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# High Conservation Values in the White River Forest

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

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Credit: Neil McDonald

**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 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 high speed internet connection.*** Here is some guidance on accessing the supporting documents:

- **Important:** Depending on your computer, links may work with a single click, but some will require you to hold the control key and then click the link.

***After using a hyperlink, return to previous page (PDF or WORD) by ALT ← (ALT left arrow)***

- The document is provided in either WORD format or PDF because these are the most widely available and functional formats.
- A few 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 means for users to access information.
- This document contains only a few maps and illustrations because the linked documents will provide better and 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).

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### ***Acknowledgements***

The work of the Planning Team in preparing the Forest Management Plan is acknowledged as the primary basis for this report. In some cases the FMP wording is used exactly. Assistance provided by staff of various government agencies is appreciated particularly MNRF: Biologist, Virginia Thompson; Supervisor, Wendy Leclair; Forester, Zach White. The LCC was very helpful in providing suggestions and comments on the approach and the values. Lacey Rose provided excellent review comments on the final (see Appendix). An earlier HCV report by Dr. Kandyd Szuba was consulted and helpful.

**About Version 1.4**

Several changes 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.

Although there were certain changes to AOC prescriptions for the 2018 Forest Management Plan (FMP), prescriptions for HCVs discussed in this report remain identical to those in previous versions.

The most significant update was a complete review of the biological values of the forests in the vicinity of the WRF 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 adjacent PIC Forest, and environs.

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

MNR confirmation that ONTARIO.ca is now stable did not occur, but it does appear that ontario.ca is maintained reasonably well. The appendix describing this problem was removed.

**Previously: Note for the 2016 audit team on version 1.3 of this report.** The COSSARO listings were updated. Some references with dates such as COSEWIC were eliminated to keep the report more current, in keeping with audit findings. This means there are more external links providing status updates. Footnotes were added to the HCV designations to record when the last review occurred, and any significant changes.

**Notes on 1.2 and previous updates:** The required changes to this HCV report were completed. This was complicated because the Ontario Government “migrated” all MNR and other Ministry websites to [ONTARIO.ca](http://ONTARIO.ca) during August of 2014. This caused all of the government web links in this document to stop working; some have still not been located. WRF was not informed of this action and so followed up with discussion with MNR. They stated that the web links would be “unstable” for some time to come due to the large number of government websites and the extent of the change across government. Therefore, this version (v1.1 September 2014) of the HCV report was produced for the audit with links that may change. MNR said that some links may stop working again. MNR says that they will inform WRF and other

***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](#)

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## High Conservation Value Summary

This report is an assessment of ‘High Conservation Value Forest’ undertaken on behalf of the Nawiinginokiima Forest Management Corporation (NFMC) the Sustainable Forest License (SFL) holder, in accordance with Principle 9 of the FSC Principles and Criteria. NFMC manages the White River Forest (WRF) under the authority of an SFL granted by the Government of Ontario. The [Forest Management Plan](#) (FMP) is the guiding document for the management of values and is regulated and approved by the Province of Ontario.

This assessment of HCV is guided by the “High Conservation Value Forest National Framework”, which is Appendix 5 of the [FSC Canadian National Boreal Standard](#). This is the accredited standard for the boreal forest. This report is provided to meet the requirements for an FSC certification assessment. The report is also consistent with the HCV Resource Network document called [Common Guidance for the Identification of High Conservation Values](#). The WRF HCV assessment resulted in the HCV designations summarized in [Table 1. Identified High Conservation Values on the White River Forest \(WRF\)](#).

**Table 1. Identified High Conservation Values on the White River Forest (WRF).**

HCV Cat.	HCV Element	Value assessed for HCV status (and link to discussion in document)	Management Overview	Monitoring Overview	HCV Designation (and link to prescription where required)
Category 1 Concentrations of Biodiversity	<a href="#">1 -- Biodiversity/Species-at-Risk (SAR)</a>	<a href="#">Bald Eagle</a> ; <a href="#">Whip-poor-will</a> ; <a href="#">Common Nighthawk</a> ; <a href="#">Olive-sided Flycatcher</a> ; <a href="#">Northern long-eared Bat (Northern Myotis)</a> ; <a href="#">Little Brown Bat (Myotis)</a> ; <a href="#">Woodland Caribou</a>	Prescriptions are in place and on operational maps; most cases harvest buffers are the primary approach as defined in OMNRFs <a href="#">Stand and Site Guide</a>	OMNRF experts monitor best management prescriptions; provide detailed prescriptions in FMP; contact info in <a href="#">Table 8</a> . Based on OMNRF <a href="#">Wildlife monitoring</a> program.	<b>HCV</b> <a href="#">Bald Eagle</a> ; <a href="#">Whip-poor-will</a> ; <a href="#">Common Nighthawk</a> ; <a href="#">Olive-sided Flycatcher</a> ; <a href="#">Northern Long-eared Bat (Myotis)</a> ; <a href="#">Little Brown Bat (Myotis)</a> ; <a href="#">Woodland Caribou</a>
		<a href="#">Peregrine Falcon</a> ; <a href="#">Short-eared Owl</a> ; <a href="#">Barn Swallow</a> ; <a href="#">Bank Swallow</a> ; <a href="#">Small-footed Bat (Myotis)</a> ; <a href="#">Cougar</a>	May occur in the forest, but no element occurrences are recorded; for some species, prescriptions have been developed	No effectiveness monitoring required, as there are no prescriptions being used currently.	<b>Possible HCV</b>

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	<a href="#">Canada Warbler</a> ; <a href="#">Yellow Rail</a> ; <a href="#">Black Tern</a> ; <a href="#">Rusty Blackbird</a> ; <a href="#">Snapping Turtle</a> ; <a href="#">Lake Sturgeon</a> ; <a href="#">Northern Brook Lamprey</a> ; <a href="#">Silver Lamprey</a> ; <a href="#">Yellow-banded Bumble Bee</a> ; <a href="#">Monarch Butterfly</a>	Occurs, but species is addressed through Normal Operations; or there is no interaction with forestry operations; no special prescription required.	No effectiveness monitoring required, as there are no prescriptions because there is no direct interaction with forestry.	<b>HCV</b> <a href="#">Landscape prescription</a> OR <a href="#">Riparian prescription</a>
<a href="#">2 -- Endemic Species</a>	<a href="#">False Northwestern Moonwort</a>	Landscape management. Element Occurrences reported in vicinity	Landscape monitoring	<b>HCV</b> <a href="#">Landscape prescription</a>
<a href="#">3 Regionally significant critical habitat for seasonal concentrations of species</a>	<a href="#">Heronries</a> (>25 nests)	Follows <a href="#">MNRF Stand and Site Guide</a> prescription. No occurrences of Heronries of this size currently.	MNRF monitors the effectiveness of the Heronry prescriptions across the province.	<b>Possible HCV</b>
	<a href="#">Sturgeon Spawning</a> areas	Follows <a href="#">MNRF Stand and Site Guide</a> prescription. No sites were located.	Monitored by MNRF through Northeast Science and Technology	<b>Possible HCV</b>
<a href="#">4 -- Significant regional &amp; focal species</a>	<a href="#">No significant focal species</a>	None required	None required	<b>No HCV identified</b>
<a href="#">5 -- Edge species or outlier populations</a>	<a href="#">White &amp; Red Pine</a> <a href="#">Black Ash</a>	No harvest	Compliance monitored by Company & OMNRF	<b>HCV</b> <a href="#">Silviculture Prescription</a>
	<a href="#">Edge of Range Tree Species</a>	If located prescription Is no harvest	If required, compliance by Company & MNRF	<b>Possible HCV</b>
<a href="#">6 -- Conservation Areas</a>	Land use designations within the boundaries of WRF <a href="#">Protected Areas</a> incl. Pukaskua Parks & Conservation Reserves	Protected areas are not in the licence area. Management requires ensuring no impact within the protected area.	MNRF monitor compliance with FMP to ensure no encroachment, and access control.	<b>HCV</b> <a href="#">FMP AOC prescription (PC)</a> <a href="#">Pukaskua Zone of Cooperation</a>

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<p><b>Cat 2</b> LLLLF</p>	<p><a href="#">7 -- Large Landscape Level Forest</a></p>	<p><a href="#">Coastal Continuous Caribou Zone</a></p>	<p>Managed through access controls &amp; landscape management through <a href="#">FMP</a></p>	<p>OMNRF compliance and silvicultural effectiveness monitoring</p>	<p><b>HCV</b> FMP landscape management</p>
<p><b>Category 3</b> RTE Ecosystems</p>	<p><a href="#">8 -- Rare ecosystem types</a></p>	<p>None</p>	<p>None required</p>	<p>None required</p>	<p><b>No HCV identified</b></p>
	<p><a href="#">9 -- Significantly declined ecosystems</a></p>	<p><a href="#">Old Growth Pine</a></p>	<p>None required</p>	<p>None required</p>	<p><b>No HCV identified</b></p>
	<p><a href="#">10 -- Large landscape level in fragmented forests</a></p>	<p><a href="#">Lake Superior Shoreline</a></p>	<p>Due to restrictions for Caribou, no harvest occurs; no special management required</p>	<p>OMNRF monitors</p>	<p><b>HCV – no special prescription required</b> (due to Caribou restrictions) Land use guideline</p>
	<p><a href="#">11 --Diverse/unique ecosystems</a></p>	<p>Areas of Natural and Scientific Interest, <a href="#">ANSI program</a></p>	<p>Modified Harvest prescriptions</p>	<p>Through regular compliance program</p>	<p><b>HCV</b></p>
<p><b>Category 4</b> Ecosystem Serv.</p>	<p><a href="#">12 -- Drinking Water</a></p>	<p><a href="#">Source of Drinking Water</a></p>	<p>None required</p>	<p>None required</p>	<p><b>No HCV identified</b></p>
	<p><a href="#">13 -- Flooding, drought, water quality ecosystem services</a></p>	<p>No <a href="#">Provincially Significant Wetlands</a> occur</p>	<p>Management of Wetlands is through AOC buffers and operational restrictions to forestry activities</p>	<p>Monitoring of wetlands is through MNR regional office.</p>	<p><b>No HCV identified</b></p>
	<p><a href="#">14 -- Erosion control</a></p>	<p><a href="#">Erosion Control</a></p>	<p>None required</p>	<p>None required</p>	<p><b>No HCV identified</b></p>
	<p><a href="#">15 -- Barriers to destructive fire</a></p>	<p>Not found in Canada</p>	<p>None required</p>	<p>None required</p>	<p><b>No HCV identified</b></p>
	<p><a href="#">16 -- Landscapes impacting agric. &amp; fisheries</a></p>	<p><a href="#">Walleye Spawning Habitat:</a> White Lake, Fungus Lake, Kabenung Lake</p>	<p><a href="#">Stand and Site Guide</a>, Section 4.1.1. = Modified harvest according to general good riparian management</p>	<p>MNRF and Company Compliance monitoring</p>	<p><b>HCV</b> <a href="#">AOC prescription</a></p>

