put out a call for bids to develop a prioritized list of land snails for Ontario and Quebec. This list will be used in future for the development of the Molluscs Candidate List as part of the work carried out by the COSEWIC Molluscs Species Specialist Subcommittee². Results are expected in April 2005.

Conservation International does not show any biodiversity "hotspots" in Ontario and Birdlife International does not identify any Endemic Bird Areas (EBAs) in Canada.

3) Does the forest include critical habitat containing globally, nationally or regionally significant seasonal concentrations of species (one or several species e.g. concentrations of breeding sites, wintering sites, migration sites, fly-ways)?

Assessment Methodology:

- Bird Studies Canada
- Ducks Unlimited Canada
- Natural Resource Values Information System for Ontario (NRVIS)
- 2004-2024 FSF Forest Management Plan
- Interviews with local experts³
- BirdLife International
- Conservation International

This question focuses on sites in the forest that are of key importance to particular species. This is not about RTE species; all of the critical breeding sites are for species

² COSEWIC Secretariat, Canadian Wildlife Service, Environment Canada

³ Includes interviews with district and regional OMNR biologists.

that are already listed and habitat is mapped as much as possible. In particular, seasonal concentrations (winter), and breeding sites for Massasauga rattlesnakes are very important, but these are designated in question 1. As the assessment methodology shows, there was a considerable effort placed on reviewing possible important bird areas. There were none that were focussed enough to have achieved a special designation from the organizations listed. This is probably because the extensive coastline, and inland lakes allow a broad distribution rather than certain focussed areas.

The common thread for the main species on this list (Table 4) is commercial exploitation, either for hunting or trapping. MNR refers to these species as “featured” (described above). Moose, deer, marten are the most prominent members of this group. Pileated Woodpeckers also fall into the featured species group, but are not exploited.

An example is white tailed deer, and their winter areas. The Loring Deer Yard is located partly in the north of the forest. It is not only an important area for sheltering deer during the winter, but the hub of many migratory routes. Other “yarding” areas exist in the forest. Although deer populations are stable, their socio-economic importance to hunters and outfitters puts them in a special category. Deer wintering areas are mapped fairly precisely by MNR. The district has identified more than 600 polygons or blocks that have good winter habitat quality. There is a generic prescription for harvesting in deer wintering areas. It is not logical for all of the yards to be HCV since many of the small ones are ephemeral. The logical division point is to assign HCV status for yards that require specific attention during the FMP, either due to their size, or their social importance (ie juxtaposition to hunt camps). This is determined by MNR.

Moose aquatic feeding areas also fit into this category as seasonal concentration area. Feeding areas are particularly important in the spring when aquatic roots etc. may be available earlier than upland vegetation.

Unlike central Ontario, the American marten is the focus of considerable debate north of the FSF, in the boreal forest region, due to habitat effects of forestry. Marten have a preference for mature conifer. Due to harvest methods in central Ontario, there is an abundance of habitat that is classified as suitable or preferred.

Hérons are colonial nesters, especially vulnerable to human disturbance and habitat destruction during the breeding season when large numbers of birds are concentrated in a relatively confined area. There are numerous heronries on the FSF often near beaver ponds. Anecdotally, the FSF may contain higher densities of Herons than surrounding forests, but we could not verify this.

Established heronries, which can consist of hundreds of nesting pairs, may be occupied for decades. Disturbance can lead to relocation of colonies, with consequences that can include fragmentation of breeding populations, total reproductive failure in colonies that have relocated, or reduced numbers of nesting pairs and reduced reproductive output per pair in relocated colonies. Desertion of large colonies that are responsible for the major portion of a population's reproductive output can affect the stability of the entire regional population of herons, even if the desertion is followed by relocation⁴. Recent evaluation of the guide has been completed (Naylor et al, 2004) and may lead to a modification of the prescription.

HCVF Designation Decision

Given the considerable effort focussed on the two ungulate game species, moose and deer, as a social and economic force in the SFL, the two critical habitat features of these species are recognized as HCVs. Herons are also designated on the basis of their

⁴ OMNR. 1984. Management Guidelines for the Protection of Heronries in Ontario.
URL: www.mnr.gov.on.ca

sensitive and visible nature, in a forest that is summer home and tourist Mecca to thousands of people.

• Table 4 Featured species designated by in FMP as part of forest management objectives.

General Description / Source	Value	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) Status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
Featured Species / MNR District	Moose Aquatic Feeding Areas Map 9	1) Aquatic feeding areas surrounded by woodlands 2) Very common; good distribution info 3) Moose are hunted; Economically valuable 4) Logging impacts possible if cutting is too heavy adjacent to feeding area 5) Detailed Prescription exists and is being reviewed.	1) Stable, distribution known 2) Appropriate harvest with selection protects value; 3) Moose are an importance game species; benefit of precaution HCV
Featured Species/ MNR District	White-tailed Deer Wintering Areas Map 9	1) High conifer component; He, Ce; (OMNR guide 2000) 2) Very common spp; good distribution info; wintering areas are widely distributed; large ones are uncommon and sensitive 3) Hunted; Economically valuable species; long social cultural involvement with the species 4) Logging impacts if conifer diminished significantly 5) Detailed Prescription; Monitoring for large ones	1) Deer are stable or increasing in area; wintering areas are key. 2) Inappropriate harvest could impair quality of yards 3) Deer are an importance game species; benefit of precaution HCV
Featured Species/ MNR District	American Marten Related to Old Conifer	1) Conifer component required>80years 2) Common species throughout FSF; marten “core” habitat mapped and modeled. 3) Trapping an important activity; but population stable throughout its range 4) Logging impacts if conifer diminished significantly 5) Significant impact if widespread conifer reduction. MNR uses marten guidelines, although they are not required. As a featured species, it is a fine filter species.	1) Extensive occurrence; modeled in FMP 2) Risk if long term decline in old conifer component 3) Abundant species, no current conservation issue. Not HCV
Featured Species/ MNR District	Pileated Woodpecker Old deciduous forest	1) Focus on component of old deciduous trees in stand 2) Common species throughout FSF 3) Global abundant 4) Logging impacts if cavity trees diminished significantly 5) MNR uses Pileated guide; featured species, tree marking requirements for cavity trees.	1) Extensive occurrence; 2) Risk if long term decline in old hardwood component 3) Abundant species, no current conservation issue. Not HCV
Focal Species/ Westwind designation	Great Blue Heron Colonies	1) Often adjacent to beaver dams, or over water with drowned stems 2) Common in FSF 3) Globally abundant 4) Logging impacts if nearby disturbance during breeding season 5) MNR uses guide, special prescription.	1) Extensive occurrence; Highly visible to tourists 2) Risk if long term decline if breeding sites not safeguarded 3) No current conservation issue; however, the visibility and the concentration of nests places it in a special social, biological category. HCV

4) Does the forest contain concentrations of regionally significant species (e.g. focal species, declining species)?

Assessment Methodology:

- NHIC G3, S1-S3 species and communities
- Range and population estimates from national or local authorities and local experts for:
 - Species at risk (in existing policy/legislation)
 - Results from habitat models
 - Species representative of naturally-occurring habitat types or focal species
 - Species identified as ecologically significant through consultation
 - Northern Ontario Plant Database (<http://www.northernontarioflora.ca>)
 - Ontario Herpetofaunal Atlas
 - Ontario Tree Atlas Project
 - Supplementary Literature Review

Species identified in the NHIC database and ranked nationally at risk by COSEWIC were discussed in Question 1.

The question centres on whether the species are rare regionally, rather than at risk. Species in this category would receive a global ranking indicating that it is secure (Appendix 3 Species Ranking and Glossary), but it has a state ranking that indicates few occurrences. This is a refinement of question 1, for which we have included all of the species which are rare, as well as threatened or endangered, therefore we refer to that question for most species in this category.

For example the following list represents *some* of the plant species that were rated G5 (globally secure) and S1 to S3 (regionally rare): *Bartonia paniculata* (Branched Bartonian); *Bartonia virginica* (Yellow Screwstem); *Linum striatum* (Ridged Yellow Flax); *Utricularia geminiscapa* (Hidden-fruited Bladderwort); *Chimaphila maculata* (Spotted Wintergreen); *Saururus cernuus* (Lizard's Tail); *Collinsia parviflora* (Small-flowered Blue-eyed Mary); *Sagittaria graminea* var. *cristata* (Crested Arrowhead); *Carex folliculata* (Long Sedge)

The NHIC position on S3 species is to assign them to the “watch list” unless they are globally secure. For S1 and S2 species more caution is likely warranted, given the possibility of extirpation regionally. For that reason all of the species on the NHIC list are mapped and presented as possible HCVs.

For discussion purposes and completeness we have listed two species (Table 5) which are regionally significant because they are interesting and romanticized. They are both species listed by CITES that occur within FSF: Lynx (*Lynx canadensis*) and Grey Wolf (*Canis lupus*). Both populations are designated as not at risk by COSEWIC (COSEWIC 2003). Apparently, the CITES designation is in response to problems in other jurisdictions. We have informally referred to these species as “focal”. Neither is particularly sensitive to forestry pressures except access, and subsequent depredation by people. At this time they are not regarded as HCVs.

• Table 5 Focal species (Question 4 Regionally significant species).

Species Group/ Source (NHIC or COSEWIC)	Species	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2)risk 3)quantifiable threshold 4)other
Top predator /Committee International Trade in Endangered Species CITES	<u>Lynx (Lynx canadensis)</u>	1) Wide ranging, depending on prey 2) Common FSF; poor distribution info 3) Population stable in Canada according to COSEWIC. 4) Impacts not well know 5) No Prescription; coarse filter	1) Sparse pop'l; but apparently stable within bounds of natural variation; 2) Possible risk from access; otherwise pop'l follows prey 3) No immediate conservation issue identified Not HCVF
Top Predator / Committee on International Trade in Endangered Species CITES	<u>Grey Wolf (Canis lupus)</u>	1) Wide ranging, depending on prey 2) Wolves are common in FSF; poor distribution info; genetic background unclear. 3) Population stable in Canada according to COSEWIC 4) Increased road access may increase hunting mortality 5) No Prescription; coarse filter	1) Population stable based on anecdotal information; 2) Possible risk from access; and increased hunting; no direct impact from forestry; 3) No immediate conservation issue identified Not HCV

Species that in decline are reviewed in Question 1. Determining whether some of the common species have stable populations, at least regionally is difficult, and more appropriate for an organization with a broader view than just the FSF. For example, some bird species have undergone some recent declines across a wide area, and this alone is a justification for further investigation.

HCVF Designation Decision

None of the species addressed in this question warrant HCV or potential HCV status at this time.

5) Does your forest support concentrations of species at the edge of their natural ranges or outlier populations?

Assessment Methodology:

- Range and population estimates from national or local authorities and local experts for:
 - Red listed species
 - Focal species
 - Major forest tree species
 - Species identified as ecologically significant through consultation
 - List of selected species for the region identified by the OMNR biologists compared to natural range maps to see if there are concentrations of species at edge of the natural ranges

The Great Lakes St. Lawrence forest transition to boreal forest begins within the FSF. This means that there are many species of plants and animals that are either at the northern or southern limit of their range. This is biologically interesting, but most of these species are secure according to COSEWIC, NHIC. Tree cover reflects this shift in

dominant species; it is even reflected in the different natural disturbance patterns of the forests. The net result is that a number of species can be identified that are at the limit of their range. Most species which may be HCVs are already listed in Table 3 and Table 4. These include many of the plants. A comparison of the species listed for "Muskoka only" in Table 2 is a good example of this. The complete NHIC list has 57 species of plants and animals that are found in the lower half (Muskoka) part of the forest and not in the north (Parry Sound). The long list of species is available on the CD in file: /Report 2004 CD/ background/ NHIC Parry Sound and Muskoka 04Ma25. These species are addressed as coarse filter species, and element occurrences within the forest are checked prior to any forest operations. Most occur on private land, in the south of the unit. The particular rationale for the HCV assessment is described in Table 3.

Three species of trees that are less common, at the edge of their range, and not in these tables, are of some concern because they are harvested: White Oak, Black Cherry, Hemlock. Map 11 shows the distribution of significant patches of these species and more information is in Table 6. The range of black cherry ends within the FSF not far north of Parry Sound while the beech-white ash-hemlock and hard maple-yellow birch-red oak communities end north of Lake Nipissing. The decline of Eastern hemlock from 15.6% occurrence in the late 19th Century to 4.4% in 1990 (Leadbitter 2000) supports the concern about this species that appears to be diminishing towards the north and west within the FSF.

