

High Conservation Values in the Pic Forest

Assessment, management and monitoring of forest conservation from a global, national and local perspective based on Forest Stewardship Council Principle 9

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Important information for reading this document – A High Conservation Value (HCV) assessment is primarily a communications document. It brings together all of the values information in one location to allow for a fair assessment of what is a true High Conservation Value (HCV). To accomplish this, there is a heavy reliance on many other documents. Most of these are accessible through the Internet links that are included in this report. ***If the reader wishes to fully access these, this report should be read on a computer with a good internet connection.*** Here is some guidance on accessing the supporting documents:

- **Important:** Depending on your software, most links ([Blue text](#)) will require you hover over the text, hold the control key and click on the link.

To return to previous page (PDF or WORD) press ALT left arrow

- The document is provided in either WORD format or PDF because these are the most widely available and functional formats.
- Some web documents are large (> 20 or 30 megabytes, such as the Forest Management Plan documents and maps). They may take a minute or so to download.
- References are provided in several formats depending on the purpose: Web links are provided for key documents in the text ([blue fonts](#)) or footnotes, and have been verified as of the date of this report; a citation list is provided for general scientific papers not available on line, and other papers of general interest. Additional links are listed under “assessment methodology” within each element. There is some redundancy to allow for different ways for users to access information.
- This document contains only a few maps and illustrations because the linked documents will provide better and normally more up to date graphical information.
- Common names in this report are capitalized to improve readability for people unfamiliar with the breadth of species (despite the desires of APA and other style guides).
- Comments are welcome on whether more maps and illustrations would help the readability of the document for the next version.

Please send comments to Neil McDonald (neil.mcdonald@nfmforestry.ca)

Acknowledgements

The work of the Planning Team in preparing the Forest Management Plan is acknowledged as the primary basis for this report. The work of MNRF in consulting with Indigenous People and the local forest users is essential for understanding the values. Assistance provided by staff of various government agencies is appreciated. The Local Citizen's Committee (Pic River Public Consultation Committee) was helpful and forthcoming with their knowledge of values on the forest.

About Version 3.3 July 2020

While the new 10-year FMP is being prepared, a [2-year contingency plan is in place on the Pic Forest](#). This contingency plan is based on the new LTMD prepared for the full 2021 FMP. The strategic decisions, including those related to designation management and monitoring of HCVs are contained in the current contingency FMP and are most likely to remain identical upon approval of the 2021 10-year FMP.

References to the former Big Pic and Pic River Forests are now referred to in combination as the Pic Forest. Maps and tables have been updated, where applicable, to reflect the combined forest versus the separate forests in previous versions. These changes are simply for clarity of visual reference, there are no notable changes to areas, locations, etc.

Although there were certain changes to AOC prescriptions for the 2019 contingency plan, prescriptions for HCVs discussed in this report remain identical to those in previous versions. The exception to this for Woodland Caribou where tweaks to the DCHS and linkage areas in the new FMP have been described in this report.

The most significant update was a complete review of the biological values of the forest with the assistance of the Natural Heritage Information Centre staff (Ministry of Natural Resources and Forestry, MNR) – seven experts reviewed the Species at Risk list for the amalgamated forest.

Several updates have been implemented to comply with the new FSC standard. Note that the HCV Framework (Annex D of the standard) is substantially the same as in the previous version, so the element analysis remains almost the same. The new indicators emphasize consultation, and clarity of the actual risk to values. Both of these aspects of the new standard are revisited in this version of the report.

As well, an Intact Forest Landscape (IFL) was included in the designated HCVs. This was a finding in the previous audit. It had been left out previously because it was a small tip of the IFL that is not at risk from forestry.

Links, expert contact information, wording and other items were updated.

Previously - About Version 3.2, June 2019

The Pic Forest has prepared a second 2-year Contingency Plan (2019-2021) and a new FMP is scheduled for implementation in 2021. The SFL for the new amalgamated Pic Forest was designated in 2019. The strategic decisions, including those related to designation management and monitoring of HCVs, come from the previous FMP (2007-2017).

This version of the HCV report does not include major changes to values. It reviews the species at risk list and other HCV designations to ensure they are up to date. Links were also updated. The managers continue to monitor requirements regarding Caribou, which can cause changes in the FMP requirements. The recent changes to the Endangered Species Act (May 2019) will require some time for the government to determine the actual management implications. The Company is supportive of Caribou conservation and remains committed to active management as required.

The discussion about Large Landscape Level Forest that is occurring across Canada is centred on maintaining large fully functioning ecosystems. This discussion is still occurring as the new FSC standard is released in 2019.

Previously - About Version 3.1, October 2017

This contains updates to the SAR list, which is regularly reviewed by the Committee on the Status of Species At Risk in Ontario. As well, there is a new Appendix 6 which is a table of ALL of the NHIC element occurrences on the forest for SAR and rare species. Some HCV designations were changed following the status changes or better local information. Finally, expert contact information was updated and links to the Crown Land Atlas were updated.

Previously - About version 3.0 Sept. 2016

The purpose of version 3 is to expand the HCV assessment of the Big Pic Forest to include the Pic River Forest which is being added to the license of Nawiinginokiima Forest Management Corporation. The authors note that the additions are relatively straight forward, as the Big Pic Forest report already included all of the Indigenous and Caribou values. This version of the report updates maps, web links (which were all changed by MNRF) and makes other editorial changes. To make the review more transparent, a section is added to the HCV designation in each of the 19 elements of the assessment section. Note that the Pic River Forest (PRF) and Big Pic Forest (BPF) together are referred to as the Pic Forest (PF).

An earlier 2008 HCV report prepared with the financial support of Marathon Pulp and Paper and Tembec Inc. was also consulted in preparation of this report. Tembec kindly provided this earlier information.

Version 2 fixed links to internet web sites that were disrupted by MNRF during a “migration to Ontario.ca”. In the event of link problems please contact [Nawiinginokiima \(contact@nfmforestry.ca\)](mailto:contact@nfmforestry.ca). Other changes include updating the SAR list to the latest Ontario regulations and updating some other links. Some text was edited as well for clarity.

HCV or HCVF?

Terminology is important, and one of the confusing terms is the difference between HCV and HCVF (High Conservation Value Forest). Broadly speaking the former is the most common usage currently and refers to *specific* values. HCVF refers to an area that contains the value. When using the terms in practice, it is usually simplest and most accurate to refer to HCVs. The terms can be used interchangeably although this can confuse some people. This report almost always uses “HCV”.

For further information on the HCV concept, the HCV Resource Network document (amended 2017) [Common Guidance for the Identification of High Conservation Values](#) is helpful.

For a video overview of HCVs in international conservation

[**CLICK HERE**](#)

Acronyms and terminology

BPF	Big Pic Forest
AOC	Area of Concern
EO	Element Occurrence
EMA	Enhanced Management Area
EMS	Environmental Management System
DCHS	Dynamic caribou habitat schedule
FMP	Forest Management Plan
FRMG	First Resource Management Group
FSC	Forest Stewardship Council
GLSL	Great Lakes St. Lawrence
HCVF	High Conservation Value Forest
HCV	High Conservation Value
IBA	Important Bird Area
LLF or LLLF	Landscape Level Forest or Large Landscape Level Forest
NBS	National Boreal Standard (of FSC)
NFMC	Nawiinginokiima Forest Management Corp.
NHIC	Natural Heritage Information Centre
OMNRF	Ontario Ministry of Natural Resources and Forestry
PRF	Pic River Forest
PF	Pic Forest
SAR	Species at Risk

Table of Contents*click on page number to move to a section →*

About Version 3.3 July 2020	3
Previously - About Version 3.2, June 2019	3
Previously - About Version 3.1, October 2017	4
Previously - About version 3.0 Sept. 2016	4
List of Tables	7
List of Figures	8
Appendices	8
High Conservation Values - Summary	9
Overview of HCV Assessment on the Pic Forest	13
Purpose & Method	15
The Pic Forest Description:	18
Phase 1: Process for assessing for the presence of HCV attributes	21
Category 1) Forest areas containing globally, nationally or regionally significant concentrations of biodiversity values.	22
1) Does the forest contain species at risk or potential habitat of species at risk as listed by international, national or territorial/provincial authorities?	22
2) Does the forest contain a globally, nationally or regionally significant concentration of endemic species?	36
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 wildlife in breeding sites, wintering sites, migration sites, migration routes or corridors – latitudinal as well as altitudinal)?	37
4) Does the forest contain critical habitat for regionally significant species (e.g. species representative of habitat types naturally occurring in the management unit, focal species, species declining regionally)?	40
5) Does the forest support concentrations of species at the edge of their natural ranges or outlier populations?	42
6) Does the forest lie within, adjacent to, or contain a conservation area:	43
a) designated by an international authority;	43
b) legally designated or proposed by relevant federal/provincial legislative body; ...	43
c) identified in regional land use plans or conservation plans	43
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	50
7) Does the forest constitute or form part of a globally, nationally or regionally significant forest landscape that includes populations of most native species and sufficient habitat such that there is a high likelihood of long-term species persistence?	50
Category 3) Forest areas that are in or contain rare, threatened or endangered ecosystems	56
8) Does the forest contain naturally rare ecosystem types?	56
9) Are there ecosystem types within the forest or ecoregion that have significantly declined?	58
10) Are large landscape level forests (i.e. large unfragmented forests) rare or absent in the forest or ecoregion?	59

11) Are there nationally/regionally significant diverse or unique forest ecosystems?	59
Category 4) Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).	60
12) Does the forest provide a significant source of drinking water?	60
13) Are there forests that provide a significant ecological service in mediating flooding and/or drought, controlling stream flow regulation, and water quality?	61
14) Are there forests critical to erosion control?	62
15) Are there forests that provide a critical barrier to destructive fire (in areas where fire is not a common natural agent of disturbance)?	63
16) Are there forest landscapes (or regional landscapes) that have a critical impact on agriculture or fisheries?	63
Category 5) Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).	66
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).	66
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).	70
18) Is the traditional cultural identity of the local community particularly tied to a specific forest area?	70
19. Is there a significant overlap of values (ecological and/or cultural) that individually did not meet HCV thresholds but collectively constitute HCVs?	74
Phase 2: Managing and Monitoring HCV attributes	76
References	84
Appendices	87
Review of Assessment for the license forest area of the Pic Forest Ontario	
Canada	4
Part 1	7
1. Executive summary of the document	7
2. Scope of the assessment	8
3. Wider landscape context and significance of the assessed area	9
4. HCV assessment process including consultation processes	9
5. Identification, location and status of each HCV	12
6. Management of HCVs	20
7. Monitoring of HCVs	20
8. Responsible management of other conservation values	22
List of Tables	
Table 1. Identified High Conservation Values on the Pic Forest (PF).	9
Table 2. National Framework process for assessing the presence of HCV attributes.	21
Table 3. Species listed as "at risk" by COSEWIC or COSSARO or "rare" by NHIC and with records of occurrence on the Pic Forest, as verified by Ontario government biologists.	26
Table 4. Types of Conservation Lands within the Forest - Land Information Ontario.	45
Table 5. Parks, Conservation Reserves and EMAs wholly or partly within the PF (data from OMNR). Identification number as per the Crown Land Use Policy Atlas.	47

Table 6. PF Planned Wood Supply Commitments and utilization by mill	67
Table 7. Overview of HCV management and monitoring. Most prescriptions based on AOC FMP table 10. Note only HCV prescriptions are described here, possible HCVs and HCVs with landscape prescription are not listed.....	77
Table 8. Time Slice Analysis Illustrating When Each DCHS Block is On-line (Green Areas) as Winter Preferred Caribou Habitat (≥ 60 yrs), Based on Area-Weighted Average Stand Age.....	91

List of Figures

Figure 1. A simplified view of the FSC Principle 9 criteria showing the continuous improvement (adaptive management) cycle.....	16
Figure 2. Location of the three NFMF forests, the communities, roads and SFL boundaries.	20
Figure 3. Location of natural Heritage Information Centre 1 km grid for element occurrences in the PF.	25
Figure 4. Location of PF area (Green Rectangle) relative to the Pagwachuan Caribou Range (45) and the coastal population (44).	51
Figure 5. Caribou linkage area between continuous coastal and northern continuous range.	53
Figure 6. Global Forest Watch 2013 Intact Forest Landscape (north end of Pukaskwa Park and adjacent – see arrow).	55
Figure 7. Caribou DCHS blocks in the "online" condition within the Caribou range. B and C blocks are considered HCV. D and E blocks are currently off line habitat and not considered HCV.....	56
Figure 8. MNR Fisheries Management Zone #7.	64
Figure 9. Recreational Values within Pic Forest.	69
Figure 10. Caribou Blocks in the Dynamic Caribou Habitat Schedule.....	91
Figure 11: Time Slice Maps of the Current DCHS Showing the Location of On-line Habitat (Green Areas) in Each Interval (A – E).....	95

Appendices

- Appendix 1. Map locations for the HCV report (For compliance with FSC HCV map requirements).
- Appendix 2. Natural Heritage Information Centre Status List – Verified July 2020.
NHIC credits below
- Appendix 3. Dynamic Caribou Habitat Schedule on the Pic Forest from
- Appendix 4. Assessment Team
- Appendix 5. Peer review of the HCV report (as required by the FSC standard).

High Conservation Values - Summary

This report is an assessment of 'High Conservation Value Forest' undertaken on behalf of Nawiinginiima Forest Management Corporation (NPMC) in accordance with Principle 9 of the FSC Principles and Criteria. NPMC manages the Pic Forest (an amalgamation of the former Big Pic Forest (BPF) and the Pic River Forests (PRF) under the authority of a Sustainable Forest License (SFL) granted by the Government of Ontario. The Forest Management Plan ([see Contingency Plan](#)) is currently in effect until the new 10-year FMP is approved in 2021. The current contingency plan is the guiding document for the management of values and is regulated and approved by the Province of Ontario. This assessment is being funded by [AV Terrace Bay Inc.](#)

This assessment of HCV is guided by the "High Conservation Value Forest National Framework", which is Appendix 5 of the FSC Canadian National Boreal Standard¹. This is the accredited standard for the boreal forest. This report is provided to meet the requirements for an FSC certification assessment. This HCV assessment resulted in the following HCV designations:

Table 1. Identified High Conservation Values on the Pic Forest (PF).

HCV Cat.	HCV Element (with links)	Link HCV Designation Decision	Management	Monitoring	DESIGNATION Decision & Link to Management & Monitoring ²
Category 1 Concentrations of Biodiversity	1 -- Biodiversity/Species-at-Risk (SAR)	Bald Eagle ; Bank Swallow ; Northern Myotis ; Little Brown Bat ; Woodland Caribou	Prescriptions are in place and on operational maps; most cases harvest buffers are the primary approach as defined in OMNRFs Stand and Site Guide	OMNRF experts monitor current best management prescriptions; detailed prescriptions in FMP. Based on OMNRF Wildlife Monitoring .	HCV Bald Eagle ; Northern Myotis ; Little Brown Bat ; Woodland Caribou ;
		Peregrine Falcon ; Short-eared Owl ; Whip-poor-will ; Common Nighthawk ; Barn Swallow ; Black Tern ; Yellow Rail ; Cougar ; Yellow-banded Bumble Bee ; Gypsy Cuckoo bumble Bee	May occur in the forest, but no element occurrences are recorded; for some species, prescriptions have been developed; others there is no forestry impact	No effectiveness monitoring required, as there are no prescriptions being used currently.	Possible HCV

¹ Forest Stewardship Council Canada Working Group. 2004. [Canadian National Boreal Standard, Version 3.0](#).

² There is a section describing management and monitoring ONLY for values that are designated HCV.

Category 1	Concentrations of Biodiversity		Olive-sided Flycatcher ; Canada Warbler ; Lake Sturgeon ; Northern Brook Lamprey ; Silver Lamprey ; Monarch	Spp occurs in the PF but habitat needs are addressed by landscape management or riparian management. Breeding sites protected when located.	Landscape monitoring for implementation of landscape or riparian prescriptions; or verification there is no interaction with forestry.	HCV Landscape prescription or Riparian prescription
		2 -- Endemic Species	False Northwestern Moonwort	Landscape management. Element Occurrences reported	Landscape monitoring	HCV Landscape prescription
		3 -- Regionally significant critical habitat for seasonal concentrations of species	Heronries (>25 nests)	Follows MNRF Stand and Site Guide prescription. No occurrences of Heronries of this size currently.	MNRF monitors Heronry prescriptions Northeast Science and Technology	Possible HCV
			Sturgeon Spawning areas	Follows MNRF Stand and Site Guide prescription. No sites were located.	Monitored by MNRF through Northeast Science and Technology	Possible HCV
		4 -- Significant regional & focal species	Focal Species	None required	None required	No HCV identified
		5 -- Edge species or outlier populations	Edge of Range Tree Species White Pine ; Red Maple	No harvest	Compliance monitored by Company & OMNRF	HCV Silviculture Prescription
			Edge of Range Tree Species (Red Pine, Black Ash, Yellow Birch, Soft (red) Maple)	If located prescription is no harvest	If required, compliance by Company & MNRF	Possible HCV
		6 -- Conservation Areas	Land use designations within the boundaries of PF Protected Areas Parks & Conservation Reserves	These are outside of the NPMC license area although on adjacent lands	MNRF monitor compliance with FMP to ensure encroachment & access control.	HCV FMP AOC prescription

Cat 2 LLLF	7 -- Large Landscape Level Forest	Also Intact Forest Landscapes <ul style="list-style-type: none"> • Portions of the Continuous Caribou Zone • Caribou Linkage deferrals • Northern tip of Pukaskwa Park and area 	Managed through access controls & landscape management through FMP	OMNR compliance and silvicultural effectiveness monitoring	HCV FMP Landscape Management Approach
	8 -- Rare ecosystem types	Page 56	None required	None required	No HCV identified
Category 3 RTE Ecosystems	9 -- Significantly declined ecosystems	Forests -- Old Growth	None required	None required	No HCV identified
	10 -- Large landscape level in fragmented forests	Lake Superior Shoreline EMA	Land use policy 2233g provides access restriction	OMNRF monitors access control	HCV Land use guideline
	11 -- Nationally Regionally signif. diverse/ unique ecosystems	Areas of Natural and Scientific Interest (ANSI) – none identified	None required	None required	No HCV identified
Category 4 Ecosys Serv.	12 -- Drinking Water	Page 60	None required	None required	No HCV identified
	13 -- Flooding, drought, water quality ecosystem services	Provincially Significant Wetlands	Management of Wetlands is through AOC buffers and operational restrictions to forestry activities	Monitoring of wetlands is through MNRF regional office.	No HCV identified
	14 -- Erosion control	Page 62	None required	None required	No HCV identified
	15 -- Barriers to destructive fire	Not yet established in PF communities	None required	None required	No HCV identified

	16 -- Landscapes impacting agric. & fisheries	Lake Trout Lakes	A 1 km AOC is placed around Management of Self sustaining Trout Lakes	Compliance by MNRF and NFMFC	AOC prescription
Cat. 5 Community	17 -- Local communities' basic needs and livelihoods	Page 66	None required	None required	No HCV identified
Cat 6 Culture	18 -- Traditional cultural identity	First Nation Values	Confidential First Nation values are not public	Compliance by MNRF and NFMFC with input from the communities.	HCV AOC prescription
		Archeological sites	Confidential archeological values are not public	Compliance by local MNRF with effectiveness monitored by Min. of Cult.	HCV AOC prescription
	19 -- Other values that constitute HCVs	Page 74	None required	None required	No HCV identified

Overview of HCV Assessment on the Pic Forest

Nawiinginokiima Forest Management Corp. (NPMC) is responsible for managing the Pic Forest (PF) formerly the Big Pic Forest (BPF) and the Pic River Forest (PRF). NPMC manages this forest under the authority of a Sustainable Forest License (SFL) granted by the Government of Ontario. NPMC is maintaining certification under the Forest Stewardship Council National Boreal Standard.

In 2020, NPMC will transition to the FSC National Forest Stewardship Standard of Canada. Part of the certification process is a requirement for the managers to complete an assessment of High Conservation Values (HCVs) using the definition of the Forest Stewardship Council's Principle 9. According to the definition, High Conservation Values (HCVs) possess one or more of the following attributes:

Forest areas containing globally, regionally or nationally significant:

- HCV 1 – Species diversity. Concentrations of biological diversity* including endemic* species, and rare*, threatened* or endangered species that are significant* at global, national or regional levels.
- HCV 2 – Landscape*-level ecosystems* and mosaics. Intact Forest Landscapes* and large landscape*-level ecosystems* and ecosystem* mosaics that are significant* at global, national or regional levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.
- HCV 3 – Ecosystems* and habitats*. Rare*, threatened*, or endangered ecosystems*, habitats* or refugia*.
- HCV 4 – Critical*ecosystem services*. Basic ecosystem services* in critical* situations, including protection* of water catchments and control of erosion of vulnerable soils and slopes.
- HCV 5 – Community needs. Sites and resources fundamental to satisfying the necessities of local communities* or Indigenous Peoples* (for livelihood, health, nutrition, water, etc.), identified through engagement* with these communities or Indigenous Peoples*.
- HCV 6 – Cultural values. Sites, resources, habitats* and landscapes* of global or national cultural, archaeological or historical significance, and/or of critical* cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities* or Indigenous Peoples*, identified through engagement* with these local communities* or Indigenous Peoples*.

This assessment of HCV is guided by the “High Conservation Value Framework”, which is Annex D of the [FSC National Forest Stewardship Standard of Canada](#). It follows the guidance provided by FSC in [High Conservation Value Guidance for Forest Managers FSC-GUI-30-009 V1-0 EN](#).

Understanding HCV on public land in Ontario requires an understanding of Ontario's approach to non-timber forest values. The PF is a large forest by most international standards at 1.1M ha. The PF is publicly owned by the Province of Ontario and used by the forest residents while also supporting regionally significant tourism operations. The PF is located in Northeastern Ontario and is widely used by regional residents and tourists for recreational hunting, fishing, camping and canoeing purposes as well as by others in Ontario for these values. All of the Ontario SFLs

are large and highly visible, thus requiring a high level of scrutiny under the HCV National Framework (Section 4 - The issue of scale).

Current OMNRF provincial forest policy addresses a wide range of values using policy documents, or resource guides for special values³. The role of the FSC HCV process is to verify that the forest operations being carried out meet the global standard that seeks to protect an over-arching set of conservation values. There is no intention of changing the current values terminology, 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 HCV is conveyed to the forest management planning ([FMP](#) as well as previous [BPF FMP](#), [PRF FMP](#)) process. This report will be made available to the public in compliance with the FSC standard.

All of the PF has conservation value. For example, 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 these forests. This area is and has been, the mainstay of loggers, trappers, tourism establishments, outfitters, and resort owners for a long time. For native communities it has been home for much longer. Therefore, defining the values which are “special” and should receive HCV designation is the main function of this report. HCVs are managed using a precautionary approach. HCVs are clearly designated as part of the individual analysis in each section of the report.

The FSC standard and the HCV Toolkit, focused at the international level, state that consultation is required. In the PF, law and common sense require extensive ongoing consultation, although compromise and difference of opinion are routine. In an earlier guide, Proforest effectively described the value judgement in designating HCVs.

“Although some values may have simple yes/no alternatives, many will be measured on a continuum of gradually increasing importance. This means that, although defining HCV should always be based on the best available scientific information, the decision on the threshold level at which a ‘value’ becomes a ‘High Conservation Value’ is inevitably a value judgment”.

Law and common sense require extensive ongoing consultation, although compromise and difference of opinion are routine. To this end, the [HCV Common Guidance](#) (page 20) lists some best practices which are reviewed here:

- Key stakeholders should be made aware that an HCV assessment is being conducted -- The FMP process which is the foundation of consultation in Ontario is widely publicized and includes regular monthly meetings with the public through the Local Citizen’s Committee. National and Provincial ENGOs are also informed. The report itself is a public document and comments are always welcome.
- Participation can take many forms... planning, participation on focused consultations – LCC have a representative on the planning team, LCC is kept updated.
- Report should contain evidence that relevant stakeholders were consulted – this report describes consultation. LCC minutes are available to the public if there is an interest in detailed discussions of values issues.

³ General reference to MNRF forest policy (verified June 2016)
http://www.mnr.gov.on.ca/en/Business/Forests/2ColumnSubPage/STEL02_163861.html

- Feedback on conclusions to the consultees as appropriate – the HCV report is publicly available. Copies are sent to people who express an interest or ask questions.

In assessing HCVs in the PF, the managers have been inclusive in their approach, in keeping with the FSC Principles & Criteria (P&Cs) and the precautionary principle. Because of the sensitivity around HCVs, “netting down” of values was the main challenge of this report. NFMC and the OMNRF biologists and planners and foresters responsible for forest values do not claim the prescriptions and approaches are perfect, but they have been thoughtfully prepared. They are based on the best available science, a system of effectiveness monitoring, and are operationally sound. The managers are always open to reconsidering any of the approaches to management HCVs, if it is forestry related.

Purpose & Method

Methodology -- HCV National Framework (Canada)

The framework provided in Appendix 5 of the August 6 2005 version of the National Boreal Standard provides the basic approach and guidance for assessing HCV. There are four criteria in Principle 9 relevant to forest managers. In short, these require: assessment of values, management prescriptions for values, and monitoring in order to ensure the prescriptions are effective. Management activities in HCVs must “maintain and enhance the attributes which define such forests”. The four P9 criteria are:

- 9.1 requires an assessment
- 9.2 is guidance on consultation
- 9.3 requires a precautionary level of management
- 9.4 requires monitoring the effectiveness of the management

As shown in **Figure 1**, the FSC standard follows a simple continuous improvement cycle.

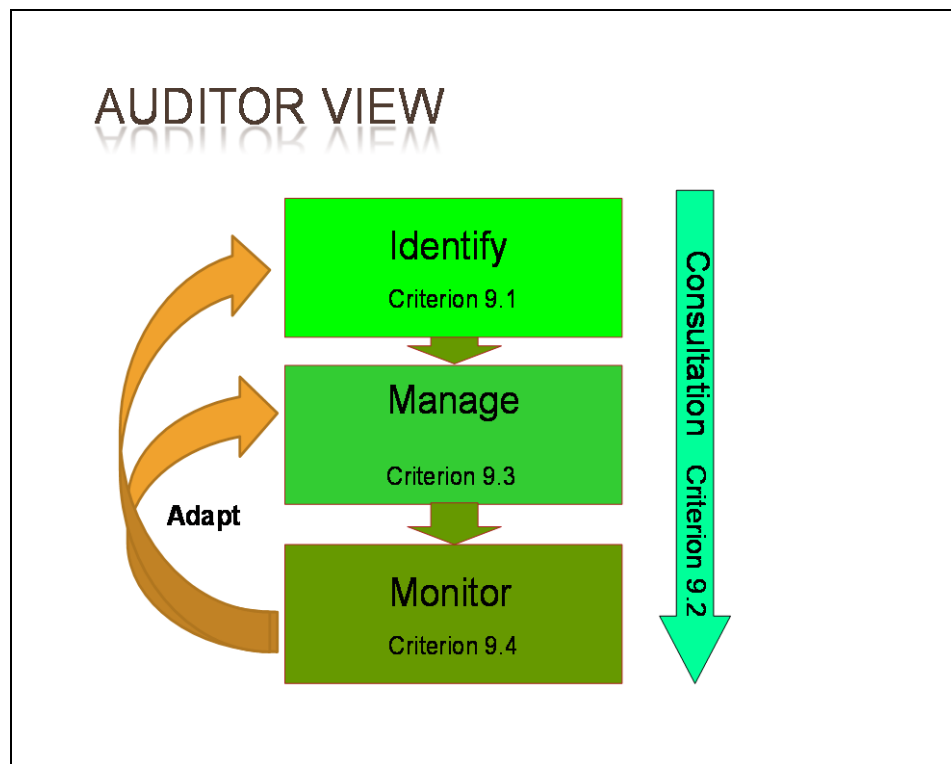


Figure 1. A simplified view of the FSC Principle 9 criteria showing the continuous improvement (adaptive management) cycle.

Assessment for HCV Attributes

Within the first phase of the HCV assessment, the National Framework provides a list of 19 questions (called elements) that assist in determining whether individual attributes are HCVs. For each value the PF managers, with expert consultation, have defined thresholds for designating a High Conservation Value.

During assessment, values are designated as HCV, HCV landscape prescription required, not HCV or possible HCV:

- HCV – follow guidance of P9 in which management is guided by the precautionary principle and monitoring demonstrates that specific prescriptions are effective.
- HCV landscape prescription required – means that the value is significant at least at the regional level, but there is either no interaction with forestry or a landscape management approach and landscape monitoring is required. In other words, normal good forestry practices avoid impact on the value.
- Not HCV – follows guidance of P1 to P8 for management and monitoring
- Possible HCV – occurrence is not confirmed, needs further information about distribution and abundance, and or consultation required; follows P9 and precautionary principle

Consultation

There are four components to the HCV consultation consisting of:

- 1) Broad review, based on the [FMP](#) process, to determine forest values generally which will include as a minimum individuals, local stakeholder representatives including the Local Citizen's Committee (LCC).
- 2) Consultation with technical experts about species, ecosystems, local community values, First Nation values and any other values that are considered potential HCV
- 3) Focused review by regional, provincial and national stakeholders of the values and the management approach
- 4) Open door policy – new HCVs and new management approaches will be considered at any time

Values were reviewed in a visit to the Local Citizen's Committee (LCC) November 2013. The LCC is a knowledgeable group of local residents, representing various stakeholder interests, that is charged with advising the planning team on the production of the Forest Management Plan. The group participates in the planning process on a regular basis and an LCC member is assigned to the planning team. Indigenous consultation is the responsibility of MNR and this occurs during the FMP. The methodology for this is described in detail in the [FMP](#). A reviewer commented that the LCC comments could be specifically referenced in this report. This can be done by searching for the term "LCC" in this document. But note that the LCC makes many comments on values in planning team meetings which are not separated out here.

Some readers will be new to the Ontario Forest Management Planning system. It includes an ongoing, on-the-ground data collection and continual value identification, protection and mapping associated with operational planning. Readers should take a minute to understand the complexity and scale of planning these large scale forests(<https://www.ontario.ca/page/forestry>).

The language used in that consultation is based on the Ontario planning system and not the FSC lexicon. In other words, terms such as HCV, Precautionary Principle and precise HCV types are not used. Those distinctions are the responsibility of the management company through this report.

As well, MNRF's requirements for public consultation in bullet point 1, are documented in detail as part of the FMP Process ([FMP](#)), and as part of the public record in the Appendices to the plan. This will serve as part of the HCV documentation process. The other three steps of the consultation process are documented in this report and in subsequent updates to this report.

Organizations invited to comment on the report include The Nature Conservancy (TNC), World Wildlife Fund Canada (WWF), Nature Conservancy of Canada, Ontario Nature, Ontario Federation of Anglers and Hunters, and Canadian Parks and Wilderness Society -- Wildlands. New comments will be considered at any time. In addition, the following Indigenous / First Nation communities were contacted and provided copies: Constance Lake, Pic Mobert, Ginoogaming, Long Lake No. 58 and Pic River.

HCV Designation Decision by the Manager

Under the FSC system the manager makes the final designation of HCVs. The General Manager of Nawiinginokima is considered to be the manager and designates the HCVs. This decision must be transparent (as documented in this report) and based on expert, stakeholder and First Nations input and advice.

Expert Opinion

OMNRF expert opinion carries weight in these decisions. In Ontario's FMP system, as regulated following the Environmental Assessment decision of 1995, and subsequent reviews, the responsibility for non-timber values rests with the provincial government. To ensure that the management is effective, the government employs a range of experts including biologists, archaeologists, and native liaison officials. In P9, the standard refers specifically to the responsibility of "the applicant" towards HCVs. In the case of FSC, NFMC is responsible for the "special" values or HCVs. To carry out this responsibility, the manager must ensure that the government is meeting the spirit of the FSC standard. NFMC will ensure that HCVs are properly assessed and designated in the FSC context. NFMC holds the responsibility for the protection of these values in forestry operating areas. This HCV report is the responsibility of NFMC, and meets the requirement of 9.1 in the assessment.

A brief summary of the credentials of the HCV writing team are provided in [Appendix 4](#).

Peer Review

In [Appendix 5](#) is the full peer review of this report as required by the FSC standard. The review process uses the [HCV Resource Network Guidance for Peer Review of HCV Assessment Reports](#) (Version 2.1 September 2010).

Keeping HCVs up to date – Process

Part of the HCV methodology must be a process for keeping records and prescriptions up-to-date. As described above, the primary driver for this must be the [FMP](#) process, which is the open public record of forest management. It is a public record of forest management process and decision-making regulated by the Crown Forest Sustainability Act (Government of Ontario, 1994). The process for keeping that system up to date is part of the [FMP](#) system.