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Cat. 5 Community	<a href="#">17 -- Local communities' basic needs and livelihoods</a>	<a href="#">Tourism Lakes</a>	A 2 km AOC is placed around Management of designated Tourism Lakes	Compliance by MNRF and WRFP	<b>HCV</b> <a href="#">AOC prescription</a>
	<a href="#">18 -- Traditional cultural identity</a>	<a href="#">First Nation Values</a>	Confidential First Nation values are not public	Compliance by MNRF and WRFP with input from the communities	<b>HCV</b> <a href="#">AOC prescription</a>
Cat 6 Culture		<a href="#">Archeological sites</a>	Confidential archeological values are not public	Compliance by local MNR with effectiveness monitored by Min. of Cult.	<b>HCV</b> <a href="#">AOC prescription</a>
		<a href="#">Old Logging Camps</a>	If designated then prescription = archeological sites <a href="#">AOC prescription</a>	If designated- Compliance by local MNRF. Effectiveness by Ministry Heritage, Sport, Tourism	<b>Possible HCV</b>
	<a href="#">19 -- Other values that constitute HCVs</a>	<a href="#">Values with Overlap</a>	None required	None required	<b>No HCV identified</b>

## Overview of HCV Assessment on the White River Forest

NFMC manages the White River Forest (WRF) under the authority of an SFL granted by the Government of Ontario. The Forest Management Plan (FMP) is the guiding document for the management of values and is regulated and approved by the Province of Ontario. White River Forest Products (WRFP) owns and operates the mill in White River and holds an overlapping license with NFMC. NFMC is seeking certification under the Forest Stewardship Council National Boreal Standard. Part of the certification process is a requirement for the managers to complete an assessment of High Conservation Value Forest (HCVF) using the definition of the Forest Stewardship Council's Principle 9. According to the definition, High Conservation Value Forests are those that possess one or more of the following attributes:

Forest areas containing globally, regionally or nationally significant:

- concentrations of biodiversity values (e.g., endemism, endangered species, refugia);
- 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.
- Forest areas that are in or contain rare, threatened or endangered ecosystems.
- Forest areas that provide the basic services of nature in critical situations (e.g., watershed protection, erosion control).
- Forest areas fundamental to meeting basic needs of local communities (e.g., subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

This assessment of HCV is guided by the "High Conservation Value Forest National Framework", which is Appendix 5 of the FSC Canadian National Boreal Standard. The forest falls within Ontario's boreal forest ecosystem.

Understanding HCV on public land in Ontario requires an understanding of Ontario's approach to non-timber forest values. The WRF is a large forest by most international standards at 612,567 ha (FMP Table 1), although small in Ontario. The WRF is publicly owned by the Province of Ontario and used by the forest residents while also supporting regionally significant tourism operations. WRF is located in north-eastern Ontario and is widely used by regional residents and tourists for recreational hunting, fishing and camping. All of the Ontario SFLs are large and highly visible, thus requiring a high level of scrutiny under the HCV National Framework.

Current OMNRF provincial forest policy addresses a wide range of values using policy documents, or [resource guides for special values](#). 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 (from the FMP process) 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](#)) process. This report will be made available to the public.

All of the WRF 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 this forest. This forest 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 “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 WRF, law and common sense require extensive ongoing consultation, although compromise and difference of opinion are routine. To this end, the Proforest (2004) HCV Toolkit makes an important point on the often difficult process of distinguishing between HCVs and non-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 HCVF 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”.*

In assessing HCVs for the WRF, 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. WRF 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 2018 version of the [FSC Canadian 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.

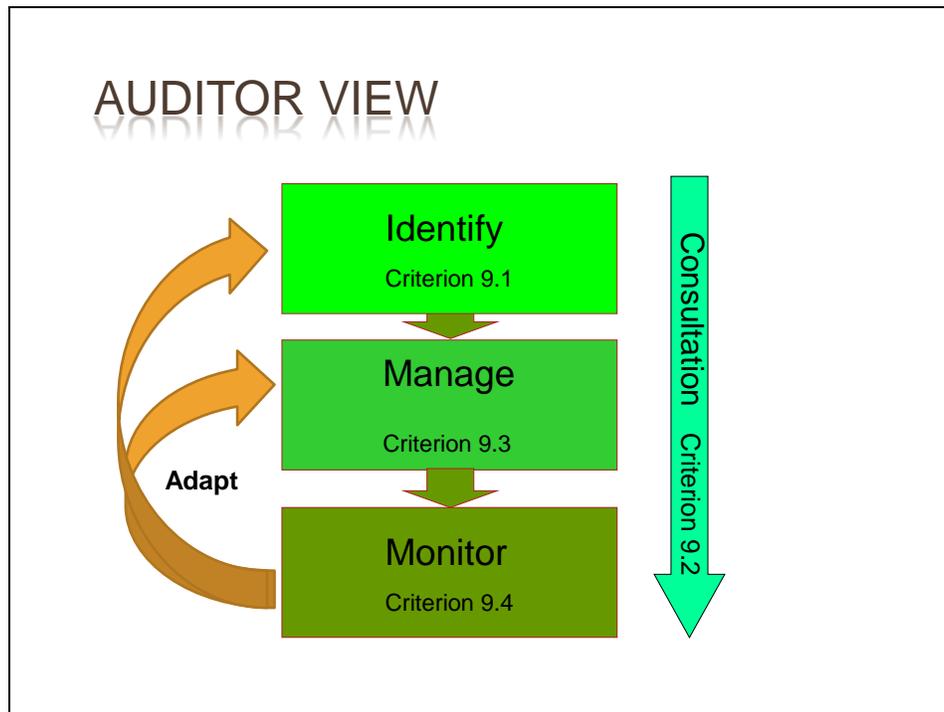


Figure 1. A simplified view of the FSC Principle 9 criteria showing the continuous improvement (adaptive management) cycle.

### Assessment for HCV Attributes

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

During assessment, values are designated as HCV, HCV no special 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 no special prescription required – means that the value is significant at least at the regional level, but there is no interaction with forestry and consequently no special prescription or 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 HCVs
- 3) 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) on November 19, 2020. Previous version was also presented to this group. The LCC is a knowledgeable group of local residents, representing various stakeholder interests. This group is charged with advising the planning team on the production of the Forest Management Plan. LCC values were identified first through the FMP process and that is the source for most of the values. The FMP process provides the core values that are designated HCV. The FMP process is the main LCC contribution, since there is a huge time commitment to values discussion at those ongoing monthly meetings. That said, the LCC provided further impetus to the identification of some of the local historical values during the HCV meeting that they held.

As well, OMNRF's requirements for public consultation in bullet point 1, are documented in detail as part of the [FMP](#) process, 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.

The initial Version 1 of this report included consultation with provincial and national stakeholders (bullet 3). New comments will be considered at any time. Organizations that received copies of earlier versions include: The Nature Conservancy (TNC), World Wildlife Fund Canada (WWF), Nature Conservancy of Canada (NCC), Ontario Nature, Ontario Federation of Anglers and Hunters (OFAH) and Canadian Parks and Wilderness Society (CPAWS).

## HCV Designation Decision by the Manager

Under the FSC system the manager makes the final designation of HCVs. This decision must be transparent (as documented in this report) and based on expert, stakeholder and Indigenous input and advice. **It is the Operations Manager at Nawiinginokiima Forest Management Corporation who determines the HCV status for this report.** They hold the overlapping license for the White River Forest.

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, managers are responsible for the "special" values or HCVs, but in the Ontario system, the government is legally responsible. To carry out this responsibility, the manager must ensure that the government is meeting the spirit of the FSC standard. WRFP will ensure that HCVs are properly assessed and

designated in the FSC context. The Company holds the responsibility for operation protection of the values by properly implementing the prescriptions for each of the values. This report is the responsibility of WRFC, and meets the requirement of 9.1 in the assessment.

### **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. WRFP will ensure, as part of the responsibilities of the designated staff member for certification that HCV is reviewed at appropriate time intervals. Annual maintenance audits by the certifier will also ensure that this is fulfilled.

Values collection and updating is an enormous effort in Ontario. It is beyond the scope of this report to describe this infrastructure but we provide a link to the [Natural Heritage Information Centre](#) and to [Land Information Ontario](#).

## **White River Forest Description**

The majority of the White River Forest is located in the Ministry of Natural Resources and Forestry (MNRF) Administrative District of Wawa (Northeast Region). Currently forestry operations are conducted under phase II of the White River Forest 2008-2018 Forest Management Plan (FMP). The following text is adapted from the [FMP](#).