Another group of tree species, including some which have only a few occurrences, are found mainly along the southern edge of the shield, and represent species which are hardy enough to jump over the rather significant change in soils on the limestone plains south of site region 5E (Appendix 6) to the granite dominated hills of the Canadian shield. These are Bitternut Hickory, Butternut, Bur Oak, Red (Slippery) Elm, Rock Elm, Black Maple, Silver Maple. These species when encountered are protected through the tree marking system.

Other species which have not occurred on any lists but may be of concern because of the FSF is the northern or southern extension of their range include: the red headed woodpecker, willow flycatcher, clay-colored sparrow, and possibly some other bird species. These species are sparsely distributed in the FSF. These species are managed as coarse filter species. This means that through landscape management and appropriate forest practices at the site level, habitat for these species are maintained continuously. In the FSF habitat for these species is hard to predict because the occurrences are infrequent. Biologists in FSF do not survey specifically for these species.

Clusters of element occurrences (S ranked species by NHIC) that are also at the northern end of their range only occur on special sites, such as marble outcrops (calcareous rock). There does not seem to be any identified sites on the public part of the forest, although the private lands, such as Wahta First Nation do contain such areas. These are the main reason for the element occurrences that are shown on the FSF map.

HCV Designation Decision

None of the species evaluated here were designated HCV, primarily because, as a large forest covering part of the transition from Great Lakes St. Lawrence to Boreal, it is to be expected that species are at the edge of their range. Some species, such as Hemlock are HCV, but they are not identified as such by their range (i.e this question), rather for other reasons (see Question 9).

• Table 6 HCV listing from question 4 regarding species at the edge of the natural range

General description/ Source	Value	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
Trees species at northern edge of range/ MNR district	White Oak; Red Oak; Black Cherry Map 11	1) Upland Forest 2) Common in FSF; Distribution known 3) Stable, logging occurs 4) Risk in long term decline if improper monitoring and prescriptions 5) Prescriptions applied	1) Presently stable & relatively common 2) Low risk of decline 3) Specific prescriptions via tree marking Not HCV
Uncommon tree species / MNR Region	Bitternut Hickory, Butternut, Bur Oak, Red Elm, Rock Elm, Black Maple, Silver Maple.	1) Upland Forest 2) Uncommon in FSF; Distribution known 3) Significant decline late 19 th century, logging occurs 4) Risk in long term decline if improper monitoring and prescriptions 5) Prescriptions applied	1) Stable, uncommon 2) Present risk low 3) Protection no harvest/ 4) Presence is interesting but does not warrant HCV status Not HCV
Uncommon tree species / MNR Region	Red Spruce	1) Upland Forest easternmost side FSF 2) No stands, scattered individuals, 3) Healthy and reproducing. No reason to believe there has been a decline. 4) No apparent risk, since little harvest. 5) Tree markers occasionally select according to a very cautious prescription. (Past plan maybe only a dozen declining trees – when there is good regeneration). Some planting of red spruce so putting back in the landscape. Some areas, plant to get established. Normal silviculture effective.	1) Stable, rare 2) Present risk low 3) Some harvest, very tight prescription; stable pop'l 4) Does not warrant HCV status. Adjoining Forest Unit (Nipissing) has one stand designated HCV. Not HCV
Uncommon birds /	Red headed woodpecker, Willow flycatcher, Clay-colored sparrow Map 5	1) Various habitats 2) Uncommon in FSF; Distribution sparse 3) Globally stable 4) Unknown risk from logging 5) Prescriptions applied	1)uncommon, pop'l dynamics unknown in FSF 2) Present risk unknown 3) No / Long term decline documented 4) Globally stable; these birds are peripherally distributed in FSF Not HCV

6) Does the forest lie within or contain a conservation area a) designated by an international authority, b) designated by relevant federal/ provincial legislative body or c) identified in regional land use plans?

Assessment Methodology:

- UNESCO World Heritage sites
- RAMSAR sites
- International Biological Program sites
- Canadian Conservation Areas Database
- WWF/MNR Lands for Life Conservation Assessment (protected areas “gap analysis”)
- Areas under deferral pending completion of land use planning and/or completion of protected areas system

Part a) normally refers to UNESCO World Heritage Sites, RAMSAR sites, or International Biological Program sites. There are none of these on the forest.

Under part b) there are a number of protected areas in FSF that are either currently regulated, or are officially designated to be regulated as protected areas. This is part of the Living Legacy process (OMNR 1999) and automatically qualifies as HCV. These are mapped (Map 1). Under Question 17, which addresses social values, two heritage land designations are recognized as HCVs: The Great Lakes Heritage Coast, and the French and Big East Rivers. These are more socially important, as tourism focal points, and so are discussed there. They would probably also fit into this designation, although in reality there is little impact from forest operations. There has also recently been an application for designation of a Georgian Bay Littoral Biosphere Reserve. As a mostly aquatic initiative, there will not likely be any additional requirements above that of the Heritage Coast.

Parks are actually not part of the license area. In the landbase description in the Forest Management Plan parks are listed separately, and are not part of the production forest. The forest managers have no control over the protected areas. The government has responsibility for this part of the designated forest area. There is a semantic issue about whether the protected areas should be part of the designated forest area or not. This is not relevant to this report.

For part c) we have interpreted “regional” land-use plan as a reference to the Bracebridge District Land Use Guidelines (DLUG), and the Parry Sound District Land Use Guidelines (OMNR 1983). These are the original land use plans and are still in effect today, although there is some overlap with the Living Legacy (OMNR 1999).

Many things have changed since the DLUGs were put in place almost 20 years ago, including many boundary changes. To accommodate this, OMNR is committed to creating a land use atlas to organize the different restrictions for any pieces of crown land. Typical constraints and strategies in the DLUG documents include access controls, use restrictions such as Kimble lake area logging restriction and special fish management zones. Access restrictions have been incorporated into the Living Legacy as enhanced management areas. The DLUGs also include many targets for resource production and recreation opportunity.

Another land use designation are Areas of Natural and Scientific Interest (ANSI). This program has not been actively pursued for some time, but the original designations still apply. Some of these are incorporated into newly designated protected areas but some are not and cannot be. One is a geological ANSI that is a rock cut on a highway, another is on private land (Skeleton Lake meteor crater). There were also a number of “candidate”

ANSIs that were not officially designated. Reports on all of these are on file at OMNR district offices. These will be mapped along with the protected areas on Map 1.

HCV Designation Decision

There are a number of protected areas in FSF that are either currently regulated, or are officially designated to be regulated as protected areas. These are part of the Living Legacy process (OMNR 1999) and automatically qualify as HCVs. In addition, under Question 17, which addresses social values, two heritage land designations are recognized as HCVs: The Great Lakes Heritage Coast, and the French and Big East Rivers. They are more appropriately designated there, because of the economic tourism focus of that question.

Category 2) Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance

7) Does the forest constitute or form part of a globally, nationally or regionally significant forest landscape includes populations of most native species, and sufficient habitat such that there is a high likelihood of long term species persistence.

Assessment Methodology

- Review of historical land use pattern, and scale

The forest has been actively harvested since the arrival of people of European ancestry in the 1800's. Although there is continuous forest cover, and the forest appears natural, it could not be claimed to be truly original forest except for some small areas that were bypassed for operational reasons. That said, most of the original species are still extant, despite frequent interaction with humans. This still semi natural environment is a result of their not being large changes in land use, such as occurred in the south. Land use is dominated by activities requiring forest cover. Although much of it is a working forest, there has not been pressure to clear land. It could not be said that this is a result of a conscious choice by the local communities. However the arrival of stronger government regulation, and sustainable forestry legislation has strengthened the current land status. This question is answered by saying that current land practices have led to a changed forest, but still a semi natural forest.

HCV Designation Decision

No special HCV designation for landscape values would be meaningful on the scale of this forest, in such close proximity to major populations. The threat to this forest is not forestry, but other land uses: housing, infrastructure, and recreational activities not involving forest cover.

Category 3) Forest areas that are in or contain rare, threatened or endangered ecosystems

8) Does the forest contain naturally rare ecosystem types?

Assessment Methodology:

- NatureServe

■ Natural Heritage Information Centre

Discussions with MNR ecologists indicate that at the scale of the current forest inventory, given the recent gap analysis, and ongoing efforts to improve that analysis, should have identified all of the larger size of rare types. It is possible that small areas would not be picked up by these surveys. An example would be the marble outcrops in the south which do occur but are on private land. Efforts are being made by MNR to identify in the field any possible rare types that may have passed through the gap analysis.

The available NHIC community data is limited to Site Regions 6E and 7E of Ontario, both of which are outside the boundaries of the Forest. A search of the database for North Bay District reveals one vegetation community that is ranked globally imperilled (G2?) and regionally rare to uncommon (S3) in Ontario. Its occurrence on the forest needs to be confirmed, but is listed here for completeness.

• Table 7 Ranked vegetation communities identified in Parry Sound District (NHIC 2004).

Community	Description
Atlantic Coastal Plain Shallow Marsh Type	Peatland forests of Larch, Black Spruce and White Cedar dominate organic deposits at the north and south of the lake, with deciduous and mixed early successional forest on higher, sandy soil on the eastern and western shores. The aquatic communities found in shallow water here and on the wide, peaty beaches which emerge in late summer and early fall, support an exceptionally rich assemblage of relict flora. These vascular plant species have strong affinities with the flora of the Atlantic Coastal Plain of North American and several of the species here are disjunct [Brunton 1993].
Provincial Rank S3	
Global Rank G2?	

HCV Designation Decision

There are no currently identified rare ecosystem types confirmed on the forest. Atlantic Coastal Plain community types exist only in provincially designated wetlands and are HCV as part of that designation, which has a broader management prescription.

9) Are there forest ecosystem types within the management unit or ecoregion that have significantly declined?

Assessment Methodology:

- NatureServe
- Natural Heritage Information Centre
- WWF Ecoregion Conservation Assessment
- Conservation International
- FSF 2004-2024 FMP (Historic Forest Condition and Trends)

The public attention to White Pine (*Pinus strobus*) forest type demands a careful accounting of this forest type. Red Pine (*Pinus resinosa*) is often associated, and has undergone the same decline. The forest management planning exercise deals with this unit in depth. A provincial policy statement on old growth has been recently put forward. There is evidence that the extent of the white pine forest type has not declined (2004 FMP) but the historic highgrading of big old pine trees reduced the extent of old stands.

Hemlock (*Tsuga canadensis*) has also declined, from the early part of the 20th century when this species was desired for its strength and resistance to rot.

Since both specifically focus on the old age classes, it will be important to identify, as part of the new OMNR Old Growth Policy (OMNR 2003) what this will mean for the management of these species.

Declines in other species, such as the mid tolerant tree species, are a result of highgrading of individual trees out of a stand. This is discussed in an earlier question. This is not regarded as an ecosystem decline.

Finally, there is a potential for undisturbed old tolerant hardwood stands to exist on the forest. One stand has been identified on the Nipissing Forest, and anecdotally, several exist in Algonquin Park. This is identified as a potential HCV, consistent with the draft GLSL standard which requires managers to set aside stands such as this should they be discovered.

• Table 8 Forest types that have declined (Question 9).