The contents of this HCV report will need to be reviewed periodically to ensure that it is up to date with the [FMP](#) and other changes in the forest. Of particular interest are the values designated "possible HCV" which need to be reviewed for changes to status. NFMC will ensure, as part of the responsibilities of the designated staff member for certification (currently the General Manager), that HCVs are reviewed at appropriate time intervals. Annual maintenance audits by the certifier will also ensure that this is fulfilled.

The Pic Forest Description:

The Pic Forest (PF, [Figure 2](#)) is located in the Ministry of Natural Resources and Forests (MNRF) Administrative District of Wawa (Northeast Region), with a portion of the former Pic River forest in the MNRF Administrative District of Nipigon (Northwest Region). MNRF Wawa District is the lead district in the administration of forest management responsibilities on the PF. Nawiinginiima Forest Management Corp (NFMC) is responsible for managing the PF under the authority of a Sustainable Forest License (SFL) granted by the Government of Ontario. They have the responsibility for planning, plan implementation, renewal, values protection during operations, compliance monitoring and other forestry activity.

The Forest straddles the height of land between the Arctic watershed (the Pagwachuan and Nagagami River drainages) and the Atlantic watershed (the Pic and the Little Pic River drainages). Numerous lakes and streams can be found on the Forest. Lakes are generally small

and scattered throughout the Forest. With the exception of northeastern portions of the PF, the melting of the ice sheet from the last glacier resulted in the deposition of eskers which are widely scattered throughout the area. The boundary between Hills' Site Regions 3W (Lake Nipigon) and 3E (Lake Abitibi) bisects the PF in a north-south line that can generally be described by the Pic River.

The climate is dominated by a continental polar air mass and is characterized by moderately severe winters and warm summers. Minimum mean daily temperatures at a Manitouwadge weather station range from -23.5°C in January, to +10.9°C in July. Annual average precipitation recorded at Manitouwadge is approximately 862 mm of which about one-third falls as snow.

The BPF covers an area of approximately 1.1M ha with only a few thousand hectares of private land. For exact area see FMP-1 in the FMP.

Within or adjacent to the PF there are five First Nation communities (Pic River, Pic Mobert, Ginoogaming, Long Lake No. 58 and Constance Lake), several of which participated in the development of the Forest Management Plan. Community profiles are provided below in the section on First Nation Values (page [71](#)).

The communities of Marathon, Heron Bay, the Pic River First Nation, Caramat, and Hillsport, are located within the boundary of the Forest. The town of Manitouwadge is located to the east, just outside the Forest. The nearest large centre is the City of Thunder Bay approximately 280 kilometres west. These communities depend on forestry, mining, tourism (see page [66](#)).

Forest Management Plan

The forest management planning (FMP) system for Ontario's Crown forests is based on a forest policy and legal framework that requires sustainability, public involvement, Indigenous involvement, and adaptive management. The Crown Forest Sustainability Act and the Environmental Assessment Act provide the legislative framework for forest management on Crown land in Ontario. Plans are publicly available ([FMP](#)). Compliance with the Endangered Species Act is also a demanding part of the system. Operational requirements for timely wood delivery to 21 wood processing facilities are equally complex. At the same time it is the legal document requiring the compliance with the prescriptions and conditions that safeguard HCVs.

The FMP requirements of the CFSA and approval under the EA Act are described in the Forest Management Planning Manual. In short this is the direction for preparing a forest management plan. The work involved in preparing an implementing a FMP that is several thousand pages in length and fully compliant with existing law is a big undertaking. There is no estimate for the number of person years that go into this endeavour.

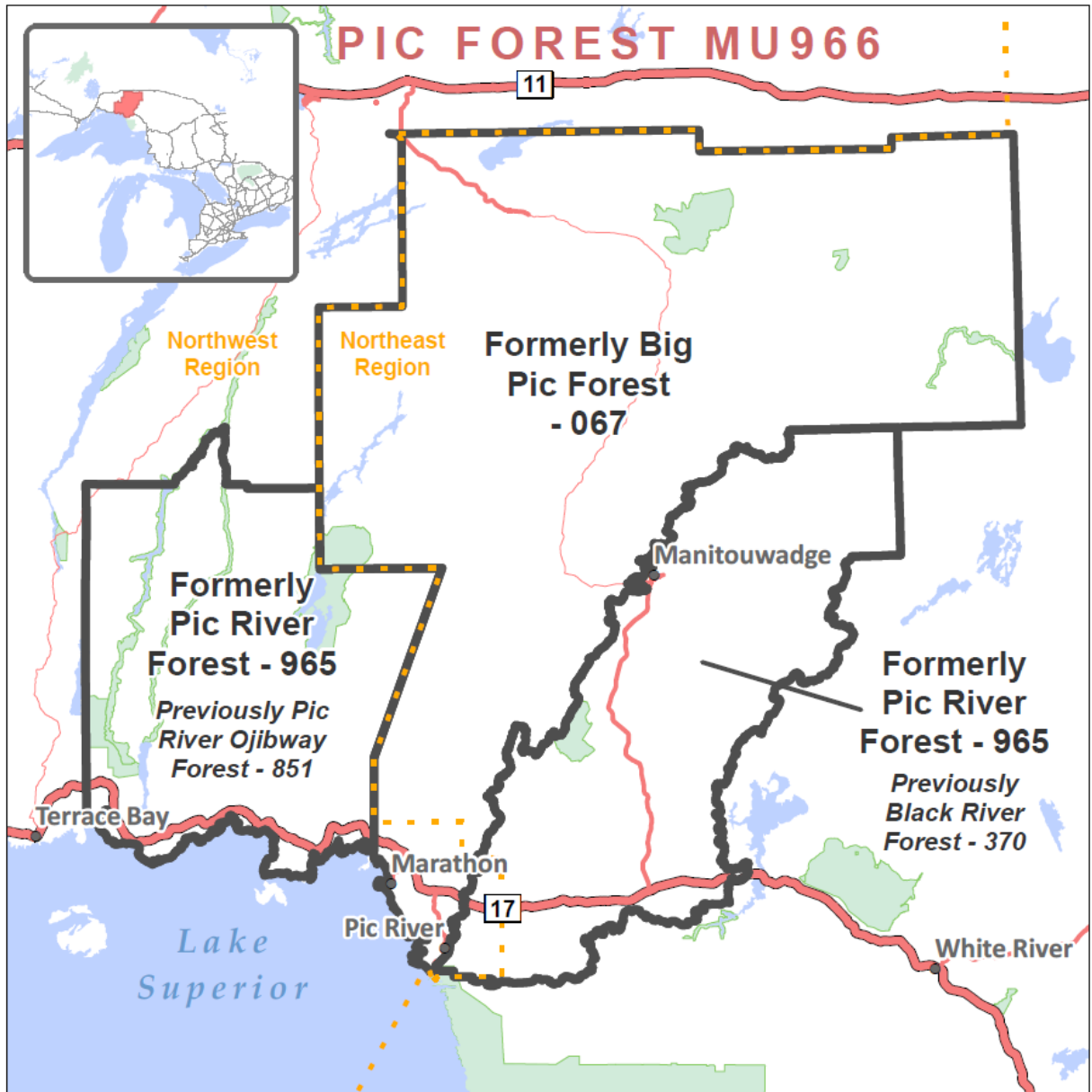


Figure 2. Location of the three NFM forests, the communities, roads and SFL boundaries.

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

The following assessment for the presence of HCV attributes is based on the 19 questions (called elements here) posed by the National HCV framework divided into six categories related to the definition of HCV.

Table 2. National Framework process for assessing the presence of HCV attributes.

Category 1: "...significant concentrations of biodiversity values."	
1.	Does the forest contain species at risk or potential habitat of species at risk as listed by international, national or territorial/provincial authorities?
2.	Does the forest contain a globally, nationally or regionally significant concentration of endemic species?
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 wildlife in breeding sites, wintering sites, migration sites, migration routes or corridors – latitudinal as well as altitudinal)?
4.	Does the forest contain critical habitat for regionally significant species (e.g. species representative of habitat types naturally occurring in the management unit, focal species, species declining regionally)?
5.	Does the forest support concentrations of species at the edge of their natural ranges or outlier populations?
6.	Does the forest lie within, adjacent to, or contain a conservation area: a) designated by an international authority; b) legally designated or proposed by relevant federal/provincial legislation; or c) identified in regional land use or conservation plans?
Category 2. "...large landscape level forests..."	
7.	Does the forest constitute or form part of a globally, nationally or regionally significant forest landscape that includes populations of most native species and sufficient habitat such that there is a high likelihood of long-term species persistence?
Category 3 "...rare threatened or endangered ecosystems."	
8.	Does the forest contain naturally rare ecosystem types?
9.	Are there ecosystem types within the forest or ecoregion that have significantly declined?
10.	Are large landscape level forests (i.e. large unfragmented forests) rare or absent in the forest or ecoregion?
11.	Are there nationally/regionally significant diverse or unique forest ecosystems?
Category 4 "...basic services... watershed protection"	
12.	Does the forest provide a significant source of drinking water?
13.	Are there forests that provide a significant ecological service in mediating flooding and/or drought, controlling stream flow regulation, and water quality?
14.	Are there forests critical to erosion control?
15.	Are there forests that provide a critical barrier to destructive fire (in areas where fire is not a common natural agent of disturbance)?

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

Category 5 “...meeting basic needs of local communities.”

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 anyone in the community making use of the forest? Is the use for their basic needs/livelihoods?

Category 6 “...communities’ local cultural identity...”

18. Is the traditional cultural identity of the local community particularly tied to a specific forest area?
19. Is there a significant overlap of values (ecological and/or cultural) that individually did not meet HCV thresholds, but collectively constitute HCVs?
-

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

-
- 1) Does the forest contain species at risk or potential habitat of species at risk as listed by international, national or territorial/provincial authorities?
-

Rationale:

Ensures the maintenance of vulnerable and/or irreplaceable elements of species diversity. This indicator allows for a single species or a concentration of species to meet HCV thresholds.

Assessment Methodology:

- NHIC Conservation Data Centre (<http://www.ontario.ca/environment-and-energy/natural-heritage-information-centre>)
- Ontario Breeding Bird Atlas (<http://www.birdsontario.org/atlas/maps.jsp?lang=en>)
- IUCN Red List (<http://www.iucnredlist.org/>)
- COSSARO list of species at risk (Committee on the status of Spp. at Risk in Ont.)
- COSEWIC list of species at risk (Comm. on the Status of Endang. Wildlife in Can.)
- Ontario Herpetofaunal Atlas maps (http://www.ontarionature.org/protect/species/herpetofaunal_atlas.php)
- FMP (http://nfmforestry.ca/?page_id=1636)

Consultation with experts included discussion with MNR SAR biologists and local biologists. For this assessment, the NHIC database, the Ontario Breeding Bird Atlas, the Ontario Herpetile Atlas, and the Forest Management Plan were the primary sources of information. COSSARO and COSEWIC are the government agencies that assess the status of species at risk.

Assessment Results:

In [Table 3](#) is a description of all of the species that are listed as special concern, threatened, or endangered that may possibly occur on the forest. Nationally (COSEWIC) or provincially (COSSARO) assesses the relative risk for all species and if necessary places them on the official list which determines the regulatory requirements. Regulated (listed) species are considered to be HCVs. The list is provided by OMNR which holds the responsibility for their management as mandated by the Endangered Species Act (RSO 2007).

Species rankings provided by the International Union for the Conservation of Nature (IUCN) were included in the Table because they give a more global context to the local rankings. Rankings in Ontario are influenced by the species being at the northern edge of its range, an HCV factor which is addressed separately in element 5 below. IUCN rankings tend to be less “at risk” because the global distribution is factored in. This does not minimize the responsibility of the province or the forest company, because range shrinkage is the hallmark of species in trouble.

Figure 3. Location of natural Heritage Information Centre 1 km grid for element occurrences in the PF.

Table 3 is based primarily on consultation with OMNR biologists at the Natural heritage Information Centre ([NHIC website](#)). Complete results from NHIC are in a table in **Appendix 2**. This table is the complete list of SAR and Species listed by NHIC as uncommon but not at Risk. Officially listed species are designated as HCV in **Table 3**. Species which are not officially listed by regulation were not designated as HCVs. The complete list is provided as verification that a wide range of species were assessed. As well, uncommon species may be designated HCV for other reasons, and complete information supports those decisions.

Any “rare” species that had actually been observed in the Forest and recorded in a relevant database was considered to be a candidate for assessment. At the provincial level, S1, S2, and S3 ranks were considered to be relevant. For more details on rankings, see the footnote to **Table 3**.

During assessment of individual species, values are designated as HCV, HCV -- landscape prescription required, not HCV or possible HCV. This list covers all of the possibilities for any values on the forest. The use of designations “landscape prescription required” and “possible HCV” are provided to ensure that the forest company is only asked to do things within their “sphere of influence”. In the case of SAR, forest companies have limited responsibility for some grassland, wetland and aquatic species. In cases where there is no management prescription at all for a value, then the company does not have a direct responsibility. Sphere of influence is a common term in FSC assessments to indicate that the standard must be met, but there are circumstances that are outside of the company’s influence.

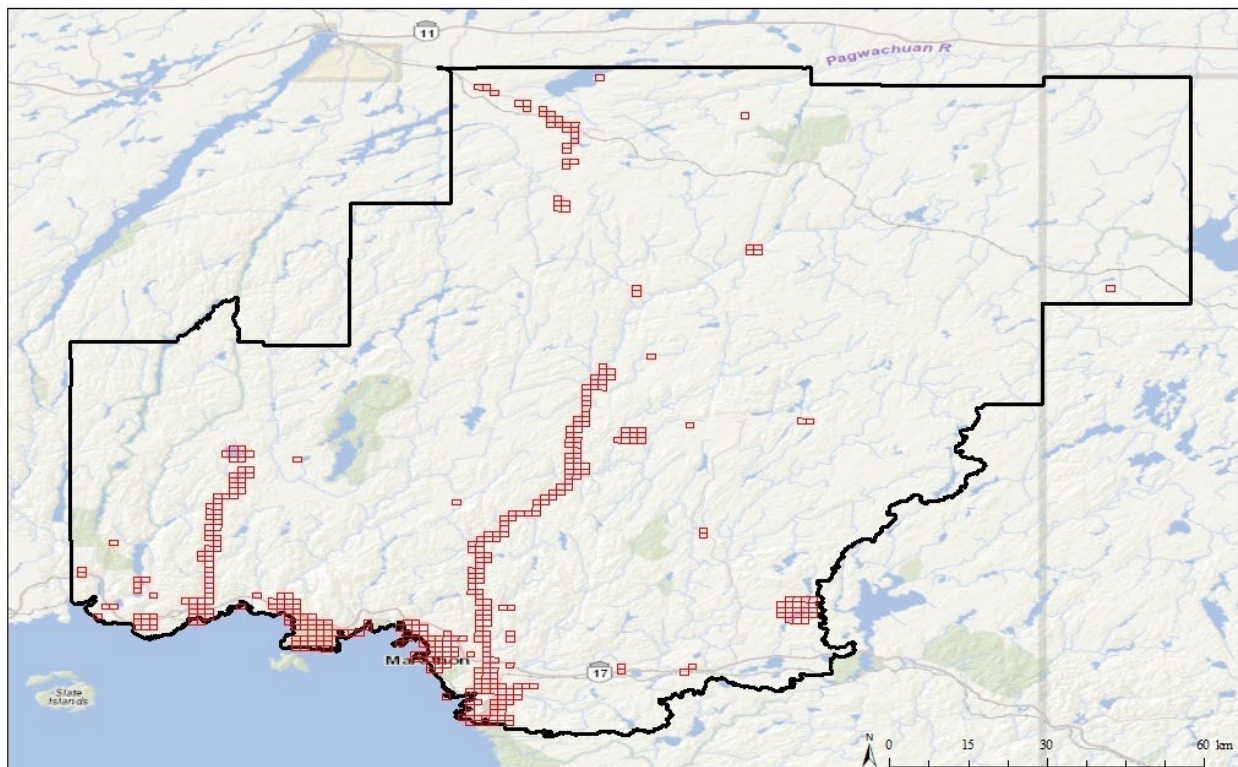


Figure 3. Location of natural Heritage Information Centre 1 km grid for element occurrences in the PF.

Table 3. Species listed as “at risk” by COSEWIC or COSSARO or “rare” by [NHIC](#) and with records of occurrence on the Pic Forest, as verified by Ontario government biologists.

Note that the COSSARO ranking is linked to the Endangered Species Act ([Species at Risk in Ontario List](#)) and all designations should reflect those regulatory requirements. This Table was updated to that list in August 2015 and again in September 2016 see the footnote* at the bottom of this Table for links and details. As well, [Appendix 6](#) of this report contains the Element Occurrence Records for all of the Pic Forest, which were used in preparing this table.

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
Birds			
<i>Falco peregrinus anatum</i> Peregrine Falcon	MNRF Legal Status MNRF Map IUCN	1) Special Concern 2) Least Concern	1) Across North America, precipitous declines in populations were associated with widespread, intensive use of persistent pesticides, particularly DDT in the 1960s and 1970s. The Ontario Breeding Bird Atlas (OBBA) did not report any occurrences in the forest. Many occupied territories in Ontario as of 2012. 2) Preferred habitat is at low risk from forestry operations because typical nest sites are steep cliffs, and peregrines hunt over open areas. Known nest sites are protected within a 3 km Area of Concern and a nest site management plan is prepared by OMNR. Forest staff and tree markers have been trained in the identification of birds of prey and their nests through in house training by NFMC. 3) As a listed species, it is designated as Possible HCV
<i>Haliaeetus leucocephalus</i> Bald Eagle	MNRF Legal Status (No mgmt. plan avail.) MNRF Map IUCN	1) Not listed 2) Least Concern	1) Breeding population in northern Ontario is expanding and it has been removed from the SAR list in the north. 2) Eagle populations in eastern North America declined as a result of widespread use of organochlorine pesticides such as DDT. Today Bald Eagles remain susceptible to illegal shooting, accidental trapping, poisoning and electrocution. Nests found during the course of forest management operations are reported to OMNR. 3) Eagle nests in the forest are still relatively rare and are regarded as special in this region. As a species still recovering and expanding, it was designated HCV even though it is not listed. HCV

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
<i>Asio flammeus</i> Short-eared Owl	MNRF Legal Status (No mgmt. plan avail.) MNRF Map IUCN	1) Special Concern 2) Least Concern	1) The species is uncommon to rare in Ontario and breeds very locally in open habitats, mostly in the agricultural south and along the Hudson and James Bay coasts. Current trends not known. This owl nests in marshes and grassy areas, and possibly also on clearcuts. No nests found in the last Atlas; there was in the first. 2) Risk due to forestry is minimal due to its use of open areas, particularly wetlands. 3) If an occurrence is found the species will be designated as HCV and appropriate prescription and monitoring developed. Listed so requires HCV designation. Possible HCV
<i>Caprimulgus vociferous</i> Whip-poor-will	MNRF Legal Status (No mgmt. plan avail.) MNRF Map IUCN	1) Threat 2) Least Concern	1) An uncommon-to rare breeding species throughout much of its Ontario range. Current trends are a steep decline. In the forest, this species is on periphery of its range. Some occurrences verified in Wawa District of OMNR, although no occurrences are known now. 2) Interaction with forestry possible. Main threat to species is likely habitat loss and degradation with the natural change of open areas and thickets to forests in the north and conversions of agricultural in the south. 3) Listed as Threatened, and records near the forest, but NHIC does not have EO so designated Possible HCV
<i>Dolichonyx oryzivorus</i> Bobolink	MNRF Legal Status Recovery Strategy MNRF Map IUCN	1) Threat 2) Least Concern	1) There is a widespread range in Ontario. Incidental occurrences in the past. 2) Incidental mortality from agricultural operations, habitat loss and fragmentation, pesticide exposure bird control at wintering roosts are the main threats. 3) No records from the forest. Not HCV
<i>Hirundo rustica</i> Barn Swallow	MNRF Legal Status Recovery Strategy IUCN	1) Threat 2) Least Concern	1) Historical decline is a result from loss of artificial nesting sites, open barns, and agricultural practices. Cause of recent decline is unknown but it is not logging practices. Occurs in Wawa District but not known from this forest. 2) Associated with infrastructure, including possibly bridges. No occurrences have been reported where these birds have used bridges on logging roads. 3) As a threatened species located in the forest, it is designated HCV, but is possible because there are no known occurrences. There is a low probability of interaction with forest operations. Supervisory staff have been trained to identify SAR. Possible HCV

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
<i>Riparia riparia</i> Bank Swallow	MNRF Legal Status Recovery Strategy not avail. (Map in status) IUCN	1) Threat 2) Least Concern	1) It occurs in Wawa District but not known on PF. It may migrate through. 2) Bank Swallows nests on banks of rivers and lakes, but also in active sand and gravel pits or old ones where the banks remain suitable. Therefore aggregate pits in forest operations can have an impact. The birds breed in colonies ranging from several to a few thousand pairs, so there is potential for a significant impact. 3) As a threatened species located in the forest, it is designated HCV. This was upgraded from possible in 2020 due to NHIC review. HCV
<i>Wilsonia Canadensis</i> Canada Warbler	MNRF Legal Status (No mgmt. plan avail.) (No MNRF Map avail.) IUCN map	1) Special Concern 2) Least Concern	1) 80% of its known breeding range is in Canada. The breeding range is deciduous and coniferous trees. It nests near the ground. It breeds at low densities across its range. In Ontario it is most abundant along the Southern Shield. It is considered a "probable nester." 2) Habitat loss due to reduced forests with well-developed shrub layer which impacts the breeding range. 3) A coarse filter landscape approach is used to manage Canada Warbler habitat by maintaining natural amounts of forest unit (i.e. OH1, LC1, PO1, BW1, MW2, MW3 FU's) and their mature and old forest seral stages. It is designated HCV. HCV landscape prescription
<i>Chordeiles minor</i> Common Nighthawk	MNRF Legal Status (No mgmt. plan avail.) (No MNRF Map avail.) IUCN	1) Special Concern 2) Least Concern	1) Its range extends across Ontario. They use a variety of habitats such as: such as farmland, open woodlands, clearcuts, burns, rock outcrops, bogs, fens, prairies, gravel pits and urban rooftops. It will use tall trees and snags as foraging perches. 2) Cause of population decline is unknown. Suspected causes are in its southern wintering range through use of pesticides and loss of suitable habitat. 3) Listed as Threatened, so designated HCV. An AOC prescription (ID = GN) is in place for nests. Possible HCV
<i>Contopus cooperi</i> Olive-sided Flycatcher	MNRF Legal Status (no mgmt. plan avail.) (No MNRF Map avail.) IUCN	1) Special Concern 2) Least Concern	1) In Ontario, Olive-sided Flycatchers commonly nest in conifers such as White and Black Spruce, Jack Pine and Balsam Fir. 2) There is interaction with forest operations. According to SAR Registry , nests are located near natural openings (such as rivers or swamps) or human-made openings (such as logged areas), burned forest or openings within old-growth forest stands. Habitat will be provided for the Olive-sided flycatcher by retaining individual residual wildlife trees within harvest blocks. Shoreline and wetland AOC prescriptions address general habitat concerns. 3) As a listed species it is an HCV. HCV

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
<i>Coturnicops noveboracensis</i> Yellow Rail	MNRF Legal Status (no mgmt. plan avail.) MNRF Map IUCN	1) Special Concern 2) Least Concern	1) In Ontario they are primarily found in the Hudson Bay Lowlands and localized marshes in southern Ontario. The preferred habitat is shallow wetlands. 2) The main threat to Yellow Rails is the draining of wetlands for urban development. Also, expanding Snow goose populations in the Hudson Bay lowlands destroying habitat. 3) This species could be located in the forest, although there is a very low probability of interaction with forest operations. Normal AOC wetland prescriptions ensure protection. Possible HCV
<i>Chlidonias niger</i> Black Tern	MNRF Legal Status (No mgmt. plan avail.) MNRF Map IUCN	1) Special Concern 2) Least Concern	1) Black Terns were once common in Ontario and the decline has been occurring since the 1980s. They are scattered throughout Ontario, mainly breeding in marshes along the edges of the Great Lakes. 2) Threats of habitat loss occur due to wetland drainage and alteration. 3) This species located in the area of the forest, although there is a very low probability of interaction with forest operations. Issues with this species occur in southern Ontario where wetland loss is a concern. Possible HCV
<i>Aquila chrysaetos</i> Golden Eagle	MNRF Legal Status Recovery Strategy MNRF Map IUCN	1) End 2) Least Concern	1) In Ontario recent reports indicate that only about six pairs nest in the far northern part of the province at nest sites. But monitoring in southern Ontario at major "hawk watch" points, 200 Golden Eagles have been observed. The typical habitat for this species is mountain regions and dry, rugged open country and grasslands. Nests are usually constructed on a cliff ledge but occasionally nests in trees, and, in the far north, will nest directly on the tundra. 2) Human persecution is the historical cause of decline. 3) If an occurrence is found the species will be designated as HCV and appropriate prescription and monitoring developed. In version 1.0 it was considered possible because of the proximity of the apparent Thunder Bay record reported by OMNRF and earlier discussion with OMNRF the experts of record. As a very unlikely nester it is not HCV. Not HCV
<i>Euphagus carolinus</i> Rusty Blackbird	MNRF Legal Status (not avail.) (No MNRF Map avail.) IUCN map	1) Not at Risk 2) Vulner.	1) The Rusty Blackbird habitat included along lake, stream, and river shorelines, wetlands, flooded forests, and beaver ponds. During the breeding season they are primarily associated with wet boreal forest, specifically within conifer forests and muskeg. 2) The leading cause of population declines is associated with loss of wintering habitat. 3) There is interaction with forestry operations but the species is not listed by COSSARO. Not HCV

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
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Mammals

<i>Myotis septentrionalis</i> Northern Long-eared Bat, or Northern Myotis	MNRF Legal Status (No mgmt. plan avail.) (No MNRF Map avail.) IUCN map	1) End 2) End (verif July 2020)	1) This bat is considered to be common globally, but is becoming provincially rare. It has a wide range in eastern North America. Recent White nose syndrome has caused it to be listed in Ontario. 2) These bats choose maternity roosts in buildings, under loose bark, and in the cavities of trees. Forest habitat is provided through the retention of cavity trees as required by treemarking guide. 3) Listed as an Endangered species. It is uncommon and as such local occurrences would be protected if located, regardless of designation as HCV. HCV
<i>Myotis lucifugus</i> Little Brown Bat	MNRF Legal Status (No mgmt. plan avail.) (No MNRF Map avail.) IUCN w map	1) End 2) End (verif July 2020)	1) As with Northern Bat, this species this species is suffering losses from White Nose Syndrome and this is the reason for the COSSARO listing as endangered. Distribution is not clear on this forest. It is listed as least concern by IUCN. 2) A prescription exists in the Stand and Site Guide for Bat Hibernacula. There is no evidence that forestry has contributed to the endangered status for this species. 3) It is a listed species so designated HCV. Received ESA Gen'l Habitat Protection Jan. 24, 2013 HCV
<i>Myotis leibii</i> Small-footed Myotis	MNRF Legal Status (No mgmt. plan avail.) (No MNRF Map avail.) IUCN w map	1) End 2) End	1) This bat is considered to have always been rare. It has a wide range in eastern North America. 2) This bat roosts mainly in caves, but possibly also alone or in nursery colonies under peeling bark. Although the interaction with forestry is small, there is a prescription for Bat Hibernacula in the MNR Stand and site guide . 3) It is listed as endangered (June 27, 2014) but has not been noted by NHIC in the forest - closest occurrence is several hundred km south, so not listed as HCV here. Not HCV

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
<i>Puma concolor cougar</i> Eastern Cougar	MNRF Legal Status (No mgmt. plan avail.) (No MNRF Map avail.) IUCN	1) End 2) Least concern	1) Cougars are endangered in Ontario however there is a data deficiency to determine their status. Cougars inhabit large forested areas that are relatively undisturbed by humans. Over the years there have been many sightings in Ontario but confirmation is difficult. 2) The disappearance of cougars is caused by land clearance for settlement and agriculture, and persecution. 3) MNR lists this species as Endangered. Most evidence shows that animals that exist have escaped from captivity. In the event of this species being established on the forest, it will be re-evaluated. Possible HCV
<i>Rangifer tarandus</i> Woodland Caribou	MNRF Legal Status Recovery Strategy MNRF Map IUCN	1) Threat. 2) Vulner.	1) There are distinctive subspecies and population across their range including a Boreal forest population which consists of two ecotypes: forest-dwelling and forest-tundra. In Ontario the forest-tundra populations lives on the Hudson Bay coast and the forest-dwelling further south, which are designated as at risk. See also discussion of Caribou CEZs and Caribou habitat and Caribou Conservation Plan that follows. PF is in the southern portion of the range including outlier population on the coast of Lake Superior. 2) The range of woodland caribou has decreased over the last century due to human encroachment, habitat disturbance and alteration. Forest management practices have fragmented mature coniferous forest. 3) There is interaction with forestry operations. The Caribou Recovery Strategy is in place and being implemented. Locally, the FMP contains the Caribou Strategy . As a listed species, Caribou is HCV. The Company follows government direction for this species. HCV

Reptiles

<i>Chelydra serpentina</i> Snapping Turtle	MNRF Legal Status (No mgmt. plan avail.) MNRF Map IUCN	1) SC 2) Least Concern	1) They are a freshwater species who prefer shallow waters. Prefer sandy or gravel areas to lay eggs and will often take advantage of man-made structures. Their range in Ontario is limited to southern Ontario and it is contracting. 2) The main threats to this species are amount of time it takes for them to reach maturity, often cross roads to find nesting sites resulting in mortality and egg predation in urban and agricultural areas. 3) It does not occur on the forest according to NHIC records. Not HCV
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Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
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Fish

<i>Acipenser fulvescens</i> Lake Sturgeon	MNRF Legal Status Recovery Strategy IUCN map	1) Th in part of north Ont. 2) Not listed	1) Common in Lake Superior. Spawning sites are difficult to identify. 2) Occurs in the lower reaches of the Pic River, however, their upstream migrations are checked by First Falls on the Kagiano River and Manitou Falls on the Pic River. Otherwise there is no direct interaction with forestry. 3) As a listed species it is HCV. Concentration or spawning areas could be damaged by water crossings, but this is unlikely given the crossings in that area. Landscape prescriptions. HCV riparian prescription
<i>Ichthyomyzon fossor</i> Northern Brook Lamprey	MNRF Legal Status (No mgmt. plan avail.) MNRF Map IUCN	1) SC 2) SC	1) In Ontario, it is found in rivers draining into Lakes Superior such as lower reaches of the Pic River. 2) They tend to live in small rivers which may be affected by forestry practices such as road construction. Forestry does not occur in the vicinity of the suitable rivers. 3) It is a listed species and so an HCV. Minimal interaction with forestry means there is landscape prescription. NHIC confirmed report. HCV riparian prescription
<i>Ichthyomyzon unicuspis</i> Silver Lamprey	MNRF Legal Status MNRF Map+ status IUCN	1) SC 2) Not listed	1) In Ontario, it is found in rivers draining into Lakes Superior such as lower reaches of the Pic River. Threats include habitat loss and the use of lampricides. 2) They tend to live in small rivers which may be affected by forestry practices such as road construction. Forestry does not occur in the vicinity of the suitable rivers. 3) It is a listed species and so an HCV. Minimal interaction with forestry means there is landscape prescription. NHIC confirmed report. HCV riparian prescription

For more info see [Appendix 2. Natural Heritage Information Centre Status List – Verified July 2020.](#)

NHIC credits below

Vascular Plants

The following species are all **old** records of G4 or G5 species:

Botrychium campestre, *Botrychium hesperium*, *Botrychium pseudopinnatum*, *Botrychium spathulatum*, *Bromus pumpellianus*, *Carex rossii*, *Diphasiastrum sabinifolium*, *Listera borealis*, *Oxytropis splendens*, *Potamogeton confervoides*, *Trichophorum clintonii*, *Vaccinium membranaceum*, *Zizia aptera*, *Bryum blindii*, *Scapania gymnostomophila*, *Anaptychia setifera*, *Anaptychia setifera*, *Peltigera collina*, and *Stereocaulon glaucescens*.