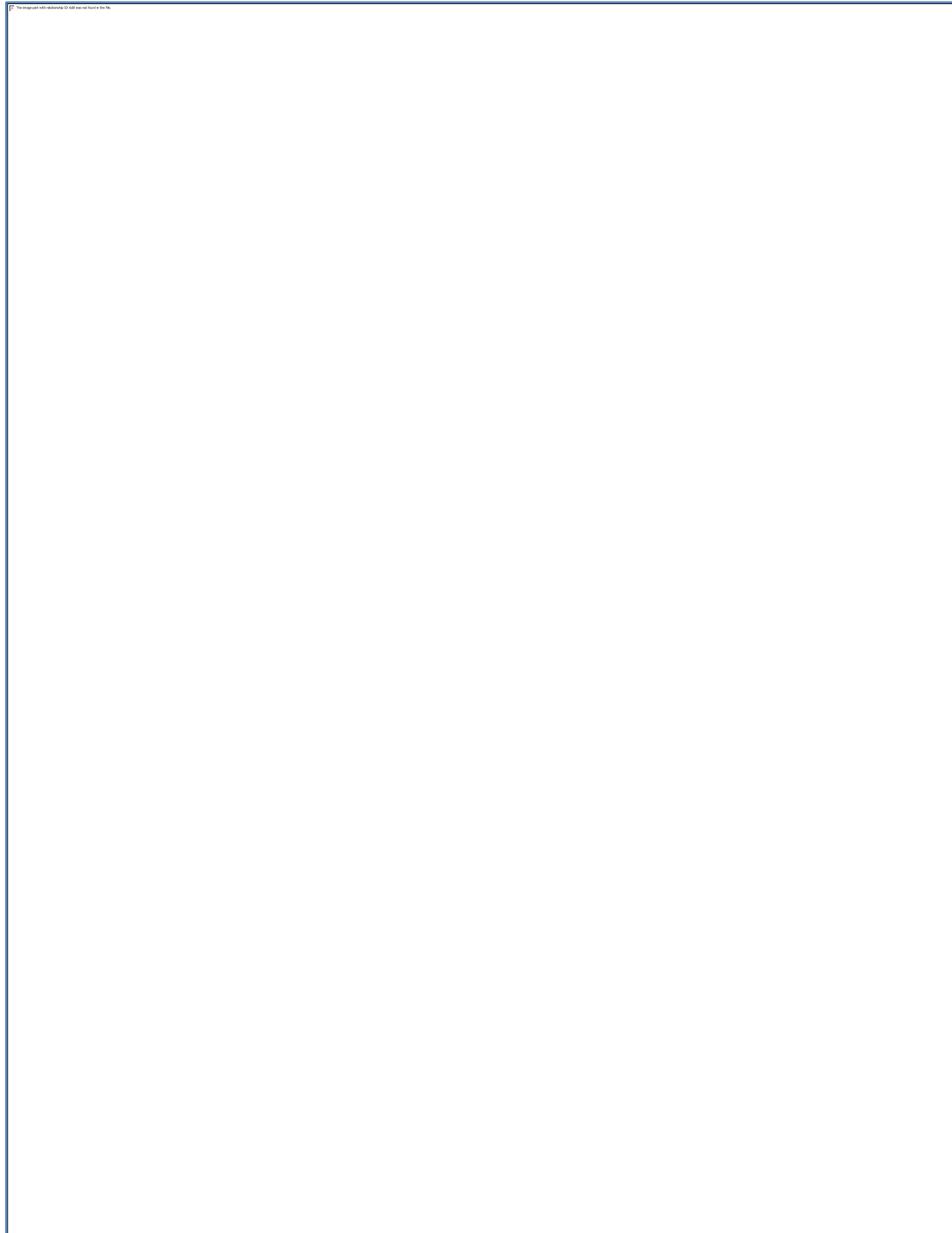
On June 19, 2009 White River Forest Products Ltd. (WRFP) acquired the White River sawmill from Domtar and the WRF SFL #550399 was transferred to WRFP on February 9, 2010 as part of the purchase agreement. WRFP is owned by the Pic Mobert First Nation, and other local interests. The SFL continues to direct all SPF sawlogs to the White River sawmill, which was re-opened by WRFP in the summer of 2013. WRFP as the licensee is responsible for planning, forestry operations (silviculture, road building), plan implementation, compliance monitoring. Most operational activities are done through contractors. OMNRF is responsible for review and approval of the plan, monitoring of the activities and values collection and protection. This is done in partnership with the Company.

The Forest covers a total area of 612,567 hectares. The Crown is the largest owner having 611,379 hectares representing 99% of the total Forest area. Of this, WRFP manages 577,531 hectares on behalf of the Crown. The remaining Crown areas (33,848 ha) are not managed for timber production. The Crown areas not managed for timber production include two classifications of park: provincial park (17,086 hectares) and recreation reserve (16,763 hectares). There are 114 hectares of federal First Nations reservation area, 0.02% of the total Forest area. From a total land base of 612,567 hectares, 90% is forested land, 9% is water and 1% is non-forested land.

The climate is dominated by a continental polar air mass and is characterized by moderately severe winters and warm summers. Minimum mean daily temperatures range from -23°C in January to +11°C in July.

**History**

During the past several years there have been significant forestry mill closures and associated jobs cuts across Ontario and Canada. Current employment is increasing with the opening of mills in White River and Terrace Bay in the summer of 2013.



**Figure 2. White River Forest.**



**Figure 3. Location of WRF in Ontario.**

While there have always been fires from natural cause, the incidence of human caused fires increased sharply as a result of the construction and use of the C.P.R. railway across Canada in the 19<sup>th</sup> century. For example, on May 3, 1999 a fire ignited on the Canadian Pacific Railway five kilometres west of White River, and burned in excess of 36,000 hectares on the White River Forest. Known as the Crocker's Lake Fire (Wawa No. 5), it was the largest fire event on the forest since the 1920's.

The WRF is located within an area that is generally considered to be of high fire hazard. The prevailing climate generally offers up one or two drought like periods each summer and a succession of cyclonic storms often provides significant amounts of lightning. A large number and size of fires burned on this Forest during the 1920's, 1930's and 1950's and is most likely due to prevailing climate throughout this period.

The first known large-scale impact on the forest attributable to human industrial activity in the White River area was clearing of the CPR transcontinental railroad right-of-way in 1885.

Subsequently, during the 1920's, logging contractors supplied CPR with railroad tie material. Limited-scale harvest of wood for railways occurred in the White Lake-White River areas. Sawmill operations by the Austin Lumber Company were established in Bertrand (northwest of White River) in 1935. Harvesting was conducted in about 5 townships that surrounded the mill site over a period of nearly 30 years.

In 1937, Abitibi Power and Paper Company initiated a pulpwood harvest of black spruce along the lower reaches of the White River in 1937 in an effort to salvage timber from a wildfire in the Oskabukuta-White River area that had affected 26,000 hectares in the west-central portion of the forest the year before.

After 1977, harvesting operations expanded substantially to meet the requirements of the White River sawmill. Construction of new access roads to the north and south was initiated around this time. In December of 1984, Domtar purchased the White River sawmill from Abitibi. Markets for hardwood, such as poplar and white birch, were limited and sporadic until about 1992. Since 1992 interest in hardwood species, particularly poplar, increased.

The WRF falls within the 3E eco-region and is comprised of the 3E-2, 3E-4, and 3E-5 eco-districts.

The Forest is bounded on the west by a height of land separating the Black and White River watersheds. The greatest portion of the Forest is drained by the White River, including several major tributaries such as the Shabotik, Kwinkwaga, Bremner, and Depew Rivers. The Dog (University) and Pukaskwa Rivers drain the southeastern portion. Numerous lakes, varying in sizes up to 6,000 hectares (White Lake) and streams are scattered throughout the Forest. Many of the large rivers and lakes on the Forest create challenges to road construction and access.

## 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.

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### 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 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 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/territorial legislative body, or c) identified in regional land use plans 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?

**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 or under sufficient present and / or future development pressure that they will likely become rare in the future (e.g. old seral stages)?  
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 or forests associated with unique aquatic 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)

**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.

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

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### 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:

- Natural Heritage Information 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/about/overview>)
- COSSARO list of species at risk (<https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>)
- WRF [FMP](http://www.efmp.lrc.gov.on.ca/eFMP/home.do) (<http://www.efmp.lrc.gov.on.ca/eFMP/home.do>)

Consultation with experts included discussion with MNR SAR biologists and local biologists. For this assessment, the Natural Heritage Information Centre, Ontario Breeding Bird Atlas, the Ontario Herptile Atlas, and the Forest Management Plan were the primary sources of information.

### Assessment Results:

In [Table 3](#) is a description of all of the species that are listed as special concern, threatened, or endangered. 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 OMNRF which holds the responsibility for their management as mandated by the Endangered Species Act (RSO 2007). As part of the FSC process managers also consider other lists of species identified as being in trouble. In WRF the "[Partner's in Flight](#)" list was also incorporated into the assessment.

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. Often 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 managers, because range shrinkage is the hallmark of species in trouble.

Information in [Table 3](#) is based primarily on consultation with OMNRF biologists in the area who supplied the basic SAR list. As well, [NHIC website](#) was consulted

**and NHIC biologists were consulted as part of an adjacent forest HCV update. Results for this consultation are in**

**Appendix 2.**

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 in [Table 3](#).

During assessment of individual species, values are designated as HCV, HCV no special prescription required, not HCV or possible HCV. This list covers all of the possibilities for any values on the forest. The use of designations “no special prescription required” and “possible HCV” are provided to ensure that the forest company is only asked to do things within their “sphere of influence”. Sphere of influence is a common term in FSC assessments to indicate that the standard must be met, but there are circumstances that company cannot control.

***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 WRF. This Table is also the manager’s list as required in indicator 6.4.1 of the FSC standard .

Table 3. Species listed as “at risk” by [COSSARO](#) or “rare” by NHIC and with records of occurrence on the White River Forest, as verified by local OMNRF biologists.