General description/ Source	Value	Summary of HCV attributes: 1) Habitat description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
Tree species showing historic decline /MNR district	White and Red Pine – older age classes >150 years Map 11	1) Dry to fresh uplands; FEC types 11 to 13 (Chambers 1997) 2) Common in FSF; Inventory exists; update underway; Historic decline 3) Stable at this time; logging occurs 4) Risk in long term decline if improper monitoring and prescriptions 5) Prescriptions applied	1) Presently stable & relatively common 2) Low risk of decline; Specific prescriptions via tree marking 3) historic decline HCV
Tree species showing historic decline /MNR district	Hemlock – all age classes Map 11	1) Dry to fresh uplands; FEC 28 (Chambers 1997) 2) Common in FSF; Larger stands mapped 3) Significant decline late 19 th century, logging still occurs 4) Risk in long term decline if improper monitoring and management 5) Prescriptions applied by tree markers	1) Evidence of long term decline; relatively common 2) Present risk low; prescriptions 3) Historic decline documented HCV
Tree species showing historic decline /MNR district	Tolerant hardwood– undisturbed old age classes	1) Dry to fresh uplands; FEC 23 to 30 (Chambers 1997) 2) Undisturbed stands have been identified on adjacent forests (Nipissing and Algonquin) none known in FSF 3) Significant decline late 19 th and early 20 th century due to high grading. 4) Unlikely that any stands are still in undisturbed condition. 5) Identification by tree markers of undisturbed stands is the safeguard.	1) undisturbed forests are possible but none identified at this time 2) Would be valuable if they were found. Tree markers would be able to identify in the field. 3) Historic elimination Possible HCV
Wildlife Plots and Growth and Yield Plots / MNR region	Wildlife Plots and Growth and Yield Plots	1) Permanent survey plots required for monitoring of various forest attributes 2) Common in FSF; all mapped 3) Most are fairly recently established 4) Required for long term monitoring of	1) Evidence of long term decline; relatively common 2) Present risk low; prescriptions 3) Historic decline

		different ecosystem types 5) Reserves applied	documented not HCV
--	--	--	------------------------------

HCV Designation Decision

Both Hemlock and White and Red Pine are high profile species, that have undergone a decline in the abundance of older age classes. Managers are already cautious in managing this species, as a result of public pressure. Designation of both as HCV confirms the importance of a precautionary approach. Undisturbed tolerant hardwoods are also a potential HCV, and if any are identified consistent with Criterion 6.3 of the standard, they would be managed as HCVs.

10) Are large landscape level forests (i.e large unfragmented forests) rare or absent in the forest or ecoregion?

Assessment Methodology:

- WWF Ecoregional assessment
- Global Forest Watch Intactness mapping
- Roads layer for Nipissing Forest
- OMNR Lands for Life assessment

Fragmentation is mainly by some utility corridors, and roads in the part of the forest that is public land. Overall however the long-lived impacts of humans on the landscape are still visible, in what is referred to as a semi-natural forest. The World Resource Institute map (Map 10) of intact forest shows two large areas in the north of the FSF. These fall approximately in the enhanced management areas outlined in the Living Legacy document (OMNR 1999). EMA numbers: E119r (172,000 ha); E 104a (72,000 ha). These sites are managed as part of the living Legacy land use plan. Restrictions do apply to forest operations particularly road building. These are dealt with as a part of normal forest management planning and operations. The enhanced management area was not designated as HCV on its own merits, although there is HCV attributes within these areas (Table 9).

The private land, including the communities within the forest, are more fragmented and continually impacted. There are many examples of private forest that is poorly managed, benign neglect being typical, although some very well managed areas do exist in this part of the forest.

Fire is not a dominant disturbance in this part of the province. Being in the lee of the Great Lakes means there is usually ample moisture. Some fires do occur, and perhaps more significantly, wind blow down. These would be regarded as natural disturbances. Human disturbance is primarily roads and utilities.

• Table 9 HCV listing from question 11 related to fragmentation

General description/ Source	Value	Summary of HCV attributes: 1) Value description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
Enhanced Management Area /MNR Living Legacy Land Use	Enhanced Management Areas Low density roads, semi wild area	1) An area of low road access 2) See map in FSF (E119r = 172,000 ha; E 104a = 72,000 ha); primarily in the north. 3) Road density not increasing; logging occurs 4) Increased access has a number of implications to other values; no implications	1) Designated in the Living Legacy doc. 2) No risk of change in designation; Specific restrictions in the FMP 3) Threshold is the

Plan	E119r = 172,000 ha; E 104a = 72,000 ha Map 10	from logging other than access. Values other than roadlessness are protected by other means. 5) Land use plan direction followed by FMP; road restrictions in effect.	protection of roadlessness. which is assured. not HCV
------	--	--	---

HCV Designation Decision

No HCVs were designated as a result of this analysis, primarily based on the strength of the land use strategy in place, and recently revisited through OLL.

11) Are there regionally/nationally significant diverse or unique forest ecosystems?

Assessment Methodology:

- NHIC Natural Areas
- NatureServe Communities
- Ontario Areas of Natural and Scientific Interest
- WWF/MNR L4L Conservation Assessment (protected areas “gap analysis”)
- WWF Ecoregion Conservation Assessment

In our assessment all of the rare or diverse ecosystems in the forest have been represented in protected areas, either prior to, or during the Ontario Living Legacy program. Life Science ANSIs: Provincially significant Life Science ANSIs are encompassed by OLL Land Use Strategy new protected areas designations therefore they are designated not HCV.

Both White pine and Hemlock forest types are nationally or regionally significant depending on the perspective of the stakeholder group. There is no doubt these forests are characteristic of central Ontario. These are discussed and designated in Question 9.

In the original toolkit there was a question (formerly 12) that asked: Does the forest constitute or form part of a forest landscape that is significantly more natural in terms of species composition, stand structure and habitat composition than what is usual in the area or region? Rather than disregard that question, we have included the response from the original report. We note that this appears to be covered by the current question 12.

Relative to the three measures, this semi natural forest can be briefly characterized as:

- species composition -- contains all of the species that occurred there one hundred years ago,
- stand structure – attempts are made to emulate natural forest structure
- habitat composition is similar to natural forest, but types are in different proportions.

Overall, forest harvesting and human impact throughout the forests of central Ontario has uniformly altered these three criteria. The direct answer to this question is that this forest is not distinctly different from the surrounding forest licenses to warrant a special HCV designation. It is distinctly less fragmented than all of the forest to the south, and still is covered by semi-natural forest vegetation. The forested nature of this part of Ontario is the attraction to the large population to the south. It is of high conservation value to those members of the public, but this is dealt with as a social value.

In response to reviewers request for more background information on the natural forest condition, we cite the Westwind Forest Stewardship Inc Forest Management Plan (2004).

HCVF Designation Decision

There were no HCVs identified in this category.

Category 4) Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)

12) Does the forest provide a significant source of drinking water?

Assessment Methodology

- Muskoka Watershed Council
- Municipal Websites (Bracebridge, Huntsville, Parry Sound)
- Known usage of water by local communities
- OBM base maps showing topography
- Local terrain mapping
- Provincially Significant Wetlands

Due to the size of the forest, it is natural that to some degree many basic services are provided by the forest: stream flow regulation; quality and quantity of water supply, flood and drought prevention. In Table 10 is a basic description of the rationale for the assessment.

The absence of large communities (Huntsville at population ~18000) is the largest, and given the abundant supply of clean fresh water, there have not been issues with supply of water. The FSF borders on, for hundreds of kilometres, the Great Lakes, the world's largest source of fresh water. Major lakes (Muskoka Lakes) are also within its boundaries.

HCV Designation Decision

Between the size of the source, and the low population density, and the strict regulations about working near water, there is no requirement to designate water supply as an HCV.

- Table 10 Basic Services of Nature assessment for the FSF (Category 4).

General description/ Source	Value	Summary of HCV attributes: 1) Description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
Water / Dept of Fisheries and Oceans	Water supplies for human use, including quality, flow, flood and drought prevention	1) This area is famous for its water quality; considerable interest in this issue in society in general. Westwind Gen'l Manager sits on the Muskoka Watershed Council 2) Water crossings are critical; 3) No major quality issues; flow and flooding can occur. Dept of Fisheries and Oceans has jurisdiction in navigable waterways. 4) Logging impact appears minimal due to selection and shelterwood system; Input during FMP occasional 5) MNR water crossing guide closely followed	1) Quality is normally good, and abundant quantity. No long term issues. 2) Flood protection an issue, but not related to forest harvest. 3) Community satisfaction is the threshold; not often raised as a concern during FMP Not HCV
Terrain impacts of forestry operations /MNR	Erosion, landslide, fire protection; adjacent	1) Erosion can be a local concern; otherwise the rolling terrain and continuous forest cover of the FSF preclude other concerns. 2) Fire return interval is approximately 1000 years; landslides do not occur; there is little	1) Issue is mainly erosion and water impacts, discussed above. 2) Risk low due to landscape conditions.

district	agriculture	agriculture, 3) Erosion issues are regulated by the Dept. of Fisheries and Oceans. 4) Erosion discussed above under water supply quality 5) Erosion discussed above under	3) Indirect issues with forest management only Not HCV
----------	-------------	--	--

13) Are there forests that provide a significant ecological service in mediating flooding and/or drought, controlling stream flow regulation, and water quality?

Assessment Methodology:

- Government policy, monitoring & response programs (Ontario Low Water Response, Surface Water Monitoring Centre)
- Provincially Significant Wetlands
- Literature Review – Effects of forest disturbance on water yield

It can be said that all of the FSF provides significant ecological services in mediating flooding, controlling stream flow regulation and water quality. As a whole, the FSF is the driving force for these natural processes as a result of the fact that continuous forest cover is maintained across a significant proportion of the managed landscape.

There are also a number of wetlands on the forest that provide critical ecosystem service functions such as: ground water recharge and discharge; flood damage reduction; shoreline stabilization; sediment trapping; and nutrient retention and removal. Recent evaluations in the forest have established a number of new “provincially significant” wetlands (Table 11).

• Table 11 Known provincially significant wetlands in the FSF.

Wetland	Area (ha)	Township	%Crown	Sig?
Axe Lake	1570	Monteith, Stisted, McMurrich, Cardwell	60	Y
Bear Lake	994	Monteith, Spence	80	Y
Begsboro Creek	260	McMurrich	9	N
Big East River	189	Stisted	15	Y
Boyne River	193	Sinclair, Franklin	1	Y
Bruce Lake	58	Medora	0	Y
Cooper's Pond	104	Watt	80	N
Distress River	456	Chapman	4	Y
Dwight Bog	106	Franklin	0	N
Fawn Lake	197	Macaulay	0	Y
Haines Creek	42	Foley	0	N
Jevens Lake	53	Muskoka, Morrison	10	Y
Lassetter Lake	39	Sinclair, Franklin	0	N
Lewisham	465	Ryde	90	Y
Loon Lake	179	Muskoka, Morrison	80	Y
Louck Lake	345	Laurier	50	Y
Morrison Lake	151	Morrison	40	Y
Naiscoot River	125	Wallbridge, Harrison	100	Y
Novar Bog	330	Perry, Chaffey	10	Y
Partridge Bay	180	Carling	50	Y
Potato Island	89	Baxter	93	Y
Pell Lake	66	Sinclair	10	N

Pioneer Village	6	Chaffey	0	N
Quarry Island	47	Baxter	92	Y
Sandy Island	128	Cowper	54	Y
Shack Creek	473	Oakley, McLean	40	Y
Wetland				
Shebeshekong	109	Carling	59	Y
Scotia	301	Perry	0	N
Siding Lake	142	Stisted, Stephenson	3	Y
South River	261	Joly, Strong	0	N
Sparrow Lake	224	Morrison, Matchedash, Orillia	86	
Tobies Bay	194	Baxter	65	

HCV Designation Decision

In keeping with a general concern about significant wetlands throughout central Ontario, the managers have reversed an earlier decision not to include provincially significance wetlands as designated HCVs.

14) Are there forests critical to erosion control?

Assessment Methodology:

- Review of OBM base maps showing topography
- Review of local terrain mapping

There is little extremely steep topography or highly unstable terrain that would indicate obvious candidates for designating HCV under this question on the forest. The primary concerns for erosion would be associated with forest clearing on steep terrain and/or areas comprising fine-textured soils prone to erosion through mechanized harvest operations. Operational guidelines⁵ direct how operations on sensitive sites should occur.

HCV Designation Decision:

There is no evidence of high risk areas for compromised soil stability, sedimentation or erosion through forest operations on the FSF. Existing risk is managed through provincial guidelines to protect the physical environment from negative impact – therefore there is no HCV designation under this category.

15) Are there forests that provide a critical barrier to destructive fire (in areas where fire is not a common natural agent of disturbance)?

This question is deemed not relevant to forest ecosystems in Canada (see Appendix 4 in FSC Canada National Boreal Standard, Version 3.0). We note there is a possible role for wetlands in this capacity. See Table 11 Known provincially significant wetlands in the FSF.

16) Are there forest landscapes (or regional landscapes) that have a critical impact on agriculture or fisheries?

Assessment Methodology:

- Review Literature
- Ontario Ministry of Agriculture and Food
- Review 2004-2034 FMP AOC Prescriptions
- Discussions with local MNR fisheries managers

⁵ OMNR. 1997. Forest Management Guidelines for the Protection of the Physical Environment.