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
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The following species are old records G4 or G5 species:

Insects

Euchloe ausonides and *Erebia mancinus*

For more info see [Appendix 2. Natural Heritage Information Centre Status List – Verified July 2020.](#)

NHIC credits below

Yellow-banded Bumble Bee (<i>Bombus terricola</i>)	MNRF Legal Status IUCN	1) SC 2) Vul	1) The Yellow-banded Bumble Bee ranges from the Mixedwood Plains of southern Ontario to the Hudson Bay Lowlands in the north. Less is known about historical or recent abundance of Yellow-banded Bumble Bee in the northern portion of its range. 2) Forestry does not appear to be a factor. 3) It is a listed species and so an HCV. Minimal interaction with forestry means a landscape prescription addresses habitat. There was no EO reported. Possible HCV
Bombus bohemicus Gypsy Cuckoo Bumble Bee	MNRF Legal Status IUCN	1) End 2) Not listed	1) Historically throughout province. Recently only local. 2) It is threatened by disease, pesticides, and habitat fragmentation. 3) An element occurrence is reported (Appendix 6). It is a listed species and NHIC listed it for this area. If occurrences are found, a special prescription will be created if appropriate. Possible HCV
Danaus plexippus Monarch Butterfly	MNRF Legal Status (No mgmt. plan avail.) COSEWIC Status map	1) SC 2) NAR	1) The range of this butterfly has expanded over the last 50 years (Schappert 1996). The monarch may range up to this forest occasionally and undoubtedly occurs here judging from range maps (see COSEWIC status map at left). 2) Herbicides could affect several species of milkweed plants (<i>Asclepias</i> spp.) on which the larva depend, and the nectar-producing flowers that are important to adults. Mostly occur in field habitats and do not interact with forest operations. As well, riparian habitat that may be used by these butterflies is protected through application of the Stand and Site Guide, which requires application of spray buffers for herbicides. Road construction could provide habitat for monarchs by creating conditions suitable for common milkweed and nectar-producing flowers. Harvesting can create early successional habitat that provides conditions suitable for nectar-producing flowers. 3) This species is SC, and occurs in the forest according to the COSEWIC report. HCV landscape prescription required.

Scientific Name / Common Name or Group	Info Sources MAPs** Provincial status Recovery Plans	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision = Not HCV, HCV, possible HCV, HCV landscape prescription (No risk from forestry)
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Snails and Slugs The following species are listed as G5: *Valvata sincera ontariensis* and *Vertigo elatior* Not HCV

COSSARO abbreviations END – Endangered THR – Threatened EXP – Extirpated SC – Special Concern NAR – Not at Risk DD – Data Deficient EXT – Extinct

*** NHIC rankings and definitions:**

Endangered (Regulated): A species facing imminent extinction or extirpation in Ontario which has been regulated under Ontario's Endangered Species Act (ESA).

Endangered (Not Regulated): A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.

Threatened: A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.

Special Concern: (formerly Vulnerable) A species with characteristics that make it sensitive to human activities or natural events.

S Ranks -- NHIC assigns sub-national ranks (SRANKS) for species and vegetation communities in Ontario. These SRANKS complement the global ranks (GRANKS), and also range from S1 (extremely rare in Ontario, generally 5 or fewer locations) to S5 (demonstrably secure in Ontario). The SRANKS are not formal designations and do not confer any protection to the species. However, the SRANKS are used by COSSARO and other groups to set conservation priorities.

G Ranks – Global Ranks similar to sub-national ranks. For general information: http://en.wikipedia.org/wiki/NatureServe_conservation_status

*Summary of 2015 COSSARO evaluation results for species where there was a change in status affecting the local PF list. The following species were assessed to determine if they should be included in the PF SAR list (do they occur on the forest). Yellow-banded Bumble Bee (*Bombus terricola*) was added to the HCV SAR list.

Algonquin Wolf – Threatened, not in PF area; Black Redhorse (*Moxostoma duquesnei*) – Threatened, not in PF area; Blue Ash – Threatened - not in PF area; Broad-banded Forestsnail (*Allogona profunda*) – Endangered [not in PF area](#); Eastern Milksnake Not at risk; Proud Globelet (*Patera pennsylvanica*) Endangered [not in PF area](#); Red-necked Phalarope - Special Concern [not in PF area](#); Tri-colored Bat – Endangered [not in PF area](#); **Yellow-banded Bumble Bee (*Bombus terricola*) - Special Concern (Note added to HCV SAR list)**; Warmouth (*Lepomis gulosus*) Endangered, [not in PF area](#).

FSC Manager's list for Species at Risk (Table 3)

Table 3 is the current assessment of SAR based on current understanding of these species on the PF. This Table is also the manager's list as required in indicator 6.2.1 of the FSC standard. The following information is a supplement to the brief discussion in the above table.

Landscape Driven Biodiversity

Woodland Caribou is more attuned to landscape pattern and function than other species. Caribou range widely and require certain large landscape level patterns. It is important, as discussed earlier ([Assessment for HCV Attributes](#)) to precisely define the value that is critical. The following discussion and later elements attempt to do that. Operationally, through the [FMP](#), forest pattern is controlled through the dynamic caribou habitat schedule (DCHS), also referred to as a landscape mosaic approach. In keeping with the requirements of FSC certification (NBS Indicator 6.2.5) this strategy has been developed based on expert opinion. Note that further north Wolverine (*Gulo gulo*) would also be included in this landscape management approach, but because it has not been reported in the Pic Forest it is not considered here.

Woodland Caribou (*Rangifer tarandis*)

Because of its relatively southern location relative to overall Woodland Caribou habitat, PF contains three types of habitat: Northern Continuous Zone, Discontinuous Zone and Coastal Zone. The management strategy in the FMP is a collaborative effort among the Hearst Forest, Nagagami Forest, and Pic Forest Planning Teams. Workshops were held in Wawa, Hearst, and Manitouwadge with Regional and Provincial experts to assist in the development of the strategy.

In the Northern Continuous Zone, the Planning Team implemented a dynamic caribou habitat schedule (DCHS) as directed by the [Caribou Conservation Plan](#) (CCP) for Ontario. Within this schedule, large blocks (approximately 15,000-30,000 ha) are used to maintain suitable caribou habitat both spatially (i.e. maintaining habitat linkages for caribou movement) and through time (over a 140-year period). Note that the strategy for the western portion of this area (called the Caramat zone) was to manage for caribou habitat using larger than normal marten core deferrals which range in size from 5,000 ha to 10,000 ha. This strategy was adopted because, while caribou have been reported in this zone in the past, the sightings have been intermittent, and rarely of more than single animals.

The discontinuous distribution zone provides connectivity between the northern continuous distribution zone and the coastal continuous distribution zone through the application of large landscape patches, reserved forest area (e.g. parks and conservation reserves) and other deferral areas. This ensures a sufficient size and arrangement of mature forest patches in this area.

The strategy for the coastal continuous distribution zone was to develop operational harvest blocks and deferral periods in conjunction with caribou habitat management strategies from FMPs on adjacent forests.

This strategic management zones are described more fully in the [FMP](#) (section 3.5).

Overall, under this strategy, older conifer areas that provide mature conifer and suitable winter habitat for caribou will be maintained on the landscape within DCHS blocks. The overall anticipated result of this habitat management approach will be increased levels of late seral forest distributed over time and space and arranged in caribou habitat blocks.

The opinion provided by the MNR Caribou experts states:

“Ontario's [Range Management Policy in support of Woodland Caribou Conservation and Recovery](#) (RMP) provides policy direction on managing each range such that the collective

amount of disturbance remains at a level that reduces risk to caribou and supports the persistence of a self-sustaining caribou population. Additionally, the Ontario's forest management planning system provides direction on the amount and distribution of current and future habitat, including the restoration of disturbed areas on crown land. Currently, all Forest Management Plans within the Continuous Distribution of caribou are meeting the intent of the CCP. Last winter, a stakeholder panel provided recommendations regarding implementation of the Endangered Species Act. We are responding to some of these recommendations with a closer investigation of the linkages between the Crown Forest Sustainability Act and the Endangered Species Act."

"In designing our approach to provincial caribou conservation, Ontario is working with Environment Canada to address federal requirements. We believe that the implementation of the Range Management Approach (RMA), as described in Ontario's CCP and associated draft Range Management policy and technical documents, will meet the intent of a range plan as described in the federal recovery strategy."

This position statement was reconfirmed in July 2020.

HCV Designation Decision:

Based on a review of current status of species at risk, as rated by provincial, national and international agencies, the HCV⁴ designations are as designated in [Table 3](#). Species listed as "at risk" by COSEWIC or COSSARO or "rare" by NHIC and with records of occurrence on the Pic Forest, as verified by Ontario government biologists. These are also listed in [Table 1](#). Identified High Conservation Values on the Pic Forest (PF).

2) Does the forest contain a globally, nationally or regionally significant concentration of endemic species?

Rationale:

To ensure the maintenance of vulnerable and/or irreplaceable elements of biodiversity.

[Endemic](#) refers to species that are unique to a defined geographic location, such as an island, nation or other defined zone, or [habitat](#) type. Endemic is sometimes misunderstood as simply occurring in an area. This is an incorrect definition.

Assessment Methodology:

- [Birdlife International](#)
- [IUCN](#); [NHIC](#); [Nature Serve](#); [Conservation International](#)
- WWF [Ecoregion Conservation Assessment](#) & Terrestrial Ecosystems of North America (Ricketts et al.1999)

The presence of any endemic species identified by an appropriate agency (e.g. NHIC, COSEWIC) would meet the threshold of this criterion.

Assessment Results:

As with most boreal forests, which have evolved with short-term disturbance (fire and wind) and long-term disturbance (continental glaciers), endemism is rare. Moreover, the Crown forests of

⁴ This designation was reviewed in July 2020, including a review of the web info and other sources.

Ontario consist of a huge expanse of contiguous forest cover over the landscape that does not inhibit genetic mixing. In general, these conditions prevent endemism. Some endemics can be caused by species that have been extirpated everywhere else. The Whooping Crane is an example from western Canada, but there are no known examples from this forest.

[Birdlife International](#) (verified April 2013) does not show any biodiversity “Endemic Bird Areas in Ontario”. Conservation International does not identify any “[Hotspots](#)” in Canada.

In their book “Terrestrial Ecoregions of North America”, Ricketts et al. (1999) provided an analysis of the geographic patterns of species richness and endemism and a series of maps for illustration. According to Ricketts et al., the Eastern Forest-Boreal Transition ecoregion may contain some species of endemic terrestrial snails. Subsequent work by COSEWIC placed about 8 species on their list of “high priority candidates”. All Ontario species were ranked either G5 or G4 by [NatureServe](#): *Mesodon clausen* (G5) *Mesodon zaletus* (G5) *Patera pennsylvanica* (G4) *Webbhelix multilineata* (G5). This means that endemism was not a factor, and all of these species were not immediately at risk due to their wide distribution.

As well, [Nature Conservancy of Canada](#) (NCC) and [NatureServe Canada](#) public published a report in 2020 called “Ours to save: the distribution, status and conservation needs of Canada’s endemic species” ([LINK](#)). It identifies one endemics species on the PF - *Botrychium pseudopinnatum*, False Northwestern Moonwort. It is in the NHIC list in [Appendix 2](#).

HCV Designation Decision:

At this time, there one endemic species on the forest⁵ and this is designated an HCV Landscape prescription - *Botrychium pseudopinnatum*, False Northwestern Moonwort.

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 wildlife in breeding sites, wintering sites, migration sites, migration routes or corridors – latitudinal as well as altitudinal)?

Rationale:

Addresses wildlife habitat requirements critical to maintaining population viability (regional “hotspots”).

Assessment Methodology:

- [Forest Management Plan](#)
- Natural Resource Values Information System for Ontario ([NHIC](#))
- [BirdLife International](#); Conservation International – [Important Bird Areas](#)
- [Bird Studies Canada](#)

For this assessment various databases, including the OMNR NRVIS data set, were used to document wildlife concentration areas such as critical breeding or winter habitat for a single species or concentration area for a diversity of species as they are identified in the field. Also important is the information recorded in the [FMP](#) with regard to special wildlife management areas.

⁵ This designation was reviewed in July 2020, including a review of the web info and other sources.

Assessment Results:

Below is a discussion of the findings from a review of available data sets as listed above.

Important Bird Areas

According to Bird Studies Canada, an [Important Bird Areas](#) (IBA) is a site providing essential habitat for one or more species of breeding or non-breeding birds. These sites may contain threatened species, endemic species, species representative of a biome, or highly exceptional concentrations of birds. There were no [IBAs](#) identified on the forest.

Woodland Caribou Habitat areas

Woodland Caribou are a protected species and cannot be hunted, except by First Nations peoples. Their habitat is legally protected by the Endangered Species Act (RSO 2007). This species is classified nationally as a threatened species (COSEWIC).

Management of woodland caribou requires landscape level planning to ensure sufficient seasonal habitats remain on the management unit. A provincial recovery strategy and regional guidelines with respect to protection and management of forest dwelling Woodland Caribou in northeastern Ontario have been developed and are currently being reviewed.

The Species at Risk category of this report details specifically the HCV requirements for Woodland Caribou. It is designated HCV in Element 1, and is discussed in Element 7 which designates Large Landscape Level Forest.

Cervid Ecological Zones:

The OMNR has developed an overarching strategic policy direction for the management of Cervids (moose, white-tailed deer, woodland caribou and American elk) in Ontario. Through a [Cervid Ecological Framework](#), the OMNR is seeking to manage values for multiple members of the Cervid family simultaneously at a landscape scale that recognizes the various ecological factors (i.e. climate change, and other human activities and stressors) that interact and impact Cervid species in Ontario. The Cervid Ecological Framework outlines an approach for forest management that involves the delineation of Cervid Ecological Zones (CEZ) that apply broad management guidance and considerations to enhance the management of cervids. The [FMP](#) uses this approach in an attempt to manage and enhance local Cervid populations of Moose and Woodland Caribou on the forest.

CEZs provide broad guidance for maintaining Moose and Caribou across the north. This concept is intended to provide integrated landscape guidance for [FMPs](#). As such, CEZs are not considered HCVs because they do not specify regionally significant sites or populations, but deal with general FMP considerations. The FMP addresses the requirements of CEZs.

Critical Fish Spawning Areas

Forest management activities have the potential to impact aquatic environments both positively and negatively. MNR maintains strict rules about operations near critical fish habitat. Obviously, some activities such as road construction adversely affect fish populations due to increased access and angling pressure.

Operations that occur in riparian zones and along shorelines if not implemented properly are considered higher risk for erosion, sedimentation, debris, elimination of shade and cover, a temporary increase in water temperature and alteration of the forage base. Management in riparian operations also allows for renewal of the terrestrial forest cover ([MNR Stand and Site Guide](#)). Ironically, with the level of fire control that now occurs, some riparian zones are not renewed naturally for very long periods.

The [FMP](#) will protect fisheries values and wetland ecosystem function by:

- Application of slope dependent AOCs to regulate forest management activities around water Establishing AOCs around spawning areas
- Following timing restrictions for water crossing installations
- Conducting harvest operations within or adjacent to sensitive areas during winter only

Lake Sturgeon inhabit as far as 80 km upriver from Lake Superior in the Pic River. Concentration in any spawning areas would be considered an HCV as a species of Special Concern. Forest management activities have the potential to impact Sturgeon populations during water crossing construction. Concentration or spawning areas could be damaged by water crossings, but this is unlikely given the crossings in that area. Riparian prescriptions are required. Sturgeon are designated HCV in element 1, as a SAR.

Fish spawning areas for other species, besides Sturgeon, have not been identified as HCVs because spawning areas are abundant in the PF and adjacent forests and they are not regarded as at risk. MNR ensures that a conservative approach to protection is employed through AOC prescriptions, including reduction of the number of all-weather roads crossing rivers (especially near deep pools).

Bird Colonies

The coast of Lake Superior contains a number of large colonies of water birds such as gulls. They are widespread across the Lake. None of these species were identified in the [Significant Wildlife Habitat Technical Guide](#) as regionally significant. For this reason, these have not been designated HCVs.

Heronries

Hérons are colonial nesters, especially vulnerable to human disturbance during the nesting season when large numbers of birds are concentrated in a relatively confined area.

Comments from the [Significant Wildlife Habitat Technical Guide](#) indicate large colonies may have regional significance:

“The great blue heron is also a colonial nesting bird. It is not underrepresented (rare) at the provincial scale. Great blue herons can nest in colonies ranging from 5 or 6 nests to well over 100 nests. In smaller landscapes where great blue herons are common, the planning authority may decide that only those colonies with greater than a specific number of nests (e.g. >25), should be considered significant.”

On that basis, only large (>25 nests) heronries are regarded as regionally significant however none of this size are known currently on the forest. They were designated as possible HCV.

Heronries are protected from disturbance during regular forest management activities through application of an effective AOC prescription described in the OMNR [Stand and Site Guide](#). This prescription was tested extensively for effectiveness in a study of about 150 colonies by Agro and Naylor (1994), and 150 more colonies by Naylor et al. (2003). The effectiveness monitoring work showed that the prescription provides effective long-term protection for colonies in all types of harvest cuts in both the Great Lakes-St. Lawrence and Boreal Forest regions. Herons are an abundant species throughout Ontario.

Waterfowl Production and Staging Areas

Staging areas are generally shoreline/aquatic habitats where waterfowl are known to rest during migration. Although waterfowl do reproduce throughout the forest in low density there is no specific concentration areas noted and no HCV was designated. The waterfowl production and staging areas that do occur are protected through AOC protection on water bodies.

HCV Designation Decision:

No concentration areas are identified as HCVs⁶, although large Heron Colonies (>25 nests) are considered possible HCVs, and would be designated if any are found. Sturgeon are designated HCV in element 1, as a SAR and listed as riparian prescription required, consistent with this section.

4) Does the forest contain critical habitat for regionally significant species (e.g. species representative of habitat types naturally occurring in the management unit, focal species, species declining regionally)?

Rationale:

Meta-population viability.

Assessment Methodology:

- [Northern Ontario Plant Database](#)
- [Ontario Tree Atlas Project](#)
- Results from Forest Management Plan habitat models
- Species representative of naturally-occurring habitat types or focal species
- Species identified as ecologically significant through consultation

NOTE: Species identified in the NHIC database and ranked nationally as SAR by COSEWIC were discussed in Question 1.

Under this question, the HCV toolkit (Appendix 5 of the FSC Boreal Standard) provides definitive (required) guidance that asks “Is the regionally significant species in significant decline as a result of forest management”.

Assessment Results:

Focal Species

Focal species 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 other species that occur there (Lambeck 1997). In other words, this definition means that the species themselves have a role to play in maintaining habitat types. This is a difficult concept to evaluate and is more likely to occur in other parts of the world. The Boreal is a fire dominated ecosystem, rather than one that is stable and influenced by slower processes such as those caused by animals. For focal species their role is to exercise control on the forest cover. Abundant herbivores in more southern areas are capable of this. A related concept is “keystone” species which was defined by [R. T. Paine \(1966\)](#) as a species that plays a disproportionately large role in ecosystem function, relative to its numerical abundance or biomass.

To evaluate this element, we looked at the use of two concepts in Ontario that are similar to “focal” species - featured species and regionally representative species. Featured species (Thomas 1979)

⁶ This designation was reviewed in September 2016, including a review of the web info and other sources.

are species whose habitats, and sometimes populations, are managed for their importance to society, possibly as game species (e.g., Moose or Deer), focal species (e.g., Pileated Woodpecker), important furbearers (e.g., Marten), or for other reasons (e.g., at risk). Caribou is a featured species at risk that would also qualify under this category. It is a species of pre-eminent position in the forest, and would also be designated here.

Regionally representative species are generally common species whose habitat needs, when considered together, reflect the majority of forest habitat conditions on the landscape. These are selected by MNR during the [FMP](#) process to give this balance across forest types. Individual species on the list of “regionally selected species” represent a variety of life history strategies, a variety of preferences for habitat types and development stages, and have habitat needs that are reasonably well known and amenable to modeling with the tools available to forest managers. Literature relevant to this topic includes the background paper by McLaren et al. (1998), and the Ontario [wildlife monitoring](#) program developed by OMNR. FMPs must model the current and future long-term habitat supply available for these “regionally selected species”. The habitat supply available for these species is used as a test of the ecological sustainability of the forest management direction outlined in the FMP over the long term.

The 9 wildlife species which are currently modeled (FMP Table 8) and/or monitored are:

- Black Bear (foraging)
- Black Backed Woodpecker
- Boreal Chickadee
- Lynx
- Marten
- Moose (winter and summer cover and foraging)
- Red-breasted Nuthatch
- Ruffed Grouse
- Woodland Caribou

Of these species most are high profile. Spatial habitat planning is required to be completed for two of them: Woodland Caribou (through the direction of the Caribou Conservation Plan) and Marten (through the direction in the Forest Management Guide for the Provision for Marten Habitat). Five of the eight have an economic importance in the region. Lynx and Marten are furbearers. Moose, Bear and Grouse are hunted. Pileated Woodpecker could be considered a focal species because its activities create habitat for other wildlife.

Marten may be considered a focal species, given its prominence in Ontario FMP system through landscape planning. Managing for marten habitat helps to provide for mature forest used by a variety of wildlife species. It is a widely distributed species, characteristic of forest units that have higher conifer content. It is also designated as a featured species by MNR, due to its high profile as a key species for trapping.

Moose are a high-profile species that is of economic importance. It is visible, well adapted and widely distributed. Its habitat does benefit from site level management practices and is a significant focus of FMP objectives. It is on the regional list for species that are modelled individually. Moose are part of the [Cervid Ecological Framework](#) that OMNR has put in place to recognize the various ecological factors (i.e. climate change, and other human activities and stressors) that interact and impact Cervid species in Ontario. For this element, which is focussed on regionally significant critical habitat, moose was not designated as an HCV. Although winter habitat receives much attention, it is common and widespread. It is managed at the site level through conditions on operations, including constraints on residual structure.

Other Species

Another possible focal species is Beaver which creates ponds used by numerous other furbearers, by waterfowl, herons, ospreys, and fish, and add greatly to the species richness of an area. Pileated woodpecker nesting and roosting cavities have significant value for other cavity-dependent wildlife (see Naylor et al. 1996). These species do not represent a sensitive or dependent relationship with any other species that could be considered an HCV.

HCV Designation Decision:

There were no designations as HCVs⁷ in this element. This was mainly because as “focal” species, which concerns the interaction of this species with other species, no relationships were mutually exclusive. In other words, the food web is broad enough that a decline in one species would not put another species in peril. As well, there is no species which influences a broad control of the forest cover, thereby affecting other species.

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

Rationale:

Relevant conservation issues include vulnerability to range contraction and potential loss of genetic adaptation at the edge of the geographic range.

Assessment Methodology:

- Range and population estimates from national or local authorities and local experts for: Forest tree species
- Appendix 2. Natural Heritage Information Centre Status List – Verified July 2020.
- NHIC credits below
- Species identified as ecologically significant through consultation
- [Table 3](#)

Assessment Results:

As a northern Ontario forest, the PF is the limit for a number of species, and the southern limit for others. Some species at their range limit may be candidate HCVs, have been assessed in Element 1 as either a SAR or a species that is rare.

In the appendices to this report is a list of species that have been identified as uncommon or rare on the forest by MNR based on a wide variety of sources ([Appendix 2. Natural Heritage Information Centre Status List – Verified July 2020](#).
[NHIC credits below](#)

. These are species that are not considered at risk and have Global rankings of 4 or 5 (with a few 3s), or have a lower ranking but have not been identified within the last 25 years. Some of these are species that are at the edge of their range. Because they are not identified as at risk or regionally significant for other reasons, they are not listed as HCVs. In the event any of these species was identified as significant for any reason, they would be elevated to HCV status.

One species was noted by the audit team as a disjunct species that should be assessed. Franklin's Lady Slipper (*Cypripedium passerinum*) has an extremely large range, but it is common to occasional in suitable habitat and rare in other parts of its range. It occurs in a variety of habitats from coniferous forests, thickets, openings, tundra, wooded ravines, littorals of streams,

⁷ This designation was reviewed in September 2016, including a review of the web info and other sources.

lakeshores, swamps, river terraces, edges of lakes and streams, and talus slopes in the montane and subalpine zones. It is NOT a listed species in Ontario. There were no documented cases of this flower in the forest, though it may occur. It is not near the edge of its range. It could be considered as a naturally uncommon species, using "[k](#)" [selected survival strategies](#). Although there is concern it is declining, its widespread nature makes it difficult to assess. In the event a significant population, or any population was discovered, normal management practices would be undertaken for its conservation. It did not appear to warrant HCV status at this time. Further information may alter that decision.

We based the assessment of edge of range tree species on ecosites or forest types. Forest types are the direct responsibility of the forest managers and information is more readily assessed through the inventory. There is a good understanding of their distribution, abundance and management. A search of the MNR [Forest Resources of Ontario](#) (2016) shows that Ecoregion 3E (Lake Abitibi) which follows the eastern boundary of the PF, contains very small amounts of forest types "Red and White Pine" (0.1%) and "Tolerant Hardwoods" (0.2%) (For map [Link](#)). This means it is possible there could be an occurrence in the forest; however, discussion with experts indicated that of the species possible Red Pine, Black Ash, Yellow Birch have not been found. White Pine has a reasonable level of occurrence, and in 2017 a stand of Soft (red) Maple was located. None of these species were located in areas open for harvest. Although the likelihood of an occurrence is very small, they were designated as possible HCVs.

HCV Designation Decision:

White Pine was designated as HCV⁸ based on a small number of occurrences of the species. Soft (red) Maple was found on the forest in 2017, so the designation went from possible HCV to HCV. Red Pine, Black Ash, Yellow Birch, are still considered possible HCVs.

6) Does the forest lie within, adjacent to, or contain a conservation area:

- a) designated by an international authority;
 - b) legally designated or proposed by relevant federal/provincial legislative body;
 - c) identified in regional land use plans or conservation plans.
-

Rationale:

This question ensures compliance with the conservation intent of a conservation area, and ensures that regionally significant forests are evaluated for consistency with the conservation intent. (Note: Conservation areas that are withdrawn from industrial activity do not constitute HCV for management purposes, but forest management activities may need to be adjusted adjacent to park boundaries in some cases).

The rationale above is quoted from the standard. In the Ontario context this means that legally parks and conservation areas are removed from the license area. They are still considered HCVs of course, but the responsibility of the manager is limited to ensuring that the boundaries are protected and there are no indirect impacts. The management of the park is the responsibility of the government.

Assessment Methodology:

- [Land Information Ontario](#) (LIO) Ontario Government – Crown Land Atlas
- [National Ecological Framework for Canada](#)
- [Ontario Living Legacy Land Use Strategy](#)

⁸ This designation was reviewed in July 2020, including a review of the web info and other sources.

- [Canadian Heritage Rivers System](#)
- [NHIC database](#) Natural Heritage Information Centre OMNR
- [RAMSAR](#)
- International Biological Program sites
- [Canadian Conservation Areas Database](#)

Conservation areas and any designations by Canadian or International organizations were examined. The following reports on international and provincial designations of various kinds. Specific information can be found by following the links to the particular organization.

Assessment Results:

The total of the entire area of the Pic Forest is 1,115,788 ha. Adjacent to the SFL areas are 79,985 ha of designated protected area (~7%; [Table 5](#)). As well the enhanced management area along the Lake Superior Shoreline has an area of 25,649 ha (2.2 %).

[Table 4](#) provides a description of types of conservation lands within the Forest.

International and National Designations

There are no [Ramsar Sites](#) (internationally recognized wetlands).

The International Biological Program (IBP) was an effort between 1964 and 1974 to coordinate large-scale ecological and environmental studies. No sites are located in the vicinity of the forest.

There are no federally designated Conservation areas in or adjacent to the forest. Pukaskwa Park is just south of the area.

Provincial Designations

The province of Ontario has a variety of classifications for special areas, and permits different degrees of industrial and other activity within them. [Table 4](#) below lists the types of protected areas found within the Pic Forest. Most of these were modified or created during the [Ontario Living Legacy Land Use Strategy](#). These are viewable through the Crown Land Atlas which is a website that contains an interactive map. The Crown Land Atlas documents can be reached through the website in [Table 5](#). These are referred to as regulated, because there are clear policy documents based in regulation that guide the acceptable use.

Of the regulated designations, Parks and Conservation Reserves have the most restrictions. International Union for the Conservation of Nature (IUCN) would regard Parks as mostly Category I and Conservation Reserves as Category II. These do not allow logging and as such meet the conventional usage of the term “protected”. There would be some exceptions, and some multiple designations within one area (I and II) occur. These meet the level of significance consistent with HCVs and as such are designated HCVs. Note the protected areas are not part of the forest licence of NFMC.

There are no Forest Reserves on the Pic Forest, although they are common elsewhere in Ontario.

Unregulated areas include Provincially Significant Wetland (PSW), International Biological Program (IBP), Area of Natural and Scientific Interest (ANSI) and Conservation Areas (CAs). Here “unregulated” only means areas with no special designation for protection following the Ontario Crown Land Use Atlas.

IBPs, and ANSIs do not meet the HCV or IUCN requirement for regulated protection. IBPs, explained above, do not meet the level of significance of an HCV. ANSIs are unique ecosystems,

but do not have regulatory status of a conservation area required here. They are evaluated in Element 11 for their “uniqueness”.

Provincially Significant Wetlands are not regarded as regulated conservation areas here, so they are assessed below in Element 13 and designated HCV there.

The last, CAs, are on fee private land (and so not on the license areas of NFMC) but they are listed here because they are adjacent to the forest. It is possible special prescriptions could be required.

Table 4. Types of Conservation Lands within the Forest - Land Information Ontario.

The Canadian Council on Ecological Areas (CCEA) has a mission to assist with the establishment and management of a network of protected areas. They have provided a map link to the Ontario conservation areas. This is called Conservation Areas Reporting and Tracking System (CARTS). Maps of regulated areas can be viewed in Google Earth by

- 1) Starting Google Earth (must be installed on your system)
- 2) Go to the following link: http://www.ccea.org/KML/CARTS_v3_En.kmz .




This will download an executable file that will open Google Earth on your computer with the CARTS data available for viewing as points and polygons as you zoom in and out. An installed version of Google Earth version 4.2, or higher, is required to run this file.




<i>Regulated Land Use Designations</i>	These land use designations appear on the Crown Land Atlas and have a Provincial Policy document describing allowed land use activities.
Conservation Reserve	An area of public lands identified by the OMNR and managed to permit natural ecosystems to operate with minimal human interference. Generally, commercial timber harvest, mining, and commercial hydro-electric power are excluded from Conservation Reserves.
Enhanced Management Area	An area identified by OMNR intended to maintain the values indicated by the EMA category (fish & wildlife, intensive forestry, enhanced recreation, remote access, resource-based tourism, natural heritage). EMAs warrant specific management policies to maintain their special values.
Provincial Park	A provincially owned and managed park. The level of development and the type and intensity of use permitted within the park depends on its classification (e.g., waterway, wilderness, natural environment, recreation) .
<i>Not regulated</i>	These classifications are made by government because the land has some interesting feature. In some cases these are significant enough to become HCVs. Crown Land Atlas does not record a specific policy regulating allowed activities
Area of Natural and Scientific Interest (ANSI)	OMNR identified areas having provincially or regionally significant representative ecological features. There are none of these on Forest that have not already been incorporated into other protected areas. Some are on private land and not part of the License area.
Life Science Site	Crown land recognized as having significant life science features by MNR based on a scientific report.
Wetlands - Provincially Significant	Any wetland that has been evaluated by the OMNR using the Ontario Wetland Evaluation System (OWES), and recognized as having special ecological significance.
International Biological Program	IBP sites contain some locally important natural feature. None were judged regionally significant during review by experts during the Living Legacy land use exercise.

Table 5. Parks, Conservation Reserves and EMAs wholly or partly within the PF (data from OMNR). Identification number as per the Crown Land Use Policy Atlas.



To view Policy Documents, click the link under Area ID#.


To view Google Earth links (icons in far right column) you need to have [Google earth installed](#).