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry))
<b>Birds</b>			
<b><i>Falco peregrinus anatum</i></b>  Peregrine Falcon	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">MNRF map</a>  <a href="#">IUCN</a>	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 OMNRF. Forest staff and tree markers have been trained in the identification of birds of prey and their nests through in house training by WRFP. 3) As a listed species with no current element occurrences, but within the specie’s range, it is designated: <b>Possible HCV</b>
<b><i>Haliaeetus leucocephalus</i></b>  Bald Eagle	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">MNRF map</a> <a href="#">IUCN</a>	1) Special Concern 2) Least Concern	1) Breeding population in northern Ontario is expanding. Down listed to special concern 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 OMNRF. 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. <b>HCV</b>
<b><i>Asio flammeus</i></b>  Short-eared Owl	<a href="#">MNRF Legal Status</a> (no mgmt plan avail)  <a href="#">MNRF map</a> <a href="#">IUCN</a>	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) As a listed species with no current element occurrences, but within the specie’s range, it is designated: <b>Possible HCV</b>

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry))
<b><u>Caprimulgus vociferous</u></b> Whip-poor-will	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">MNRF map</a> <a href="#">IUCN</a>	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 WRF, this species is on periphery of its range. Some occurrences verified in Wawa District of OMNRF. 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, so designated HCV. <b>HCV</b>
<b>Dolichonyx oryzivorus</b> Bobolink	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">MNRF map</a> <a href="#">IUCN</a>	1) Threat 2) Least Concern	1) There is a widespread range in Ontario but it is not currently reported on WRF. 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) Listed as Threatened, if it occurs on the forest it would be designated HCV. It was considered possible HCV in version 1 of this report based on discussion with OMNRF and the IUCN range map which locates the species near the forest. Although it occurs close on both sides, it has not been recorded, so is not an HCV on this forest. <b>Not HCV</b>
<b>Hirundo rustica</b> Barn Swallow	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">IUCN map</a>	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 WRF. 2) Associated with infrastructure, including possibly bridges. No occurrences have been reported where these birds have used bridges on logging roads. 3) As a listed species with no current element occurrences, but within the specie's range, it is designated: <b>Possible HCV</b>
<b>Riparia riparia</b> Bank Swallow	<a href="#">MNRF Legal Status</a>  Recovery Strategy not avail. (MNRF Map on status page) <a href="#">IUCN</a>	1) Threat 2) Least Concern	1) Bank Swallow is threatened both nationally and provincially. It occurs in Wawa District but not known from BPF. 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 possible HCV. There are no element occurrences. <b>Possible HCV</b>

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry))
<b><i>Wilsonia Canadensis</i></b>  Canada Warbler	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN map</a>	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 abundance of 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 but general habitat management through the FMP system addressed the needs. <b>HCV Landscape Prescription</b>
<b><i>Chordeiles minor</i></b>  Common Nighthawk	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN map</a>	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. <b>HCV</b>
<b><i>Contopus cooperi</i></b>  Olive-sided Flycatcher	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN map</a>	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 <a href="#">SAR Registry</a> , 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 occurring in the forest, it is an HCV. <b>HCV</b>
<b><i>Coturnicops noveboracensis</i></b>  Yellow Rail	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">MNRF map</a> <a href="#">IUCN</a>	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 located in the forest, although there is a very low probability of interaction with forest operations. Normal AOC wetland prescriptions ensure protection. <b>HCV Riparian Prescription</b>

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry))
<b><i>Chlidonias niger</i></b> Black Tern	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">MNRF map</a> <a href="#">IUCN</a>	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. There is a very low probability of interaction with forest operations. 3) This species is apparently located in the forest according to anecdotal information, although the OMNRF map does not show this, nor does the management plan map. It is considered an HCV. <b>HCV Riparian Prescription</b>
<b><i>Aquila chrysaetos</i></b> Golden Eagle	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">MNRF map</a>  <a href="#">IUCN</a>	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 <b>Not HCV</b>
<b><i>Euphagus carolinus</i></b> Rusty Blackbird	MNRF Legal Status (no mgmt. plan avail)  <a href="#">IUCN map</a>	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. Shoreline AOC prescriptions address general habitat concerns. <b>HCV Landscape Prescription</b>

## Mammals

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry))
<b><i>Myotis septentrionalis</i></b> Northern Long-eared Bat, or Northern Bat (Myotis)	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN map</a>	1) End 2) Near Thr (verif 2020)	1) This bat is considered to be common globally. It has a wide range in eastern North America. This species is suffering losses from White Nose Syndrome and this is the reason for the COSSARO listing as endangered. 2) These bats prefer maternity roosts in buildings, under loose bark, and in the cavities of trees. A prescription exists in the <a href="#">Stand and Site Guide</a> for Bat Hibernacula. There is no evidence that forestry has contributed to the endangered status for this species. 3) It is a listed species and so designated HCV. It received General Habitat Protection - January 24, 2013. <b>HCV</b>
<b><i>Myotis lucifugus</i></b> Little Brown Bat (Myotis)	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN w map</a>	1) End 2) End (verif 2020)	1) 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 WRF. It is listed as least concern by IUCN. 2) A prescription exists in the <a href="#">Stand and Site Guide</a> for Bat Hibernacula. There is no evidence that forestry has contributed to the endangered status for this species. 3) It is a listed species and so designated HCV. It received General Habitat Protection - January 24, 2013. <b>HCV</b>
<b><i>Myotis leibii</i></b> Small-footed Bat (Myotis)	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN w map</a>	1) maybe at risk 2) End 3) Least concern	1) This bat is assessed because the range distributions of bats are not well resolved. IUCN places this bat in the forest. It 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 MNRF <a href="#">Stand and Site Guide</a> . 3) It is a listed species and so would be an HCV if an EO is located in the forest. It received General Habitat Protection June 27 2014. It is considered a "possible" HCV because there were no records for WRF. COSSARO report states "This species occurs throughout southern Ontario, to the north shore of Lake Superior and occasionally as far north as Moosonee (Cochrane District), and west to Lake Nipigon (Natural Heritage Information Centre 2012). Information on summer distribution and overwintering sites (hibernacula) are well known in central-eastern Canada, but less so westward where the species appears to be less common. This species occurs throughout the forested and temperate regions of Ontario." Therefore, as a listed species with no current element occurrences, but within the specie's range, it is designated: <b>Possible HCV</b>

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry))
<b><i>Puma concolor cougar</i></b> Eastern Cougar	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">IUCN map</a>	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. 2) The disappearance of cougars is caused by land clearance for settlement and agriculture, and persecution. 3) As a listed species with no current element occurrences, but within the specie's range, it is designated: <b>Possible HCV</b>
<b><i>Rangifer tarandus</i></b> Woodland Caribou	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">MNRF map</a> <a href="#">IUCN map</a>	1) Thr 2) Least Concern	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 <a href="#">Cervid Ecological Zones CEZs</a> and landscape species <a href="#">Landscape Driven Species</a> that follows. WRF includes a portion of the Coastal Continuous Caribou range 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 by adding roads and linear corridors. 3) There is interaction with forestry operations. A Caribou recovery strategy is in place and being implemented. Locally, the <a href="#">FMP</a> contains the <a href="#">Caribou Strategy</a> . As a listed species, Caribou is HCV. The Company is responding to government direction for this species. <b>HCV</b>

### Reptiles

<b><i>Chelydra serpentina</i></b> Snapping Turtle	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">MNRF map</a> <a href="#">IUCN map</a>	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) As a listed species it is HCV. No special prescriptions are required. <b>HCV no special prescription required</b>
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Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no prescription (No risk from forestry)
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## Fish

<i>Acipenser fulvescens</i> Lake Sturgeon	<a href="#">MNRF Legal Status</a>  <a href="#">Recovery Strategy</a>  <a href="#">IUCN map</a>	1) SC in part of north Ont. 2) Least Concern	1) Common in Lake Superior. Spawning sites are difficult to identify. 2) Occurrences on WRF are unknown. On adjacent forest, it occurs in the lower reaches of the Pic River. There is no direct interaction with forestry. 3) As a listed species it is HCV. No special prescriptions are required, as there is no apparent interaction. <b>HCV no special prescription required.</b>
<i>Ichthyomyzon fossor</i> Northern Brook Lamprey	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">MNRF map</a> <a href="#">IUCN map</a>	1) SC 3) Not listed	1) In Ontario, it is found in rivers draining into Lakes Superior such as lower reaches of the Pic River. Also likely occurs in WRF rivers. 2) They tend to live in small rivers which may be affected by forestry practices such as road construction. 3) It is a listed species and so an HCV. Minimal interaction with forestry means there is no special prescription. <b>HCV no special prescription required</b>
<i>Ichthyomyzon unicuspis</i> Silver Lamprey	<a href="#">MNRF Legal Status</a>  <a href="#">MNRF Map+ status</a> <a href="#">IUCN</a>	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. <b>HCV riparian prescription</b>

## 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*.

**For more info see Error! Not a valid result for table.**

Scientific Name / Common Name or Group	Information Source; IUCN gives world range	Rank/ Status** 1) COSSARO 2) IUCN	HCV Assessment & Decision 1) Occurrence Information 2) Risk assessment 3) Decision (Not HCV, HCV, possible HCV, HCV no 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 [Error! Not a valid result for table.](#)**

<b><i>Bombus terricola</i></b> Yellow-banded Bumble Bee	<a href="#">MNRF Legal Status</a> (mgmt. plan avail)  <a href="#">IUCN map</a>	1) SC 2) SC	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. Minimal interaction with forestry means there is no special prescription. <b>HCV no special prescription required</b>
<b><i>Danaus plexippus</i></b> Monarch Butterfly	<a href="#">MNRF Legal Status</a> (no mgmt. plan avail)  <a href="#">COSEWIC Status map</a>	1) SC 2) NAR	1) The monarch may range up to this forest occasionally and undoubtedly occurs here judging from range maps (see Holmes et al. 1991). COSSARO reporting and distribution maps for this species are poor. IUCN does not assess this species. 2) Herbicides could affect several species of milkweed plants ( <i>Asclepasis</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 is considered HCV but this is no prescription required for forestry impacts. <b>HCV no special prescription required.</b>

\*Summary of 2015 COSSARO evaluation results for species where there was a change in status affecting the local list. These species were assessed to determine if they should be included in the SAR list. This consists of evaluating whether they occur on the forest. This was verified by MNRF SAR staff as [the latest update to the SAR list](#). Yellow-banded Bumble Bee (*Bombus terricola*) was added to the HCV SAR list.

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

Woodland Caribou is more attuned to landscape pattern and function than other species. Caribou range widely and require certain large landscape level patterns.

Caribou occurred in the White River Forest until the mid 1970s. Small populations of caribou currently reside in Pukaskwa National Park (PNP) to the southwest and in the Nagagami Forest to the north. Animals from these populations occasionally wander into the WRF.