There are no agricultural operations on the forest of any significant size. The local topography in the North Bay District is influenced by underlying Precambrian bedrock of the Canadian Shield, making much of the area unsuitable for intensive agricultural activity.

The report currently being developed by Westwind reviewing the other economic activities (ASIF Project Management Consulting, 2004 DRAFT) on the forest shows that agriculture is small, and commercial fisheries almost negligible.

HCV Designation Decision

There is no current HCV associated with agriculture or fisheries on the FSF.

Category 5) Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).

17) Are there local communities? (This should include both people living inside the forest area and those living adjacent to it as well as any group which regularly visits the forest). Is there anyone within the community making use of the forest for basic needs/ livelihoods. If it is not possible to assume that it is NOT important then assume that it is.

Assessment Methodology:

- NRVIS data
- Socio-economic Description in 2004-2024 FMP
- Discussions and correspondence with First Nations during forest management planning consultation sessions
- Discussions and correspondence with non-native communities and stakeholders during forest management planning consultation process

This question is paraphrased with the following questions: Is anyone within the community making use of the forest? (Look at members or subgroups rather than treating the community as homogenous.). Is the use for their basic needs/ livelihoods? (Consider food, medicine, fodder, fuel, building and craft materials, water, income. If it is not possible to say that it is NOT fundamentally important, then assume that it is.)

In Table 12 is a summary of the information from various consultations. Westwind has also recently commissioned a socio economic review (ASIF Project Management Consulting, 2004 DRAFT) of the forest covering a wide range of activities:

- Cottage Industry
- Trapping Industry
- Hunting (Moose, Deer, Bear)
- Fishing
- Resource-Based Tourism & Tourist Establishments
- Remote and Semi-Remote Tourism
- Snowmobiling Industry
- Mining Industry
- Aggregates Industry
- Bait Fishing Industry
- Other Non-Forest Products (Wild Rice, Cranberry Production)
- ATV Industry
- Hiking, Cross-Country Skiing, Canoeing, Birding, Scenic Touring & Crown Land Camping
- Marina Industry

These activities have a varying degree of interaction with forestry. In Table 12 are the most high profile considerations, along with a basic analysis.

• Table 12 Economic and cultural considerations for HCV analysis.

Value	Summary of HCV attributes: 1) Description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
Bear mgmt areas	1) Hunting areas assigned by OMNR; to outfitters and lodges catering to hunters 2) Cover FSF; actively used 3) Viable business opportunity; values by forest based outfitters 4) Bears are opportunistic; and harvest has little; some requirement to fall mast crops 5) Prescriptions applied by tree markers	1) Stable viable forest business 2) Impact present risk low; 3) Indirect issues with forest management only Not HCV
Areas adjacent to Cottage Lakes	1) The Cottage Lakes of Muskoka and Parry Sound are the most widely known characteristic of this area. Most cottagers are not from southern Ontario. . 2) Cottages are all private land; adjacency occurs with FSF logged areas frequently 3) Tourism is the largest economic value of the area. Cottagers are fairly vocal participants in the FMP process; mainly over adjacency 4) Aesthetic concerns primarily 5) Prescriptions applied by tree markers according to FMP. Viewscapes are potential HCV but no prominent ones in the area of forest management.	1) Primarily aesthetic value, stability means long term satisfaction of cottage users 2) Selection & shelterwood systems mitigate impact; Cottagers proactive in bringing concerns 3) Threshold indistinct; cottagers generally accept logging; some locations may warrant HCV status; not identified Possible HCV
Heritage, tourism and recreation trails	1) Trails are part of the tourism infrastructure of the FSF. A wide range of trails exist, but predominantly snowmobile, trans Canada trail. Local trails for other activities 2) Trails cross all of FSF; adjacency occurs with FSF logged areas frequently 3) Tourism is the largest economic value of the area. Trail users are vocal in the FMP process; mainly over adjacency of logging. 4) Aesthetics can be effected by improper logging. 5) Prescriptions applied by tree markers according to FMP. Viewscapes are potential HCV but no prominent ones in the FSF area of forest management.	1) As an aesthetic value, sustainability refers to long term dissatisfaction of trail users; incl tourism business 2) Selection & shelterwood systems mitigate impact; Cottagers proactive in bringing concerns 3) Threshold indistinct; complaints do occur in FMPs; some locations may warrant HCV status; not identified at this time. Possible HCV
Traplines Economic cultural activity	1) Traplines are a source of income; part of the rural culture; long history of fur trapping 2) Designated trap areas cover FSF; 3) Trapping active and viable 4) Logging impact appears minimal due to selection and shelterwood	1) Presently a viable activity 2) No evidence of decline; but fur markets cyclical 3) trappers appear content with current process, and forest management

	system; Input during FMP occasional only from trappers 5) No special prescriptions (except rarely around some beaver lakes)	Not HCV
Great Lakes Heritage Coast	1) The Great Lakes shoreline of Muskoka and Parry Sound is a world famous attraction for tourism, boating, kayaking etc.. Mostly fragile forest sites, shallow sites, rock. 2) All along the GL shoreline within 1 km of shore. 3) Tourism is the largest economic value of the area. Vocal participants in FMP planning. 4) Aesthetic concerns primarily; area designated no harvest; marginal timber values 5) Reserve designation within the 1 km of the coast; beyond the 1 km zone, as far as Hwy 69, some management is allowed.	1) Primarily an aesthetic value, stability refers to long term satisfaction of tourism establishments. 2) Selection & shelterwood systems mitigate impact; but potential aesthetic concerns 3) A prominent world class attraction HCV
Major Water bodies of Cultural or Historic Significance French River, Big East River	1) Rivers used historically to develop the area, or as major travel routes historically 2) In FSF several significant rivers traverse from east to west. 3) Tourism is the largest economic value of the area. Vocal participants in FMP planning. 4) Aesthetic concerns primarily; area designated no harvest; marginal timber values 5) Reserve designation.	1) Primarily an aesthetic value, stability refers to long term satisfaction of tourism establishments. 2) Selection & shelterwood systems mitigate impact; but potential aesthetic concerns 3) National significance historically; Provincially important attractions. HCV

HCV Designation Decision

Based on several reports (ASIF, 2004; Ontario, undated; Great Lakes Heritage Coast Project 2001) and consultations, at this time two HCVs are designated: The Great Lakes Heritage Coast, and the Heritage rivers in the forest: the French and Big East. Other values have merit, but are typically addressed through the FMP process, and the forest practices guides which regulate activities near them. We have identified two possible HCVs: areas adjacent to cottage lakes, and heritage, tourism and recreation trails.

Category 6) Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

18. Is the traditional cultural identity of the local community particularly tied to a specific forest area?

Assessment Methodology:

- Discussion with MNR native liaison officer
- NRVIS data on cultural values
- Heritage River Parks on the Forest
- Canadian Heritage River Program
- Background Native Information Report
- Discussions and correspondence with First Nations during forest management planning consultation sessions
- Discussions and correspondence with non-native communities and stakeholders during forest management planning consultation process

This can only be answered in co-operation with local communities. In the case of non-native communities, most sites of cultural significance are on private land, for historic reasons. It is possible there are sites that could be impacted on the FSF. These would be identified as possible HCVs, however the actual characterization of these is vague at this time, since no examples were brought forward. One such example could be an old mill site, or graveyard now abandoned. However, these would have to be associated with active communities, to meet the criterion above. Cultural values are safeguarded through normal planning procedures.

From the aboriginal view, there is a particular focus on First Nations communities, in the absence of other aboriginal communities. Some important cultural sites are distributed through the FSF. This requires the forest manager to consult with local communities. Possible indicators for cultural importance include: names for landscape features; stories about the forest; sacred or religious sites; historical associations; amenity or aesthetic value.

There are a total of six, individual, First Nations (FN) that have communities and reservation lands within the French/Severn Forest (FSF) and another two FN that have a traditional interest in the FSF. All are in Treaty with the Government of Canada and most are involved in Land Claims.

Historically, the eight FN are extremely diverse and remain distinct in their present capacities and/or interest in forest management. To date, Dokis and the Algonquins of Golden Lake have had the greatest involvement and capacity to participate in the Forest Sector. Several communities are involved in a Tribal Association, the Waabnoong Bemjiwang Association of First Nations (WBAFN), and are currently doing some brush saw and herbicide application work. Other FN communities are involved to a lesser degree and may be focused on tourism as a means of economic development. In general, there is an interest among area FN to develop their capacity and employ more of their membership in forestry related activities.

There are many non native communities, the four largest being Huntsville, Bracebridge, Parry Sound and Gravenhurst.

In Appendix 5 is an excerpt of the OMNR report on the native values that is a central part of the FMP process. This describes the status of the values maps, and the willingness of the First Nations to participate. In total the Parry Sound District will have six NBR and/or values maps out of a possible seven. The only community not wishing to participate at this time are the Wahta Mohawks although they too have shown some interest in the past.

The FSF remains rich in Aboriginal culture. Traditional names are prevalent throughout the landscape many of which have been adopted into modern main stream society. Reference to names like Muskoka and Algonquin are common place in our world today. Massassauga, Waubamik, Noganosh, Wahwashek and Manitouwabing are further examples of place names of Aboriginal significance.

Exact locations of values and places of importance to the First Nations are not available as a map for this HCVF report, but, as described in the overview, will depend on the FMP process to ensure that native values are safeguarded. In the following section on managing HCVs, any special management arrangements will be described.

• Table 13 Generic descriptions of First Nation and aboriginal values.

General description/ Source	Value	Summary of HCV attributes: 1) Description; 2) FSF Occurrence; 3) status info; 4) Risk from forest operations; 5) Current Management	HCV threshold /Decision 1)stable & sustainable 2) risk 3)quantifiable threshold 4)other
First Nations cultural and social values /MNR	Trails	1) Trails – trading routes, village to village, river and lake systems, trail markers, cairns, pictographs and traplines (generic description) 2) FSF information not publicly available 3) unknown 4) Risk as per non native trail systems 5) Trail systems prescription requirements defined during FMP	1) unknown 2) normally risk to trails systems would be impairment of aesthetics or access. Unknown. 3) unknown Possible HCV
First Nations cultural and social values /MNR	Habitation Map 12	1) Habitation - Village and seasonal camp sites, stockades, caves, caches, trapper's cabins, lookouts, guardposts, gathering places and places of sanctuary (generic description) 2) FSF town sites are on reserves, not under the management of Westwind. Other sites are identified as part of the FMP process 3) Good information about permanent structures. Other info unknown. 4) No risk to permanent structures. 5) Prescriptions as for other infrastructure on crown lands.	1) all townsites are not part of the planning area; other infrastructure on crown lands are under permit; 2) minimal risk to permanent infrastructure 3) sites which are identified as of significance to FN's would receive special consideration Possible HCV
First Nations cultural and social values /MNR	Spiritual Sites	1) Spiritual sites – ceremonial, sweats, fasts, childbirth, vision quests, burial, petroglyphs (sp), pictographs, worship and meeting places (generic description). 2) Not available 3) Unknown status 4) Unknown risk 5) Prescriptions would be provided as needed.	1) Some information is known but not available 2) No evidence of impact 3) Sites which are identified as of significance to FN's would receive special consideration

			Possible HCV
First Nations cultural and social values /MNR district	Sustenance gathering sites	1) These harvesting sites – medicines, fish, game, culturally modified trees (CMT's), plants, building materials, stone, berries, crafts and camps for drying berries/fish/meat (generic description) 2) Not available 3) Unknown Status 4) Unknown risk 5) Prescriptions would be provided as needed.	1) Presently information is known but not available 2) No evidence of decline; 3) Sites which are identified as of significance to FN's would receive special consideration Possible HCV

HCVF Determination Decision

All First Nations Values are possible HCVs. Treatment as HCVs is dependent only on identification, and specific management prescriptions, and monitoring.

Question 19) Is there a significant overlap of values (ecological or cultural) that individually did not meet HCV thresholds, but collectively constitute HCVs?

Assessment Method

- Review of previous values

There were no apparent agglomerations of values that would lead to new HCVs. Most values either make HCV on their own merits, or are not particularly associated with other values, that would bring them over a threshold. It is difficult to determine a threshold for accumulations of values. In review, it was clear that the prime thresholds were sensitivity to forest operations, and visibility to forest users. In most cases the values have already required the managers to address them with specific practices to mitigate impacts. No HCV is identified with this question.