Name	Type/ (location)	Area ID#	Area (ha)	Description	Air photo or Google Earth*
Provincial Park					
Craig's Pit	Provincial Park	P1501e	530	The site encompasses series of kettle holes and bluffs and is an important migratory bird observation area. The park area represents 3 earth science landform/process themes consisting of glacial -2 troughs and 4 major kettle holes up to 70 metres deep; fluvial - deep deltaic deposits; and lacustrine - a distinctive wave-cut bluff descending from the 320 meter contour level to the lake level on the west side of the deposit.	48°41'12.80"N 86°20'31.0"W http://www.fla-shearth.com/?lat=48.686892&lon=-86.341962&z=14.5&r=0&src=msa
Craig's Pit Addition	Provincial Park		413	Addition to above	As above
Nagagamisis & Nagagami Lake Additions	Provincial Park	P1524e	32406	This site proposes an addition to Nagagamisis Provincial Park to increase representation and provide ecological integrity by linking two smaller parks together. The site contains a combination of earth and life science and recreational features. Portions of two provincially significant Earth Science sites are present within the area: Newlands Township Shoreline Bluff, and Arnott Lake Interlobate Moraine. These contain esker, kettle, and kame landforms which are exceptionally well developed along with raised, erosion shoreline features.	49°30'48.8"N 84°48'25.4"W http://www.fla-shearth.com/?lat=49.51358&lon=-84.807069&z=16.5&r=0&src=msa
Neys Provincial Park (Natural Environment Class)	Provincial Park	P2212e	3536	Neys is a Natural Environment class park originally encompassing a 3,444 hectare area and has operated under an approved park master plan since 1977. It was regulated in 1966. The main activities are recreation, protection and interpretation of the natural environment. The Ontario Living Legacy addition of 1,939 hectares consists of Pic Island, Detention Island and other small islands of the Coldwell Peninsula. The additions protect woodland caribou habitat and breeding bird colonies. This area is located within the Great Lakes Heritage Coast Signature Site.	
Pan Lake Fen Provincial Park	Provincial Park	P1504	496	The predominant representative factor within this life science site is broken ground moraine with fen and cut and burn which is less than 20 years old. The area was determined to be the most diverse in the Site District (3E-4) representing twenty different landform vegetation combinations. Pan Lake Fen Provincial Park was regulated as a provincial park on December 21, 2000.	
Prairie River Mouth Provincial Nature Reserve	Provincial Park	P2669	380	The Prairie River drains into Lake Superior through a narrow gap in the bedrock between Marathon and Terrace Bay. From this gap, an undulating ridge-dune complex radiates northward. Moving north, the swales between the ridges become progressively wetter. A swale is a marshy depression in a tract of land, usually rolling prairie. It was regulated as a Nature Reserve class park in 1985. This area is located within the Great	

				Lakes Heritage Coast Signature Site, one of 9 such areas featured in the Ontario's Living Legacy Land Use Strategy (1999). The area is of significant value to both earth and life science programs. Two earth science landform/process themes consisting of a lacustrine-aeolian extensive beach ridge-dune complex (Timiskaming Interstadial), are found within the park. In terms of life science significance the area represents a weakly broken lacustrine sand plain with sandy till biophysiographic unit.	
Red Sucker Point Provincial Nature Reserve	Provincial Park	P2672	360	Red Sucker Point is located along the Lake Superior shore, about 10 kilometres northwest of Marathon. Along the shores of this nature reserve is a notable series of raised cobble beaches. Historic water levels of the lake, from ancient to modern times, are visible on the stones. At their greatest height, the beaches tower some 45 metres above the water. Ancient lichen communities thrive on some of the cobblestones. Also present are about 70 excavated rock structures attributed to historic and prehistoric peoples. This area is located within the Great Lakes Heritage Coast Signature Site.	
Steel River Provincial Park	Provincial Park	P2678	11240	This encompasses a 200 metre corridor along each side of the Steel Lake and River system north of Santoy Lake including Diablo Lake. The 160 kilometres waterway is a designated Provincial canoe route consisting of 3 separate published trips. This area contains lake(s) designated for lake trout management.	
White Lake Provincial Park (Natural Environment Class)	Provincial Park	P1506e	4048	White Lake Provincial Park is located on Hwy. 17, 35 kilometres west of White River, in Ecodistrict 3E-4. The dominant landform vegetation type represented here is lacustrine deposit with mixed deciduous forest. Other vegetation types include mixed and dense conifer forests, wetlands, and sparse forest. In total, over 16 landform vegetation combinations are represented here. White Lake Provincial Park serves as a staging area for backcountry canoeing on the White River and beyond to Pukaskwa National Park and is a popular campground with anglers and travelers. This area contains lake(s) designated for lake trout management. It was originally regulated in 1963.	

Conservation Reserve

Fishnet Lake Conservation Reserve	Conservation Reserve	C2217	3505	This site contains representative landform and vegetation types, including mixed conifer forest with some deciduous on weakly, moderately and strongly broken ground moraine. It was regulated on April 6, 2001. This area contains lake(s) designated for lake trout management.	
North Thornhen Lake Moraine	Conservation Reserve	C1510	454	This small site is located on top of a flat end moraine deposit. It contains mostly lacustrine deposits and mixed (mainly deciduous) forests. Some headwaters for feeder streams of the Oswen River are present. North Thornhen Lake Moraine was regulated as a conservation reserve on May 21, 2003.	No Coordinates Available
Slim Jim Lake	Conservation Reserve	C1507	6460	This site is dominated by moderately broken bedrock of lacustrine deposit and sparse forest with dense conifer, and mixed forest (mainly deciduous stands). Wetlands occur within the Gramsby Creek area. The site contains a number of small lakes in the southeast section. The CN railway runs through the southern portion. An eagle nesting site exists here.	49°38'33.3"N 85°44'52.3"W http://www.fla-shearth.com/?lat=49.642587&lon=-85.747869&z=14.5&r=0&sarc=msa
Isko Dewabo Lake Complex	Conservation Reserve	C1505	2967	This site consists of moderately broken ground moraine with mixed conifer, sparse forest, and cut and burn less than 20 years old. Weakly broken ground moraine with mixed deciduous forest and cut and burn is also present along with weakly broken bedrock with bog and	

				moderately broken bedrock with bog. Isko Dewabo Lake Complex was regulated as a conservation reserve on December 21, 2000.	
Killala Lake	Conservation Reserve	C2208	13190	This site contains representative landform and vegetation types, including conifer and deciduous forests on lacustrine deposits and weakly to moderately broken bedrock. Killala Lake is a fish sanctuary (lake trout refuge) where angling is not permitted. The following lakes are designated as Tourism Lakes: Sandspit, Papaver, Kentron and Fiskor. This area contains lake(s) designated for lake trout management.	49°04'55"N 86°29'53"W http://www.fla.shearth.com/?lat=49.082181&lon=-86.498303&z=9.5&r=0&src=msa 

Enhanced Management Area

Lake Superior Shoreline	Enhanced Management Area	E2233g	25647	The Lake Superior Shoreline is a scenic and highly traveled coastline with rugged cliffs and bays that provide habitat for representative and endangered wildlife and vegetation. This area has high tourism and recreational value, and many pristine environments. This area is located along the northern coast of Lake Superior between the Town of Nipigon and the Pic River south of Marathon, and generally includes all land between Highway 17 and Lake Superior except where the lands have been recommended for regulation as Provincial Parks or Conservation Reserves. Between the hamlet of Rosspoint and Rainbow Falls Provincial Park, the boundary is set 1 kilometre back from the lakeshore. With the exception of the larger areas of Crown land, most of the municipalities of Schreiber, Terrace Bay and Marathon are excluded.	48°45'58"N 86°27'6"W http://www.fla.shearth.com/?lat=49.082181&lon=-86.498303&z=9.5&r=0&src=msa
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Not regulated, Not listed in Crown Land Atlas

Provincially Significant Wetlands

	Provincially Significant Wetland	Not in PF			
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International Biological Program

	International Biological Program	Not in PF			
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Earth And Life Science ANSI

	Candidate Life Sciences Site (ANSI)	Not in PF			
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*To access, double click the icon, with Google Earth installed on your system.

Provincially Significant Wetlands

There are no wetlands which have been evaluated and found to be Provincially Significant. Normally wetlands that have received provincial status are assessed and designated as HCVs in Element 13 for their ecosystem services.

Enhanced Management Areas

There is one EMA in the forest, which is along the Lake Superior coast. Formerly this was also identified as part of the “Great Lakes Heritage Coast”. It has a policy description which includes some restrictions on forestry operations and access. Because this designation allows for some resource use, it does not qualify as an HCV under this element. It is discussed and designated later in element 10 (fragmented LLLF).

HCV Designation Decision:

There are several special land use designations that are HCVs⁹, either in this element or others:

- Provincial parks and Conservation Reserves are HCVs.
- Enhanced Management Areas are designated HCVs in Element 10.
- Provincially Significant Wetlands are designated in element 13.

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 that includes populations of most native species and sufficient habitat such that there is a high likelihood of long-term species persistence?

Rationale:

Under this question, the forest must not only be large enough to support most or all native species, but long-term, large-scale natural disturbances should be able to take place to maintain the full range of ecosystem processes and functions (i.e., naturally functioning landscapes).

Assessment Methodology:

- OMNRF Range assessment for Pagwachuan Caribou Range
- Current [FMP](#)
- OMNRF Lands for Life Assessment
- Ontario Living Legacy Land Use Strategy
- Environment Canada Scientific Assessment of Critical Habitat for Woodland Caribou
- Global Forest Watch

In the region encompassing the PF, fire, blowdown, and insect outbreaks are the principal natural disturbances. Forest fires are suppressed by the OMNR and although some fires continue to occur, their frequency and size class distribution are different than the pre-settlement distribution of fires. Consistent with the definition above, large scale insect and blowdown occurrences are not controlled – specifically, there is no spraying of insects. Forest harvesting is planned and conducted to emulate forest fires and other disturbances to the extent possible, as directed by the Crown Forest Sustainability Act. The intent of the Planning Team that developed the FMP was to ensure that this is a naturally functioning landscape. The application of the Dynamic Caribou Habitat Schedule (DCHS) as described in the [Caribou Conservation Plan](#), is a significant driver in the northern part of the forest which is in the Continuous Caribou Zone. A review of the DCHS is

⁹ This designation was reviewed in September 2016, including a review of the web info and other sources.

provided here, because it is closely related to Large landscape Level Forest (LLL). The designation of a LLLF as an HCV does not preclude some human activity, like forestry and tourism, but to be precautionary, there needs to be measures in place to maintain the ecological integrity and “naturally functioning” of the forest,

Assessment Results:

The vigorous discussion about LLLF that is occurring across Canada is centred on maintaining large fully functioning ecosystems. This discussion is still occurring as the new FSC standard is released in 2019. Caribou is the highest profile indicator of a large functioning ecosystem. Meanwhile, at the local level, all forest managers in Ontario operate within approved FMPs, which include (as FSC and Crown Forest Sustainability Act requires) significant input from local interests and experts on special values, including Caribou. In Ontario, for individual SFLs like the PF, the relationship to the larger Caribou ranges determines the management requirements. In Figure 4 is the location of the PF relative to the Pagwachuan Caribou Range (numbered 45 in the Federal Study) and the coastal population (numbered 44). This range is characterized in the work by Environment Canada describing the current status and the impacts of disturbance ([Env Canada, 2011](#)). It is not reviewed here.

At this time the approved 2019-2021 Contingency FMP provides the direction for land use, including forestry, for the PF. Implementation of the FMP is a regulatory requirement for the government, and a contractual requirement of the license that the Company holds. The following section lays out, briefly, the FMP landscape management direction.

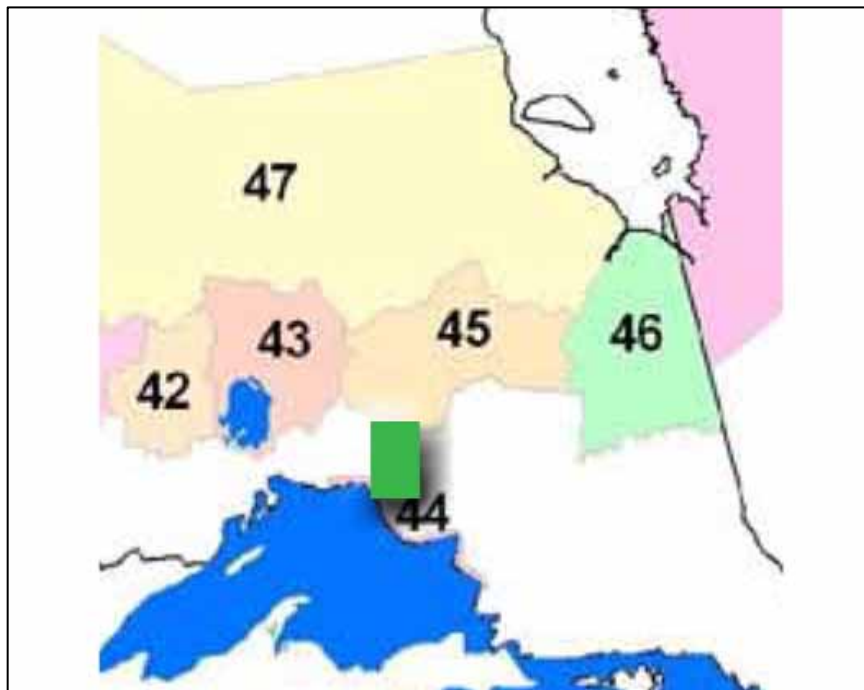


Figure 4. Location of PF area (Green Rectangle) relative to the Pagwachuan Caribou Range (45) and the coastal population (44).

Pagwachuan Caribou Range and LLLF

The implementation of the Dynamic Caribou Habitat Schedule (DCHS) is briefly discussed in [Element 1](#). In the Northern Continuous Zone, the Planning Team implemented a DCHS as directed by the [Caribou Conservation Plan](#) (CCP) for Ontario. Within this schedule, large blocks (approximately 15,000-40,000 ha) are used to maintain suitable caribou habitat both spatially (i.e. maintaining habitat linkages for caribou movement) and through time (over a 100 year period).

The northern portion of the forest, in the Continuous Caribou Zone, would be considered part of a large landscape level forest. In reality, Caribou use of the PF portion of the continuous zone has been minimal based on MNRF surveys. The Zone is maintained to provide a transition buffer for Caribou because moose do not prefer large blocks of older forest. Nevertheless, NPMC has designated this area as part of an LLLF to maintain the full range of ecosystem processes and functions (i.e., naturally functioning landscapes). Technically it may not meet the requirements of a 50,000 ha contiguous block, but given the absence of a procedure to confirm an LLLF, it has been included as HCV as a precautionary measure. It will be managed as part of the [CCP](#). In the new FSC standard, the boundaries of this area will be re-examined using the rule set now under development by FSC.

Caribou are at the southern extension of their range on the PF. The range which extends into the forest is called Pagwachuan Caribou Range. Recent research has found that Caribou (an indicator of a fully functioning ecosystem) decline follows disturbance ([Env Canada](#), 2011). This important research is still ongoing and being updated, and is not reprised here. This work was one of the considerations of the Planning Team in their effort to maintain a fully functioning ecosystem (which maintains Caribou) through a system of road rehabilitation and removal. Road removal and rehabilitation is part of the FMP. The FMP contains targets for roads density considering the sustainability of a caribou population.

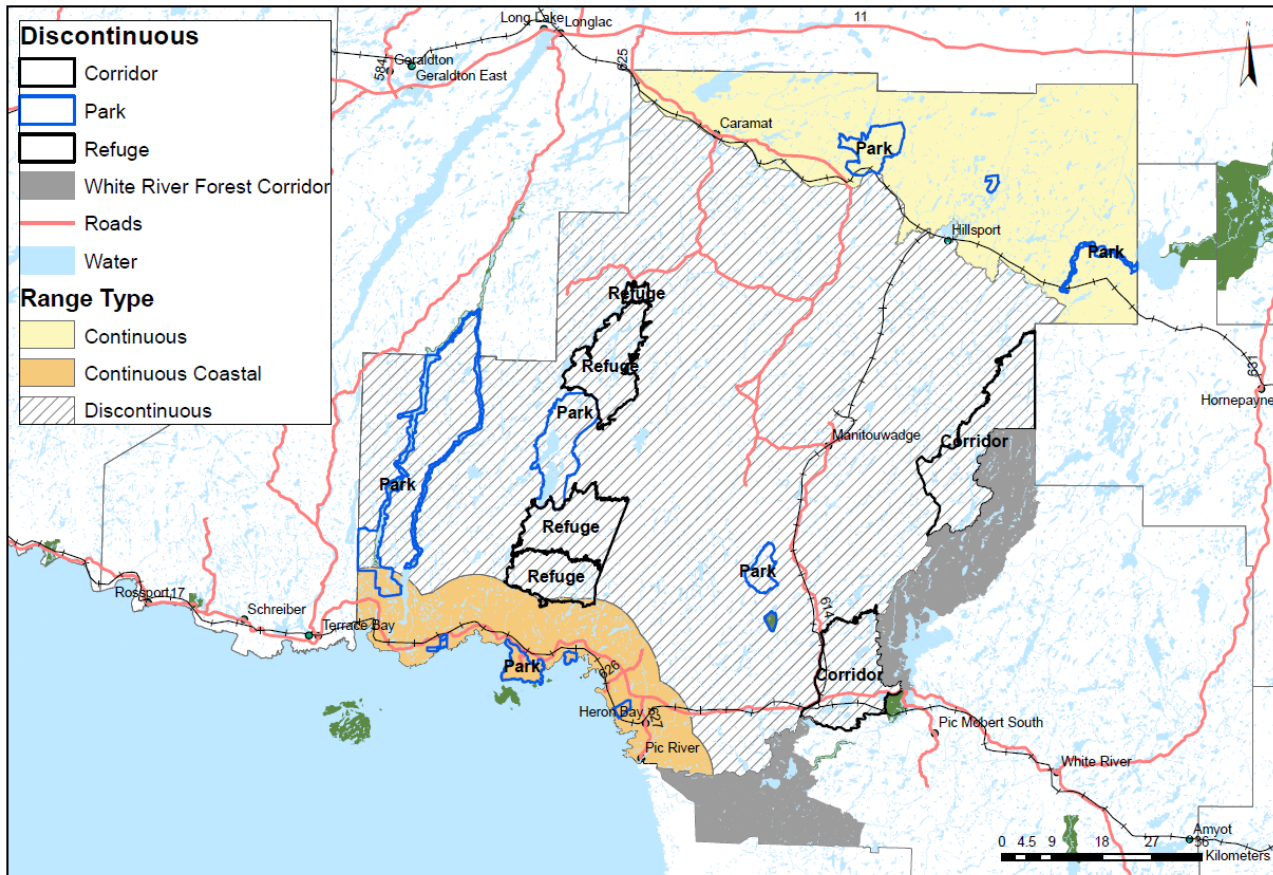


Figure 5. Caribou linkage area between continuous coastal and northern continuous range.

At the time of this HCV assessment Caribou blocks which are considered to be current preferred Caribou habitat have been designated LLLF.

[Figure 7](#) presents an overview of Caribou Range and [Figure 10](#) (in Appendix 3) shows the Caribou block layout for the DCHS. These blocks are not scheduled for harvest or road construction for the 20 years of the current FMP. These are referred to as “online” portion DCHS, which means they are currently preferred Caribou habitat. All of the blocks on the map in the northern continuous zone that are labelled B or C would be considered as part of the LLLF HCV. These are the oldest blocks on the forest. As well, areas that are linkage deferrals are also considered HCV. These areas may be modified as new information becomes available.

A full illustration of the time series of the continuous DCHS harvest blocks is depicted in Appendix 3. Dynamic Caribou Habitat Schedule on the Pic Forest from

The series is 5 panels in 20-year intervals over the next 100 years. Green blocks are “online”. Most apparent is the fluctuation in online habitat. Most importantly, the DCHS is coordinated with surrounding units to provide an even flow of online habitat over the entire rotation of the Pagwachuan Caribou Range. This approach recognizes the current reality that wild fire does not occur naturally due to fire control. Natural wildfire is not socially accepted. To emulate the natural

landscape pattern on which Caribou depend, forestry must follow the DCHS. Appendix 3. Dynamic Caribou Habitat Schedule on the Pic Forest from

Caribou experts from MNR stated that: “In designing our approach to provincial caribou conservation, Ontario is working with Environment Canada to address federal requirements. We believe that the implementation of the Range Management Approach (RMA), as described in Ontario’s CCP and associated draft Range Management policy and technical documents, will meet the intent of a range plan as described in the federal recovery strategy” (M Gluck and D Elder).

The [FMP](#) has been approved based on this MNR expertise as well as local consultation as required by Criteria 6.2 and 9.3. The implementation of the [Caribou Conservation Plan](#) and the [Cervid Ecological Framework](#) through the FMP are incorporated into the landscape pattern that is depicted in

Figure 7.

Cumulative impacts on Caribou by different users (other industries) are a concern. It is within the scope of the FMP to consider tourism use. The Tourism industry has a strong desire to minimize road building, thus supporting the Caribou strategy. Tourism road restrictions are built into the FMP and do not compromise the DCHS. This is due to Tourism outfitters desire to enhance a wilderness experience and minimize the impact on fish and wildlife.

Global Forest Watch

Other organizations have also mapped LLLF, notably [Global Forest Watch](#) which uses their own criteria. These are:

- “a contiguous mosaic of natural ecosystems in the forest landscape, essentially undisturbed by human influence”
- at least 50,000 hectares in size.

The GFW interpretation of roadless as “undisturbed by human influence” makes for an exclusory criterion. Forests further south in the boreal will not be able to meet this requirement, even if the quality of the habitat is largely continuous forest cover with the full range of native species. This interpretation of LLLF by GFW appears to preclude any access, and sets the land use as equivalent to a protected area. This was reconfirmed in August 2016.

The most recent IFL map from GFW shows the area just north of Lake Superior Park as intact. This is because of the rock highlands above Superior, that are low potential for wood production. They have never been harvested. This small area is connected with Pukaskwa Park which is an IFL. This area will remain as intact as shown by the planned operations map in the 2019-2021 contingency FMP. There is also no harvest scheduled in the draft 2021 10-year FMP. This portion of the forest is LLLF and HCV. Note that IFL definition is in discussion by FSC and this designation may change.

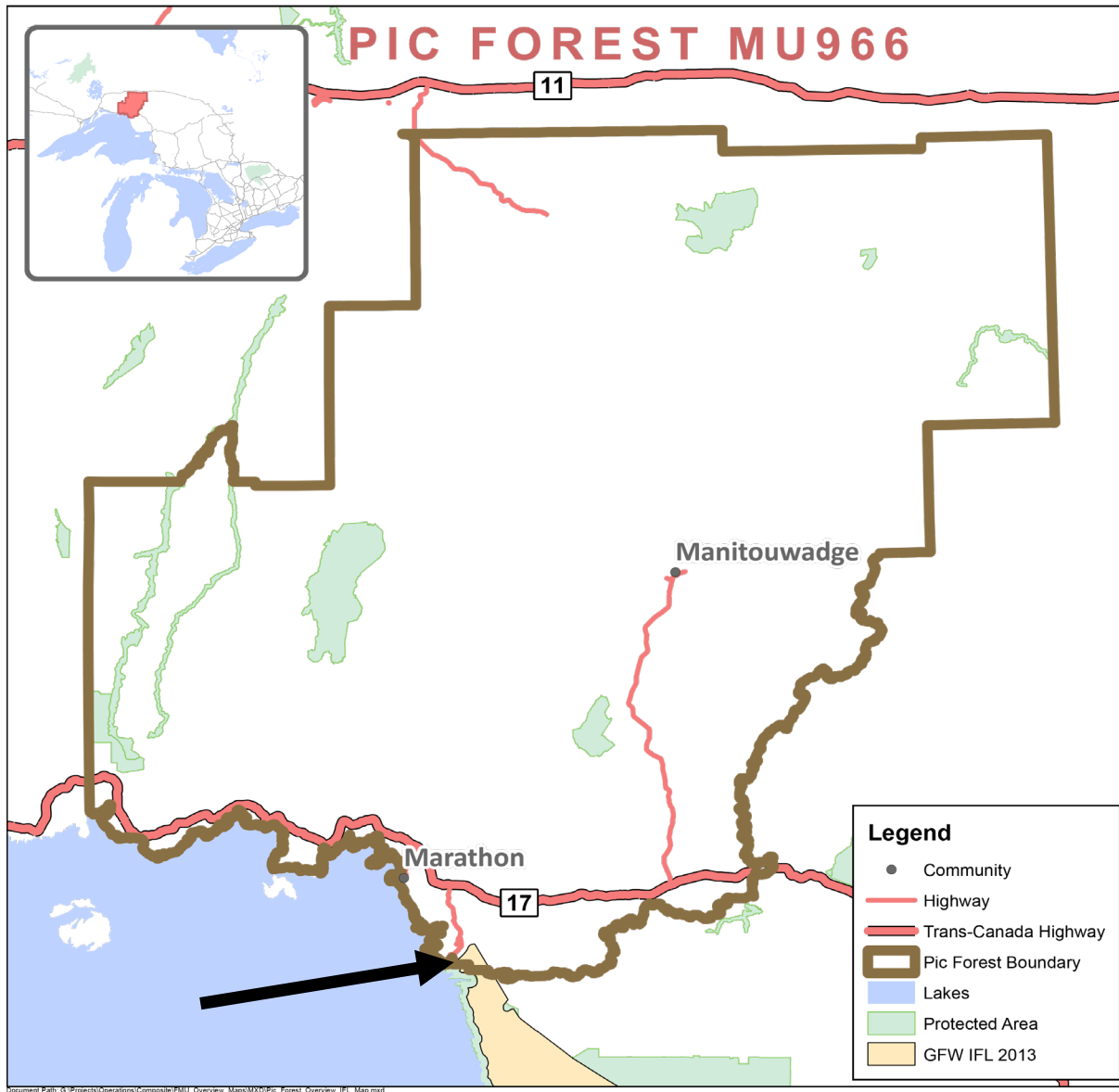


Figure 6. Global Forest Watch 2013 Intact Forest Landscape (north end of Pukaskwa Park and adjacent – see arrow).

HCV Designation Decision:

Portions of the Continuous Caribou Zone (DCHS designated as “online” Caribou habitat) are identified as LLLF and designated HCV. As well, the “caribou linkage area” (Figure 5) is considered HCV, including recent deferrals¹⁰. Finally, the northern tip of Pukaskwa Park, identified by GFW, that extends into the PF is included as HCV.

¹⁰ This designation was reviewed in July 2020, including a review of the web info and other sources.

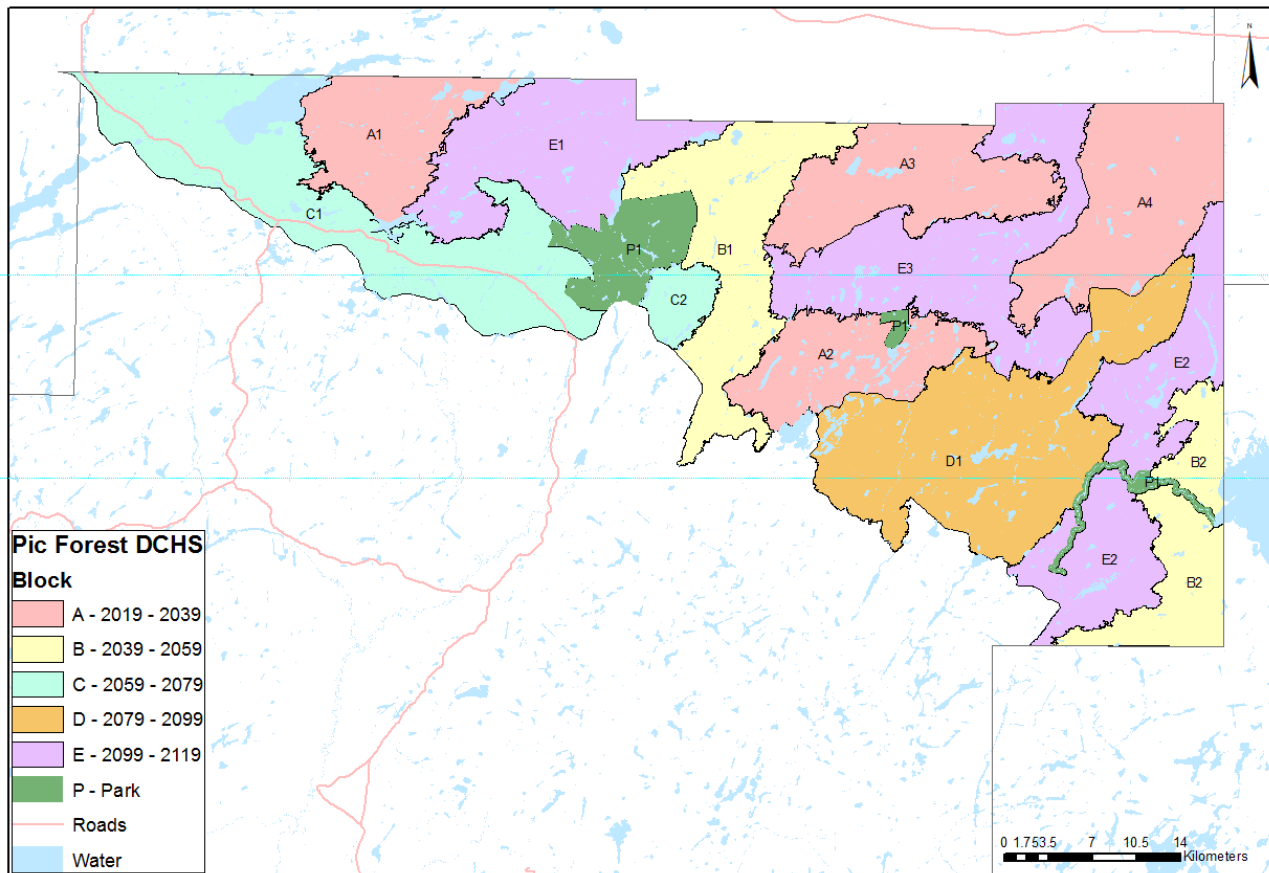


Figure 7. Caribou DCHS blocks in the "online" condition within the Caribou range. B and C blocks are considered HCV. D and E blocks are currently off line habitat and not considered HCV.

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

8) Does the forest contain naturally rare ecosystem types?

Rationale:

Rare forest types may contain unique species and communities that are adapted only to the conditions found there. For this reason, they may qualify as "concentrations of biodiversity values".

Assessment Methodology:

- [NatureServe](#)
- [Natural Heritage Information Centre Database](#)
- WWF Ecoregion Assessment (http://wwf.panda.org/about_our_earth/ecoregions/about/)
- [Conservation International](#)

- Information pertaining the Canadian Boreal Forest Agreement
- Search of rare forest types in FMU database

At a global scale, the presence of G1 (globally extremely rare) and G2 (globally very rare) occurrences were considered to be the relevant designations. At the provincial level, S1, S2, and S3 ranks were considered to be relevant. These are the same criteria used under Question 1.

Assessment Results:

Conservation International does not identify any biodiversity hotspots within Canada.

NHIC rare community data are unavailable for northern Ontario.

[NatureServe](#) Canada + United States National Vegetation Classification ([USNVC](#)) have databases that categorize the Boreal forest by ecological context. This database is linked with NatureServe and provides information about the forest category as well as the international conservation status of the forest type. All the forest types on the PF are listed as either “apparently secure”, “secure” or “not rated” (G4 and G5). The classification follows the Ecosystem Classification for Northeastern Ontario (McCarthy, 1994).

A list of the classifications available at U.S. National Vegetation Classification ([USNVC](#)) is:

D014 North American Boreal Forest

M037 Eastern & Central North American Boreal Conifer & Hardwood Forest

G347 Jack Pine - Black Spruce Dry Woodland Group

- CEGL002483 *Pinus banksiana* - (*Picea mariana*, *Pinus strobus*) / *Vaccinium* spp. Rocky Woodland
- CEGL002438 *Pinus banksiana* / *Arctostaphylos uva-ursi* Forest
- CEGL005246 *Quercus ellipsoidalis* - *Quercus macrocarpa* - (*Pinus banksiana*) Rocky Woodland

G047 Jack Pine - Black Spruce Forest GroupPDF

- CEGL006361 *Picea mariana* - *Picea rubens* / *Pleurozium schreberi* Forest
- CEGL006421 *Picea mariana* - *Picea rubens* / *Rhododendron canadense* / *Cladina* spp. Woodland
- CEGL002516 *Picea mariana* - *Populus tremuloides* / Mixed Herbs Forest
- CEGL006292 *Picea mariana* / *Kalmia angustifolia* Woodland
- CEGL002447 *Picea mariana* / *Pleurozium schreberi* Forest
- CEGL002448 *Pinus banksiana* - *Picea mariana* / *Vaccinium* spp. / *Pleurozium schreberi* Forest
- CEGL002518 *Pinus banksiana* - *Populus tremuloides* / *Diervilla lonicera* Forest
- CEGL002437 *Pinus banksiana* / *Abies balsamea* Forest
- CEGL002441 *Pinus banksiana* / *Vaccinium* spp. / *Pleurozium schreberi* Forest
- CEGL002514 *Populus (tremuloides, balsamifera)* - (*Betula pap.*) - *Picea mar.*/*Alnus viridis* Forest

G048 White Spruce - Balsam Fir Forest Group

- CEGL002474 *Abies balsamea* - *Betula papyrifera* / *Diervilla lonicera* Forest
- CEGL002463 *Betula papyrifera* / *Diervilla lonicera* - (*Abies balsamea*) Forest
- CEGL005196 *Picea glauca* - (*Betula papyrifera*) / *Danthonia spicata* Woodland
- CEGL002475 *Picea glauca* - *Abies balsamea* - *Populus tremuloides* / Mixed Herbs Forest
- CEGL002446 *Picea glauca* - *Abies balsamea* / *Acer spicatum* / *Rubus pubescens* Forest
- CEGL002509 *Picea glauca* - *Abies balsamea* / *Pleurozium schreberi* Forest
- CEGL002487 *Populus tremuloides* - (*Populus grandidentata*) Rocky Woodland
- CEGL002466 *Populus tremuloides* - *Betula papyrifera* / (*Abies balsamea*, *Picea glauca*) Forest
- CEGL002449 *Thuja occidentalis* / *Abies balsamea* - *Acer spicatum* Forest

The Global Conservation Status of these ecosystems is considered secure (G4 or 5 -- 03 Oct 1996 and Rounded Global Status: G5 – Secure). All of the ecosystems were assessed as secure. These USNVC classifications are the dominant and widespread lowlands typical of the area. They were not designated as HCV.