The current FMP is compliant with [Ontario's Caribou Conservation Strategy \(CCS\)](#). Forestry activities for this strategy are implemented through the Forest Management Plan. Taken together the CCS and the FMP provide the overarching rationale and the operational requirements. The CCS is the high level provincial direction for Caribou. It describes ranges and types of strategies that can be considered at the forest level. In effect the FMP is the implementation plan, as the standard requires.

The plans are supported by MNR experts on Caribou. In the case of WRF, only the Coastal Continuous range is applicable.

Expert opinion in this case was provided by a group of MNR biologists:

- Michael Gluck michael.gluck@ontario.ca
- Darren Elder darren.elder@ontario.ca
- Larry Ferguson larry.ferguson@ontario.ca
- Gerry Racey gerry.racey@ontario.ca

For FMP monitoring & mgmt requirements contact OMNRF Area Biologist – Virginia Thompson (Phone: 807-826-3225 ext 235 Email: virginia.thompson@ontario.ca)

The CCP defines the Northern Ontario caribou range into three Caribou Distribution Zones: the Continuous Caribou Habitat, Discontinuous Caribou Habitat and Non-caribou Habitat Zones. provides a key map showing the WRF in relation to the three Caribou Habitat Zones. It indicates that 84.8% of the forested area on the WRF falls within the Discontinuous Zone, 14.1% falls within the Non-caribou Habitat Zone, and 1.1% falls within the Continuous Zone.

Most of the WRF (i.e. west of Highway 631 and west of Highway 17) is located within the Discontinuous Habitat Zone in the Lake Superior uplands as it is located well south of the Northern Pagwachuan Continuous Habitat Zone. A very small portion, the extreme western tip of the WRF falls within the Lake Superior Coastal Continuous Habitat Zone which is a 10 kilometre band radiating from Lake Superior. Finally the eastern boundary of the WRF falls within the Non-caribou Habitat Zone.

Caribou habitat is designated as an HCV. It is important, as discussed earlier ([Assessment for HCV Attributes](#)) to precisely define the value that is critical. This is further discussed in element 7, which assessed the Large Landscape Forest on WRF,

and the ability of the forest to maintain the full range of ecosystem processes and functions.

**HCV Designation Decision:**

Based on a review of current status of species at risk, as rated by provincial, national and international agencies, the HCV designations are as designated in the table above<sup>1</sup>.

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

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**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.

**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 Ontario consist of a huge expanse of contiguous forest cover over the landscape that does not inhibit genetic mixing. In general, these conditions prevent speciation and endemism.

[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 clauses* (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.

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<sup>1</sup> This designation was reviewed in September 2020 by the Natural Heritage Information Centre Staff, including a review of the web info and other sources.

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 forest<sup>2</sup> and this is designated an HCV Landscape prescription - *Botrychium pseudopinnatum*, False Northwestern Moonwort<sup>3</sup>.

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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)?

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### **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](#)
- [Nature Conservancy Canada](#)

For this assessment various databases, including the OMNRF 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 here is the information recorded in the [FMP](#) with regard to special wildlife management areas.

### **Assessment Results:**

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

#### ***Important Bird Areas***

According to Bird Studies Canada, an [Important Bird Area](#) (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. This species is classified nationally as a threatened species (COSEWIC). Woodland Caribou in WRF exists only in the Coastal continuous zone by Lake Superior. It is in very low numbers and as a consequence there is no concentration as such. The Species at Risk category of this report details specifically the HCV requirements for Woodland Caribou. It is designated HCV in element 1 ([page 21](#)).

The Species at Risk category of this report details HCV requirements for Woodland Caribou. It is designated HCV in Element 1, and is discussed in Element 7 which designates Large Landscape Level Forest ([page 44](#)).

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<sup>2</sup> This designation was reviewed in July 2020, including a review of the web info and other sources.

<sup>3</sup> This designation was reviewed in September 2020, including a review of the web info and other sources.

***Cervid Ecological Zones:***

The OMNRF 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 OMNRF 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. MNRF 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. Management in riparian operations also allows for renewal of the terrestrial forest cover ([MNRF 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

Sturgeon concentrations 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. No special prescriptions are required.

Fish spawning areas for other species, besides Sturgeon, have not been identified as HCVs because spawning areas are abundant in the forest and adjacent forests and they are not regarded as at risk or regionally significant. MNRF 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 herring gull,

ring-billed gull, great black-backed gull, common tern, caspian tern. Sources such as [Nature Conservancy Canada](#) and the [Significant Wildlife Habitat Technical Guide \(SWHTG\)](#) did not regard these 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 \(SWHTG\)](#) 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 OMNRF [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 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 HCVs<sup>4</sup>, 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 no special prescription required, consistent with this section.

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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)?

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### **Rationale:**

Meta-population viability.

Assessment Methodology:

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<sup>4</sup> This designation was reviewed in September 2016, including a review of the web info and other sources.

- [Northern Ontario Plant Database](#)
- [Ontario Herpetofaunal Atlas](#)
- [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***

The concept of Focal species was developed by Iacobelli et al (2003) Ontario by World Wildlife Fund Canada, and their report contains some helpful information. 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 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) 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 14 wildlife species which are currently modeled (FMP Table 8) and/or monitored are:

- Moose – foraging (breeding) & winter cover
- American Marten
- Black Bear – fall foraging & summer mast (berries, nuts)

- Canada Lynx - denning
- Snowshoe Hare
- Black-backed Woodpecker
- Red-breasted Nuthatch
- Canada Warbler
- Tennessee Warbler
- Mourning Warbler
- Boreal Chickadee
- Olive-sided Flycatcher
- Great Gray Owl
- Bay-breasted Warbler

Of these species several are high profile. Spatial habitat planning is required to be completed for Marten (through the direction in the Forest Management Guide for the Provision for Marten Habitat). Four of them have an economic importance in the region. Lynx and Marten are furbearers. Moose and Bear 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 MNRF, 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 OMNRF 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). Again 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 new designations as HCVs<sup>5</sup> 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.

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<sup>5</sup> This designation was reviewed in September 2016, including a review of the web info and other sources.

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

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**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
- Species identified as ecologically significant through consultation

**Assessment Results:**

As a northern Ontario forest, WRF 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 (Appendix 2). These are species that are not considered at risk and have Global rankings of 4 or 5 (with a few 3s). They are a comprehensive list of 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.

We based the assessment of edge of range tree species on ecosites (or forest types) which fall within the productive land base and are the direct responsibility of the forest managers (There may be other species along the coast not in production forest which are not inventoried). which we were not able to assess. There is a good understanding of their distribution, abundance and management. A search of the MNR [Forest Resources of Ontario](#) (2011) shows that Ecoregion 3E (Lake Abitibi) which follows the eastern boundary of the WRF, contains very small amounts of forest types “Red and White Pine” (0.1%) and “Tolerant Hardwoods” (0.2%). These forest types may include: White Pine, Red Pine, Black Ash, Yellow Birch, Soft (red) Maple. This means it is possible there could be an occurrence in the WRF, however discussion with experts indicated that only White Pine, Red Pine and Black Ash occur. These three species were identified as HCVs. Although the likelihood of an occurrence is small, the other species were designated as possible HCVs (edge of range tree species). None of these species were located in areas open for harvest.

**HCV Designation Decision:**

White Pine Red Pine, Black Ash were designated as HCV based on a small number of occurrences of the species. Yellow Birch, Soft (red) Maple were considered possible HCVs.

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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).

### Assessment Methodology:

- [Land Information Ontario](#) (LIO) Ontario Government – Crown Land Atlas
- [National Ecological Framework For Canada](#)
- [Ontario Living Legacy Land Use Strategy](#)
- [Canadian Heritage Rivers System](#)
- NHIC database [Natural Heritage Information Centre](#) OMNRF
- [RAMSAR sites](#)
- International Biological Program sites
- [Canadian Conservation Areas Database](#)
- [Ecological Framework of Canada](#)

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:

Currently, the area in parks and protected areas is 5.5% of the FMU (33,776 on a land base of 608,680 ha within the bounds of the SFL). [Table 4](#) provides a description of types of conservation lands within the Forest.

### International and National Designations

There are no [Ramsar Sites](#) identified in the WRF or adjacent to it.

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.

Pukaskwa National Park is adjacent to WRF. Established in 1978 by the Federal Government, Pukaskwa is known for its vistas of Lake Superior and boreal forests. The park covers an area of 1,878 square kilometres and protects part of the longest undeveloped shoreline anywhere on the Great Lakes. It is designated as an HCV. Management considerations include respect for the boundary and ensuring logging impacts do not impinge on the Park.

### 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 WRF. 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. 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 for WRF.

Forest Reserves contain some forest values that are unusual for some reason but are not considered regionally significant. They have minimal restrictions, and would not meet the definition of an IUCN protected area. They are not considered HCVs because there is no regionally significant feature.

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. These are more guidelines for use and exceptions occur. None meet the HCV or IUCN requirement for Conservation Areas. The last, CAs, occur only on private land (and so not on the license areas of WRF) but they are listed here because they are adjacent to the forest. It is possible special prescriptions could be required. PSWs are not regarded as regulated conservation areas here, so they are assessed below in Element 13. IBPs, explained above, do not meet the level of significance of an HCV. ANSI are unique ecosystems, but do not have regulatory status of a conservation area required here. They are evaluated in Element 11 for their “uniqueness”.

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

- 2) Clicking on the following link: [http://www.ccea.org/KML/CARTS\\_v3\\_En.kmz](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.

Parks are also viewable on Google Earth using the following instructions:

- 1) Start Google Earth then select “Add” from the top menu, then “Network Link.”

- 2) Provide a name for this link such as “Ontario Parks”.

- 3) In the next box called “Link:” type in the following url:

<http://www.parkreports.com/kml/parksNL-all.kml>

After that, click the OK button. This will provide a view of some of the protected areas in northeastern Ontario in the vicinity of WRF.

Table 4. Types of Conservation Lands within the Forest recognized by LIO.