Phase 2: Managing HCVF attributes

The overall goal of *managing* HCVF in keeping with the FSC criterion 9.3 is

"The management plan shall include specific and implemented measures that ensure the maintenance and or enhancement of the applicable conservation attributes consistent with the precautionary approach."

Several points from this criterion have guided our approach to managing HCVs:

- The predominance of "the management plan" -- there is no separate list of prescriptions based on separate objectives for HCVs.
- "Specific and implemented measures" – detailed prescriptions are written for the values during the planning process
- "Maintenance or enhancement" – based on the concept of no net loss, managers must aim at ensuring the value is sustained.
- "Precautionary approach" – the precautionary approach sets a high standard for management because it requires a demonstration that no impact is occurring; which is very difficult.

It is worth repeating that the plan and the planning exercise drive the Westwind approach to HCVs. The planning process contains a significant amount of public consultation, which has also been verified to meet FSC standards. The Proforest anticipated process for determining management requirements (Jennings 2002, section 3.1 "Guidance For Managers")

• Table 14 Management Prescriptions and monitoring for the selected HCV on the French Severn Forest.

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status
Massasauga Rattlesnake	1) Potential overwintering habitat 2) Basking and brooding sites for females	OMNR-- Wildlife biologists will identify stands where rattlesnakes are known to occur and the extent of potential critical habitats (overwintering areas and basking and brooding sites) within those stands. OMNR responsible for monitoring effectiveness.	Description: Normal harvest operations in all working groups. No mechanical or chemical site preparation or chemical tending in areas identified as overwintering habitat or basking and brooding sites. In brief: Mechanical site preparation in the remainder of the stand must not occur between October 1 and May 31. Tertiary roads and landings not permitted in locations identified as critical habitat for Massasauga rattlesnakes Chemical site preparation and/or chemical tending will be considered on a case by case basis where application techniques can be employed to ensure that identified potential habitats are not treated. Prior authorization by District Manager is required.	Compliance MNR Westwind compliance staff routinely ensure prescription applies appropriately. Effects Effectiveness: Ontario Parks Staff at Killbear Provincial Park provide local expertise. Status: appears stable
Red-shouldered hawk	RSH Nesting sites -- 1) Active 2) Inactive	OMNR biologists are required to determine presence of nests and whether inactive or active. Tree markers, other technical staff, and loggers report observed nest sites. OMNR has responsibility for monitoring effectiveness of prescription, and protection measures. AOC prescription: FMP Table 17 AOC identifier: RSH COH	1) ACTIVE NESTS: AOC consists of a 150 m reserve and a 150 m modified area. Boundary of AOC is measured from the nest tree. Selection harvesting that retains at least 70 percent canopy closure is permitted in the MMA. MMA should be located so as to encompass suitable habitat and satellite nests, if present. Satellite nests should be protected with a 20 m reserve. No harvesting permitted from March 1 until July 31. 2) INACTIVE NESTS: AOC consists of a 20 m reserve. It is suggested that the status of the nest be confirmed before harvest. Description from Page 29 in Chapter 3.8, Habitat Management Considerations by Brian J. Naylor <i>in Silvicultural Guidelines for the Tolerant</i>	Compliance MNR Westwind compliance staff routinely ensure prescription applies appropriately. Effects Effectiveness: Technology Development Unit North Bay Status: appear stable

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status
			<i>Hardwoods, A. Corlett, eds. OMNR</i>	
Great Blue Herons	Great Blue Heron Colonies	<p>OMNR responsible for inventory OMNR biologists are required to determine presence of nests and whether inactive or active. Tree markers, other technical staff, and loggers report observed nest sites.</p> <p>OMNR has responsibility for monitoring effectiveness of prescription, and protection measures.</p>	<p>See AOC ID GBH 10. Great Blue Heron Colonies. CD File: 10 FMP17 GBH.pdf</p> <p>In brief: Reserve:</p> <ul style="list-style-type: none"> • 150 m reserve measured from the outside edge of the colony • where the edge of the colony is more than 150 m from the treed edge, the reserve is measured from the edge of the colony to 30 m beyond the treed edge of the waterbody <p>Modified: modified area is dependent on the size of reserve and the distance the colony is from the shoreline. It extends beyond the reserve to the total AOC dimension of 300 m.</p>	<p>Compliance MNR and Westwind compliance staff routinely ensure prescription applies appropriately</p> <p>Effects, Effectiveness: The prescription is being reviewed currently and monitoring is occurring directed by MNR region (Naylor et al 2004).</p> <p>The current approach in FSF is regarded as an exception by MNR, and as such requires monitoring.</p>
Moose Aquatic Feeding Areas (MAFAs) Mineral licks Calving sites	<p>Class 3 or 4 MAFAs</p> <p>Moose aquatic feeding areas are used by moose in the late spring and early summer (late May until late July) as important feeding areas. Maintaining reserves around these areas provides hiding cover for moose calves which their cows are feeding and bedding sites with good thermal cover (particularly in dense conifer thickets) for adult moose</p>	<p>OMNR responsible for inventory</p> <p>Three year survey's of moose population trends by MNR</p> <p>OMNR responsible for monitoring effectiveness</p> <p>Potential moose aquatic feeding areas were surveyed and mapped by helicopter in the summers of 1991 and 1997 using the methodology outlined in the <i>Selected Wildlife and Habitat Features: Inventory Manual</i>. Only Class 3 and 4 moose aquatic feeding areas are shown as values</p>	<p>Summary – see (FMP Table 17 AOC ID MAF MML#3) and Supplementary Documentation in the FMP for complete prescription. See file in AOC folder on CD file:3 FMP MAF MML Final.pdf</p> <p>In brief:</p> <ul style="list-style-type: none"> ■ Selection width of reserve and modified area is 30/90 for all class 3 and 4 areas and for class 2 areas where carrying capacity is low. Where Kaq is medium or high, width of AOC for class 2 areas is 0/120. ■ Shelterwood width of reserve and modified area varies from 30/90 to 90/30 depending on Kaq rating for class 3 and 4 areas and for class 2 areas where carrying capacity is medium and low. Where Kaq is high, AOC for class 2 areas is 0/120 for shelterwood cuts except for final removal cuts where the reserve and modified areas are 30/90. 	<p>Compliance MNR and Westwind compliance staff routinely ensure prescription applies appropriately</p> <p>Effects, Effectiveness: The prescription is being modified currently and monitoring is occurring directed by MNR region. It is regarded as an exception by MNR, and as such requires monitoring. now an exception.</p> <p>Status: Based on expert opinion, this value appears stable</p>

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status
	moose.	shown as values	<p>■ Clearcut width of reserve and modified area varies from 30/90 to 120/0 depending on Kaq rating.</p> <p>Mineral licks will be treated with the same AOC prescription as class 4 aquatic feeding areas.</p> <p>Based on Page 24 in Chapter 3.8, Habitat Management Considerations by Brian J. Naylor <i>in</i> <u>Silvicultural Guidelines for the Tolerant Hardwoods</u>, A. Corlett, eds.) apply to moose aquatic feeding areas and mineral licks:</p> <p>Calving sites receive a 120 m AOC, with a 20 m reserve and a 100 m modified area.</p>	
White-tailed Deer Wintering Areas	<p>Featured game species of social, cultural and economic significance; wintering areas are a critical life requirement;</p> <p>Large yards (Map 9) provide:</p> <p>(1) Coniferous Shelter - general</p> <p>(2) Coniferous Shelter - migration/travel routes</p> <p>(3) Browse Supply</p> <p>(4) Mast Production Areas</p>	<p>OMNR responsible for inventory and assessment of good winter habitat</p> <p>OMNR responsible for monitoring effectiveness of prescriptions</p> <p>1) Deer are stable or increasing in area; wintering areas are key.</p> <p>2) Inappropriate harvest could impair quality of yards</p> <p>3) Deer are an importance game species; benefit of precaution</p>	<p>See AOC ID FMP 17 DWH 2. Deer Winter Habitat also on CD file: 2 FMP17 DWH final.pdf. Note this is a particularly long AOC prescription, and should be viewed in the plan.</p> <p>In brief (from FMP 17):</p> <p>thermal cover: conifer stands especially those dominated by hemlock (ES 30), or cedar (ES 21, 22, 33 and 34), stands dominated by white pine, white spruce or balsam (e.g. ES 11, 14, 18 and 20) if conifer canopy closure is high enough, or tolerant hardwood stands with a strong component of hemlock (ES 28); all pockets of conifer at least 0.04 ha (400 sq. m) in size, at least 10 m tall and with at least 60 % conifer canopy closure</p> <p>PART of prescription only. See FMP supplementary documentation for parts ii</p>	<p>Monitoring occurs periodically for large ones, though not annually. Depending on operations.</p> <p>Effects Effectiveness: Significant yard in the north of the district called Loring; other large yards exist; recent warm winters have driven up deer populations. This may increase pressure on yards during cold winters. Yarding areas appear stable.</p> <p>Status: Mapping is difficult to keep up to date; need more frequent monitoring for use by deer</p> <p>Potential trade off between the quality of deer wintering areas and white pine management.</p>

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status
			to vi.	
Protected areas	Parks and Candidate protected areas from Living Legacy process	OMNR has responsibility for this land use designation.	These areas are protected from forest management.	Monitoring is the responsibility of Ontario Parks. There is no resource extraction; natural forces are expected to dominate.
Late Seral White and Red Pine	<p>Age Class >150 yrs in GLSL ecosite 11 to 14.</p> <p>These are primarily White Pine dominated.</p> <p>In addition to Pw in protected areas, riparian and other buffers, managers need to ensure that old white pine stands exists on the landscape in keeping with the stated objective of the FMP and OMNR (2003) draft provincial policy requirements.</p> <p>Map 11</p>	<p>Inventory and effectiveness of prescriptions responsibility of Westwind.</p> <p>Inventory of old stands is a problem because of high variability within stands, and chronic lack of information.</p> <p>Current updating of pine inventory is underway by Westwind as part of an enhanced cruising program that will include increment boring for actual age.</p> <p>Map 11 depicts White and Red pine and other species.</p>	<p>Old pine stands on the FSF are almost non-existent because of historical cutting practices. Over the last three Forest Management Plans, and with the recent old growth policy for the province, Westwind has initiated a recovery program. The following text is the guide for the little oldpine that now occurs, and will guide the onset of old growth pine.</p> <p>The prescription for pine stands that are less than the defined ages for old growth in the draft Old Growth Definitions (OMNR 2001) are stipulated by the FMP.</p> <p>For pine in the >150 age class, the approach follows the direction of the draft Old Growth policy (OMNR 2003) and the draft Old Growth Definitions (OMNR 2001)</p> <p>In brief stands designated in the >150 yr category that are in the production forest, and not in a reserve, are included in the SFMM land base for possible harvest. In reality there will no old pine harvested in the foreseeable future. The draft Old Growth Policy requires: "Where special objectives for old growth are required, age class constraints are used to maintain a natural age range of forest structure and composition at all scales of ecosystem management to ensure the continued</p>	<p>Monitoring for the presence of old pine is being undertaken during the cruising program now underway.</p> <p>Effects Effectiveness: Current monitoring is occurring for effectiveness of past silviculture approach.</p> <p>Status: A significant portion of the old pine stands are in protected areas. Stands on the production forest are being inventoried as part of the new plan, as cruising occurs.</p> <p>Old growth characteristics on the production forest will be an important part of future monitoring plans, as part of the HCV designation.</p>