Rare forest types from Inventory

The forest management data base was queried to explore the rare species types on the forest including Red Maple, Yellow Birch and Black Ash. These species were also considered in Element 5, edge of range. From this query it was determined that 22 stands of White Pine exist. No other species was located in the inventory.

Pine was noted in the discussion of edge of range species in Element 5. The tree species noted in this brief analysis are typical of ecosystems that lie further south, rather as rare ecosystems typical of this area of the Province. As such their designations as edge of range ecosystems noted in Element 5 are more appropriate. There is no basis for a further designation of HCVs here.

HCV Designation Decision:

No rare community types have been designated HCV¹¹.

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

Rationale:

Vulnerability and population viability are the key issues under this question. This indicator includes rare forest ecosystem types that may be rare to the area due to historic harvest practices (e.g. late seral stage red and white pine in eastern Canada). Grassland and Wetland ecosystems would also be included as HCVs if they meet the test of regional significance.

Assessment Methodology:

- [NatureServe](#)
- Natural Heritage Information Centre
- WWF Ecoregion Conservation Assessment
- Conservation International

Assessment Results:

Grasslands and Wetlands

There are non forest ecosystem types within the bounds of the PF. HCVs internationally now include wetlands and grassland areas as described by [HCV Resource Network](#). For the purpose of this report, only forested systems are assessed, because that is the scope of the FSC certificate. Note that no provincially significant wetlands are located in the forest.

Forests -- Old Growth

Older forest, considered “old growth” is common on PF. This observation is confirmed by the preindustrial condition report for the Pic Forest (Arnup 2016) and the FMP for the Pic River Forest. The [FMP](#) discusses Old Growth in Section 3.6.9. Old Growth in all northern fire dominated forests is managed through landscape approach and the Natural Range of Variation. Old growth is monitored through the plan and through each modelled term of the plan.

HCV Designation Decision

No ecosystems have been designated HCV¹² because of a decline.

¹¹ This designation was reviewed in September 2016, including a review of the web info and other sources.

¹² This designation was reviewed in September 2016, including a review of the web info and other sources. PRF table was added.

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

Rationale:

In regions where large functioning landscape level forests are rare or do not exist (highly fragmented forest), remnant forest patches may require consideration as potential HCVs (i.e. best of the rest). The question identifies remnant forest patches or blocks where landscapes that do not contain permanent infrastructure do not exceed size thresholds.

Assessment Methodology:

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

Assessment Results:

Unfragmented forest occurs in the northern part of former BPF and the southern portion of the former PRF. Element 7 contains the designation of LLLF in the north continuous Caribou zone.

Enhanced Management Areas (EMAs)

Along the Lake Superior Coast, due to various corridors, highways and communities, the forest shows more signs of fragmentation. To counter this, the southern portion of the forest adjacent to Lake Superior, contains an area called an Enhanced Management Area. In forest management in Ontario, EMAs play a critical role in managing access to remote areas of public forests and safeguarding remote values for wildlife, tourism, etc. Also referred to as the Great Lakes Heritage Coast, this corridor along the coast is largely undisturbed and inoperable for forestry.

This EMA is referred to in [Table 5](#) as the Lake Superior Shoreline (E2233g) and it has high tourism and recreational value, and many pristine environments.

HCV Designation Decision:

The Lake Superior Shoreline EMA is designated as HCV¹³.

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

Rationale:

Vulnerability; species diversity; significant ecological processes.

Assessment Methodology:

- [Land Information Ontario](#)/ NHIC Natural Areas
- NatureServe Communities
- WWF/MNR L4L Conservation Assessment (protected areas “gap analysis”) & Marxan Analysis

Assessment Results:

¹³ This designation was reviewed in September 2016, including a review of the web info and other sources.

This Element looks for “uniqueness”. The large landscape scale conifer dominated ecosystems are typical of the area and are designated as HCV earlier (LLLF). The discussion here in Element 11 focuses on smaller more unusual types that were explored through discussions with the local management staff, and searched using the websites mentioned above.

Areas of Natural and Scientific Interest (ANSI)

No ANSI are listed in [FMP](#). Most ANSIs were incorporated into formal protection during earlier land use decisions.

International Biological Program

International Biological Program sites (IBP) was an effort between 1964 and 1974, to coordinate large-scale ecological and environmental studies. No IBP sites were located on the forest.

Nature Serve

As reviewed in Element 8, on naturally rare ecosystems, the [NatureServe](#) + United States National Vegetation Classification ([USNVC](#)) have databases did not identify any additional unique ecosystem types for consideration as HCV.

HCV Designation Decision:

No special unique ecosystems were designated HCV¹⁴ in this review.

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?

Rationale

The potential impact to human communities is so significant as to be ‘catastrophic’ leading to significant loss of productivity, or sickness and death, and there are no alternative sources of drinking water.

Assessment Methodology

- Ontario Ministry of the Environment
- Known usage of water by local communities
- OBM base maps showing topography, local terrain mapping

Source Water Protection

The primary concern from a forestry perspective would be surface water sources. This is reflected in the FMP through AOCs developed for the protection of water.

Marathon has recently acknowledged in their Official Plan review that “Introduction of Source Water Protection legislation that will require Conservation Authorities and other bodies to prepare Source Protection Plans that will need to be implemented through Official Plans.” Terrace Bay and Schrieber source their water supply from Lake Superior.

¹⁴ This designation was reviewed in September 2016, including a review of the web info and other sources.

At this time there is no draft source water protection plan for any of the municipalities in the PF. Normally, primary threats to drinking water include infrastructure related to sewage and septic beds, agricultural waste and others.

No situations came to light for any of the native or non-native communities in any of the watersheds within the forest. No HCVs were identified.

In addition, forest management guidelines have been put in place by OMNR to mitigate impacts of forestry activities on river ecosystems. The Forest Management Planning process has a number of provisions for the protection of water quality. In accordance with provincial regulations, forest managers must establish reserves depending on the water body being protected (e.g. stream, lake, wetland). Prescriptions for reserves also vary according to the ecology of a given body of water; for example, cold water trout streams and lakes, critical fish habitat and headwaters will have more significant and continuous treed reserves than a warm water lake or stream. By following OMNR prescriptions around rivers and lakes, water can be protected from potential impacts of forest harvest. The water's edge is an important but common value in northern Ontario and not regarded as an HCV.

HCV Designation Decision:

No HCV¹⁵ was identified.

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

Rationale:

Forest areas play a critical role in maintaining water quantity and quality, and a service breakdown could have catastrophic impacts or could be irreplaceable.

Assessment Methodology:

- Provincially Significant Wetlands

Assessment Results:

Management of water is a shared responsibility among a number of agencies and companies. The government agency with legislative authority is Public Works and Government Services Canada (PWGSC) that is the federal department responsible for managing water levels for navigable waters, and this includes the larger rivers. Water management is directed by long-established operational guidelines, the Canadian Environmental Protection Act, and the Fisheries Act. In addition, provincial flood rights and limits, and local building by-law restrictions are considered. Formerly, the Navigable Waters Protection Act was also part of this, but recent amendments have apparently altered the effect of this legislation.

Provincially Significant Wetlands

Wetlands on the PF include marshes, bogs, fens and swamps. None of the wetlands in the forest were assessed using the Provincial Wetlands Evaluation System because it was not designed for wetlands in the boreal forest. Designated PSWs must be evaluated by a professional biologist

¹⁵ This designation was reviewed in September 2016, including a review of the web info and other sources.

using the [Provincial Wetland Evaluation](#) system. This has not occurred, and as such no PSWs are identified or designated HCV.

Small wetlands are generally protected in the forest by a variety of guidelines designed to protect water quality. Thus, important wetlands on Crown land that lack a designation as “provincially significant” would not be in jeopardy from forest management operations.

The most significant fluctuations in water levels and stream flow on the forest occur as a result of flow regulation required for hydro generation. Forest managers have no direct control over water level fluctuations and flow regulation associated with the hydroelectric industry, climate effects, or other water users but must ensure that forest operations have no significant negative impacts. No HCVs were considered outside of PSWs.

HCV Designation Decision:

No Provincially Significant Wetlands are located in the forest, and therefore there were no HCVs¹⁶.

14) Are there forests critical to erosion control?

Rationale:

This question seeks to identify forests that contribute to the stability of soil, terrain or snow, including control of erosion, sedimentation, landslides, or avalanches.

Assessment Methodology:

- Review of OBM base maps showing topography
- Review of local terrain mapping by Planning Team
- [FMP](#)

Assessment Results:

Although there are some anecdotes of small slides on the forest, there is nothing of a significant size that could possibly endanger communities or that have occurred as a result of human manipulation of forest cover.

Operations that occur along shorelines and in riparian zones are considered a higher risk for erosion and other negative impacts on water. During the planning stage for harvest operations adjacent to water bodies, the planning team assessed all lakes, rivers and streams for potential impacts related to shoreline activities. In addition to the MNR’s Water Classification Tool (2009) (used to assign the risk rank to all water bodies), professional knowledge from local managers was also applied to further refine decisions around shoreline activities. Existing risk is managed through provincial guidelines to protect the physical environment from negative impact.

HCV Designation Decision:

There is no evidence of high-risk areas for compromised soil stability, sedimentation or erosion through forest operations on the forest; no HCVs¹⁷ were designated.

¹⁶ This designation was reviewed in September 2016, including a review of the web info and other sources.

¹⁷ This designation was reviewed in July 2020, including a review of the web info and other sources.

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

Rationale: Are there forest areas where there is a high risk of uncontrolled, destructive fire and in which forest areas or forest types can act as a barrier to the spread of fires?

Do these forest areas contain or are they adjacent to human settlements or communities that would be at risk from uncontrolled, destructive forest fire?

Managers should accept HCV designations for forests adjacent to communities and manage using the precautionary principle in consideration of the safety of the inhabitants. How this is defined should be determined locally, and be led by communities.

Assessment Methodology:

In the past, this element is not considered an HCV in Canada. Recent fires in the boreal forest have affected communities significantly, including in the PF. In most areas, fire management strategies near communities will be considered as a priority should local municipalities decide they are needed.

Assessment Results:

Since the recent fire disasters in communities in western Canada there has been a heightened interest in FireSmart Communities. In northern Alberta and Saskatchewan communities are proceeding with this program. Other communities have established Forest Protection Areas surrounded by an approximate 10km area where full debris disposal is required. This program and the possible areas around communities would be designated HCV. In Ontario, communities are not yet looking into a more formal program.

HCV Designation

As FireSmart Community Zones¹⁸ are not yet designated, this program is designated not yet an HCV. No HCV¹⁹ is designated.

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

Rationale:

Mediating wind and microclimate at the scale of ecoregions affecting agriculture or fisheries production. Riparian forests play a critical role in maintaining fisheries by providing bank stability, sediment control, nutrient inputs and microhabitats. More local effects of forest areas (e.g. adjacency of forests to agriculture and fisheries production) may be more relevant in the HCV component regarding meeting basic needs of local communities.

Assessment Methodology:

- MNR NRVIS database
- Fisheries Management Plan, Zone 7
- Pic Forest Management Contingency Plan 2019-2021
- Ontario Ministry of Agriculture and Food
- Municipal socio-economic profiles (Hudson, Manitouwadge, Terrace Bay)

¹⁸ This designation was reviewed in June 2020.

¹⁹ This designation was reviewed in September 2016, including a review of the web info and other sources.

Assessment Results:

Fisheries²⁰

As reviewed in the FMP the Pic Forest falls entirely within MNR's Fisheries Management Zone #7 (FMZ #7). There are approximately 500 lakes within the area, exclusive of the multitude of streams, ponds and wetlands. Of these, approximately 70 have been formally surveyed by the MNR, primarily during the 1970s and 1980s. Stream survey data is more sporadic.

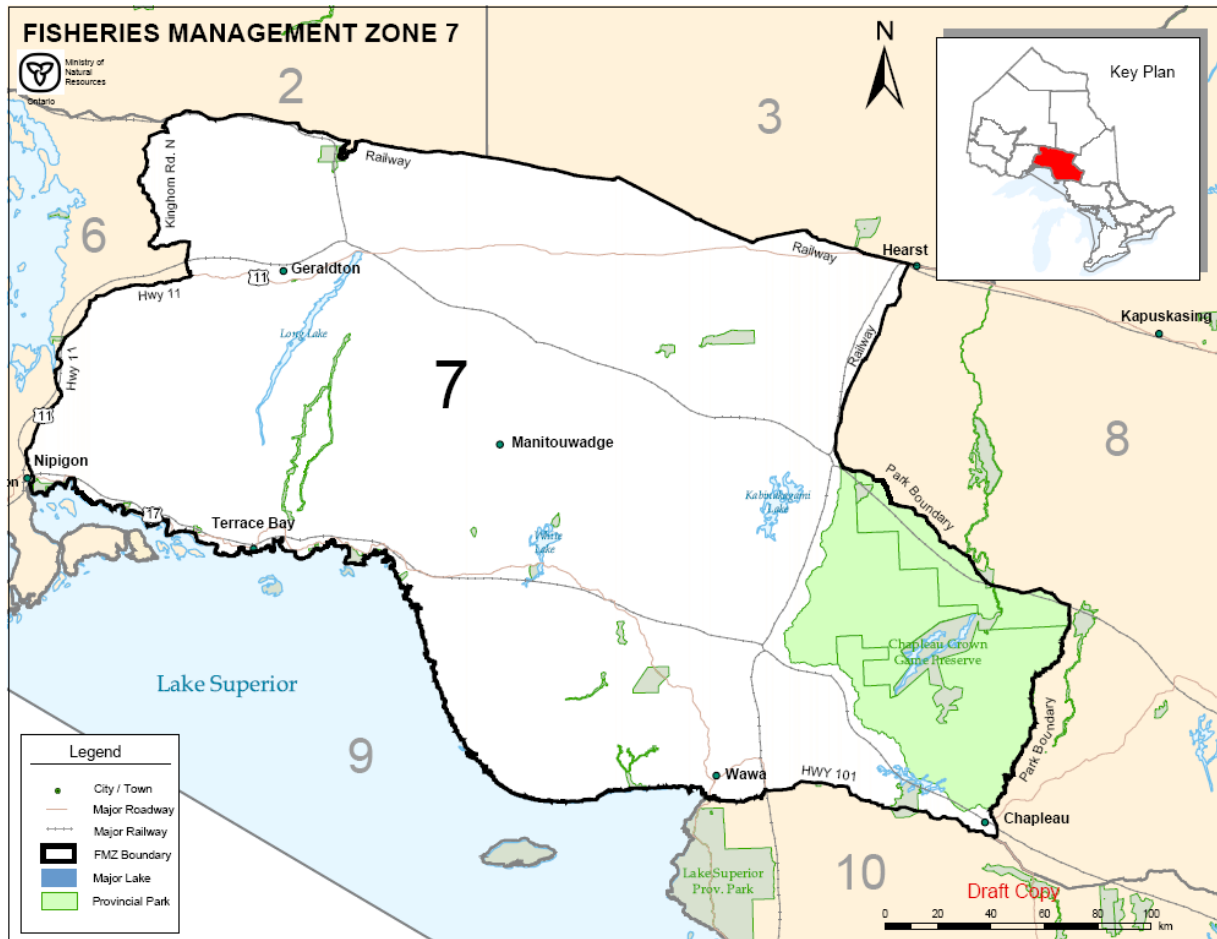


Figure 8. MNR Fisheries Management Zone #7.

Portions of the PF fall within tertiary watersheds 2BA (Little Pic River) and 4JD (Kenogami River), but the majority of the Forest lies within tertiary watershed 2BB (Pic River). The Pic River is a cold water system, and while it carries a high sediment load due to the surficial geology of the area, the Pic River and several of its tributaries support salmonid fisheries. The Black River, one of the major tributaries of the Pic River, primarily supports esocid and percid fisheries. There are no known bass fisheries on the PF. Recreational and subsistence fishing are important to local communities and businesses.

Lake trout (*Salvelinus namaycush*) fisheries are limited to twelve lakes on the PF, including one stocked lake. Due to their sensitivity to development and relative scarcity, naturally occurring, self-sustaining lake trout fisheries are a particularly important resource in Ontario.

²⁰ Big Pic Forest. 2007-2017 Forest Management Plan. Section 2.2.4 – Fish and Wildlife Resources.

Brook trout (*Salvelinus fontinalis*) are the primary target salmonid species in the Manitouwadge area, particularly during the winter season. The MNR stocks four brook trout lakes on the Pic Forest, and there are numerous naturally occurring, self-sustaining brook trout streams in the area.

Splake (*Salvelinus namaycush* x *fontinalis*) are an artificial hybrid between lake trout and brook trout. Splake are stocked by the MNR in three lakes on the Pic Forest. Rainbow trout (*Oncorhynchus mykiss*) are not native to Ontario, but have become naturalized in Lake Superior and its tributaries. Rainbow trout are known to migrate into the Pic and Kagiano Rivers in the spring. They are able to traverse the smaller falls in the lower reaches of the river, but High Falls on the Pic River acts as a barrier to their migration, and therefore the northern limit of their distribution in the Pic River watershed.

Coho salmon (*Oncorhynchus kisutch*) are also an introduced species which has become naturalized in Lake Superior. There is an unconfirmed report of Coho salmon spawning at the confluence of the Pic and Kagiano Rivers and at Manitou Falls on the Pic River and at the clay banks on Nama Creek.

Lake whitefish (*Coregonus clupeaformis*) are found in numerous lakes in the Manitouwadge area, and are known to cohabit with lake trout, walleye and pike. Fall dipnet fishing for whitefish is popular in the area, though they are not typically targeted in the winter fishery.

Walleye (*Sander vitreus*) are found in cool water lakes and rivers throughout the Pic Forest and are generally regarded as the most popular game fish species in the Manitouwadge Area. However, the MNR does not conduct any stocking activities for walleye on the Pic Forest.

Northern pike (*Esox lucius*) are the most plentiful and widespread game fish species on the Pic Forest, though they are generally unpopular with local anglers. The MNR does not stock pike.

In addition to these traditional game fish species, yellow perch (*Perca flavescens*), white sucker (*Catostomus commersoni*), lake herring (*Coregonus artedii*) and burbot (*Lota lota*) are occasionally utilized as food fish.

The Pic Forest supports numerous other species of course and baitfish. For example, on the former BPF, there are 27 bait harvest areas delineated in whole or in part on the Forest, of which 23 are currently being utilized by baitfish operators.

Some bodies of water, or parts of them, are declared fish sanctuaries for all or part of the year²¹. The Killala Lake Conservation Reserve (CR) encompasses 13,242 hectares, which spans the boundary between the Pic Forest and a neighbouring Forest Management Unit. Killala Lake is a fish sanctuary (lake trout refuge) where angling is not permitted.

Fish habitat is protected at a landscape scale, through the application of the slope-dependent Areas of Concern on lakes and watercourses. Fish habitat is also protected at site-specific scale through the individual screening of proposed water crossings, which typically takes place at the Annual Work Schedule stage of planning.

Agriculture and Non-Timber Forest Products

Agriculture does not comprise a significant part of the regional economy or land base within and around the PF. There is little commercial or subsistence activity based on biological production due to the cold climate and limiting soils in the area. There are some wild rice harvesting areas located

²¹ Ministry of Natural Resources and Forestry. Fish Ontario. URL: http://www.mnr.gov.on.ca/en/Business/LetsFish/2ColumnSubPage/STEL02_165341.html

across various water bodies and interest in Canada Yew (*Taxus canadensis*) has been confirmed by local communities. Canada Yew is used by the pharmaceutical industry in the production of anti-cancer drugs. A comprehensive inventory is not available for Canada yew in Ontario at this time. However, field data collected on yew as part of Ontario's forest ecosystem classification and monitoring programs may be used in the future to map its potential locations and abundance. The issuance of harvesting permits falls within the purview of the OMNRF as a non-timber forest product.

Berry Picking

Berry picking has been identified as a recreational activity within the forest, however there are no commercial scale berry picking operations located on the PF. In some communities, this may have subsistence value. Further investigation with local Indigenous and non- Indigenous communities is required to assess the importance of berries to the local food supply and non-timber forest products economy.

HCV Designation Decision:

Lake trout (*Salvelinus namaycush*) fisheries are limited to twelve lakes on the PF including one stocked lake. Due to their sensitivity to development and relative scarcity, naturally occurring, self-sustaining lake trout fisheries are designated as HCVs²².

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).

Rationale:

This attribute looks at level of dependence of local communities on the forest to meet their basic needs. The framework further asks:

- 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, and income)
- If it is not possible to say that it is NOT fundamentally important, then assume that it is.

Assessment Methodology:

Note this element deals with livelihoods. In response to this direction, the following includes a report on the significant industrial activities including forestry.

- NRVIS data
- Socio economic description in [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
- Review of [First Nation Profiles](#) at Indian and Northern Affairs Canada

Assessment Results:

This attribute looks at level of dependence of local communities on the forest to meet their basic needs. This includes a brief review of livelihoods, which includes the tourism, and the forest

²² This designation was reviewed in September 2016, including a review of the web info and other sources.

sector. It also refers to subsistence uses, thus activities such as berry picking and hunting/angling by First Nations and other local residents.

The PF encompasses an area of about 1.1M hectares and is located in the northern part of the Ministry of Natural Resources and Forestry's (MNRF) Wawa District. The communities of Marathon, Heron Bay, Pic River First Nation, Caramat and Hillsport are located in the forest and include Crown land north of Lake Superior. The local economy is highly dependent on extractive resource industries like forestry and mining, as well as being supported by the resource-based tourism industry.

Subsistence/Health

The PF and surrounding areas are used extensively by Indigenous and Non-Indigenous communities alike. Access to Crown lands for recreational and non-commercial consumptive use is generally unrestricted, in some cases (e.g. fishing and hunting) requiring permits to ensure the sustainable use of local resources. Area of Concern prescriptions are developed during the management planning process to protect values that are identified in consultation with local communities.

Industry

[Marathon's and the surrounding area's economy](#) is fueled in part by the Hemlo Gold Mines – which houses the Williams and David Bell Gold Mines, and formerly the Marathon Pulp Inc. kraft pulp mill, which ceased operating in 2009. The closure of the mill has resulted in severe impacts to the local forest-based economy and led to the amalgamation of the Big Pic Forest with two other adjacent forest management units.

In addition to natural resource-based industries, [Marathon's economy](#) is supported by small and medium-sized retail businesses, large-sized business, industry supply services, the education sector, and the health sector. In addition to the traditional pastime of hunting and fishing, there are opportunities for white water canoeing, golf, downhill and cross-country skiing, hiking (Pukaskwa National Park), snowmobiling and other outdoor activities.

As part of a recent forest tenure reform initiative, the Ontario government introduced two new forest management models in May of 2011: the Enhanced Shareholder Sustainable Forest License model and the Local Forest Management Corporation (LFMC) model. The pilot project for the LFMC tenure model is the Nawiinginiima Forest Management Corporation near Marathon, Ontario, which includes management of the PF. Destinations for fibre from the forests was formerly outlined in Appendix E of the SFL Agreement and included: Terrace Bay Pulp (Formerly Neenah Paper) – 16,500 m3 poplar non-veneer, Longlac Wood Industries – 61,500 m3 poplar veneer and non-veneer, Weyerhaeuser – 4,000 m3 veneer and Grant Forest Products– 13,158 m3 non-veneer.

The following table shows the Crown wood supply commitments on the forest.

Table 6. PF Planned Wood Supply Commitments and utilization by mill

Destination	Volume (m3/year)
AV Terrace Bay (formerly Terrace Bay Pulp Inc.)	SPF 419,700 m3/yr
Lecours Lumber Ltd.	SPF 82,000 m3/yr
Hornepayne Lumber	SPF 24,000 m3/yr

Levesque Plywood Limited, Hearst	PO 22,500 m3/yr
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Wood processing remains the long-standing linchpin of the local economy. Wood supply is functionally an HCV, as shown by the effort put into the [FMP](#).

Aggregates

There are many aggregate pits which contribute to the local economies within and adjacent to the forest. The majority of sites is licensed to the forest industry and are used for road building and maintenance. There is one quarry site on the forest located approximately 5 kilometres west of Hillsport. The quarry produces ballast rock for use along railways and is permitted to a private company.

Tourism²³

There are a number of lakes that have been designated in the Crown Land Use Policy Atlas as outpost camp lakes. In most instances, these lakes are to be managed so as to maintain a viable remote outpost camp operation. However, a number of the lakes are currently accessible from the forest access road network thereby affording opportunity for road-based operators. Road-based tourism is currently very limited with a few operators on or near the forest offering eco-tourism services (kayak and canoe rentals, drop-offs and pick-ups).

On PF there are about a dozen outfitters and commercial lodges. On PF there are two operators who have remote outpost camps on 13 designated lakes on the forest. The biggest impact of forest management on remote tourism operations arises from noise, visual impacts of logging and particularly from increased road-based accessibility. The FMP attempts to mitigate these impacts as much as possible through prescriptions that can range from road access restrictions, to timing restrictions and buffers.

Non-timber Forest Values²⁴

There are 51 Traplines and 41 Bear Management Areas (BMA) located wholly or partially within the PF; there are 54 traplines and an estimated 26 trap cabins on the PRF. Some of these trap line overlap between the two forests. Both contribute to the local economies of Manitouwadge, Caramat, Longlac, Marathon, Terrace Bay and Schreiber. A key feature of BMA areas is that they rely heavily on the forest access road network for their viability. Tree stands and campsites are the primary infra-structural features for these areas.

There are also baitfish operations on the PF. Income provided through baitfish operations may be critical to the local operators; however, the intent of this assessment is to evaluate potential impacts on the community. A reduced supply of baitfish for the local communities, who are avid anglers, would have a negative impact but was not deemed as a critical issue.

Recreation

Recreational activities range from canoeing, hiking, skiing, ATVing, and snowmobiling. Hunting and fishing are also popular activities on the forest. The recreational activity and tourism within the Pic Forest contribute to the economies of several of the communities within and adjacent to the Forest Unit. There are a few cottages located on Pagwachuan and Kern Lakes.

²³ Big Pic Forest, 2007-2017 Forest Management Plan. Section 2.4, Land Use Description.

²⁴ Ibid.

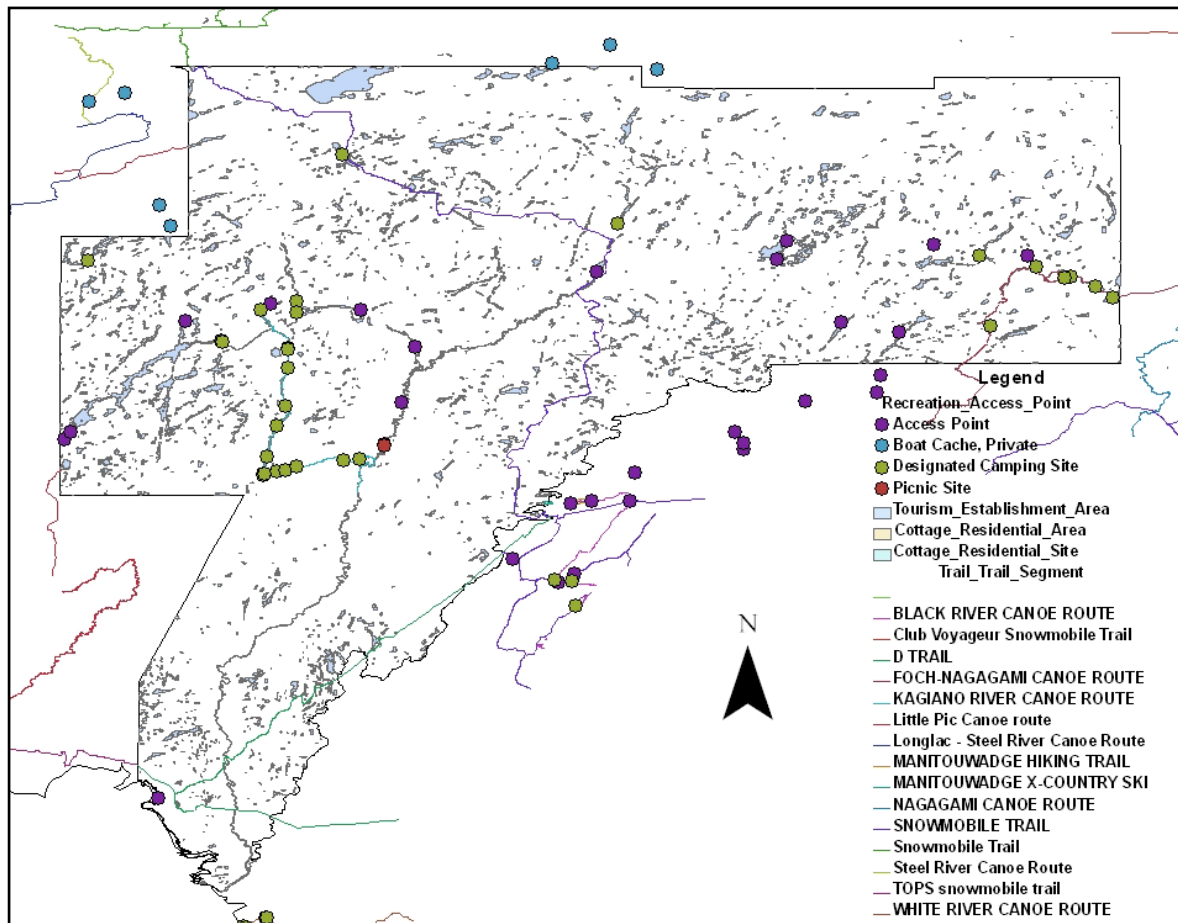


Figure 9. Recreational Values within Pic Forest.

Although recreation was not identified as a critical need under the HCV checklist, several recreational activities are identified as values within the forest management planning process. The Long Term Management Direction, which involved input from local residents, identified recreational values and management considerations to be implemented.

In the discussion with the LCC, access to the forest through the **Industrial Road** was raised as a possible HCV due to the importance to the livelihood of this infrastructure. Discussion was continuing between the manager and the interested parties. It was not considered an HCV at the time of this report.

Fuelwood

Local residents have an interest in fuelwood for heating. Provisions are made for public access to fuelwood from the PF through a permitting process operated by MNRF. As described in the FMP, any birch stems that can't be marketed at the time of harvest may from time to time be brought to the roadside and made available to the public as firewood. Areas where the birch roadside and will become part of the designated fuelwood areas for general public to access ([FMP](#)).

Beeline Lake

Auditors noted that Beeline Lake was not assessed in the previous version of this report. A review of the values around Beeline Lake showed it is a locally known fishing Lake with one outfitter mentioning it in publications. There is also some recreational development on the lake. There

were no other notable values identified. There were no well documented cultural resources. Although locally important, it was not designated as an HCV.

HCV Designation Decision:

Access to Crown land for the purposes of recreational and non-commercial consumptive use is generally unrestricted. Tourism provides valuable inputs to the local economy and the protection of tourism values, to the extent possible under current land use policies, is addressed by the forest manager through the FMP processes for the protection of non-timber values. Additional tourism opportunities are recognized through the HCV designation for the Great Lakes Heritage Coast. Planning also incorporates consideration for other forest users including e.g. trappers. Fuel wood represents a basic need for local residents and is addressed through a permitting process through OMNRF. Food and medicine represent critical resources to local First Nations and are further discussed below and designated in element 18.