<i>Regulated Land Use Designations</i>	<b>These land use designations appear on the Crown Land Atlas and have a Provincial Policy document describing allowed land use activities.</b>
Conservation Reserve	<b>An area of public lands identified by the OMNRF 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.</b>
Enhanced Management Area	<b>An area identified by OMNRF intended to maintain the values indicated by EMA category (fish &amp; wildlife, intensive forestry, enhanced recreation, remote access, resource-based tourism, natural heritage). EMAs warrant specific management policies to maintain their special values.</b>
Provincial Park	<b>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) .</b>
<i>Not regulated</i>	<b>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</b>
Area of Natural and Scientific Interest (ANSI)	<b>OMNRF identified areas having provincially or regionally significant representative ecological features. There are four of these on Forest.</b>
Life Science Site	<b>Crown land recognized as having significant life science features by MNRF based on a scientific report.</b>
Wetlands - Provincially Significant	<b>Any wetland that has been evaluated by the OMNRF using the Ontario Wetland Evaluation System (OWES), and recognized as having special ecological significance. Due to the differences in the northern evaluation system there were none on the WRF.</b>
International Biological Program	<b>IBP sites contain some locally important natural feature. None were judged regionally significant during review by experts during the Living Legacy land use exercise. And as such there are no HCVs that are IBP sites.</b>

Table 5. Parks, Forest Reserves and Conservation Reserves wholly or partly within the WRF (data from OMNRF).

Identification number as per the Crown Land Use Policy Atlas.

Name	Type	Area ID#	Area (ha)	Description
<b>National Park</b>				
Pukaskwa	<a href="#">National Park</a>			Pukaskwa is located near the town of Marathon, in northern Ontario, Canada. The only road access to Pukaskwa is at the north end, near Hattie Cove. Wilderness management is both a delicate art and a difficult science — it must balance human desire with wildlife needs. In Pukaskwa the survival of a small woodland caribou herd is of particular concern. Rare Arctic plants — growing here because of Superior's Arctic-like influence — coastal heron rookeries, forest mammals, birds, and inland water quality also need to be protected.
<b>Provincial Park</b>				
Obatanga	Provincial Park	<a href="#">P1765</a>	9409	Obatanga Provincial Park is located on Hwy. 17, 56 kilometres west of Wawa and 37 kilometres east of White River. This natural environment class park encompasses 9,409 hectares. The park lakes which provide canoeing and wildlife viewing opportunities are on the headwaters of the Dog River which flows into Lake Superior. The park is used as a staging area for canoe trips down the Dog (University) River. The park landscape varies from flat sand plains to rugged bedrock hills.
Pan Lake Fen	Provincial Park	<a href="#">P1504</a>	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.
Pichogen River Mixed Forest	Provincial Park	<a href="#">P1530</a>	3043	An area of weakly broken bedrock, gentle relief, and sparse wetlands. This site is dominated by mixed forest stands of mainly deciduous vegetation, mixed forests with mainly coniferous and dense coniferous stands. Located in Walls Twp south of the CN railway and Neswabin rail identifier, the candidate contains greater relief to the east with lowland and wetland areas in the western section. An old fire tower is located just NE of the site.
Pokei Lake / White River Wetlands	Provincial Park	<a href="#">P1514</a>	1768	This site includes an extensive area of riparian wetlands associated with the floodplain of the White River. The site is composed of meadow marsh, graminoid fen, coniferous swamp, thicket swamp, and deciduous swamp (black ash). The site provides excellent cedar swamp representation. Wildlife values include caribou sightings, and eagle nesting sites. Many backwater ponds occur along the river creating excellent edge for waterfowl.
Pukaskwa River	Provincial Park	<a href="#">P1513</a>	1465	The Pukaskwa River is a free flowing water way that has spectacular scenery and geology. It includes Ringham's Gorge. Linked to Pukaskwa National Park it is of great interest to recreationists and canoeists to increase back country camping and remote wilderness experiences. This area is located within the Great Lakes Heritage Coast Signature Site, one of nine such areas featured in the Ontario's Living Legacy Land Use Strategy (1999). Signature Sites are identified for their range of natural and recreational values and their potential to contribute to future recreation and tourism.
White Lake Peatlands	Provincial Park	<a href="#">P1766</a>	992	White Lake Peatlands Nature Reserve is located at the north end of White Lake in Atikameg Township on the west side of the Shabotik River. This park consists of wet organic terrain developed on glacial fluvial outwash sand deposits that extend to the northeast along the Shabotik River valley. This peatland is bounded by rock knob uplands to the north and surrounded by old cut-over on the mineral soiled sites at its periphery. There are no park facilities.
White Lake Provincial Park (Natural Environment Class)	Provincial Park	<a href="#">P1506e</a>	1726	White Lake Provincial Park is located on Hwy. 17, thirty-five kilometres west of White River. The park encompasses 1,726 hectares and is a natural environment class park. 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. The sand shoreline along White Lake is a popular feature.

**Conservation Reserve**

Fishnet Lake	Conservation Reserve	<a href="#">C2217</a>	3505	This site contains representative landform and vegetation types, including mixed conifer forest with some deciduous on weakly, moderately and strongly broken ground moraine.
Gravel River	Conservation Reserve	<a href="#">C2225</a>	46632	The Gravel River follows a major geologic fault structure with representative landscapes and vegetation features. The terrain is very rugged with extensive uplands and mixed boreal forests. The river is an important coldwater fishery. Cavers, Cloutier, Upper Pays Plat, McGoey are tourism lakes wholly contained within the Conservation Reserve. Sinclair, Chance, Greenhedge, Pays Plat and a portion of Dickison lakes are tourism lakes that form the boundary of the Conservation Reserve. 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). Signature Sites are identified for their range of natural and recreational values and their potential to contribute to future recreation and tourism.
Kwinkwaga Ground Moraine Uplands	Conservation Reserve	<a href="#">C1509</a>	12650	This large site located north to northwest of White River is dominated by moderately broken ground moraine and was burned over by the 1999 Crocker Lake Fire. Weakly broken ground moraine is also well represented. Topographically, the area is rugged with many hills and numerous lakes and creeks. Kwinkwaga River winds through the northern section of the site.
Long Lake	Conservation Reserve	<a href="#">C2216</a>	1720	This site contains representative landform and vegetation types, including conifer and sparse forests on moderately broken ground moraine. Long Lake also provides significant recreational and tourism opportunities.
South Greenhill Lake Sand Delta	Conservation Reserve	<a href="#">C1533</a>	1463	Representation on this site includes weakly broken deep lacustrine deltaic sand plain containing medium to old growth white birch, jack pine, poplar/aspen and black and white spruce. The area is located north of the South Greenhill Lake and River complex, and contains some wetlands and some upland sites.
Strickland River Mixed Forest Wetland	Conservation Reserve	<a href="#">C1521</a>	1638	Within this site strongly broken ground moraine is dominant with mixed forest mainly coniferous, sparse forest, and wetland communities represented. A small amount of moderately broken ground moraine also exists with wetlands and dense deciduous stands present.
Three Mile Narrows	Conservation Reserve	<a href="#">C2219</a>	840	This site contains representative landform and vegetation types, including mixed forests on moderately and strongly broken ground moraine.
Widgeon Lake Moraine	Conservation Reserve	<a href="#">C1508</a>	1240	This site contains narrow, irregular moraine ridges which wind across bedrock uplands and low wetlands in rugged shield terrain. The ridges represent an ice halt position that has not been identified previously in this area and which may be associated with the Chapleau Moraine position. The dominant landform vegetation type is moderately broken ground moraine with dense coniferous and mixed coniferous forests. Also represented is moderately broken outwash deposit with dense coniferous forests.

### Forest Reserve

Kwinkwaga Ground Moraine Forest Reserve	Forest Reserve	<a href="#">F1509</a>	79	This forest was originally part of the Kwinkwaga Ground Moraine Uplands Conservation Reserve but was found to be an existing mining claim or lease.
Lake Superior Highlands Forest Reserve	Forest Reserve	<a href="#">F1519</a>	7794	This forest was originally to be part of the Lake Superior Highlands Conservation Reserve (recommended) but was found to be an existing mining claim or lease.

### General Use Area

Geraldton Area	General Use Area	<a href="#">G2697</a>	2652530	This area includes the majority of the former Geraldton District (pre-1992) within the Ontario Living Legacy planning area outside provincial parks, conservation reserves, forest reserves and enhanced management areas. The area includes Clavet Township in the east to Wabikimi Provincial Park in the west, and reaches as far south as the bottom end of Long Lake. Present uses include mining, forestry, cottaging, tourism, Crown land recreation, fishing, hunting, and fur harvesting. The Municipality of Greenstone is partially within this area, which includes the communities of Longlac, Geraldton and Nakina. There are 3 Indian Reserves within the area: Long Lake #58, Ginoogaming and Aroland.
Integrated Multiple	General Use Area	<a href="#">G2694</a>	1329898	*Coastal portions of this area are also located within the Great Lakes Heritage.* This area contains lake(s) designated for lake trout management

Resources Management				
Resource Utilization Area	General Use Area	<a href="#">G1729</a>	1637822	This large area comprises 88 whole or part townships as well as some unsurveyed territory. Areas of patented land presently dedicated to resource production are included in this area. Within this area, most of MNRF programs are presently ongoing and will continue. This includes normal programs of forest management, the disposition of Crown land for commercial tourism facilities, the management of fish and wildlife resources and exploration and development of mineral resources including aggregates.

### ***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 ([page 53](#)) for their ecosystem services.

### ***Enhanced Management Areas***

There are no EMAs on the forest. On adjacent units, there is an EMA which stretches along the Lake Superior coast. The presence of Pukasqua Park has replaced this EMA. Formerly this area of the WRF was also identified as part of the "Great Lakes Heritage Coast". In other forests there is a policy description which includes some restrictions on forestry operations and access.

### **HCV Designation Decision:**

There are several special land use designations that are HCVs<sup>6</sup>, either in this element or others:

- Provincial parks and Conservation Reserves are HCVs.
- Pukaskua National Park is an HCV.
- Enhanced Management Areas are designated HCVs in Element 10 ([page 51](#)).
- Areas of Natural and Scientific Interest are designated in Element 11 ([page 51](#)).