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status
			<p>presence of old growth".</p> <p>Therefore the managers must ensure that a continuous presence of old (>150 yrs) ES 11 to 14 are present on the landscape. The proportion of the age class distribution represented by these stands is based upon past distribution, current distribution. The new FMP addresses this requirement..</p>	
Hemlock	Tree species showing historic decline /MNR district Map 11	<p>Ecosite 28 to 30 have significant representation from tolerant hardwood species such as maple and yellow birch.</p> <p>Potential as a First Nations value as an economic development opportunity.</p> <p>Inventory analysis showed about 35 to 45% was older than 180 years.</p>	<p>Prescription is in the 2004 FMP. There was 166 ha in the last FMP and there was little cutting</p> <p>Although there is some harvesting in the Hemlock forest unit there were not many Hemlock trees cut; usually maple or other spp. within the stand designated as ES 28 to 30.</p>	<p>Compliance by MNR and Westwind</p> <p>Regarding status, it is fortunate that a species that the industry does not want; is also good for wildlife, and is long lived. Often old high quality white pine are mixed with hemlock</p>
Great Lakes Heritage Coast	Economic cultural activity /MNR district (OMNR 2001. Charting the course)	<p>1) Planning responsibility for the Great Lakes of shoreline of Muskoka/ Parry Sound are responsibility of OMNR main office</p> <p>2) All along the GL shoreline within 1 km of shore.</p> <p>3) Tourism is the largest economic value of the area. Vocal participants in FMP planning.</p> <p>4) Aesthetic concerns primarily; area designated no harvest; marginal timber values</p> <p>5) Reserve designation.</p>	<p>The Great Lakes Heritage Coast is a policy for special planning for the protection and enjoyment of the significant values along the coast. The government is leading this project.</p> <p>Based on AOC ID SGB #23 Shoreline of Georgian Bay</p> <ul style="list-style-type: none"> • 120m reserve or skyline, whichever is greater. 	<p>Compliance: After application of any management prescriptions, if they occur, there will be compliance monitoring following normal procedures.</p> <p>Status: Based on a wide range of opinion, there is no significant risk to this highly visible and important value.</p>

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status																											
Provincially Significant Wetlands	Forest lands adjacent to or within Provincially Significant Wetlands	1) OMNR responsible for wetlands mapping and evaluation based on the northern Ontario Wetlands evaluation system. 2) Several throughout FSF. 3) Biological significance; water retention. 4) Marginal timber primarily lowland mixedwood 5) Reserve designation.	AOC ID PSW# 32 On CD file:32 FMP17 PSW. Normally wetlands receive a reserve around the edge based on high water mark and slope. In the case of provincially significant wetlands that are evaluated, the boundary will be determined by the wetland map from the independent evaluation. Most sites are located in lowland mixedwoods with low AAC	Compliance: Compliance monitoring will ensure that the boundary reserves are followed, and align with the independent evaluators determination of the boundary. Status: No extraordinary risk to the values is expected.																											
Major water bodies with cultural and historic significance	French River, Big East River, Magnetewan River	1) OMNR responsible for waterway protection. 2) Cross FSF. Maybe other significant waterway systems . 3) Biological significance; aesthetic importance. 4) Marginal timber impact since normally excluded from operations. 5) Reserve designation.	Prescription follows normal waterway (AOC <table><tr><td>Shoreline</td><td></td><td></td></tr><tr><td>Slope (%)</td><td>Reserve</td><td>Modified</td></tr><tr><td>0-15</td><td>30m</td><td>90m</td></tr><tr><td>16-30</td><td>50m</td><td>70m</td></tr><tr><td>31-45</td><td>70m</td><td>50m</td></tr><tr><td>45+</td><td>90m</td><td>30m</td></tr></table> See FMP for further information on details of prescription. Also special prescription for Magnetwan River: AOC ID WILD#35 The Parry Sound Wildlands is an area identified in the Parry Sound District Land Use Guidelines (OMNR, 1983) and comprises parts of Brown and Wilson Townships and along the Magnetawan River from Wah Wash Kesh Lake to Harris Lake. The intent of this area is to provide opportunities for wilderness-like recreation and tourism as well as opportunities for resource development and use and to protect significant natural features. Slope (%) Reserve Modified <table><tr><td>0-30</td><td>60m</td><td>60m</td></tr><tr><td>31-45</td><td>70m</td><td>50m</td></tr><tr><td>45+</td><td>90m</td><td>30m</td></tr></table>	Shoreline			Slope (%)	Reserve	Modified	0-15	30m	90m	16-30	50m	70m	31-45	70m	50m	45+	90m	30m	0-30	60m	60m	31-45	70m	50m	45+	90m	30m	Compliance: already significant protection around the Big East River; and French River. In event of operations, normal compliance monitoring will occur. Magnetewan River has more activity, and a special prescription is applied. Monitoring is by Westwind staff and Government staff. As a social HCV, effectiveness is determined by stakeholder satisfaction. This occurs during the five year review of the FMP. Status: No extraordinary risk to the values is expected. Maybe other significant waterways designated.
Shoreline																															
Slope (%)	Reserve	Modified																													
0-15	30m	90m																													
16-30	50m	70m																													
31-45	70m	50m																													
45+	90m	30m																													
0-30	60m	60m																													
31-45	70m	50m																													
45+	90m	30m																													

HCV	Attribute	Responsibility -- Inventory and Monitoring	Prescription (detailed management)	Current Monitoring for compliance, effects, effectiveness, status

Phase 3: Process for Monitoring

Monitoring for HCV attributes are described in Table 14 Management Prescriptions and monitoring for the selected HCV on the French Severn Forest. Only monitoring for designated HCV attributes are listed in this table. The information provided covers only who is responsible and basic information reviewing the monitoring process.

Conclusion

Just as the commitment to the FSC principles and criteria is long term, understanding and fulfilling the requirements of assessing, managing and monitoring High Conservation Value Forest will develop over time, and the input from concerned stakeholders and First Nations will be ongoing.

References

- ASIF Project Management Consulting, 2004 DRAFT. French Severn Forest Economic and Social Effects of Forest harvesting. Available from Westwind Forest Stewardship Inc. Parry Sound.
- Chambers, B.A., B.J. Naylor, J. Nieppola, B. Merchant and P. Uhlig. 1997. Field guide to forest ecosystems of central Ontario. SCSS Field guide FG-01. Southcentral Science Section, Ont. Ministry of Natural Resources. Queen's Printer for Ontario. 200 pp.
- COSEWIC report. 2003. File downloaded from COSEWIC website with general information about some species. File on CD: supporting documentation/HCVF COSEWIC reports.doc
- Forest Stewardship Council, Canada Working Group, 2004. National Boreal Standard, Version 3.0.
- FSC-BC Regional Initiative. 2001. Draft 2 of the FSC Regional Certification Standards Committee; Annex P9b: Supplementary requirements regarding assessment methodology for HCVFs in British Columbia. Pages 103 to 107.
- FSC Principle 9 Advisory Panel. 2000. File on CD: FSC Principle 9 Advisory Panel
- Georgian Bay Littoral Biosphere Reserve. 2004. Application.
- Government of Ontario. 1994. Crown Forest Sustainability Act. Queen's Printer for Ontario. Text available at Ontario Government Website.
- Lambeck, R.J. 1997. Focal Species: A multi-species umbrella for nature conservation. *Conserv. Biol.* 11 (4): 849—860.
- Leadbitter, P. 2000. A comparison of the pre-settlement and present diversity of the forests of central Ontario. MSc(F) Thesis. Lakehead University. Thunder Bay, ON
- McMartin, W. 2001. An assessment of the High Conservation Value Forest Potential of the French Severn Forest, Ontario, Canada as defined under the Forest Stewardship Council's Principle 9. CD file.
- Muskoka Watershed Council. 2004. Submission Of The Muskoka Watershed Council To The Ministry Of The Environment On The Report On The White Paper On Watershed-Based Source Protection Planning. EBR Registry Number: PA04E0003.
- Naylor, B., J Simmard, M. Atkins, G. Lucking, B Watt. 2004. Effects of Forest Management Practices on Breeding Ospreys and Great Blue Herons in the Boreal and Great Lakes – St. Lawrence Forests of Ontario: Final Report (Draft 2). 24pp. On CD file.
- OMNR 1983. Bracebridge District Land Use Guidelines (DLUG), and the Parry Sound District Land Use Guidelines. Available at the district office, Parry Sound.
- OMNR 2003. Old Growth Policy for Ontario's Crown Forests. Draft Version 1.0. February 2003. 29pp.
<http://www.mnr.gov.on.ca/mnr/forests/forestdoc/oldgrowth/OldGrowth.pdf>
- OMNR 2001. Old Growth Forest Definitions for Ontario. OMNR, Queen's Printer for Ontario, Toronto, Ont. 27pp.
- OMNR. 2000. A silvicultural guide to managing southern Ontario forests, Version 1.1. Ont. Min. of Natur. Resources. Queen's Printer for Ontario. 648 pp.

- OMNR. 1996. Forest Management Planning Manual for Ontario's Crown Forests. Queen's Printer for Ontario.
- OMNR 1993. Ontario Wetland Evaluation System: Northern Manual. Queen's Printer for Ontario.
- OMNR. 1999. Ontario's Living Legacy: Land Use Strategy. Queen's Printer for Ontario, 136 pp.
- OMNR. Silvicultural Guidelines for the Tolerant Hardwoods, A. Corlett, ed. Queen's Printer for Ontario.
- OMNR 2001. The Great Lakes Heritage Coast: Charting the course. 23pp. also available at www.mnr.gov.on.ca/glhc
- OMNR (undated). Objectives for Forest Landscape Management of White and Red Pine in Ontario. OMNR website.
- Ontario. undated. Central and Eastern Ontario: Healthy Forests, Healthy business. Available from Ottawa Valley Economic Development Office 613 735 0091.
- Paine, R. 1966. Food web complexity and species diversity. Amer. Naturalist 100: 65-75.
- Proforest. 2002. Identifying High Conservation Values at a national level: a practical guide Open Review Draft 31 October 2002. CD file: HCVF PROFOREST toolkit Open Review 02Nov13.pdf
- Proforest 2002. A toolkit for identifying and managing HCVF. Jennings, S., R. Nussbaum, T. Synnott editors. Review Draft 1. Proforest Inc. Oxford, UK. CD file HCVF PROFOREST toolkit Open Review 02Nov13.pdf.
- Reid, Ron and Bonnie Bergsma. 1994. Natural Heritage Evaluation of Muskoka. A Project of the District Municipality of Muskoka and the Muskoka Heritage Foundation. 266 pages.
- Thomas, J.W. (ed). 1979. Wildlife habitats in Managed Forests: the Blue Mountains of Oregon and Washington. US Dept. of Agric. For Serv Agric Handbook 553. 512 pp.
- Utzig, G.F, and R. F. Holt. 2000. FSC BC Regional Initiative, Principle 9 Technical Consultation: Background Paper. 16 pp + 2 App. CD file: BC P9 HCVF bkgnd-paper 15aug00 TONY lac.doc
- Westwind Forest Stewardship Inc. 2004. French Severn Forest, Forest Management Plan. Available from Westwind directly: 74 Church St. Parry Sound, ON P2A 1Z1 +1 (705) 746-6832 stevemunro@westwindforest.ca
- World Wildlife Fund. 2002. Draft National Toolkit. CD file: WWF P9 HCVF toolkit indicators 02Oc17.doc
- WWF-Canada. 2000. Endangered Spaces: The wilderness campaign that changed the Canadian landscape, 1898 – 2000. World Wildlife Fund Canada. Toronto. 28 pp.

Acknowledgements

Acknowledgments: Westwind gratefully acknowledges the financial support of the Living Legacy Trust. Discussions with many people have aided in the development of this document. We especially note the original work of Bill McMartin in compiling the first report despite the fast changing concepts associated with HCVF. Work by Rike Burkhardt on the Nipissing HCVF

report provided many improvements to the latest version of the FSF report. Other organizations including WWF Canada, and Tembec Inc. have contributed significantly.

Westwind would like to acknowledge the assistance of OMNR in particular Jan McDonnell. Discussions with Lorne Johnson provided valuable guidance. Tony Iacobelli provided excellent technical advice. Several individuals provided helpful advice: Peter Street, Rachel Holt, Brian Callaghan, Brian O'Donoghue, Marg McLaren, Joe Johnson, Ron Black.

Acronyms

COSEWIC	Committee on Endangered Wildlife in Canada
CITES	Convention on International Trade in Endangered Species
FMP	Forest Management Planning
SFL	Sustainable Forest License
FMP	Forest Management Plan
FMPM	Forest Management Planning Manual

Web Sites

Wildlife

BirdLife International.

www.birdlife.net

Bird Studies Canada.

URL: <http://www.bsc-eoc.org/baeant.html>

Convention on International Trade in Endangered Species.

www.cites.org

Committee on the Status of Endangered Wildlife in Canada.

www.cosewic.gc.ca

Conservation International.

www.conservation.org

Environment Canada. Species at Risk.

URL: <http://www.speciesatrisk.gc.ca>

FishBase.

www.fishbase.org

Government of Canada. Canadian Biodiversity Information Facility.

URL: <http://www.cbif.gc.ca>

Government of Canada Digital Collections.