The subject of the forest industry as an HCV was discussed. In consultation, there was all around support for the concept; designation of the industry and the working forest as an HCV has much popular support. There is no doubt the forest is a source of livelihoods, as the element requires. This industry is critical to the communities inside the forest and to some outside of it. In practical terms, HCV designation would be symbolic (and cause paperwork for future auditors). In practice the Forest Management Plan is the management and monitoring for the forest. The forest industry is functionally an HCV, because the primary purpose of the FMP is the sustainable management of the overall forest, with economic benefits as a recognized benefit and value.

For simplicity, timber values were therefore not specifically designated HCV.

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?

Rationale:

In the context of this standard, 'local' is defined in the National Boreal Standard. People are considered local when they permanently reside within commuting distance by car or boat from the management unit, or where they are part of the First Nation whose lands and territories contain or are contained within the management unit.

Assessment Methodology:

- Land Inventory Ontario Crown Land Atlas
- Canadian Heritage River Program
- Background Native Information Report
- [FMP](#) -- Discussions and correspondence with First Nations during forest management planning consultation sessions
- [FMP](#) -- Discussions and correspondence with non-native communities and stakeholders during forest management planning consultation process

Assessment Results:

First Nation Values

There are five First Nations communities on or near the Pic Forest, including: Constance Lake, Pic Mobert, Ginoogaming, Long Lake No. 58 and Pic River. All of these communities have in the past traditionally used portions of the PF for various traditional land use activities. The total Indigenous population with interests on the forests is 9,195 people, with a labour force of 3,330. A brief description of each community follows.

Constance Lake

Constance Lake is a community of 1,470 Members of Ojibway and Cree ancestry with approximately 820 living on a reserve approximately 3,110 hectares in size. The community is located on the shores of Constance Lake near Hearst, Ontario and is readily accessible by way of Highway 11.

Ginoogaming

[Ginoogaming First Nation](#) (formerly the Long Lake 77 First Nation) is a small Anishnawbe (Ojibway) First Nation located in Northern Ontario, located approximately 40 km east of Geraldton, on the northern shore of Long Lake, immediately south of Long Lake 58 First Nation and the community of Longlac, Ontario. As of September, 2006, the total registered population was 773 people, of which 168 reside on-reserve.

The community is within the boundaries of the territory described by the James Bay Treaty of 1905 - Treaty No. 9. The Long Lake reserve was official created when the Band signed an adhesion to Treaty no. 9 on August 9, 1906, although the Band had long been resident in the area.

Long Lake No. 58²⁵

[Long Lake #58 First Nation](#) is a road access community situated directly on Trans Canada Highway 11 and along the Northeast shore of beautiful Long Lake, adjacent to the town of Longlac in the Municipality of Greenstone. There is currently a registered population of 1,271 for Long Lake #58 First Nation with approximately 438 members living in the community year round. The off-reserve population resides in the area's local municipalities as well as in the City of Thunder Bay and other parts of Ontario.

Long Lake #58 First Nation is a member First Nation of the Matawa First Nations Tribal Council and lies within the boundaries of the Robinson-Superior Treaty of 1850.

Pic Mobert²⁶

[Pic Mobert](#) is an Ojibwa First Nation on two small Reserves: 14.6 hectares (36 acres) Pic Mobert North, which serves as their primary reserve, and the 15.6 hectares (39 acres) Pic Mobert South, both located 53 kilometres (33 mi) east of Marathon, Ontario. In October, 2009, they had a total registered population of 828 people, of which 325 people live on reserve.

The council is a member of [Nokiiwin Tribal Council](#), a Regional Chiefs' Council as well as the Union of Ontario Indians.

Pic River²⁷

The [Ojibways of the Pic River First Nation](#) is located in Heron Bay, on the south end of the Pic Forest (within the PF boundaries). The total population is 936, with 468 people living on the Reserve.

²⁵ <http://www.longlake58fn.ca>

²⁶ <http://www.picmobert.ca/>

²⁷ Big Pic Forest, 2007-2017 FMP. Supplementary Documentation.

Available Information on Indigenous Values

As part of the forest management planning process, Indigenous communities have an opportunity to develop what is known as an “Aboriginal Background Information Report” (ABIR) to inform the FMP and ensure the protection of known Indigenous values. The following Aboriginal Background Information Reports were produced for the 2007 - 2017 Big Pic FMP:

- Pic River First Nation Aboriginal Background Report
- Pic Mobert First Nation Aboriginal Background Report

These reports and maps provide information regarding the First Nations past use of timber resources, and other forest resources on the Pic Forest, as well as forest management related issues, successes and failures, and valuable historical background information.

The ABIRs and maps developed for the PF are only available through the First Nation or the MNRF Resource Liaison Officer with consent of the First Nations. Similarly, the FMP does not make values information publicly available at this time.

ABIRs are not equivalent to values information and other sources of information that the communities have. Traditional knowledge and other sources of information, including that of elders, are not required to be shared with the managers. For this HCV report, the managers are dependent on information that the Communities are willing to share. Unfortunately, an FSC HCV report does not have any special status with the First Nations.

MNRF consults with the communities about values during the FMP process. The communities do not inform either MNRF or the managers about the internal deliberations or sources of information used to protect their values. For that reason, all identified native values are regarded as HCVs. The communities are aware of the FMP and the regulatory requirements of the government to consult.

Logging History on the PF

A body of information exists about former logging infrastructure on the forest, including camps and mill sites. Currently discussions are occurring for possible preparation of a data base of historical logging camps. Sites that still contain artifacts will be designated as HCV.

Protection of Cultural Heritage Values – Archeological Values

There are several Identified Cultural Heritage Resources found within the PF. Cultural heritage resources on the PF are currently protected under the 2007 Forest Management Guide for Cultural Heritage Values. The *Ontario Heritage Act*, administered by the Ministry of Culture, provides for the protection properties of cultural heritage values or interests. There are currently four classes of cultural heritage values: archaeological sites, archaeological potential areas, cultural landscapes and Indigenous values. The [FMP](#) includes AOC prescription for High Potential Cultural Heritage areas (HPCH). The prescription is described in the Supplementary Documentation of the FMPs.

Assessment of Aboriginal Community Identity In Relation to the Big Pic Forest (as documented in the February 2008 version of the HCV report for the BPF)

A local land use values expert contributed toward the assessment of cultural values for Indigenous communities with interests on the PF.

Do the communities consider that the forest is culturally significant?

The communities of Pic River and Pic Mobert not only consider the “Big Pic Forest” to be culturally significant but absolutely critical to their culture. In 2006, River and Pic Mobert First Nations

completed ABIRs. Both communities traditionally use and occupy the land which is referred to as “The Big Pic Forest”. The “Big Pic Forest” is wholly contained within Pic River’s traditional Territory.

The limit of Pic Moberg’s traditional territory has not yet been documented but land use indicates that they share traditional territory in the PF. From 1993-2005, three different land use studies for Pic River First Nation were undertaken. In this period, well over fifty community members were interviewed. Several thousand land use sites were mapped in this forest using a strict and rigorous methodology. The methodology was developed and lead by land-use mapping expert Terry Tobias, author of Chief Kerry’s Moose Volumes I and II.

Several different categories of land use and life on the land were mapped such as large and small game kill sites, cabins and overnight sites, fish kill sites, sacred sites, and gathering sites. The results of this research indicated that virtually all aspects of local Indigenous life and culture were (and to a great extent still are) intertwined with the land. The materials they needed to heat their homes, to build various implements, and to make their arts and crafts were obtained from the forests. The variety of animals they relied upon for food depended on the forest. As well, the plants they needed for food and medicine came from the forest and the ecosystems they supported. Some of the forest uses have changed over the years but the forests remain as critical as ever for the First Nations.

Will changes to the forest potentially cause an irreversible change to the culture?

It is evident that changes to the forest have brought numerous and irreversible changes to the culture and will continue to do so. Food, medicines, lifestyle, cultural gathering places, traditional ecological knowledge, and the relationship to the land have all changed; For instance, forestry has changed the methods of transportation that can be relied upon by hunters and trappers. It used to be feasible to do a hunting and trapping circle route starting close to home. People could walk or use a dog team with nearby trapping cabin stops along the way. Forest changes and diminishments have made it necessary to travel for long distances by car or truck before hunting can even begin.

The types of foods and medicines that can be accessed have changed as well. It used to be safe to consume the liver of the large game animals, but it is no longer advisable to eat it. The herbicides that are sprayed on blueberries have discouraged berry pickers who used to rely heavily on blueberries. Precious medicine gathering sites have been lost due to road construction, and habitat change. Food is not as plentiful as it once was and now people are forced to get more of it from grocery stores. These changes the relationship with the forest and the food found in it. Also the knowledge about the medicine, food plants, and animals doesn’t get passed down when the forests are changed or lost to certain generations.

Community gathering places have decreased in size and capacity due to vast areas of deforested land. Camps are spreading out into smaller family pockets. For a people so deeply connected with the land, the culture continues to face irreversible changes due to forestry activities.

Is the particular forest in question more valuable than other forests?

This is a difficult question to answer because it forces a different world view that is not culturally appropriate to many First Nations. In order to answer this question, one must first subscribe to the idea that it is possible to separate this forest from any other. One must then believe that this separation can occur simply by drawing an arbitrary line and calling it a different name than the other forests across the border. When an Ojibway Elder is asked to show some places on a map that they value, they will say “I value all of it”. It is a common belief among Anishinaabe people that all life is connected and to be viewed as a whole.

Category 6 of the National Boreal Standard dictates that to be considered a HCV forest, the forest must be critical to the culture. According to guidance on assessing HCV, one indicator is whether it can be found that this forest is more valuable than other forests. The concept of “High Conservation Value Forest” is not consistent with the world view of Indigenous residents in that it requires the identification of discrete forest values in order to ensure their protection.

HCV Designation Decision:

Based on research with local Indigenous communities as discussed above, it can be concluded the HCV concept is not compatible with the world view of Indigenous cultures. However, for the purposes of this report it is noted that areas have been identified and documented as having value to local communities and prescriptions have been developed in order to mitigate impacts of forestry activities on these values. Consequently, due to their high cultural and historical significance to both native and non-native communities, and their natural heritage values the following are designated HCV:

- Known First Nations values (as documented in ABIRs, values maps and community meetings)
- Archeological sites (only sites that have been verified to hold cultural artifacts, either native or non-native, are HCVs)

Because only two of the five communities on the Forest have completed ABIRs, there is not a great deal of available information on Indigenous values that is shared outside of the communities. Should the MNRF and the Company become aware of any values which affect operations, during the course of the Plan or during the review of the planned harvest, renewal or tending at the AWS stage, an AOC prescription will be needed at that time. Development of this prescription will closely follow the direction given in the Forest Management Guide for Cultural Heritage Values 2006. Should such prescription be developed and there is the necessity to outline the boundaries or complete verification of any Identified Values, the sites will be flagged and marked in collaboration with the affected First Nation community representative(s), the Company, and the MNRF ([FMP](#)). Prescriptions for operations in areas of concern are recorded in the FMP in Table FMP-14.

Any sites containing historical logging artefacts will be designated as HCV²⁸.

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

Rationale:

The managers and report authors reviewed the list of values assessed through each of the elements of the framework and looked for areas of overlap. Typically these follow large natural features such as significant Lakes and Waterways. Cultural features overlying good resource areas can lead to overlap warranting HCV designation. For example, significant hunting areas near communities can generate both commercial value and local sympathy. In this forest we judged these values to be important and widespread. There has already been a significant effort at regulating use and recognizing conservation values. This is largely represented in the first 18 Elements of this report.

Review by the management team did not identify any new areas appropriate for HCV status.

HCV Designation Decision:

²⁸ This designation was reviewed in July 2020, including a review of the web info and other sources.

There are no overlapping HCVs²⁹ designated in this question that have not been previously described.

²⁹ This designation was reviewed in September 2016, including a review of the web info and other sources.

Phase 2: Managing and Monitoring HCV attributes

The overall goal of managing HCV in keeping with the FSC criterion 9.3 is to safeguard the value. Several points from the standard have guided approach to managing HCVs:

- The Forest Management Plan provides the direction for HCV management; there is no separate list of prescriptions or 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.

It is worth repeating that the plan and the planning exercise drive the approach to HCVs. The planning process contains a significant amount of public consultation, which has also been verified to meet FSC standards through the certification assessment process.

Table 7 provides an overview of the HCV values that were identified in Part 1 of this report. It also describes the responsibility of MNRF for inventory and monitoring. In that Table specific contact information is provided for individuals with local or provincial responsibility for monitoring of the effectiveness of the prescription. Effectiveness monitoring is the practical link to the precautionary principle, a hallmark of HCVs in the FSC standard. The Company is responsible for implementation of the detailed management prescription. There is a shared responsibility between MNRF and the Company for evaluating the effectiveness of management prescriptions. These prescriptions must be shown to be effective.

Monitoring for HCV attributes are also described in this Table. 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. It is beyond the scope of this report to review all of the monitoring procedures.

Table 7. Overview of HCV management and monitoring. Most prescriptions based on AOC FMP table 10. Note only HCV prescriptions are described here, possible HCVs and HCVs with landscape prescription are not listed.

HCV	Attribute	Prescription or Management Direction	Current Monitoring for compliance, effects, effectiveness, status
<i>Haliaeetus leucocephalus</i> Bald Eagle	Nest Sites	<p>AOC ID BE</p> <p>A. Bald Eagle Primary Nests (BE1)</p> <ul style="list-style-type: none"> • 400 m radius AOC centered on primary nests. • Nests known or suspected to have been occupied (see glossary for definitions) at least once within the past 5 years (i.e., active nests), unless the nest and all associated nests within the nesting area have been documented as unoccupied for greater than or equal to 3 consecutive years, in which case the nest is considered inactive. When greater than or equal to 2 active nests occur in sufficiently close proximity to be considered part of the nesting area of an individual pair, the nest with the most recent known or suspected history of occupancy within this nesting area is the primary nest; the other active nest(s) is (are) considered alternate nests. <p>B. Bald Eagle Alternate Nests (BE2)</p> <ul style="list-style-type: none"> • 200 m radius AOC centered on alternate nests. • Nests known or suspected to have been occupied at least once within the past 5 years that are not primary nests (see Primary Nests), unless the nest and all associated nests within the nesting area have been documented as unoccupied for > or equal to 3 consecutive years, in which case the nest is considered inactive. • Direction applies to nests known before, or found during operations. <p>C. Bald Eagle Inactive Nests (BE3)</p> <ul style="list-style-type: none"> • 100 m radius AOC centered on inactive nests. 	<p>Compliance: OMNRF and Company compliance staff routinely ensures prescription is implemented in forestry operations For information on the prescription and local monitoring contact the OMNRF biologist: Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca</p> <p>NOTE: For 2020 contact Bailey Young Bailey.Young@ontario.ca</p> <p>Effectiveness monitoring is conducted by OMNRF through the Guides Unit: Mike Briennesse Phone: 705-541-2157 Email: mike.briennesse@ontario.ca</p>

Landscape Species	<p>SAR Species - Olive-sided Flycatcher; Canada Warbler; Monarch</p> <p>Endemic Species – False Northwestern Moonwort</p>	<p>Overview of the landscape approach to management. See also the FMP section 2.1.3.2 Forest Landscape Classes</p> <p>Ontario's Forest Management Guide for Boreal Landscapes (Boreal Landscape Guide or Landscape Guide) creates and uses landscape classes to measure Landscape Guide indicators. Indicators are defined as “variables that are used to describe the current landscape mosaic, make predictions on the future landscape mosaic and assist in evaluating the effectiveness of the Landscape Guide.” The forest management plan uses these regional indicators as the biodiversity indicators for objective achievement.</p> <p>Ontario's Landscape Tool (OLT), version 2017(LSL64) Build 3.5.6571, was used to classify and analyze the current forest condition to determine if plan start levels and future forest condition through management decisions meet provincial legislation (i.e. Landscape Guide targets and indicators). As described in the Boreal Landscape Guide “Landscapes provide habitat for many wildlife species, each with its own preferences for combinations of vegetation types, development stages, patch sizes and configurations. It would be difficult to manage wildlife habitat with a species-by-species approach within the context of a forest management plan. To reduce the complexity of this problem, the landscape development team suggested the development of landscape classes according to our understanding of how forests function as habitat. Landscape classes are groupings of forest units by development stage. They were developed based on cluster analyses of used and preferred habitat types depicted in MNRF's habitat matrices. The landscape classes express meaningful differences in wildlife use”.</p> <p>Forest landscape classes for the Pic Forest 2019 FMP have been defined based on direction in the Forest Management Guide for Boreal Landscapes or Boreal Landscape Guide (BLG). Landscape classes are designed to represent ecologically similar groupings at a landscape level. In practice, landscape classes are groupings of forest units by age class (or stages of development stage) which are distinct enough to describe particular forest conditions. In the context of forest management planning, landscape classes are used as a proxy for wildlife habitat. Using a coarse filter approach, managing for the appropriate amount and arrangement of landscape classes across a forest will provide enough suitable habitat to support all wildlife regardless of their preferred habitat. Figure 19 displays the relationship between Pic 27 Forest analysis unit and age class (development stage) combinations are grouped to create landscape 28 classes.</p> <p>Operational Prescription for nest sites: Nests of Species at Risk: known nests containing eggs or young encountered during forest management operations. The following species are known to occur on the Pic Forest: Whip-poor-will, Canada Warbler, Common Nighthawk, Olive-sided Flycatcher.</p> <p>Conditions on Harvest, Renewal and Tending</p>	<p>For information on the prescription and local monitoring contact the OMNRF biologist:</p> <p>Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca</p> <p>NOTE: For 2020 contact Bailey Young Bailey.Young@ontario.ca</p>
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HCV	Attribute	Prescription or Management Direction	Current Monitoring for compliance, effects, effectiveness, status
		Reserve: Variable AOC depending upon species • No harvest, renewal or tending operations are permitted	
Riparian Species	Lake Sturgeon ; Northern Brook Lamprey ; Silver Lamprey ;	Protection of species located near water is covered by FMP Table 63: Pic Forest Conditions on Regular Operations (CROs) Sample: Conditions on Water Crossing Decommissioning and Rehabilitation <ul style="list-style-type: none"> Water Quality - In the event of a washout or erosion problems, will additions to natural background levels of suspended sediments affect downstream fish habitat or other values. Conditions on Water Crossing Installation and Maintenance <ul style="list-style-type: none"> Those responsible for installation and maintenance will monitor operations and select operating practices, materials, and mitigation techniques at each water crossing to prevent any serious harm to fish. Section 35 of the Fisheries Act prohibits the death of fish or permanent alteration to, or destruction of fish habitat; The installation of a water crossing will use mitigative techniques that will ensure that all in water activities, or associated in-water structures, do not interfere with fish passage, constrict the channel width, reduce flows or result in the stranding or death of fish Install culverts on a straight section of stream. When installation of a culvert on a straight section of stream is not possible, minimize the change in stream morphology and impacts on fish habitat; 	For information on the prescription and local monitoring contact the OMNRF biologist: Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca NOTE: For 2020 contact Bailey Young Bailey.Young@ontario.ca
Northern Myotis and Little Brown Bat	Hibernacula	Five bat species hibernate in Ontario, typically using caves or abandoned mines that provide above freezing air temperature and high relative humidity. Suitable Disturbance of hibernating bats is a major mortality factor. Hibernacula known to be suitable and to have been used at least once within the past 20 years by i) ≥50 little brown bats, ≥30 big brown bats, ≥20 eastern pipistrelles, ≥20 northern long-eared bats, or ≥1 small-footed bat(s), or ii) As otherwise identified as significant by MNR. A 200 metre radius AOC centred on the entrance to the hibernaculum. Reserve: 100 metre: No harvest, renewal, and tending operations are permitted within the inner 100 metre reserve. Modified: 101-200 metre, see FMP for details.	For information on the prescription and local monitoring contact the OMNRF biologist: Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca Effectiveness monitoring is conducted by OMNRF through the Guides Unit: Craig Crosson Supervisor (Acting) 705-971-8903 craig.crosson@ontario.ca

HCV	Attribute	Prescription or Management Direction	Current Monitoring for compliance, effects, effectiveness, status
<i>Rangifer tarandus</i> Woodland Caribou	Suitable Landscape	<p>Operationally, through the FMP, forest pattern is controlled through the dynamic caribou habitat schedule (DCHS), also referred to as a landscape mosaic approach.</p> <p>In the Northern Continuous Zone, the Planning Team implemented a dynamic caribou habitat schedule (DCHS) as directed by the Caribou Conservation Plan (CCP) for Ontario. Within this schedule, large blocks (approximately 15,000-30,000 ha) are used to maintain suitable caribou habitat both spatially (i.e. maintaining habitat linkages for caribou movement) and through time (over a 140 year period). Note that the strategy for the western portion of this area (called the Caramat zone) was to manage for caribou habitat using larger than normal marten core deferrals which range in size from 5,000 ha to 10,000 ha. This strategy was adopted because, while caribou have been reported in this zone in the past, the sightings have been intermittent, and rarely of more than single animals.</p> <p>The discontinuous distribution zone provides connectivity between the northern continuous distribution zone and the coastal continuous distribution zone through the application of marten core deferrals, reserved forest area (e.g. parks and conservation reserves) and a larger deferral block. This ensures a sufficient size and arrangement of mature forest patches in this area.</p> <p>The strategy for the coastal continuous distribution zone was to develop operational harvest blocks and deferral periods in conjunction with caribou habitat management strategies from FMPs on adjacent forests.</p> <p>This is described more fully in the FMP (section 3.5).</p> <p>Statement by MNRF experts: "Ontario's draft Range Management Policy in support of Woodland Caribou Conservation and Recovery (RMP) (recently posted for public review on Ontario's Environmental Registry) provides policy direction on managing each range such that the collective amount of disturbance remains at a level that reduces risk to caribou and supports the persistence of a self-sustaining caribou population. Additionally, the Ontario's forest management planning system provides direction on the amount and distribution of current and future habitat, including the restoration of disturbed areas on crown land. Currently, all Forest Management Plans within the Continuous Distribution of caribou are meeting the intent of the CCP. Last winter, a stakeholder panel provided recommendations regarding implementation of the Endangered Species Act. We are responding to some of these recommendations with a closer investigation of the linkages between the Crown Forest Sustainability Act and the Endangered Species Act."</p>	<p>Monitoring program detail available from MNRF Regional Specialists: Darren Elder darren.elder@ontario.ca Larry Ferguson larry.ferguson@ontario.ca</p> <p>For FMP monitoring & mgmt requirements contact Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca</p> <p>NOTE: For 2020 contact Bailey Young Bailey.Young@ontario.ca</p> <p>NFMC compliance staff ensure prescription is implemented contact neil.mcdonald@nfmforestry.ca</p> <p>www.nfmforestry.ca</p>

HCV	Attribute	Prescription or Management Direction	Current Monitoring for compliance, effects, effectiveness, status
Edge of Range White Pine Red Maple	White pine or Red Pine Stands or individuals	For these species, there is no harvest allowed. Operations near these tree species would attempt to increase abundance and would follow a precautionary silvicultural approach.	For more info contact: Neil.mcdonald@nfmforestry.ca www.nfmforestry.ca
Parks and Conservation Reserves	Protected areas as identified in the Crown Land Use Policy Atlas (Parks and Conservation Reserves) Areas legally are outside of the NPMC license area, but immediately adjacent.	AOC for parks ID PC. Table FMP 11. The FMP includes an Operational Prescription -- A 60 metre zone of modified operations, as measured from the outer edge of the provincial park/conservation reserve boundary. This AOC prescription applies to all existing and new parks whose ecological boundaries have not been established. The intention is to protect the integrity of the park boundary itself. In addition, if a value (e.g., an eagle nest) has been identified within a park, the portion of the AOC prescription that would fall outside the park boundary is applied to ensure the value receives an appropriate level of protection. Harvest, Renewal and/or Tending Operations -- boundaries provided by MNRF will be marked as per standards detailed in the Module 13 Line Marking of the Implementation Toolkit.	Ontario Parks and MNRF district staff monitor access and minimize impacts from scheduled operations adjacent to Protected areas. The FMP outlines in detail the compliance rules. For details contact MNRF Tricia Young District Planner 705-856-4726 tricia.young@ontario.ca
Large Landscape Level Forest (Intact Forest Landscape)	Portions of the northern Continuous Zone of Caribou Habitat (DCHS Online blocks) Caribou Linkage area Tip of Pukaskwa Park (GFW IFL)	Dynamic Caribou Habitat Schedule (DCHS) Caribou HCV management coincides with Caribou management as described in the FMP , as does the prescription for Caribou above. This is the regulated approach to the management of Caribou at this time. The landscape approach to management in the Boreal Forest dominates the objectives contained in the FMP. Since this approach touches all aspects of silviculture and wildlife management, it is not possible to write an accurate précis of the management direction – it is the entire FMP. In brief, the dynamic caribou habitat schedule (DCHS) determines management of large tracts of land (approximately 15,000-30,000 hectares in size) with the objective of maintaining suitable caribou habitat both spatially (i.e. maintaining habitat linkages for caribou movement) and through time (over a 140 year period). The blocks in the DCHS which are considered “online” as currently preferred Caribou Habitat is the designated LLLF. These are in general the older conifer areas that provide mature conifer and winter suitable habitat for Caribou. This tends to increase the age of the forest over the course of the management plan. The plan puts in place a number of objectives related to maintaining a natural pattern on the forest.	Monitoring program detail available from MNRF Regional Specialists Darren Elder darren.elder@ontario.ca Larry Ferguson larry.ferguson@ontario.ca For FMP monitoring & mgmt requirements contact OMNRF Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca NPMC compliance staff ensure prescription is implemented neil.mcdonald@nfmforestry.ca

HCV	Attribute	Prescription or Management Direction	Current Monitoring for compliance, effects, effectiveness, status
Lake Superior Shoreline EMA	Enhanced Management Area	Land use policy E2233g at the OMNRF land use policy website describes the access controls are in place. The boundary is set 1 kilometre back from the lakeshore.	For details contact MNRF Planner Tricia Young District Planner 705-856-4726 tricia.young@ontario.ca
Lake Trout Lakes	Natural Lake Trout lakes	<p>Prescriptions based on distance from the lake:</p> <p>0-120m -- No harvest, renewal or tending operations are permitted. • For areas previously harvested and not yet regenerated, renewal efforts will be completed within two years of the completion of harvest operations.</p> <p>121-400m -- Regular harvest is permitted subject to residual pattern and wildlife tree and downed woody debris requirements². • Skid trails only. • For areas previously harvested and not yet regenerated, renewal efforts will be completed within two years of the completion of harvest operations. • Where mechanical site preparation is applied, it should be carried out to discourage creation of access (e.g. where terrain permits, trench parallel to shoreline).</p> <p>401-1,000m -- Regular harvest, renewal and tending operations are permitted subject to residual pattern and wildlife tree and downed woody debris requirements². • Renewal efforts will be completed as soon as possible after the completion of harvest operations.</p>	<p>Area Biologist – Taylor Wright Management Biologist Wawa District (Natural Resources and Forestry) 705-856-4708 taylor.wright@ontario.ca</p> <p>NOTE: For 2020 contact Bailey Young Bailey.Young@ontario.ca</p> <p>Compliance for the company neil.mcdonald@nfmforestry.ca</p>
First Nation Values	Community values as identified by FNs.	<p>Most values are confidential but the restrictions are public information. The AOC in the FMP are referred to as “Classified Values.”</p> <ul style="list-style-type: none"> • CV1 <p>Explanation of values is confidential. Contact the community directly.</p>	<p>Monitoring is conducted by MNRF which is regularly in communication on a Nation to Nation basis with the communities. The contact person for this relationship is Jennifer Pine District Resource Liaison Specialist (Acting) 705-856-4746 jennifer.pine@ontario.ca</p>

HCV	Attribute	Prescription or Management Direction	Current Monitoring for compliance, effects, effectiveness, status
Archeological Sites	<p>Officially registered Archeological sites with Ministry of Culture</p> <p>Unofficial sites located by local interest groups.</p>	<p>Follows the prescribed buffer or site disturbance prescription from the Guide for cultural heritage protection.</p> <p>Currently discussions are occurring for possible preparation of a data base of historical logging camps.</p>	<p>Compliance with the prescription is determined by NFMC with oversight from OMNRF. For information contact the Provincial archeologist.</p> <p>Or Jennifer Pine District Resource Liaison Specialist 705-856-4746 jennifer.pine@ontario.ca</p>

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[Caribou Conservation Plan](#)

Scientific Assessment to Inform the Identification Of Critical Habitat For Woodland Caribou (Rangifer Tarandus Caribou), Boreal Population, In Canada 2011 Update

http://ec.gc.ca/data_donnees/STB-DGST/001/Anthropogeneic_Disturbance_Mapping_Methods_Appendix_-_ENGLISH.pdf

Woodland Caribou Recovery Strategy

<http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/251755.pdf>

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Caribou [general habitat description](#) (July 2, 2013).

³⁰ This section was reviewed in September 2016, including a review of the web info and other sources.

Gerald D. Racey & A. Alan Arsenault. In search of a critical habitat concept for woodland caribou, boreal population

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Appendices

Appendix 1. Map locations for the HCV report (For compliance with FSC HCV map requirements).

The following files are contained on the [OMNRF FMP website gor the PF FMP](#) and list the values assessed in this HCV report.

For the Pic Forest, select Final Contingency Plan. Click LINK below to view Maps and the FMP values maps are presented.

Maps - [LINK](#)

Bear Management Areas 00.pdf
Cultural Heritage 00.pdf
Fisheries and Wetlands 00.pdf
Land Values and Existing Roads 00.pdf
Resource Based Tourism 00.pdf
Resource Uses 00.pdf
Trapline Areas 00.pdf
Wildlife and Forestry 00.pdf

Indigenous Values Map

No Indigenous values have been displayed due to sensitivity of information

Appendix 2. Natural Heritage Information Centre Status List – Verified July 2020.