## **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.**

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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?

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### **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:**

- Global Forest Watch
- OMNRF Lands for Life Assessment
- Ontario Living Legacy Land Use Strategy

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

In the region encompassing the WRF, fire, blowdown, and insect outbreaks are the principal natural disturbances. Forest fires are suppressed by the OMNRF and although some fires continue to occur, their frequency and size class distribution are different than the pre-settlement distribution of fires. Blowdown and insect outbreaks are uncontrolled in this region. 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, consistent with the direction of the HCV framework (element 7). It is the prerogative of the forest manager to designate area as HCVs if they deem them consistent with the intent of the HCV definition “naturally occurring species exist in natural patterns of distribution and abundance” even if they are only partially within the forest under management.

The HCV in this case is the area designated as Continuous Coastal Caribou habitat (for MAP see Figure 5 Close up of the coastal Caribou Zone and the OMNRF map of the [Caribou Range Boundary](#) including the continuous zone which includes WRF). This is the basis for including the Continuous Coastal Range as an HCV. This does not meet the 50,000 ha requirement for *within* the bounds of the WRF. However the intent of the HCV requirement is that lands contributing to a larger landscape pattern need not be fully within the forest.

### **Assessment Results:**

The vigorous discussion about LLLF that is occurring across Canada is centred on maintaining large fully functioning ecosystems. Although the WRF does not meet the minimum regional threshold for an LLLF (50,000 ha infrastructure free), the forest is still a fully functioning ecosystem and the FMP is designed to keep it that way. As such, the forest is managed as a LLLF. The existence of Caribou on the forest is an indication of its intactness; it is a high profile indicator of a large functioning ecosystem.

At the local level, all forest managers in Ontario operate within approved FMPs, which include (as FSC and regulations require) significant input from local interests and experts on special values, including Caribou. At this time the approved 2013 Phase 2 FMP provides the direction for land uses related to forestry. 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 for the discontinuous zone and the Coastal continuous zone.

### ***Discontinuous Zone***

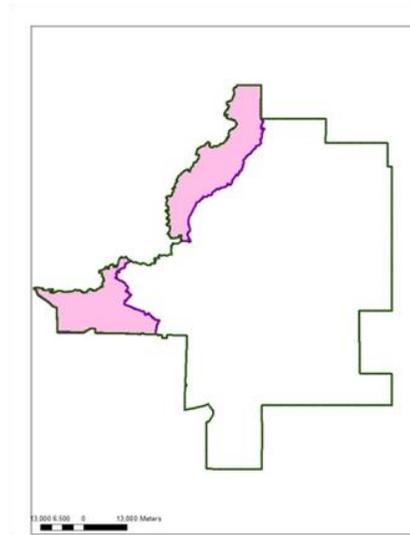
The Planning Team during the FMP process specifically considered addressing road density in the discontinuous zone. The following class branch roads that were approved in Phase 1 were considered for relevance by the planning team and were removed from Phase 2 in order to address potential impacts to the Caribou Discontinuous Habitat Zone: **Road 206-00, Road 200-11, and the last 2.3 Km of Road 200-10** (south of water crossing 335). The removal of these roads and sections thereof was contemplated by the planning team in order to reduce road densities and linear features on the landscape and in the long run possibly benefit the quality of the Caribou Discontinuous Habitat Zone. These withdrawn branch roads sections will be downgraded to operational class roads.

Although the CCP commits to develop a strategy for the Discontinuous Habitat Zone, it does not yet exist, but is expected in the pending Woodland Caribou Habitat Regulation. The CCP indicates that opportunities for enhancing the connectivity between the two spatially separated populations

of woodland caribou would improve the long term prospects for the Coastal Populations of woodland caribou.

The planning team attempted to maintain and enhance the connectivity of landscape within the Discontinuous Zone between the Lake Superior Coastal Continuous Range to the south and the Pagwachuan Continuous Range to the north by implementing the following strategies:

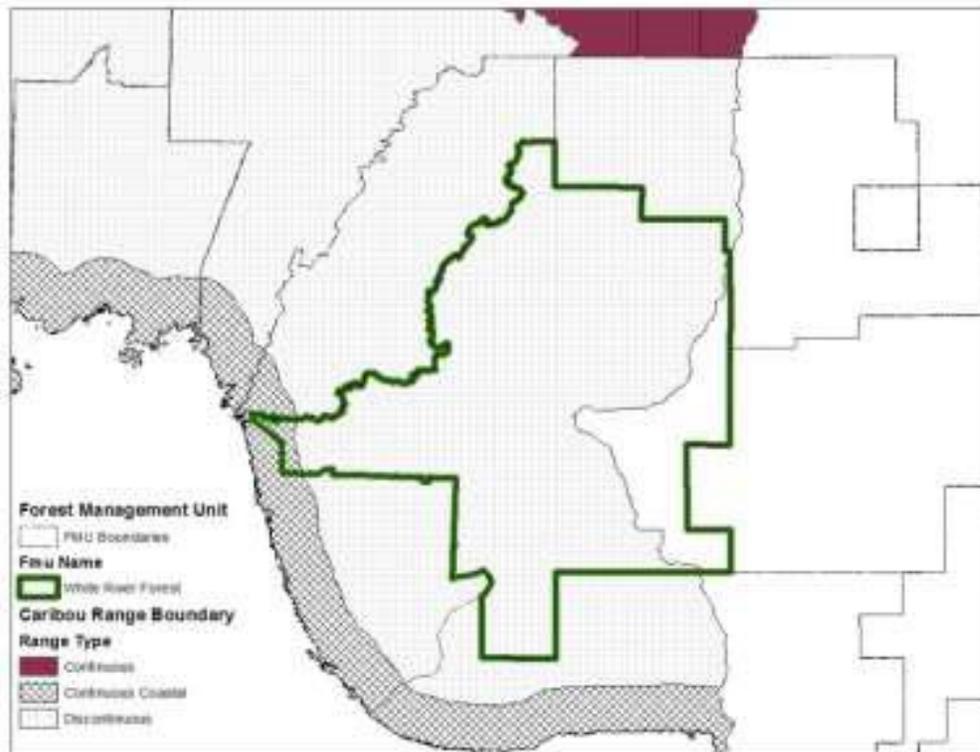
In [Figure 4](#) (from the 2018 FMP) is an illustration how the AOC, and Conditions on Regular Operations strategies (i.e. marten cores, trout lake AOCs, tourism AOCs, parks and conservation reserves and other features) help maintain and promote connectivity for caribou within the Discontinuous Zone on the WRF. A full description should be obtained from the FMP, and the Supplementary Documentation of the that plan.



**Figure 4. Key map of the distribution of the Caribou Zones in the White River Forest (from Phase 2 FMP)**

#### ***Coastal Continuous Caribou:***

As there is no clear direction for forest management in the Coastal Continuous Habitat Zone, the planning team decided to defer regular and contingency harvest areas and planned roads within the Continuous Caribou Zone until further direction is provided. This removed 269 hectares of planned regular harvest in five blocks as well as two contingency blocks and a number of operational roads. Therefore, there are no ecological impacts from forestry on this zone during the Phase 2, 2013-18 planned operations. Future operations within this Zone will be dictated by the Woodland Caribou Habitat Regulation which is expected to be completed in 2013.



**Figure 5 Close up of the coastal Caribou Zone**

### Environment Canada Integrated Range Assessment

Although the WRF is not part of the continuous Caribou Zone, the Company is aware of the nearby location of the continuous Caribou Zone in the north and monitors the developments there. An important area of science that has helped in the clarification of risk is Environment Canada's report on the "Integrated Range Assessment" ([available online](#)) which proposes that the level of disturbance (natural and anthropogenic) is connected with the ability of Caribou populations to maintain itself. In short, a particular Caribou range can be assessed for risk to the population by the amount of disturbance. Every forest manager needs to consider this new science although at this time it is not directly applicable to WRF.

The [FMP](#) has been approved based on OMNRF expertise and local consultation. 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 4](#).

OMNRF has provided a map of the [Caribou Range Boundary](#) including the continuous zone which includes WRF. This is the basis for including the Continuous Coastal Range as an HCV.

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 as discussed in the management of the Discontinuous Zone discussed in [Table 8 \(Caribou Management\)](#). This is due to their desire to enhance a wilderness experience and minimize the impact on fish and wildlife.

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” sets a very high standard. It precludes areas on the WRF. It does, not surprisingly, include Pukaskwa National Park. As this park is outside the boundaries of the license it is not designated as an IFL HCV in the WRF. Note that the park is included in [Table 5](#) which covers land use designations that are HCVs for their land use designation.

### HCV Designation Decision<sup>7</sup>:

In order to maintain the aspects of a fully functioning ecosystem, as this element expects, the Coastal Continuous Zone is designated HCV as part of a LLLF, in keeping with the concept of being part of a “continuous” fully functioning forest. OMNRF has provided a map of the [Caribou Range Boundary](#) including the continuous zone which includes WRF. This is the basis for including the Continuous Coastal Range as an HCV.

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

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8) Does the forest contain naturally rare ecosystem types?

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### 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](#)
- WWF Ecoregion Assessment
- Conservation International
- 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](#) + 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 WRF are listed as either “apparently secure”, “secure” or

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

“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./Alnusviridis* 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 -- 03Oct1996 and Rounded Global Status: G5 – Secure). All of the ecosystems were assessed as secure. These 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 Soft Maple, Yellow Birch and Black Ash. These species were also considered in Element 5, edge of range. No occurrences were found of the first two, but incidences of Black Ash are reported. It is typical of the area and although uncommon, it was not regarded as regionally significant.

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 than 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 HCV<sup>8</sup>.

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


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**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).

**Assessment Methodology:**

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

**Assessment Results:*****Grasslands and Wetlands***

There are other ecosystem types within the bounds of the WRF that are not forest. HCVs internationally now include wetlands and grassland areas. 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. This is discussed further in element 13.