URL: <http://collections.ic.gc.ca>

IUCN Red Data List of Threatened Species.

www.iucn.org

Ministry of Northern Development and Mines.

URL: http://www.mndm.gov.on.ca/mndm/nordev/redb/sector_profiles/agriculture_e.pdf

NatureServe Database.

www.natureserve.org

OMNR. Natural Heritage Information Centre.

<http://www.mnr.gov.on.ca/MNR/nhic/nhic.cfm>

Pennsylvania Department of Conservation and Natural Resources. 1997.

URL: <http://www.dcnr.state.pa.us/polycomm/aug/eag82297.htm>

Royal Ontario Museum. Ontario's Biodiversity: Species at Risk.

www.rom.on.ca

UNESCO World Heritage Sites.

www.unesco.org

Water and Wetlands

Public Works and Government Services Canada.

<http://www.pwgsc.gc.ca/ontario>

OMNR, Lands and Waters. Low Water Response.

URL: <http://www.mnr.gov.on.ca/MNR/water/p774.html>

North Bay-Mattawa Conservation Authority.

URL: <http://www.nbmca.on.ca/>

RAMSAR.

www.ramsar.org

Forest

Global Forest Watch.

www.globalforestwatch.org

World Resources Institute.

www.wri.org

Botanical

Northern Ontario Plant Database

<http://www.northernontarioflora.ca/links.cfm>

borealforest.org

<http://www.borealforest.org/index.php>

Andy's Northern Ontario Wildflowers

<http://www.ontariowildflower.com/>

A Digital Flora of Newfoundland and Labrador of Newfoundland and Labrador Plants

<http://www.nfmuseum.com/flora.htm>

La Flore du Québec

<http://www3.sympatico.ca/arold/famille2.html>

Gallery of Connecticut Wildflowers

<http://www.ct-botanical-society.org/galleries/galleryindex.html>

Wildflowers of the Northeastern and North-central United States

<http://www.dclunie.com/eshelton/wildflow/wildind.html>

New York Metropolitan Flora, Brooklyn Botanic Garden

<http://www.bbg.org/sci/nymf/encyclopedia/listing.htm>

Vascular Plant Image Library, Digital Flora of Texas, Texas A & M University (TAMU)

<http://www.csd.tamu.edu/FLORA/gallery.htm>

Non-Flowering Vascular Plant Family Access Page, University of Hawaii

<http://www.botany.hawaii.edu/faculty/carr/nfpfamilies.htm>

Flowering Vascular Plant Families, University of Hawaii

http://www.botany.hawaii.edu/faculty/carr/phylo_fpfamilies.htm

Wisconsin Vascular Plant Species

<http://www.botany.wisc.edu/wisflora/>

Robert W. Freckmann Herbarium, Univ. of Wisconsin - Stevens Point

<http://wisplants.uwsp.edu/>

Virtual Foliage Home Page, Univ. of Wisconsin - Madison

<http://botit.botany.wisc.edu/>

USDA PLANTS Database

<http://plants.usda.gov/>

Catalogue of North American Gymnosperms, The New York Botanical Garden

<http://www.nybg.org/bsci/hcol/gymn/>

Gymnosperm Database

<http://www.botanik.uni-bonn.de/conifers/taxa.htm>

Floras & Information on Specific Plant Categories

The Flora of North America

<http://hua.huh.harvard.edu/FNA/>

Flora of the Canadian Arctic Archipelago

<http://www.mun.ca/biology/delta/arctic/>

The Canadian Biodiversity Website

<http://www.canadianbiodiversity.mcgill.ca/english/index.htm>

Canadian Poisonous Plants Information Centre

http://www.cbif.gc.ca/pls/pp/poison?p_x=px

Cornell University Poisonous Plants Informational Database

<http://www.ansci.cornell.edu/plants/index.html>

The Electronic Atlas of the Flora of British Columbia

<http://www.geog.ubc.ca/%7Eebrian/florae/>

A Global Compendium of Weeds

http://www.hear.org/gcw/alpha_select_gcw.htm

Den Virtuella Floran (in Swedish, but with excellent pix and circumboreal maps)

<http://linnaeus.nrm.se/flora/di/welcome.html>

Flora of Europe

<http://utopia.knoware.nl/users/aart/>

Taxonomic and Nomenclatural Links

Angiosperm Phylogeny Website, Peter Stevens, Missouri Botanical Garden

<http://www.mobot.org/MOBOT/Research/APweb/welcome.html>

The International Plant Names Index

<http://www.ipni.org/index.html>

w³-Tropicos, Missouri Botanical Garden's VAST database

<http://mobot.mobot.org/W3T/Search/vast.html>

GRIN Database - Taxonomic Information on Cultivated Plants

http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl?

Catalogue of New World Grasses

<http://mobot.mobot.org/W3T/Search/nwgc.html>

Grass Manual on the Web

<http://herbarium.usu.edu/webmanual/>

CyberSedge

<http://www.csd.tamu.edu/FLORA/carex/carexout.htm>

A Synonymized Checklist of the Vascular Flora of the United States, Puerto Rico, and the Virgin Islands (1998)

<http://www.csd.tamu.edu/FLORA/b98/check98.htm>

Flora Europaea Search Page

<http://193.62.154.38/FE/fe.html>

Electronic Plant Information Centre (ePIC), Royal Botanic Gardens, Kew

<http://www.rbgekew.org.uk/epic/>

Index of Botanists, Harvard University Herbaria

http://brimsa.huh.harvard.edu/cms-wb/botanist_index.html

Miscellaneous Links

Internet Directory of Botany

<http://www.botany.net/IDB/>

Appendices

Appendix 1 Principle 9 and the Definition of HCVF

PRINCIPLE #9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

- 9.1 Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.
- 9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.
- 9.3 The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.
- 9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.

FSC DEFINITION of High Conservation Value Forests:

High Conservation Value Forests are those that possess one or more of the following attributes:

- a) forest areas containing globally, regionally or nationally significant:
 - concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or
 - large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
- b) forest areas that are in or contain, rare, threatened or endangered ecosystems
- c) forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)
- d) forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Appendix 2 List of Resource Management Guides for Ontario and a figure showing the evolution of the guides.

FULL TITLE	SHORT FORM
Provincial Guidelines and Documents	
<ul style="list-style-type: none"> • Timber Management Guidelines for the Protection of Fish Habitat • Timber Management Guidelines for the Provision of Moose Habitat • Forest Management Guidelines for the Provision of Marten Habitat • Forest Management Guidelines for the Provision of Pileated Woodpecker Habitat • Forest Management Guidelines for the Provision of White-tailed Deer Habitat • Timber Management Guidelines for the Protection of Cultural Heritage Resources • Timber Management Guidelines for the Protection of Tourism Values • Forest Management Guidelines for the Protection of the Physical Environment • Forest Management Guidelines for the Emulation of Fire Disturbance Patterns - Analysis Results • A Silvicultural Guide for the Tolerant Hardwood Forest in Ontario • A Silvicultural Guide for the Great Lakes St. Lawrence Conifer Forest in Ontario • A Tree-Marking Guide for the Tolerant Hardwoods Working Group in Ontario • Silvicultural Guide to Managing for Black Spruce, Jack Pine and Aspen on Boreal Forest Ecosites in Ontario • Boreal Mixedwood Notes 	<ul style="list-style-type: none"> • Fish habitat • Moose • Marten • Pileated Woodpecker • Deer • Cultural Heritage • Tourism • Physical Environment • Fire Emulation Results • Tolerant Hardwood Guide • GLSL Conifer Guide • Tolerant Hardwood Tree-marking Guide • Boreal Forest Ecosites • Boreal Mixedwood Notes
Construction/Operational Manuals	
<ul style="list-style-type: none"> • Aerial Spraying for Forest Management • Environmental Guidelines for Access Roads and Water Crossings • Prescribed Burn Planning Manual • Code of Practice for Timber Management Operations in Riparian Areas • Access Roads Manual 	<ul style="list-style-type: none"> • Aerial Spraying • Roads and Water Crossings • Prescribed Burn Manual • Code of Practice • Access Roads
Resource/Environmental Manuals	
<ul style="list-style-type: none"> • Management Guidelines and Recommendations for Osprey in Ontario • Habitat Management for Forest Nesting Accipiters, Buteos & Eagles • Habitat Management Guidelines for Cavity Nesting Birds in Ontario 	<ul style="list-style-type: none"> • Osprey • Accipiters, Buteos and Eagles • Cavity Nesting Birds
<ul style="list-style-type: none"> • Management Guidelines for the Protection of Heronries in Ontario • Habitat Management Guidelines for Warblers of Ontario's Northern Coniferous Forests, Mixed Forests or Southern Hardwood Forests • Habitat Management Guidelines for Bats of Ontario • Habitat Management Guidelines for Birds of Ontario Wetlands including marshes, swamps, and fens or bogs of various types (excluding waterfowl) • Habitat Management Guidelines for Waterfowl in Ontario • Guidelines for Providing Furbearer Habitat in Timber Management • Bald Eagle Habitat Management Guidelines • Golden Eagle Habitat Management Guidelines • Peregrine Falcon Habitat Management Guidelines • Hawk Guide for MNR Field Personnel • Forest Management Guidelines for the Conservation of Woodland Caribou Habitat: A Landscape Approach • Selected Wildlife and Habitat features: Inventory Manual 	<ul style="list-style-type: none"> • Heronries • Warblers • Bats • Wetland Birds • Waterfowl • Furbearer • Bald eagle • Golden eagle • Peregrine falcon • Hawk guide • Caribou • Wildlife inventory manual

The Current Guides**

*Coarse filter assumes that maintaining all ecosystem types will support most species /values. Special fine filter strategies safeguard species /values not conserved by the coarse filter.

	COARSE FILTER*	FINE FILTER
Landscape	<ul style="list-style-type: none"> • Fire emulation • Moose - cut pattern 	<ul style="list-style-type: none"> • Caribou - winter habitat • Moose - cut pattern • Deer - yards • Marten - core habitat areas • Pileated Woodpecker
Stand	<ul style="list-style-type: none"> • Fire emulation - patches • Marten - snags, DWD • Pileated Woodpecker - snags, DWD • Physical Environment • Silvicultural guides 	<ul style="list-style-type: none"> • Caribou - calving areas • Moose - late winter habitat • Deer - cover
Site	<ul style="list-style-type: none"> • Fish • Seasonal watercourses • Silviculture. guides • Riparian code of practice • Tree marking guide • Water Crossings • Physical Environment - Site specific 	<ul style="list-style-type: none"> • Moose - aquatic feeding areas, mineral licks • Deer - bedding sites • Osprey, Eagle, Heron - Stick nests

The Future Guides

	COARSE FILTER*	FINE FILTER
Landscape	<ul style="list-style-type: none"> • Forest Values Guide⁺ 	<ul style="list-style-type: none"> • Forest Values Guide
Stand	<ul style="list-style-type: none"> • Forest Values Guide • Silvicultural Guides 	<ul style="list-style-type: none"> • Silvicultural Guides • Forest Values Guide
Site	<ul style="list-style-type: none"> • Forest Values Guide⁺ • Site Guide 	<ul style="list-style-type: none"> • Site guide

FILTER AND FINE FILTER – PRESENT AND FUTURE APPROACH.

** FOR ILLUSTRATION – NOT ALL GUIDES ARE LISTED.

Appendix 3 Species Ranking

Ranking – The following text is from the Natural Heritage Information Centre (NHIC)

How are species ranked by NHIC?

A feature that appears on our web page is the "Element Report" for many species. These reports contain basic information on the species (taxonomic, bibliographic) including information justifying a particular SRANK (this part of the form is termed the "ESR" or Element Subnational Ranking form). These Element Reports will help the user understand why a particular species has been assigned a certain rank. SRANKS are not solely based on the number of occurrences, but also take into account factors such as threat, population size, population trend, EO quality, etc.

Ranking is a qualitative process: it takes into account several factors, which function as guidelines rather than arithmetic rules. The ranker's overall knowledge of the element allows him or her to weigh each factor in relation to the others and to consider all pertinent information for a particular element. The factors considered in ranking species and communities are similar, but the relative weight given to the factors differs.

For species elements, the following factors are considered in assigning a rank:

- total number and condition of element occurrences
- population size
- range extent and area of occupancy
- short- and long-term trends in the foregoing factors
- threats
- environmental specificity
- fragility

For ecological community elements, the association is generally the classification level treated as an element and ranked (see Classification of Ecological Communities for an explanation of the hierarchical classification levels). The primary ranking factors are:

- total number of occurrences
- total acreage occupied by the element.