NHIC credits below

SCIENTIFIC NAME	COMMON NAME	HCV*	S_RANK	COSEWIC STATUS	SARA SCHEDULE STATUS	CLASS	S_RANK CHANGE DATE	S_RANK REVIEW DATE
<i>Haliaeetus leucocephalus</i>	Bald Eagle	HCV	S2N,S4B	NAR		Aves	2009-10-26	2009-10-26
<i>Falco peregrinus</i>	Peregrine Falcon	Poss	S3B	NAR	SC	Aves	2009-02-13	2009-02-13
<i>Asio flammeus</i>	Short-eared Owl	Poss	S2N,S4B	SC	SC	Aves	1998-10-22	2009-02-13
<i>Contopus cooperi</i>	Olive-sided Flycatcher	HCV	S4B	SC	THR	Aves	2007-10-23	2009-02-13
<i>Riparia riparia</i>	Bank Swallow	HCV	S4B	THR	THR	Aves	2009-02-13	2009-02-13
<i>Cardellina canadensis</i>	Canada Warbler	Lndscp	S4B	THR	THR	Aves	2009-02-13	2009-02-13
<i>Ichthyomyzon fossor</i>	Northern Brook Lamprey	Ripar	S3	SC	SC	Petromyzontida	1997-10-10	2009-10-22
<i>Ichthyomyzon unicuspis</i>	Silver Lamprey (Great Lakes)	Ripar	S3	SC		Petromyzontida		2011-12-05
<i>Acipenser fulvescens</i>	Lake Sturgeon (Great Lakes)	Ripar	S2	THR		Actinopterygii		2009-10-22
<i>Myotis lucifugus</i>	Little Brown Myotis	HCV	S3	END	END	Mammalia	2018-03-28	2018-03-28
<i>Myotis septentrionalis</i>	Northern Myotis	HCV	S3	END	END	Mammalia	2010-12-07	2010-12-07
<i>Rangifer tarandus</i>	Caribou (Boreal population)	HCV	S4	THR	THR	Mammalia	2008-12-19	2008-12-22
<i>Bombus terricola</i>	Yellow-banded Bumble Bee	Poss	S3S5	SC		Insecta	2015-12-31	2015-12-31
<i>Bombus bohemicus</i>	Gypsy Cuckoo Bumble Bee	Poss	S1S2	END		Insecta	2015-12-31	2015-12-31
<i>Euchloe ausonides</i>	Large Marble	Not	S3			Insecta	1995-12-19	2009-02-13
<i>Ophiogomphus carolus</i>	Riffle Snaketail	Not	S2S3			Insecta	2008-11-07	2008-11-04
<i>Aeshna juncea</i>	Sedge Darner	Not	S3?			Insecta	2003-05-06	
<i>Aeshna subarctica</i>	Subarctic Darner	Not	S2S3			Insecta	2008-11-06	2008-11-04
<i>Somatochlora elongata</i>	Ski-tipped Emerald	Not	S3?			Insecta	2003-05-06	
<i>Somatochlora forcipata</i>	Forcipate Emerald	Not	S3			Insecta	2008-11-07	2008-11-04
<i>Sympetrum corruptum</i>	Variegated Meadowhawk	Not	S3			Insecta	2000-06-09	
<i>Scapania gymnostomophila</i>	Narrow-leaved Earwort	Not	S3?			Jungermannnopsida	2000-03-05	
<i>Bryum blindii</i>	Blind's Bryum	Not	S2			Bryopsida	1995-12-11	2013-02-25
<i>Ptychostomum pallens</i>	Pale Bryum	Not	S2			Bryopsida	2017-12-12	2017-12-12
<i>Grimmia teretervis</i>	Round-nerved Grimmia	Not	S2			Bryopsida	1995-12-11	2013-01-10
<i>Grimmia torquata</i>	Twisted Grimmia	Not	S1			Bryopsida	1995-12-11	2013-01-10
<i>Myurella tenerrima</i>	Dwarf Mousetail Moss	Not	S1			Bryopsida	1995-12-11	
<i>Usnea longissima</i>	Methuselah's Beard Lichen	Not	S3			Lecanoromycetes	2019-08-01	2019-08-01

<i>Acarospora bullata</i>	A Lichen	Not	S1S2			Lecanoromycetes	2019-01-30	2019-01-30
<i>Dermatocarpon intestiniforme</i>	Quilted Stippleback Lichen	Not	S2S3			Eurotiomycetes	2016-12-06	2016-12-06
<i>Heterodermia japonica</i>	Japanese Centipede Lichen	Not	S3S4			Lecanoromycetes	2019-11-06	2019-11-06
<i>Lecanora argentata</i>	A Lichen	Not	S3?			Lecanoromycetes	2000-03-30	
<i>Stereocaulon glaucescens</i>	Alpine Rock Foam Lichen	Not	S1			Lecanoromycetes	2000-03-30	
<i>Stereocaulon subcoralloides</i>	Coralloid Foam Lichen	Not	S2?			Lecanoromycetes	2016-04-12	2016-04-12
<i>Peltigera collina</i>	Tree Pelt Lichen	Not	S1S2			Lecanoromycetes	2015-12-12	
<i>Anaptychia crinalis</i>	Hanging Fringed Lichen	Not	S3			Lecanoromycetes	2000-03-30	2000-03-30
<i>Zizia aptera</i>	Heart-leaved Alexanders	Not	S1			Dicotyledoneae	1990-08-29	2015-12-31
<i>Hudsonia tomentosa</i>	Woolly Beach-heather	Not	S3			Dicotyledoneae	2008-12-11	2015-12-31
<i>Vaccinium membranaceum</i>	Mountain Huckleberry	Not	S1			Dicotyledoneae	1989-11-09	2015-12-31
<i>Oxytropis splendens</i>	Showy Locoweed	Not	S3			Dicotyledoneae	1995-12-19	2015-10-14
<i>Potentilla pensylvanica</i>	Pennsylvania Cinquefoil	Not	S3			Dicotyledoneae	2008-12-17	2015-12-31
<i>Salix ballii</i>	Ball's Willow	Not	SH			Dicotyledoneae	1997-03-26	2015-10-07
<i>Salix pseudomonticola</i>	False Mountain Willow	Not	S3?			Dicotyledoneae	2015-10-07	2015-10-07
<i>Saxifraga oppositifolia</i>	Purple Mountain Saxifrage	Not	S1			Dicotyledoneae	2001-07-24	2015-02-16
<i>Carex rossii</i>	Ross' Sedge	Not	S3			Monocotyledoneae	2008-12-11	2015-10-14
<i>Eleocharis nitida</i>	Quill Spikerush	Not	S2?			Monocotyledoneae	2015-09-27	2015-09-27
<i>Trichophorum clintonii</i>	Clinton's Clubrush	Not	S2S3			Monocotyledoneae	2008-12-16	2015-02-16
<i>Juncus vaseyi</i>	Vasey's Rush	Not	S3			Monocotyledoneae	1995-12-19	2015-12-31
<i>Tofieldia pusilla</i>	Small Tofieldia	Not	S4S5			Monocotyledoneae	2015-10-07	2015-10-07
<i>Neottia auriculata</i>	Auricled Twayblade	Not	S3			Monocotyledoneae	1994-09-29	2015-12-31
<i>Neottia borealis</i>	Northern Twayblade	Not	S2S3			Monocotyledoneae	2015-10-06	2015-10-06
<i>Bromus pumpellianus</i>	Pumpelly's Brome	Not	SH			Monocotyledoneae	1998-01-13	2015-12-31
<i>Potamogeton confervoides</i>	Alga Pondweed	Not	S2			Monocotyledoneae	1989-09-21	2015-12-31
<i>Cystopteris montana</i>	Mountain Bladder Fern	Not	S1			Filicopsida	1995-12-19	2015-10-14
<i>Botrychium angustisegmentum</i>	Narrow Triangle Moonwort	Not	S3			Ophioglossopsida	1995-12-19	2015-12-31
<i>Botrychium ascendens</i>	Upswept Moonwort	Not	S1S2			Ophioglossopsida	2015-05-15	2015-05-15
<i>Botrychium pseudopinnatum**</i>	False Northwestern Moonwort	Not	S1			Ophioglossopsida	1994-09-23	2015-02-16
<i>Botrychium pallidum</i>	Pale Moonwort	Not	S1S2			Ophioglossopsida	2015-09-05	2015-09-05
<i>Botrychium spathulatum</i>	Spatulate Moonwort	Not	S2S3			Ophioglossopsida	2015-09-05	2015-09-05

<i>Botrychium michiganense</i>	Michigan Moonwort	Not	S1S2			Ophioglossopsida	2015-12-21	2015-12-21
<i>Botrychium campestre</i>	Prairie Moonwort	Not	S1S2			Ophioglossopsida	2015-05-15	2015-05-15

***Botrychium pseudopinnatum is endemic to Ontario and occurs on the forest.*

COSSARO abbreviations END – Endangered THR – Threatened EXP – Extirpated SC – Special Concern NAR – Not at Risk
DD – Data Deficient EXT – Extinct

Natural Heritage Information Centre Status List. SAR and Species listed by NHIC as uncommon but not at Risk.

With contributions from NHIC staff:

- Tanya Taylor | NHIC Information Analyst
- Mike Oldham | Provincial Botanist | michael.oldham@ontario.ca
- Sam Brinker | Project Botanist | sam.brinker@ontario.ca
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- Mike Burrell | Project Zoologist | mike.burrell@ontario.ca

Verified 2020 July - Shaded rows represent regulated “listed” species. Blue listings are for stable IUCN species websites.

Appendix 3. Dynamic Caribou Habitat Schedule on the Pic Forest from

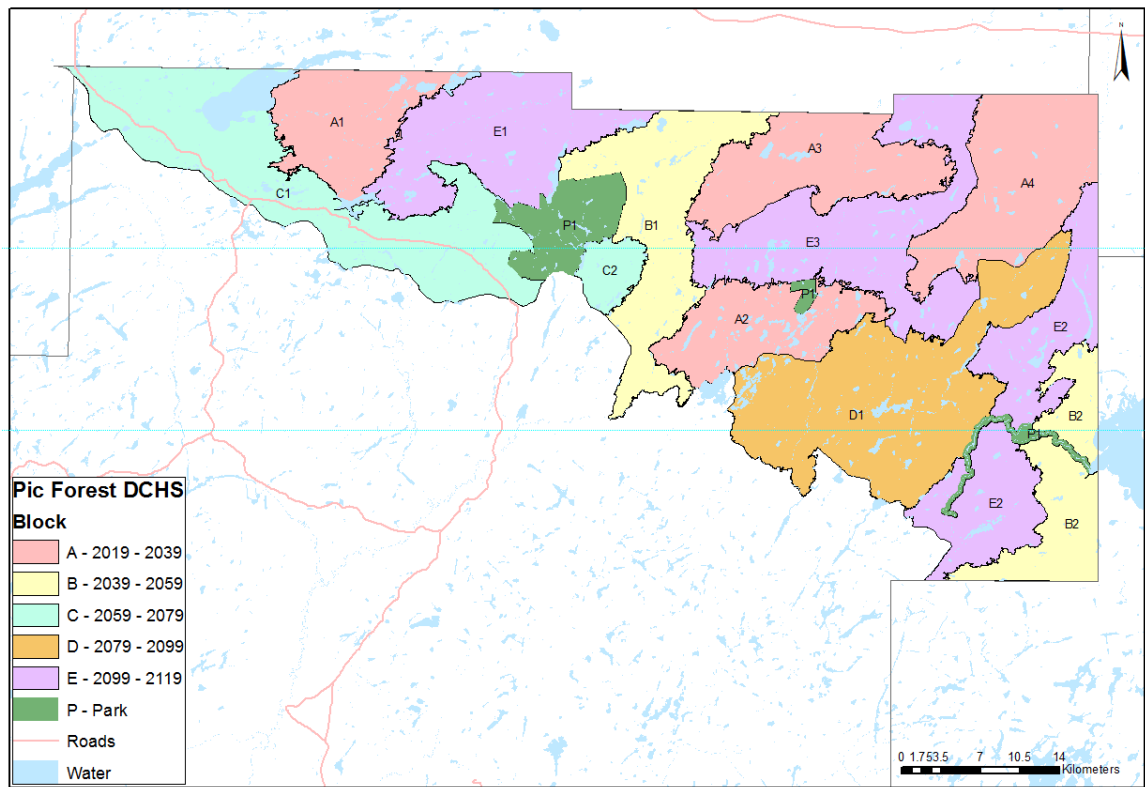


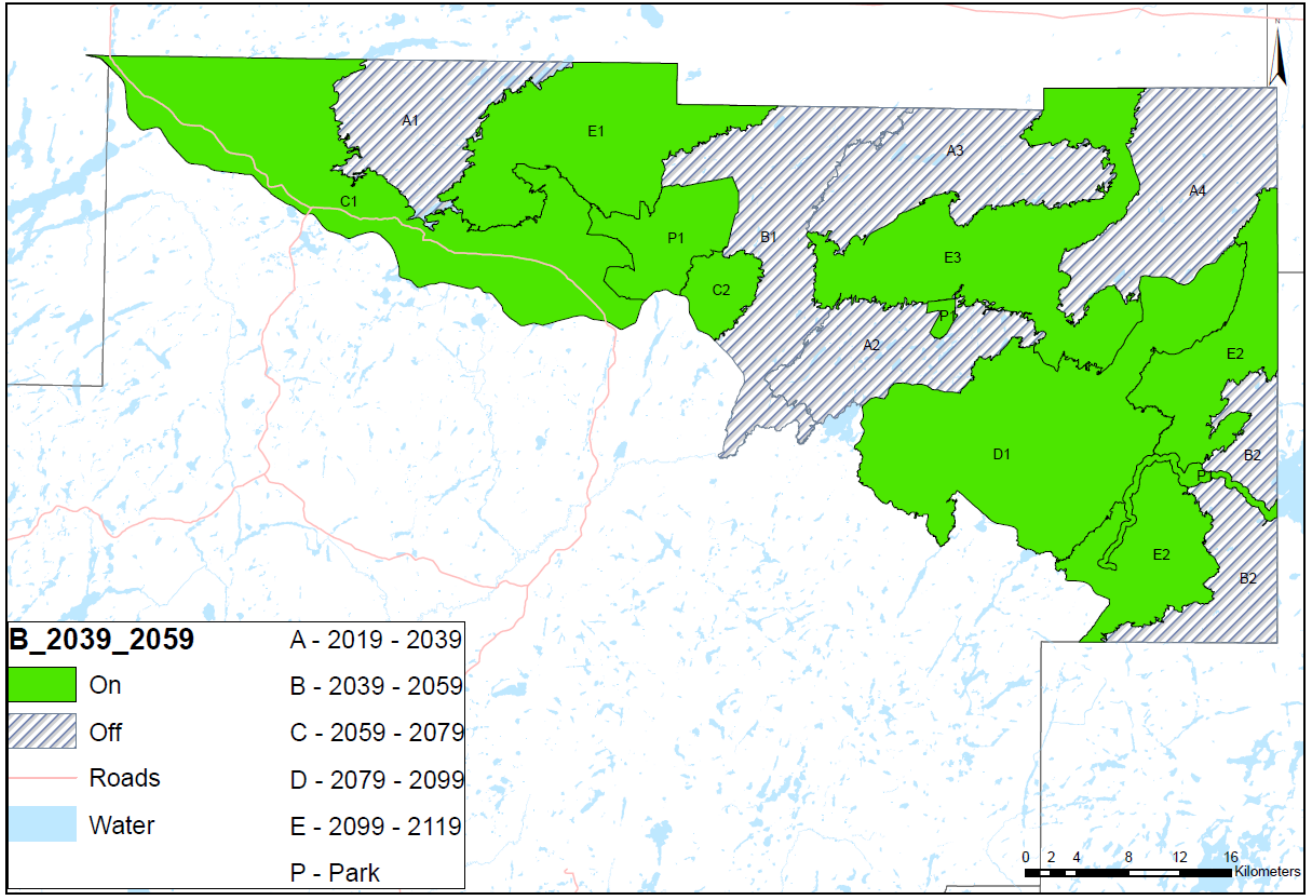
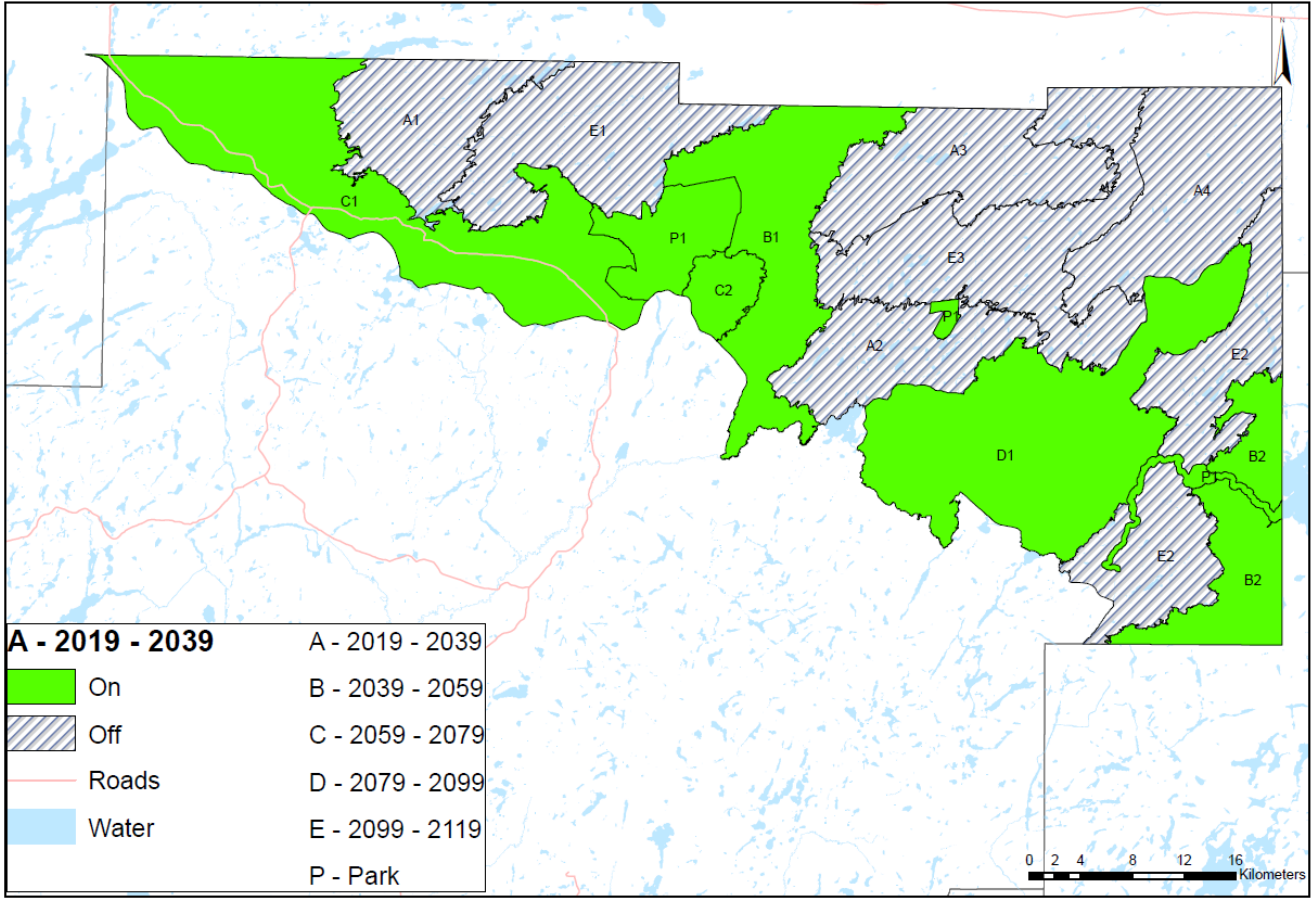
Figure 10. Caribou Blocks in the Dynamic Caribou Habitat Schedule.

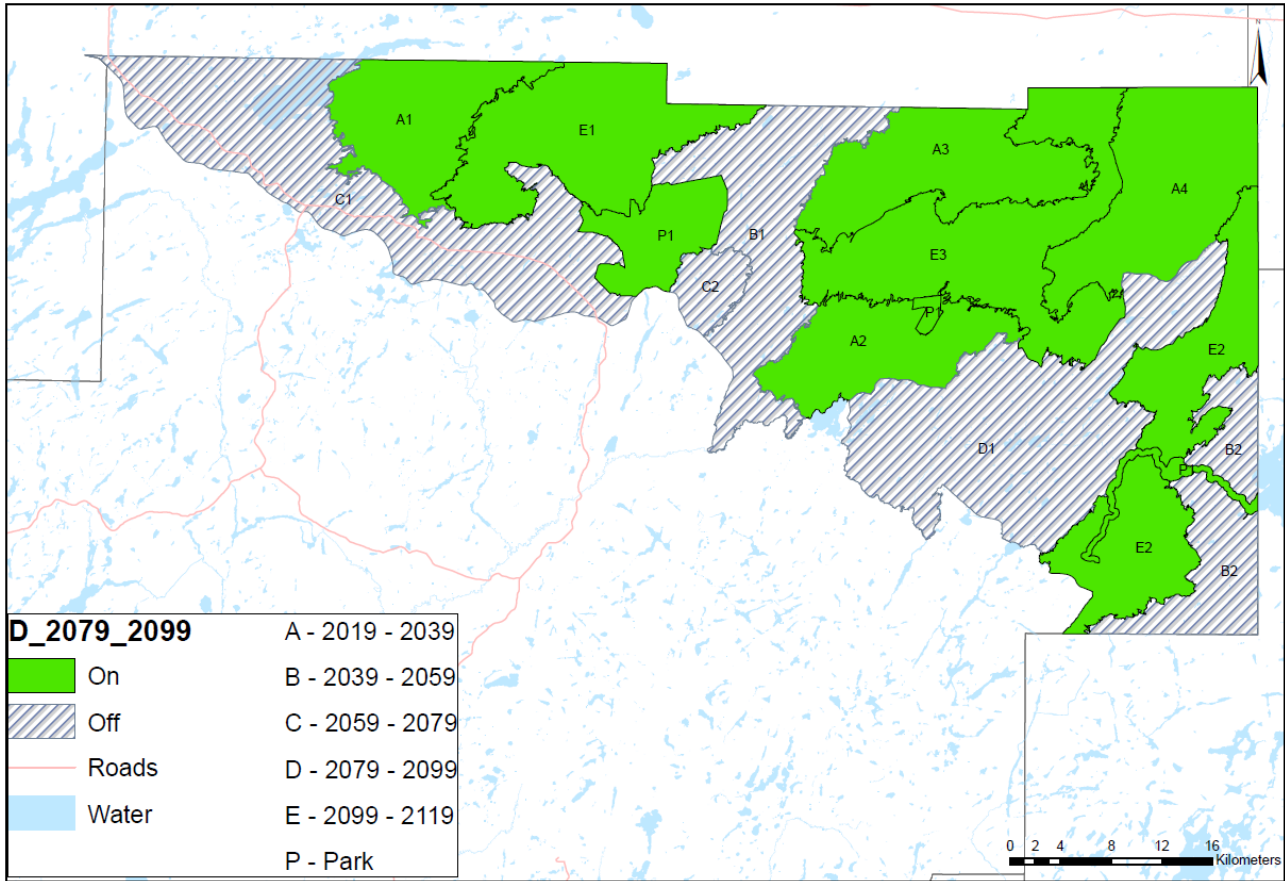
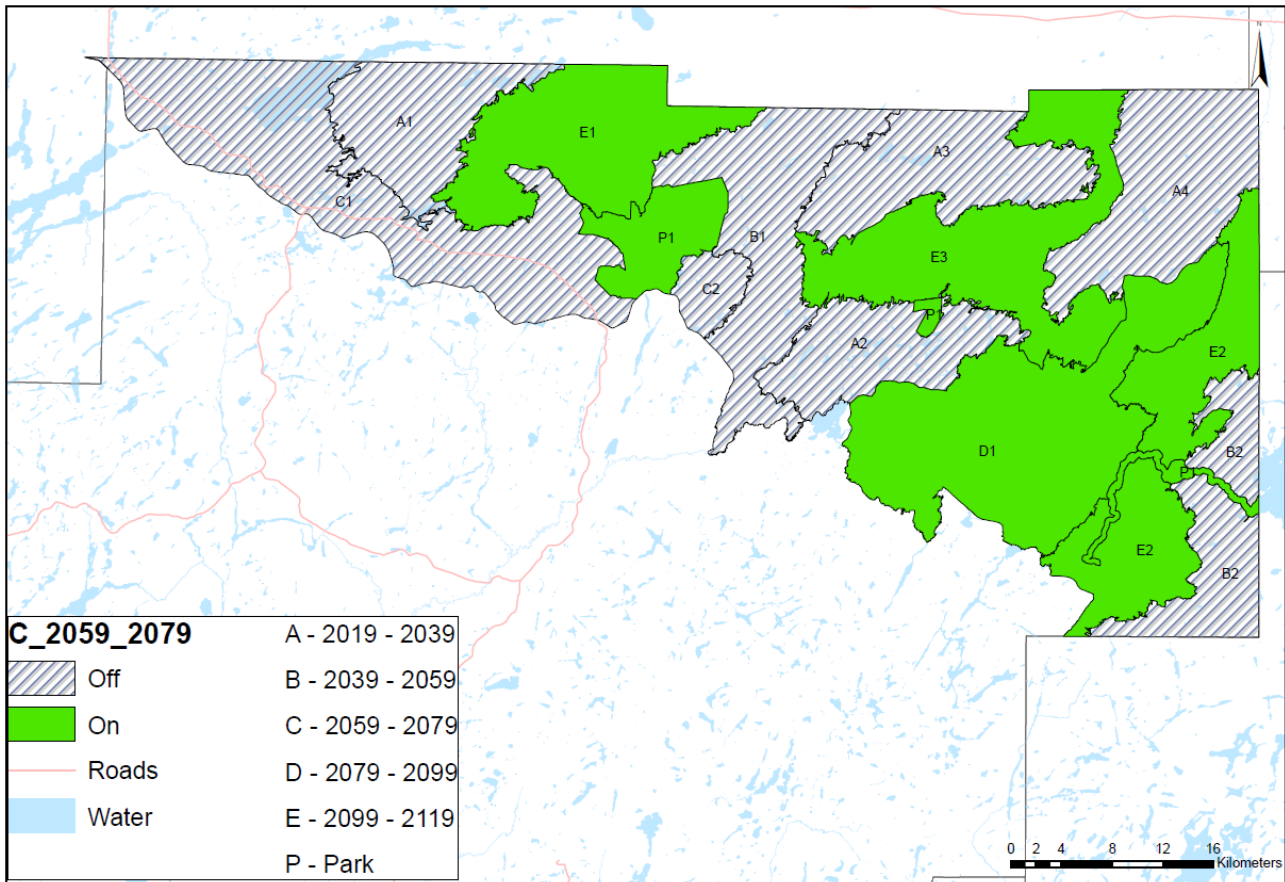
Time slice analysis (see maps below) shows the available on-line caribou habitat as defined by the Conventional Boreal caribou habitat models within the Boreal Landscape Guide in 20-year intervals represented as both maps and in a tabular form (Figure 11, **Error! Reference source not found.**). The Conventional Boreal Caribou Habitat model indicates that suitable forest units come on-line as preferred habitat at ≥ 60 years of age (OMNR 2014). The area-weighted average stand age for each DCHS block at the beginning of the harvest interval date was calculated and used to determine when a block would be classified as on-line caribou habitat. Generally blocks come “on-line” as suitable caribou habitat in the two intervals immediately prior to its harvest. The best management practice for each block; in order to create large patches of continuous habitat into the future, is to cut the entire block as soon as possible, preferably within 10 years. However the block can be harvested right up to the end of the interval; therefore for time slice analysis purposes, it was assumed that the earliest the block could achieve 60 years of age was at the start of the fourth interval after harvest (i.e. for an A-block it would be harvested from 2007 to 2029, hence it won’t be 60 years of age until at least the start of the D-interval in 2089).

Table 8. Time Slice Analysis Illustrating When Each DCHS Block is On-line (Green Areas) as Winter Preferred Caribou Habitat (≥ 60 yrs), Based on Area-Weighted Average Stand Age.

Block	Total Forested Area (HA)	A 2019-2039	B 2039-2059	C 2059-2079	D 2079-2099	E 2099-2119
A1	10,944	Off	Off	Off	On	On
A2	9,875	Off	Off	Off	On	On
A3	13,956	Off	Off	Off	On	On

Block	Total Forested Area (HA)	A 2019- 2039	B 2039- 2059	C 2059- 2079	D 2079- 2099	E 2099- 2119
A4	16,291	Off	Off	Off	On	On
B1	17,099	On	Off	Off	Off	On
B2	10,928	On	Off	Off	Off	On
C1	27,020	On	On	Off	Off	Off
C2	2,691	On	On	Off	Off	Off
D1	27,843	On	On	On	Off	Off
E1	16,556	Off	On	On	On	Off
E2	17,707	Off	On	On	On	Off
E3	20,970	Off	On	On	On	Off
P1	7,397	On	On	On	On	On
Total Percent Online		47%	60%	45%	57%	43%





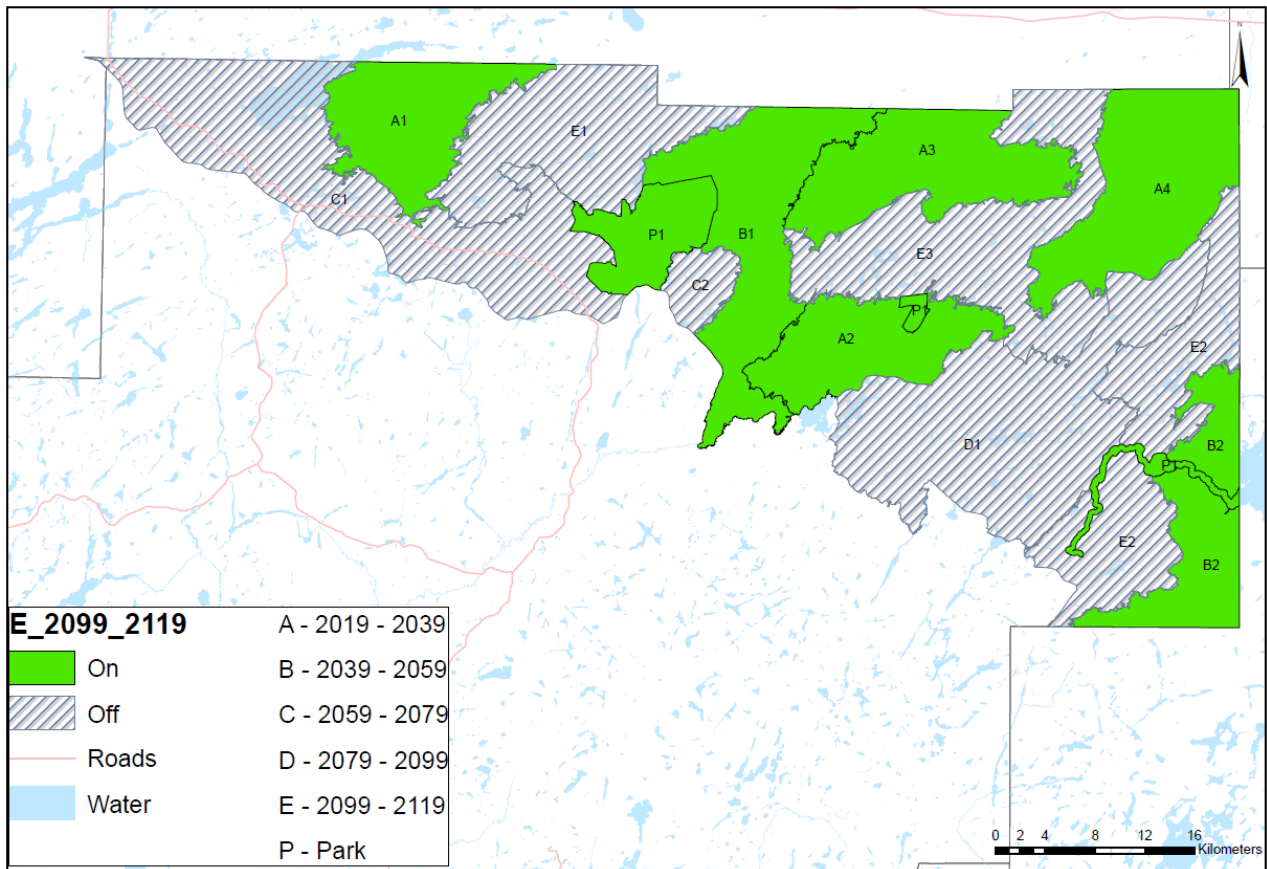


Figure 11: Time Slice Maps of the Current DCHS Showing the Location of On-line Habitat (Green Areas) in Each Interval (A – E).

Since the DCHS consists of five intervals and the forest must be ≥ 60 years of age, this means that the target is to maintain at least 40% (two of five intervals) of the forest in the caribou zone as on-line caribou habitat at all times (see Section 1.6.1, Objective 5). This target includes all types of DCHS blocks, including P blocks, as they are all subject to the caribou direction (Elkie et al. 2014a; OMNR 2014; OMNR 2009).

In assessment of the objective to provide on-line caribou habitat through time (see Section 1.1, Objective 5), the amount of on-line habitat in each interval was as follows (**Error! Reference source not found.**):

- A Interval: 47% on-line in 2019-2039;
- B Interval: 60% on-line in 2039-2059;
- C Interval: 45% on-line in 2059-2079;
- D Interval: 57% on-line in 2079-2099;
- E Interval: 43% on-line in 2099-2119.

The 40% on-line habitat target is achieved in all of the terms.

Appendix 4. Assessment Team

Tom Clark: This HCV assessment consisted of four people working under the guidance of Tom Clark. Tom is a senior consulting ecologist with expertise focused on wildlife ecology and forest management. Tom has been involved with forest policy and management auditing, with the Independent Forest Audit (IFA) process in Ontario, and with Forest Stewardship Council (FSC) certification process in the U.S. and Canada. He graduated from the University of Ottawa (1976 B.Sc. Biology) and the University of Guelph (1979 M.Sc. Zoology).

Tom has completed 20+ Forest Stewardship Council full assessments, and annual audits, in Ontario, Quebec, British Columbia, Manitoba, and the states of New York, Pennsylvania and Minnesota using various FSC standards. He has been lead auditor for SmartWood/Rainforest Alliance.

Rike Burkhardt: MFC, RPF is a registered professional forester who recently worked as a forestry planner with the City of Toronto, coordinating a city-wide urban forest inventory and research project in cooperation with the United States Forest Service entitled "Every Tree Counts: A Portrait of Toronto's Urban Forest" (www.toronto.ca/trees).

She has worked previously as an independent consultant with a focus on Ontario forest and land use policy, public involvement and consultation processes in planning, third party forest certification systems, forest audits and private land stewardship. Rike has participated as a member of various audit teams on 10 Independent Forest Audits of Crown forest licences for Ontario's Ministry of Natural Resources and Forestry and has worked with teams undertaking Forest Stewardship Council third-party forest certification assessments.

Bethany Waite: is an ecosystem management technologist. She has worked on six HCV reports.

Appendix 5. Peer review of the HCV report (as required by the FSC standard).

Lacey Rose, RPF

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638-1911

|Email: laceyjeanrose@msn.com | Phone: 613-

Tom Clark

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(705) 645-2580
tom@TomClark.ca

October 10, 2016

RE: Review of HCVF Assessment for the Big Pic and Pic River Forests

Tom,

Thank you for the opportunity to review the Pic Forest HCV assessment.