Secondary factors include the geographic range over which the element occurs, threats to occurrences, and viability of the occurrences. However, it is often necessary to establish preliminary ranks for communities when information on these factors is not complete. This is particularly true for communities that have not been well described. In practice, a preliminary assessment of a community's range-wide global rank is often based on the following:

- geographic range over which the element occurs
- long-term trend of the element across this range
- short-term trend (i.e., threats)
- degree of site/environmental specificity exhibited by the element
- rarity across the range as indicated by subnational ranks assigned by Heritage data centers

Global Rank (GRANK)

Global ranks are assigned by a consensus of the network of natural heritage programs (conservation data centres), scientific experts, and [The Nature Conservancy](#) to designate a rarity rank based on the range-wide status of a species, subspecies or variety. The most important factors considered in assigning global (and provincial) ranks are the total number of known, extant sites world-wide, and the degree to which they are potentially or actively threatened with destruction. Other criteria include the number of known populations considered to be securely protected, the size of the various populations, and the ability of the taxon to persist at its known sites. The taxonomic distinctness of each taxon has also been considered. Hybrids, introduced species, and taxonomically dubious species, subspecies and varieties have not been included.

G1 Extremely rare; usually 5 or fewer occurrences in the overall range or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.

G2 Very rare; usually between 5 and 20 occurrences in the overall range or with many individuals in fewer occurrences; or because of some factor(s) making it vulnerable to extinction.

G3 Rare to uncommon; usually between 20 and 100 occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.

G4 Common; usually more than 100 occurrences; usually not susceptible to immediate threats.

G5 Very common; demonstrably secure under present conditions.

GH; Historic, no records in the past 20 years.

GX; Globally extinct. No recent records despite specific searches .

GU Status **uncertain**, often because of low search effort or cryptic nature of the species; more data needed.

G? Unranked, or, if following a ranking, rank tentatively assigned (e.g. G3?).

G A "G" (or "T") followed by a blank space means that the NHIC has not yet obtained the Global Rank from The Nature Conservancy.

Q Denotes that the taxonomic status of the species, subspecies, or variety is **questionable**.

T Denotes that the rank applies to a subspecies or variety.

? Denotes inexact numeric rank (i.e. G4?).

[Updated: 1996-08-28]

Provincial Rank (SRANK):

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario. By comparing the global and provincial ranks, the status, rarity, and the urgency of conservation, needs can be ascertained. The NHIC evaluates provincial ranks on a continual basis and produces updated lists at least annually. The NHIC welcomes information which will assist in assigning accurate provincial ranks.

S1 Extremely rare in Ontario; usually 5 or fewer occurrences in the province or very few remaining individuals; often especially vulnerable to extirpation.

S2 Very rare in Ontario; usually between 5 and 20 occurrences in the province or with many individuals in fewer occurrences; often susceptible to extirpation.

S3 Rare to uncommon in Ontario; usually between 20 and 100 occurrences in the province; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances. Most species with an S3 rank are assigned to the watch list, unless they have a relatively high global rank.

S4 Common and apparently secure in Ontario; usually with more than 100 occurrences in the province.

S5 Very common and demonstrably secure in Ontario.

SH Historically known from Ontario, but not verified recently (typically not recorded in the province in the last 20 years); however suitable habitat is thought to be still present in the province and there is reasonable expectation that the species may be rediscovered.

SR Reported for Ontario, but without persuasive documentation which would provide a basis for either accepting or rejecting the report.

SRF Reported falsely from Ontario.

SX Apparently extirpated from Ontario, with little likelihood of rediscovery. Typically not seen in the province for many decades, despite searches at known historic sites.

SE Exotic; not believed to be a native component of Ontario's flora.

SZ Not of practical conservation concern inasmuch as there are no clearly definable occurrences; applies to long distance migrants, winter vagrants, and eruptive species, which are too transitory and/or dispersed in their occurrence(s) to be reliably mapped; most such species are non-breeders, however, some may occasionally breed.

SZB Breeding migrants/vagrants.

SZN Non-breeding migrants/vagrants.

SA Accidental; of accidental or casual occurrence in the province; far outside its normal range; some species may occasionally breed in the province.

SAB Breeding accidental.

SAN Non-breeding accidental.

C Captive/Cultivated; existing in the province only in a cultivated state; introduced population not yet fully established and self-sustaining.

S? Not Ranked Yet, or if following a ranking, Rank Uncertain (e.g. S3?). S? species have not had a rank assigned.

SU Unrankable, often because of low search effort or cryptic nature of the species, there is insufficient information available to assign a more accurate rank; more data is needed.

[Updated: 1996-09-04]

Appendix 4 HCVF Consultation report 2005 update

2005 annual update to consultation.

As part of the ongoing commitment to keeping the HCVs current, Westwind conducted a telephone review of the HCVs with the key environmental groups that had expressed an interest in the process.

World Wildlife Fund: Tony Iacobelli indicated that WWF would not be reviewing the report this year. Comments had been adequately addressed previously.

Ontario Nature: Did not have comments to make at this time.

Wildlands League: Did not have comments to make at this time.

Ducks Unlimited Canada: Meeting scheduled for Oct 13 (Ron Maher) regarding HCVF input for multiple SFLs. Comments will be incorporated when received.

Ontario Ministry of Natural Resources:

Original consultation for the 2003 version of the report is as follows:

1. Broad review, based on the FMP process, to determine forest values generally in the FSF:
 - Individuals – See letters and other correspondence in the Supplemenatry Documentation of the 2004 FMP
 - Local Citizen's Committee minutes of meetings: in the Supplemenatry Documentation of the 2004 FMP
 - Communities -- via Westwind Community Board Members
2. Consultation with technical experts about species, ecosystems or values that are HCVF
 - Jan McDonnell – biodiversity
 - Ron Black – Rattlesnakes
 - Fred Pinto – old growth; monitoring
 - Peter Street – SFL responsibility; Adjacent response of Nipissing to HCVF
 - Brian O'Donahue – Great Lakes Heritage Coast
 - Margaret McLaren – Wildlife assessment Units; Wildlife monitoring
 - Joe Johnson – AOC prescriptions
 - Gail Jackson – Parks Canada (gail_jackson@pc.gc.ca)
3. Focused review by regional and provincial stakeholders of the values and the management approach
 - Muskoka Heritage Foundation – Joan Eaglesham
 - Wildlands League – Chris Henschel

- Federation of Ontario Naturalists – Riki Burkhardt
 - World Wildlife Fund – Tony Iacobelli; Lorne Johnson
 - Sierra Club of Canada – Rachel Plotkin
4. Open door policy – new HCVs and new management approaches will be considered at any time, if they meet the requirements of FSC P1—8, and OMNR regulations

Appendix 5 Excerpt OMNR First Nation Consultation report

FIRST NATION CONSULTATION & NATIVE VALUES REPORTS**RE: 2004-2009 FOREST MANAGEMENT PLAN****Background:**

As a result of discussions/consultations with the local First Nations there were four Native Background Reports and Values Mapping produced for the 1999-2004 FMP. These are of various designs with some having both a Report and Values Mapping and others just Mapping at this time. There are six First Nation communities within the Parry Sound District and others outside of the District that have traditional interests within the District.

The Native Values information in place today are:

Dokis First Nation: A NBR and Values Map was produced by a consultant (John Pollock) in 1998. This First Nation is not within the District boundaries but since its traditional area flows into the north end of the District, Parry Sound MNR has consulted with them on various issues resulting in the NBR and Values Map.

Henvey Inlet First Nation: John Pollock assisted Henvey Inlet in producing a NBR and Traditional Area map in 1999. The report and map are to be enhanced upon further background information gathering.

Magnetawan First Nation: This community produced their own NBR and Values Map with the assistance of MNR' GIS staff. Like Henvey Inlet this report and map are to be enhanced as information is gathered.

Shawanaga First Nation: A consultant from Thunder Bay (Paul Driben) worked with Shawanaga to produce a Land Use Atlas which outlines where Shawanaga's traditional use areas are. More values detail is being sought through continued discussions/consultations.

2004-2009 FMP:

Initial letters went out January, 2002, to all the First Nations situated within or adjacent to the Ministry's Parry Sound District as well as a courtesy copy was sent to the Union of Ontario Indians outlining:

- advising them of the initiation of forest management planning for Crown lands situated within the P.S. District for the period April 1, 2004 to March 31, 2009.
- To solicit the active participation of the F.N. communities, by inquiring of the communities, their preferred approach to consultation and involvement in this forest management plan.
- To request community participation in the preparation and review of the Native Background Information Report from those F.N.'s who chose not to participate during the last planning period and to give those F.N.'s that did prepare a report a chance to enhance on their background information and values mapping.

Follow-up visits were made to most of the communities, except Dokis and Algonquins who were contacted by phone, to firm up their preferred approach to consultation and degree of participation in preparing or enhancing the NBR's. None of the F.N.'s indicated they wanted a separate Native Consultation process but preferred a visit to their community once the planning maps were in place.

Through further discussions Wasauksing First Nation has agreed to prepare a NBR and Values Map for their traditional area. This is to be completed by a member of their community through out the winter and spring of 2002/03. Moose Deer Point First Nation has also agreed

to prepare a map outlining their traditional area and activities as well as a written document to support the map.

In total the Parry Sound District will have six NBR and /or values maps out of a possible seven. The only community not wishing to participate at this time are the Wahta Mohawks although they too have shown some interest in the past.

Appendix 6 Maps: Titles, Format and Location

- **Map 1 Ontario Living Legacy Sites, Proposed Sites Parry Sound MNR**

Map is paper and in binder. Also depicts the communities, First Nations, and other features of the French Severn Forest.

- **Map 2 Rare Species occurrences generic information from Natural Heritage Information Centre**

Map is on CD. File name : "nhic_generic_rarespec.pdf"

- **Map 3 Southern Flying Squirrel, Peregrine Falcon, Monarch Butterfly; generic NHIC information**

Map is on CD. File name: MAP rte squirrel falcon monarch.pdf

- **Map 4 Great Lakes Deep Water Sculpin, Branched Bartonia, Least Bittern, Northern Brook Lamprey, Engleman's quillwort generic NHIC information**

Map is on CD. File name Map rte Sculpin bartonia lamprey bittern quillwort.pdf

- **Map 5 Red-shouldered Hawk, Red headed woodpecker generic NHIC information**

Map is on CD. File name: MAP rte RSHawk Rhwoodpecker.pdf

- **Map 6 Cerulean Warbler, Fox snake, generic NHIC information**

Map is on CD. File name: Map rte Ceruleanwarb foxsnake.pdf

- **Map 7 Eastern Massasauga Rattlesnake, Eastern Hognose Snake, Shortnose Cisco**

Map is on CD. File name: Map rte rattlesnake hognose cisco.pdf

- **Map 8 Five lined skink; Wood turtle; Spotted turtle generic NHIC information**

Map is on CD. File name: Map rte wood spottedturtle skink.pdf

- **Map 9 French Severn Forest Moose Aquatic Feeding Areas and Deer Yards from NRVIS**

Map is on CD. File name: Map mooseaquatic deeryard.pdf

- **Map 10 World Resource Institute "Intact Forests"**

Map is a jpg file named: "Maps Intact Forest Canada WRInst" and is on the CD

World Resource Institute "Intact Forests" consist of roadless forest blocks that are intact that are at least 20,000 ha in size based on major roads. There are none on the FSF. The file included is for all of Canada.

- **Map 11 Old White Pine, Red Pine and Hemlock stands in the FSF**

Map is in two pdf files named: "Map Rare trees north FSF.pdf" and "Map Rare trees south FSF w Legend" Note the legend for both maps is only on the southern map. The map is divided for ease of handling, due to the large file size. Both are on the CD.

- **Map 12 French Severn Forest Cultural Heritage Sites**

Map is located on the CD in pdf file: "Map Cultural Heritage 03mr25.pdf"

- **Map 13 French Severn Forest Fire History**

Map is located on the CD in pdf file: "Map French Severn Forest Fire History 04ma18.pdf"

- **Map 14 Enduring Features**

Map is located on the CD in pdf file: "MAP Enduring Features WWF"

- **Map 15 Important Bird Areas**

Map is located on the CD in pdf file: "Map Impt Bird Areas McMartin"