I have attached an electronic copy of this review and my CV. The HCV Resource Network Guidance for Peer Review of HCV Assessment Reports (Version 2.1 September 2010)³¹ was used as a guide in preparing this review. This review was conducted independently and the opinions are solely mine.

The HCV Resource Network document is described as a means:

- To provide HCV practitioners with a checklist of the key elements which should be covered in an HCV report
- To support reviewers in assessing the key elements of an HCV report,
- To facilitate the discussion of key findings of an HCV report, and
- To ensure that reviews of HCV reports are consistent and comparable across different applications of the HCV approach.

The review follows Checklist C of that document, (parts 6.3 and 8.1 are not applicable, as they are related to land conversion) and are for a process that is following a credible natural resource certification scheme, FSC in this case.

Your report is well laid-out and researched. It is clear that significant effort was spent evaluating the many values of the Big Pic and Pic River Forests. I have made a number of suggestions that may improve the clarity of the report.

No issues were identified that would impact an actual value. All forest values are regularly protected under the approved Forest Management Plan, whether they are designated as HCV or not through this process. However, some minor issues are identified, surrounding the consistency of designation of HCV needs to be assessed prior to the document being finalized, and will mainly involve editorial work to

³¹ <http://www.hcvnetwork.org/resources/hcv-network-governance/Guidance%20on%20HCV%20assessment%20reviews%20-%20Version%202.1-%20updated%20September%202010.pdf>

ensure the same designation is given to values throughout the document, and the addition of clarifying text. These are related to the improvement of Table 1, 3 and related text, specifically surrounding Element 1. Other suggestions for improvement involve ensuring that equal consideration or explanation be given to both parts of the PF.

For reference purposes for your auditors, my level of effort in preparing this review approximately 8 hours. I have examined the process carefully. My assessment of the management plans and monitoring plans is only to ensure that the plan is in place, as I did not go beyond the information provided to me for this review. The recommendations will bring the report into line with the current application of the HCV concept, as I understand it and as it is described in the HCV Resource Network guidance document cited above. The recommendations should not be interpreted as “not in conformance” in the FSC audit sense.

Again, thank you for the opportunity to review this report.

Sincerely,



Lacey Rose, RPF



Attachments:

Electronic copy of this review
CV for Lacey Rose

Review of Assessment for the license forest area of the Pic Forest Ontario Canada

The following forms³² are based on the Peer Review procedure from the HCV Resource Network. They have been modified by CMC to fit into a form, but otherwise follow all of the requirements³³. For questions contact Tom Clark (705 645 2580 tom@tomclark.ca). Note these forms are accompanied by a covering letter providing summary findings of the review.

Findings in this review are assessed as either major minor not applicable (N/A) or as suggestions.

- Major findings mean that a key component of the assessment is missing or incorrectly assessed. This will have a potential impact on an actual value. It needs to be corrected immediately before the report is approved.
- Minor findings affect the clarity or usefulness of the assessment. It would be unlikely to have a real impact on the value itself, but may cause planning difficulties.
- Suggestions relate mainly to clarity and possible fixes to problems in the report itself or other sources of information.
- Not applicable means that for some reason that section of the peer review did not apply to the report being reviewed.

Each section of the report may have multiple findings that are either major, minor or suggestions.

The findings are the opinion of the peer reviewer and are not binding on the Company, however, the findings need to be addressed in order for the peer review to be considered as evidence in an audit.

Contents

About Version 3.3 July 2020.....	3
Previously - About Version 3.2, June 2019.....	3
Previously - About Version 3.1, October 2017	4
Previously - About version 3.0 Sept. 2016.....	4
List of Tables.....	7
List of Figures	8

³² Forms updated February 2015.

³³ This review is the sole responsibility of Lacey Rose. The use of HCV RN procedures does not imply their participation or oversight.

Appendices	8
High Conservation Values - Summary.....	9
Overview of HCV Assessment on the Pic Forest.....	13
Purpose & Method	15
The Pic Forest Description:.....	18
Phase 1: Process for assessing for the presence of HCV attributes	21
Category 1) Forest areas containing globally, nationally or regionally significant concentrations of biodiversity values.....	22
1) Does the forest contain species at risk or potential habitat of species at risk as listed by international, national or territorial/provincial authorities?	22
2) Does the forest contain a globally, nationally or regionally significant concentration of endemic species?.....	36
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 wildlife in breeding sites, wintering sites, migration sites, migration routes or corridors – latitudinal as well as altitudinal)?.....	37
4) Does the forest contain critical habitat for regionally significant species (e.g. species representative of habitat types naturally occurring in the management unit, focal species, species declining regionally)?	40
5) Does the forest support concentrations of species at the edge of their natural ranges or outlier populations?.....	42
6) Does the forest lie within, adjacent to, or contain a conservation area:.....	43
a) designated by an international authority;	43
b) legally designated or proposed by relevant federal/provincial legislative body;.....	43
c) identified in regional land use plans or conservation plans.	43
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.	50
7) Does the forest constitute or form part of a globally, nationally or regionally significant forest landscape that includes populations of most native species and sufficient habitat such that there is a high likelihood of long-term species persistence?	50
Category 3) Forest areas that are in or contain rare, threatened or endangered ecosystems.	56
8) Does the forest contain naturally rare ecosystem types?.....	56
9) Are there ecosystem types within the forest or ecoregion that have significantly declined?.....	58
10) Are large landscape level forests (i.e. large unfragmented forests) rare or absent in the forest or ecoregion?	59
11) Are there nationally/regionally significant diverse or unique forest ecosystems?	59

Category 4) Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).	60
12) Does the forest provide a significant source of drinking water?	60
13) Are there forests that provide a significant ecological service in mediating flooding and/or drought, controlling stream flow regulation, and water quality?	61
14) Are there forests critical to erosion control?	62
15) Are there forests that provide a critical barrier to destructive fire (in areas where fire is not a common natural agent of disturbance)?	63
16) Are there forest landscapes (or regional landscapes) that have a critical impact on agriculture or fisheries?	63
Category 5) Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).	66
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).	66
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).	70
18) Is the traditional cultural identity of the local community particularly tied to a specific forest area?	70
19. Is there a significant overlap of values (ecological and/or cultural) that individually did not meet HCV thresholds but collectively constitute HCVs?	74
Phase 2: Managing and Monitoring HCV attributes.	76
AOC ID BE	77
A. Bald Eagle Primary Nests (BE1)	77
• 400 m radius AOC centered on primary nests.	77
• Nests known or suspected to have been occupied (see glossary for definitions) at least once within the past 5 years (i.e., active nests), unless the nest and all associated nests within the nesting area have been documented as unoccupied for greater than or equal to 3 consecutive years, in which case the nest is considered inactive. When greater than or equal to 2 active nests occur in sufficiently close proximity to be considered part of the nesting area of an individual pair, the nest with the most recent known or suspected history of occupancy within this nesting area is the primary nest; the other active nest(s) is (are) considered alternate nests.	77
B. Bald Eagle Alternate Nests (BE2)	77
• 200 m radius AOC centered on alternate nests.	77

• Nests known or suspected to have been occupied at least once within the past 5 years that are not primary nests (see Primary Nests), unless the nest and all associated nests within the nesting area have been documented as unoccupied for > or equal to 3 consecutive years, in which case the nest is considered inactive.....	77
• Direction applies to nests known before, or found during operations.	77
References	84
Appendices	87
Review of Assessment for the license forest area of the Pic Forest Ontario Canada.....	4
Part 1.....	7
1. Executive summary of the document	7
2. Scope of the assessment	8
3. Wider landscape context and significance of the assessed area.....	9
4. HCV assessment process including consultation processes.....	9
5. Identification, location and status of each HCV	12
6. Management of HCVs	20
7. Monitoring of HCVs.....	20
8. Responsible management of other conservation values	22

Part 1

1. Executive summary of the document

In this section the review evaluates:

- Are the key findings clearly presented and summarized?
- Does the summary accurately reflect the findings and recommendations of the main document?

Findings:

The key findings are presented and summarized in Table 1. The editorials listed below would improve the clarity of Table 1. Those listed in bold should be dealt with and are identified as a minor issue to ensure consistency and avoid HCV classification confusion if the summary is consulted without looking at the body of the document.

- Insert contact info in Element 1 HCV monitoring column (instead of “contact info”).
- Insert “woodland” before caribou to be consistent with the rest of the document.
- Ensure all designated HCV species are listed in Element 1 Designation box (Northern Myotis and Little Brown Bat are missing), or do not list any in that box.

- In Element 6, change BPF to PF.
- In Element 7, last column, delete “identified”.
- In Element 8, delete “stands on Crown Land with at least 30% black ash”, or ensure this is reflected in the text of the document.
- Element 13: Delete “PSWs only in the Timmins area” – they are identified in other areas of the province.
- Element 16: **reflect that Lake Trout Fisheries were identified as an HCV in the text of the document.**
- **Element 17: no HCVs are designated in the text of the document for this element. Correct.**
- **Element 18: Add Historical Logging Sites since it is described in the text as HCV.**

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Ensure that Table 1 accurately reflects the findings and designations of the main document.

Company: All comments accepted and corrected.

2. Scope of the assessment

In this section the review evaluates:

- a) Is the assessment area and surrounding landscape clearly defined?
- b) Is there a basic summary of the company and its operations in the area?
- c) Are the impact and scale of proposed operations adequately described?

Findings:

The assessment area is well described in the section titled “The Pic Forest Description: Big Pic Forest and the Pic River Forest”, as well as the surrounding landscape, in several contexts: administrative, geographic and climatic. The same level of detail should be provided for both the Big Pic (BPF) and Pic River (PRF) Forests. For example, information about parks and protected areas is only given for the PRF in this section. Information about First Nations communities within or adjacent to the forest is only given for BPF. Ensure equal information is provided for both forests contained within this assessment.

There is a basic description of the Nawiinginokiima Forest Management Corp (NPMC) and its roles and responsibilities with respect to managing the Pic Forest (PF). Some context of how long NPMC has been managing the forests or other management history would better inform the reader.

The information about annual harvest area is somewhat outdated and could be updated to reflect current market conditions/scope of the operations. The Overview section provides information about the impact and scale of operations. Although Crown land operations in Ontario are considered “large and highly visible, thus requiring a high level of scrutiny under the HCV National Framework”, it would be a meaningful addition to provide information about the % of available forest landbase that is available for harvest annual vs

the % that is actually harvested annually. Both numbers are small and provide a realistic view of the actual impact of forest operations in Ontario.

General and recurring observation: the links to PRF FMP and BPF FMP throughout the document bring the reader to the title page, and not to the FMPs.

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Ensure that equal and complete information is provided for both the PRF and the BPF.

Company Response: The First Nations are the same on both forests, so no change was required during amalgamation.

Additional Parks information was added as suggested.

Annual harvest information was deleted, as it is difficult to keep up and is not directly relevant to the values discussion.

3. Wider landscape context and significance of the assessed area

In this section the review evaluates:

- a) Is the wider landscape convincingly and adequately described?
- b) Are the key social and biological features of the wider landscape clearly described?

Findings:

The wider landscape is described in terms of site regions and watersheds. Communities within and adjacent to the area are listed. A map (Figure 2) is included that shows key features in the PF, as well as the location in a provincial context.

Information on the importance of the landscape to residents and tourists for hunting, fishing and other recreational uses is provided. Good insight is given up front that forests in the area are critical (and have been for a long time) for employment and other social values, including to the First Nations communities described in the report.

Issues: None ☒ Minor ☐ Major ☐ N/A ☐ Suggestion ☐

4. HCV assessment process including consultation processes

4.1 Composition and qualifications of the assessment team

In this section the review evaluates:

- a) Was there adequate access to relevant expertise to assess biological and social values?

Findings:

Yes. The report makes several references to the Provincially-approved and mandated guides, manuals and legislation that guide the forest management planning process and define the standards for values protection. Values protection is based on the best-available science, as defined by technical experts in the field. The FMP process and its relevance to this report are described and referenced.

The Local Citizen's Committee was consulted for comment on HCV and through the regular FMP process, and are considered experts and representatives of social value in the area. However, only one meeting is referenced in the report (November 2013) and it is unclear if this represents residents for both forests covered in this report. **It should be clarified if there is one LCC for the PF or separate committees for each forest, and if so, that they were both consulted.** Has a more recent meeting occurred in preparation of this updated report?

It is also highlighted that the entire FMP process goes through a public review and consultation, as well as specialized consultation with First Nations.

The manager who makes HCV designations is well defined. OMNRF expert opinion and how it is incorporated is referenced. A summary of the credentials of the assessment team is included in Appendix 4, as well as the peer review for a previous version of the report.

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Clarify if there is one LCC for the PF, or if there are separate LCCs, ensure reference is made to both being consulted during the HCV process.

Company response: The LCC is shared between the two forests; an update to the LCC is planned for this new report in the fall of 2016.

4.2. Data sources and data collection methodologies

In this section the review evaluates:

- a) Are data sources and data collection methodologies clearly described or referenced and summarized (and presented in annexes if appropriate), and are they adequate to identify HCVs?
- b) Were reasonable efforts made to fill gaps in the data, proportionate to the impact and scale of the operations?

Findings:

The data sources and collection methodologies are referenced for each Element. The FMP is a major one. It appears that the data sources were adequate enough to identify HCVs and that a high level of effort was made to review and explore data sources. A reference section is included, and many live links make navigation and finding information easier for the reader. Links should be checked, and some erroneous ones are noted in this review.

A section is included on keeping HCVs up to date, and reporting on HCVs. The preparation of the FMP represents a substantial process, and although the planning process is referenced and discussed, some mention could be made of ongoing, on-the-ground data collection and continual value identification, protection and mapping associated with operational planning. Credit should be taken for this effort and as such, should be referenced as the “effort to fill gaps in the data”.

Issues: None ☐ Minor ☐ Major ☐ N/A ☐ Suggestion ☒

Consider making reference to high level of effort made in values collection through the FMP process and day-to-day operations throughout the implementation of the plan. This effort leads to continual improvement and fills in gaps in data.

Company response: good suggestion, done.

4.3. Consultation processes

In this section the review evaluates consultation for identification, management and monitoring:

- a. Were relevant stakeholders appropriately consulted?
- b. Is this documented in a verifiable manner?
- c. Were their views or the information they provided incorporated into the relevant process?

Findings:

The four components of the HCV consultation process are outlined in the report. It is appropriate and stated that most consultation on values happens during the FMP process. It should be clarified whether the Big Pic and Ric River Forests share one LCC or have separate committees. If they are separate, it should be stated that values were reviewed with both groups. Has a meeting occurred more recently than 2013?

Other interested organizations that were invited to comment on the report are listed, as are First Nation communities that were contacted and received copies of the report. It would be informative to note when this contact was made with First Nations and other organizations, and if any input was received as a result.

Consultation, input and review by technical experts is described.

It is also noted that additional comments on the report are welcome at any time.

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Add brief information that described whether any feedback on the HCV report was received from LCC, First Nations or other organizations, and if it was incorporated into the report.

Clarify whether the Big Pic and Pic River Forests share an LCC or have separate committees.

Company response: LCCs are shared. LCC comments are made in several places in the report which can be found by searching for LCC. The comment is good and this search method is added to the discussion.

5. Identification, location and status of each HCV

5.1. Addressing all six HCVs

In this section the review evaluates how the report assesses the individual 19 elements

Findings:

Cat 1 (A)

Element 1:

- For all categories/elements, be sure to reference FMPs for both forests when applicable, and ensure that links are working.
- On pg. 22, 1st paragraph, clarify that “all of the species that are listed *with a potential to occur in the area as per...*” since they are not all known to occur in the area.
- Pg. 22, 2nd paragraph, 2nd sentence: perhaps “often” is not an appropriate qualifier here, since there are many other factors contribute to species being at risk.
- All: ensure that status is discussed for both forests (e.g. bank swallow and woodland caribou discuss BPF)
- For several species, reason for listing includes “listed to requires HCV designation”, although some listed species are not designated (e.g Black Tern, small-footed bat). Consider not using that reasoning.

Company response: Changes made. Note that amalgamating the two forests had little effect on the species list, since the forests intertwine with each other. The list here is functionally the same list as for the BPF previously, but is now updated to include recent decisions

- Table 3:
 - o Peregrine Falcon: ranking in point 1 of the assessment column “threatened” does not match information in rank column. Also, review tense used in assessment information. If there are no occurrences known, use “would be protected” instead of “are protected”, etc. In point 3, add “as possible HCV” to end of sentence.
 - o Short-eared owl: Clarify in assessment column whether the nests found in the last element were in the PF.
 - o Bobolink: Clarify whether incidental occurrences were in the PF. Ensure that decision text matches the bolded HCV text. Described as HCV No Special Prescription but designated Possible HCV.
 - o Barn Swallow: Point one in assessment column – instead of “unknown but it is not logging practices”, recommend “but forest habitat is generally not used by the species, so impacts from forest management are not expected”. Clarify wording in point 3 of assessment – “located in the forest” but “no known occurrences” – present or not?
 - o Canada Warbler: Correct numbering in assessment column. Add “but protected through regular management practices” to end of last sentence in point 3.

- Common Nighthawk: “such as” is repeated in point 1.
- Olive-sided Flycatcher: is a special prescription necessary for this species? Or protection/residual wildlife trees provided through by regular harvesting practices? If no, could be HCV no special prescription required.
- Little Brown Bat: replace WRF with PF.
- Eastern cougar: risk assessment implies cougars had a higher population in Ontario until wide-spread settlement/agriculture occurred in the last 150 years, or that the boreal is widely settled and used for agriculture. Consider rewording.
- Woodland caribou: point 2 – fire also fragments mature conifer forests. Is this not a naturally occurring process?
- Snapping turtle: does this species occur in the forest? If not, should it be a possible HCV instead?
- **Lake Sturgeon: clarify risk assessment. Spawning sites are listed as a possible HCV later in the report.**
- Yellow-banded Bumble Bee: improve risk assessment. Does it occur in the forest? Does it use forest as habitat?
- Monarch Butterfly: Add “However, no impacts from forest operation are expected” to end of point 3 to clarify designation decision.
- Page 35: should provide source to statement “woodland caribou is more attuned to landscape pattern and function than other species”. Ensure text under Woodland Caribou section speaks to PRF as well as BPF.
- Page 36: insert date/year to MNR Caribou expert opinion statement, since time references exist (recently, last winter).
- Page 36: HCV designation decision. Make sure these lists match contents of Table 3 (e.g. Northern Myotis and Little Brown Bat listed as HCV in Table 1 and 3, yellow-banded bumble bee missing, small-footed myotis not HCV in Table 3, bank swallow missing...)

Company response: Accepted most of these comments. Regarding lake Sturgeon which was highlighted, it is appropriate to designate for concentration areas as well as for being at risk. Sturgeon is not considered at risk in this part of Ontario, but it has been given HCV status here.

Element 2:

- Pg. 37: **clarify whether the snails are endemic** or potentially endemic and clarify in sentence starting with “Ricketts et al. suggest”. If they are endemic, change wording in HCV designation.

Company Response: Done

Element 3:

- Page 39:
 - 2nd paragraph under Critical Fish Spawning Areas: The last sentence of this paragraph is unclear without more context provided. Suggest stating that careful management is permitted in riparian zones to create more natural conditions

that would occur during a natural disturbance, such as wind or fire. Also, replace riparian “operations” with “zones” in 2nd last sentence of paragraph.

- **Clarify HCV designation of sturgeon.** Possible HCV on this page but HCV no special prescription required in Table 1 and 3.

Company Comment: Concentration or spawning areas could be damaged by water crossings, but this is unlikely given the crossings in that area. No special prescriptions are required. The text was clarified.

- Page 40:

- Are there heronries smaller than 25 nests on the landbase? If herons are not common on the PF, perhaps the statement in quotations does not apply.
- Under HCV designation: if Lake Sturgeon and Sturgeon Spawning Sites are two different values, should perhaps state this as why they have different designations. If they are the same value, should be consistent designation in this element as in Table 1 and 3.

Company response : Designations were made consistent. These designations are grey areas. Impact from forestry on Sturgeon is extremely unlikely.

Element 4:

- Moose is the only species in this species that states that it was not designated and why. The other species (e.g Marten, lynx, pileated woodpecker...) are discussed as though they could be considered HCV but then not designated. Agree with decision but may wish to improve discussion.

Company response: all designations are stated explicitly. The summary at the bottom of each section is a clear statement of the designation.

Element 5:

- It seems like there is a sentence missing in the paragraph before HCV designation decision (...only White Pine occurs. These forest types may include...))

Company response: Text clarified.

Element 6:

- Under Assessment Results, FMP link goes to cover page. Again, clarify that this information is in two different FMPs.
- Provincial Designations: ensure information is included for PRF as well, only protected areas in the BPF discussed.
- Table 5 title missing “EMA” after “and”.

Company response: Text clarified. FMPs do not discuss this material. The tables information is broken down by forest.

Cat 2 (B) - Element 7

- Does spraying for pest/insect control really never occur? Even in an outbreak situation?
- Assessment results: be sure to speak to PRF in addition to BPF.
- 2nd past paragraph on page 53 has an incomplete sentence (This interpretation of LLLF).

Company response: Re spray – correct. Sentence fixed.

Cat 3 (C) - Element 8:

- Table 1 lists “Stands in Crown land with at least 30% black ash” under this Element but not identified in text section. Clarify.

Company response: Table 1 adjusted.

Element 9:

- Text surrounding and Table 6 should be clarified. It does not appear from looking at Table 6 alone that there is more old growth by 2017. It looks like there is 30,000ha less of old growth, or 21,000ha less if BP802 is of relevance. The column for BP802 should be deleted or its relevance referenced in the text. Perhaps present the same as the information for PRF below. Should the “difference” column should be between the 2007 and 2017 values for BP800? Or, if difference between 2017 managed run and BP802 is the natural benchmark run, should state that and label appropriately.
- 2nd last paragraph on p. 57, should reference Table 7 instead of Table 6. Unclear what modeling artifacts are as referenced.
- Is title of Table 7 supposed to be PRF? This table is clearer than Table 6.
- Perhaps a clearer picture of this assessment could be made by presenting a graph of what proportion of the PF are old growth vs. what natural levels are expected to be (e.g. to make “widespread old growth character” more defensible reason for not including as HCV).

Company Response: Unfortunately there are two different plans using quite different analysis. The question posed is interesting. Although there is a slightly lower amount of old growth, it is not significant, and moreover the key wildlife old growth units of black spruce (SB1) and lowland conifer (LC1) are stable.

Element 10:

- Last sentence on page 58 incomplete.
- Under EMA discussion, is “inoperable” in a terrain context, or has this area been removed from the managed forest landbase (e.g. unavailable)?

Company Response: This is inoperable terrain.

Element 11:

Appropriate. Assessment and designation are proactive and thorough.

Cat 4 (D) - Element 12:

Appropriate. Assessment and designation are well explained.

Element 13:

- Under PSW discussion on page 61, unclear what is meant by statement “not designed for wetlands of this type”.

Company Comment – PSW system is not for the boreal forest. Text added.

Element 14:

- Fix FMP reference in Assessment Methodology
- On page 64, ensure that baitfish discussion includes both forests (only BPF mentioned).
- On page 65, 1st paragraph, ensure discussion speaks to both forests (only BPF mentioned).

Company Comment: The discussion of the HCV (erosion) is for both forests. Information for lesser values is difficult to balance and this area is not prone to slides.

Element 15:

- N/A

Element 16:

- Discussion should provide equal amount of information for both forests to be relevant (e.g. is Table 8 for both forests, or just BPF?)
- The links to FMPs in this section seem to go to an inaccessible c:/ source.

Company Comment: The discussion of the HCV (Trout Lakes) is for both forests. Information for lesser values is difficult to balance.

Cat 5 (E) Element 17:

- Ensure that an equal or comparable level of detail is provided for both forests. For example, it appears that Table 8 only contains information for the BPF (perhaps this should be clarified in the title of the table). Suggest adding PRF volumes to the table or add another table for the PRF.
- Last paragraph, page 67. Are the “impacts” described real or perceived? E.g. are noise/aesthetic complaints received, or are protection measures precautionary?

- Pg. 68, 1st paragraph under NTFP, replace “frests” with “forests”. 2nd paragraph, consider adding “within the scope of forest management” after “critical issue”.
- Pg. 68, Recreation paragraph, replace Big Pic with Pic Forest.
- Figure 7 should be referenced in the text somewhere. What about PRF?

Company Comment: Table 8 reduced and balanced to use comparable info from both forests. Edits made. Map includes PRF locations but is a BPF map. It will be fixed when the new FMP is completed.

Cat 6 (F) Element 18:

- Ensure that FN Values in PRF are adequately described. E.g. 1st paragraph under First Nation Values describes values on or near the BPF only. Also, on pg. 72, ABIR for BPF is referenced, but not PRF.
- Consider rewording, clarifying or removing the last sentence of paragraph 4 under Available Information on Aboriginal Values on page 72.
- Text in italics on page 72 seems misplaced or needs context.
- Page 73: are there any details on the PRF that could be added to this section (Do the communities consider that the forest is culturally significant)?
- Page 73: 2nd paragraph under “Will changes to the forest potentially cause an irreversible change to the culture”: If the information here is quoted from another report, it should be stated so. It does not seem within the context of this report/without valid scientific sources to imply that herbicides/forest management are responsible for liver and blueberries to be unsafe for consumption. Similarly, the use of the word “deforested” in the 3rd paragraph of this section should be removed or clarified. Forestry does not equal deforestation. Is this referring to development or some other industrial use that permanently removed forest cover from the landscape? If so, it is not within the context of this report.

Company response: The FN on the forest are the same on both forests. So the comments about balance are not relevant here. This is noted in the text.

Herbicide comments are relevant and cautious “herbicides that are sprayed on blueberries have discouraged berry pickers” is simply the truth. It supports the designation.

Element 19:

Appropriate.

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Ensure HCV designations are clear and consistent in overlapping sections. Ensure that PRF and BPF are equally assessed for HCV values.

5.2. Data quality

In this section the review evaluates:

- a. Whether data is detailed, recent and complete enough to make informed decisions on HCVs.
- b. Is the precautionary principle appropriately invoked in the use of data?

Findings:

It is made clear throughout the document that the FMP provides additional information and was used to inform decisions on HCVs, in addition to consulting other sources. Before the finalization of this document, links should be fixed to ensure that the reader can easily access the details of the FMP. It should also be ensured that the report clearly documents the assessment for both forests (or state “the PF”) for all elements. Places where more information and/or discussion would clarify HCV designation decisions are highlighted in 5.1 above.

The precautionary approach is invoked through the implementation of the FMP and the values protection measures dictated through AOCs. Provincial scientists and specialists define the standards and guidelines and carry out effectiveness monitoring. Monitoring also occurs at a local level by the applicant and MNRF staff.

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Ensure that data/information is provided to support the analysis of both parts of the PF (BPF and PRF) that informed decisions on HCVs.

Company Response: An effort has been made to include as much comparable information as possible about both forests. The next FMP will allow a better amalgamation. For HCVs themselves, there is good comparable information. The reviewer is commenting on values that do not reach HCV status.

5.3. Reference to HCV toolkits

Findings:

The FSC Canadian National Boreal Standard is referenced as the accredited standard, in the Summary section and the Overview. Reference is also made to the assessment being guided by the High Conservation Value Forest National Framework under Appendix 5 of the FSC Canadian National Boreal Standard.

The Common Guidance for the Identification of High Conservation Values and the companion document *Common Guidance for the Management and Monitoring of High Conservation Values: A good practice guide for the adaptive management of HCVs* are referenced for introduction of HCV concepts on page 3 and throughout, with active links. The Proforest HCVF Toolkit is also referenced on page 13.

Issues: None ☒ Minor ☐ Major ☐ N/A ☐ Suggestion ☐
Toolkits and guiding documents are referenced.

5.4. Decision on HCV status

In this section the review evaluates whether the HCV decisions are clear

Findings:

Editing and re-evaluation are needed to make HCV decisions clear in Element 1, as discussed in Section 5.1 above. Other suggestions for clarity purposes are included.

Issues: None ☐ Minor ☒ Major ☐ N/A ☐ Suggestion ☐

Edits are needed in some sections of the document (Table 1 and 3 and related text) to make HCV decisions clear and consistent.

Company response: Completed.

5.5. Mapping decisions

In this section the review evaluates how the report provides maps of HCVs, including the protection of maps for values that are confidential.

Findings:

Maps of FMP values are referenced in Appendix 1 with instructions on how to access them online. Maps are referenced and linked throughout the document in the appropriate sections. It would be more relevant to the HCV report if a clearer connection was made between HCV evaluation as described in the report, and the FMP values referenced in the appendices (e.g. to view information on caribou value, see ___map, or to see locations of white pine forest, view ____ FMP map, etc). It is not immediately clear what FMP map to view to see specific HCV values.

In places where confidentiality prevents information from being included, it is noted.

Issues: None ☐ Minor ☐ Major ☐ N/A ☐ Suggestion ☒

6. Management of HCVs

6.1. Assessment of threats or risks to each HCV within the landscape context

In this section the review evaluates how the report assesses threats or risks from current or planned management activities to each HCV within the assessment area identified.

Findings:

There is a risk assessment provided for each HCV evaluation. It sufficiently described whether forest management activities pose a threat to the values discussed. Comments are noted in Section 5.1 of this review.

Issues: None ☒ Minor ☐ Major ☐ N/A ☐ Suggestion ☐

6.2. Do proposed management plans adequately maintain or enhance HCVs?

This is out of the scope of this review. The management prescriptions in Table 9 were reviewed and are in line with Provincial standards for value protection, to the best of the reviewer's knowledge.

It is not possible to comment beyond this the results of operational and higher-level monitoring are required to assess the success of the proposed management plans.

Issues: None ☐ Minor ☐ Major ☐ N/A ☒ Suggestion ☐

6.3. Protection of HCVs from land use conversion

Issues: None ☐ Minor ☐ Major ☐ N/A ☒ Suggestion ☐

7. Monitoring of HCVs

7.1. Are monitoring plans clearly described?

In this section the review evaluates whether methodologies are clearly described and appropriate to meet stated objectives?

Findings:

Suggestions include:

- Whip-poor-will: "Harvest, renewal and tending operations are not permitted within the AOC"...should this be "during the critical breeding period" only? If so, add. If not, consider the impacts of creating such large reserved around a species that requires open habitat for foraging.
- Common nighthawk: less detail is provided for this species than other values. Is the AOC a reserve? Modified? Consider adding more details for consistency.
- Olive-sided Flycatcher: delete sentence starting "The following species are known to occur on the Big Pic...". What is the AOC for this specific species? Also, two different contacts are provided for MNRF, possible typo.
- Out of scope of this report, but depending on the abundance of pine in a stand, some removal may be necessary to increase abundance through regeneration.
- Lake trout Lakes: it appears a superscript reference ("2") is missing.
- Archeological Sites: use of the word "currently" to describe conditions. Perhaps update or provide timeline of these discussions. They are deemed HCV in the text of the report.

The value of the Prescription column in Table 9 is limited, since prescription is most often far too complicated to reflect in a small box. Appropriate reference is given to where complete information can be seen, and a good job of summarizing protection has been done.

Issues: None ☐ Minor ☐ Major ☐ N/A ☐ Suggestion ☒
 Suggestions as noted above may help improve the clarity of the report.

Company response: Monitoring information is not for operational use. This is noted in the text. It is for illustration only. The HCV report is not a controlled document. It is a source of links to other official documents. Links are accurate. Editorial fixes were made.

7.2. Are monitoring plans adequate?

In this section the review evaluates whether monitoring plan adequately deal with significant changes arising from management operations or likely external threats/risks to HCVs

Findings:

See 7.1 above. The FMP is referenced and provides more detail, but ensuring that all specific AOC IDs are referenced would allow easier referencing by the reader.

Issues: None ☐ Minor ☐ Major ☐ N/A ☐ Suggestion ☒

Company response: As above, monitoring information is not for operational use. This is noted in the text.

7.3. Are plans for a regular review of data built in to the management and monitoring plan

In this section the review evaluates how the report will be updated in future.

Findings:

The section “Keeping HCVs up to date – Process” on page 16 describes how the report will be reviewed in the future.

Issues: None <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> N/A <input type="checkbox"/> Suggestion <input type="checkbox"/>

8. Responsible management of other conservation values

8.1. Conversion of non-HCV ecosystems

Issues: None ☐ Minor ☐ Major ☐ N/A ☒ Suggestion ☐

8.2. Responsible management of other conservation Values

Issues: None ☐ Minor ☐ Major ☐ N/A ☒ Suggestion ☐

Disclaimer:

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