***Forests -- Old Growth***

A total of 109,345 ha of old growth existed on the forest at plan start (2008) corresponding to 21% of the total Crown managed forested area (521,867 ha). At plan end (2018) a total of 115,612 ha of old growth are expected to exist after allocations without other stand-originating forest disturbance. In practice, this number will be higher (more old forest) to the lower level of harvest. This corresponds to 29% of the total Crown managed forested area. In [Table 6](#) are the projected levels. (Aside: this is > required 20% by FSC indicator). Determination of the

**Table 6. Old growth levels for plan start (2008) and plan end (2018) without and without allocations.**

Forest Unit	2008 Area (ha)	2018 Area (ha) Without Allocations	2018 Area (ha) With Allocations
BOG	1,613	1,940	1,940
BW1	16,981	24,136	16,636
LC1	7,347	9,305	8,553
MW1	3,664	6,204	4,409
MW2	9,175	13,082	9,303
OH1	15	15	15
PJ1	5,121	9,881	7,547
PJ2	8,144	12,046	8,892
PO1	26,098	35,895	25,092
SB1	18,365	21,467	18,270
SF1	2,817	4,048	2,800

<sup>8</sup> This designation was reviewed in September 2016, including a review of the web info and other sources.

Forest Unit	2008 Area (ha)	2018 Area (ha) Without Allocations	2018 Area (ha) With Allocations
SP1	10,004	14,726	12,156
Total	109,345	152,742	115,612

Due to the nature of old forest types on this forest and the landscape management it takes to maintain them, there are no specific areas designated. In fact protected areas contribute to the overall achievement of the objectives for old growth in the FMP. As a result of the high level and increasing representation of old growth in this forest, it is not regarded as regionally significant; and not designated HCV.

### HCV Designation Decision

No ecosystems have been identified as declined.

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

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#### 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
- OMNRF Lands for Life assessment

#### Assessment Results:

#### **Enhanced Management Areas (EMAs)**

There are no EMAs in the WRF. Often, in other forests, special places requiring access control are managed through designation as EMA, thus requiring a land use restriction.

Along the Lake Superior Coast, Pukasqua National Park ensures that future fragmentation will not occur. This iconic coastline is obviously a special value worth designation, and this occurs through the designation of Pukasqua Park in HCV under element 6. As well, a small portion of the coastline is also in the Coastal Continuous Caribou Zone. This also restricts the forestry activity that is allowed. There is no special prescription required because the shoreline area has no forestry activity.

#### HCV Designation Decision:

Lake Superior Shoreline is designated as HCV, consistent with other forests along the coast of Superior. There is no special prescription required because the shoreline area has no forestry activity due to the Coastal Caribou Zone. As such it is HCV No special prescription required.

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

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**Rationale:**

Vulnerability; species diversity; significant ecological processes.

**Assessment Methodology:**

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

**Assessment Results:**

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)**

Four Areas of Natural and Scientific Interest (ANSI) occur on the WRF. Descriptions of these are on file at MNRF. ANSIs are areas of land and water that represent significant geological (earth science) and biological (life science) features. Earth science ANSIs include areas that contain examples of rock, fossil and landform features in Ontario. These features are the result of billions of years of geological processes and landscape evolution. Life science ANSIs are areas that contain examples of the many natural landscapes, communities, plants and animals found in the 14 natural regions of the province. ANSIs are identified on the basis of having a value that is [by definition “provincially significant”](#). Most are located on private land, but in the case of WRF, there are four that are designated.

**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](#)) databases did not identify any additional unique ecosystem types for consideration as HCV.

**HCV Designation Decision:**

ANSIs are considered as unique ecosystems and were designated as HCV<sup>9</sup>.

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

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

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**Rationale**


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

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 as no AOCs were identified for water protection.

At this time there is no draft source water protection plan for any of the municipalities in the forest. 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 OMNRF 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, coldwater 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 OMNRF 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 HCV was identified<sup>10</sup>.

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

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### **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:**

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<sup>10</sup> This designation was reviewed in September 2016, including a review of the web info and other sources.

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 WRF include marshes, bogs, fens and swamps. None of the wetlands were designated significant using the Provincial Wetlands Evaluation System because the [Provincial Wetland Evaluation](#) system was not designed for wetlands of this type. In order to be designated as a PSW, a wetland must be evaluated by a professional biologist using the [Provincial Wetland Evaluation system](#).

Small wetlands water quality and other values the feature provides are 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 HCVs<sup>11</sup>.

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## 14) Are there forests critical to erosion control?

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### **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
- 2005 SF [FMP](#) (section 2.2.1)

### **Assessment Results:**

There are no reports of slides on the forest, although it is possible along the shores of Superior. There is nothing of a significant size and proximity to a community that could be dangerous or be negatively affected 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

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

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<sup>12</sup>.

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

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This question is deemed not relevant to forest ecosystems in Canada (see Appendix 5 in FSC Canada National Boreal Standard, Version 3.0).

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

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### **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
- White River Forest Management Plan 2008-2018
- Ontario Ministry of Agriculture and Food
- Municipal socio-economic profiles (Hudson, Manitouwadge, Terrace Bay)

### **Assessment Results:**

#### ***Fisheries***

Fish habitat and fish spawning areas are abundant in the WRF. There are approximately 54,000 ha of water representing 8.7% of the Forest area. Approximately 9,500 lakes and ponds are found on the Forest, including 40 known coldwater lakes and 90 documented cool water lakes. The extensive water resources provide habitat for a wide variety of game and non-game fish species. Fisheries represent an important resource, providing opportunities for sport fishing, bait fishing (26 licensed baitfish areas are in the Forest) and subsistence for local First Nations communities. The fisheries resource serves as the foundation for many of the remote tourism camps found on the Forest. Fish also perform vital ecological services (e.g., as predators and prey) within the waters of the Forest.

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<sup>12</sup> This designation was reviewed in September 2016, including a review of the web info and other sources.

The White River Forest falls under the Wawa District Fisheries Management Plan (#19). Forest management can potentially affect water quality and fish habitat directly by introducing sediments or debris into watercourse, removing adjacent forest that provides cover, food and nutrients for aquatic communities, increasing water temperature after the harvest of shoreline forest, affecting flow rates or by obstructing fish passage with improperly installed crossings. Protection of habitat, including spawning areas, nursery areas, feeding areas and migration routes is essential. Several guidelines for the protection of fish habitat are applicable in the preparation of Forest Management Plans to ensure that adverse effects are minimized, including:

- Timber Management Guidelines for the Protection of Fish Habitat
- Code of Practice for Timber Management Operations in Riparian Areas, and
- Environmental Guidelines for Access Roads and Water Crossings

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. Area of Concern prescriptions for the protection of aquatic values are found in the FMP (Table FMP 14, White River Forest Management Plan 2008-2018).

Indirect effects of forest management on fisheries can include increased pressure on fish stocks through increased angling resulting from forest access roads. This is address provincially through Fishing Regulations that restrict harvest levels by anglers and in the case of the White River Forest, through the Wawa District Fisheries Management Plan (WDFMP).

### ***Critical Spawning Habitat***

This plan identified the following particularly important areas of fish habitat in the White River Forest that require special management actions to ensure they are maintained, in addition to the protection offered by the above guidelines as discussed. Highlights of the WDFMP include:

- White Lake – identified as one of the larger inland lakes in the District with a high quality walleye fishery. The lake has been designated as a separate management zone in the Fisheries Plan (#5a), with a specific set of objectives and management actions defined for managing its fishery. One of the strategies includes enhancing fisheries in other nearby lakes to reduce pressure on White Lake
- A high concentration of brook trout waters (i.e., coldwater) occurs in the southern part of the Forest adjoining Pukaskwa National Park – identified as part of Zone #3 in the WDFMP. One of the objectives for this relatively remote, high-quality brook trout fishery is to increase the number and quality of brook trout angling opportunities in the Bremner River area. This is to be achieved by identifying 5 local lakes for management. The use of live baitfish is prohibited in this Zone.
- Special regulations have been introduced for several lakes and rivers outside the context of the FMP (see provincial Fishing Regulations) to reduce fishing pressure and enhance fisheries. Examples include slot sizes (White Lake), reduced limits (Kabinakagami River system, Dayohessarah, Picnic, Tukanee, Paint Lakes), live baitfish prohibition (several brook trout waters), and shortened seasons (Dayohessarah Lake).
- Fish spawning habitat is widespread in the WRF and is protected through application of guidelines as described above.
- Four particularly significant walleye spawning areas have been identified for special protection: two on White Lake, one on Fungus Lake and one on Kabenung Lake.

- Angler surveys have been recommended for a number of the larger lakes on the Forest. Lake surveys and preparation of fisheries management plans have been proposed for Kabenung and Negwazu Lakes, and for the waters immediately surrounding the community of White River.

Because they have been highlighted in the Forest Management Plan as significant, any currently known significant walleye spawning areas as well as those identified in future are designated HCV.

### ***Agriculture and Non-Timber Forest Products***

Agriculture does not comprise a significant part of the regional economy or land base within and around the WRF. There is little commercial or subsistence activity based on biological production due to the cold climate and limiting soils in the area. Table FMP-1 (Management Unit Land Summary) in the 2008 FMP does not show any classified agricultural land on the WRF.

Furthermore, the municipal economic strategy for White River outlines economic target areas as the tourism, forestry, mining, and energy sectors<sup>13</sup>. High reliance on the natural resource sectors is common to many areas of rural Ontario located on the Canadian Shield.

### ***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 WRF. 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. Recreational/subsistence berry picking is discussed further under Question 17.

### **HCV Designation Decision:**

Agriculture and other non-timber forest products are of minor significance in the regional socioeconomic context. Non-commercial values are protected through policies of unrestricted access to Crown lands for non-consumptive and recreational uses or through a system of land-use permits for commercial applications (e.g., commercial berry picking on Crown lands). These were not designated HCV<sup>14</sup>.

Fisheries values are currently protected throughout various legislated policies and guidelines as described above. However, there are several important walleye spawning areas identified on the White River Forest (White Lake, Fungus Lake, Kabenung Lake). These areas, as well as any other significant spawning areas identified in future, are designated HCV on the White River Forest.

Other fisheries values as well as wild rice areas are currently protected throughout various legislated policies and guidelines.

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

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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).

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### **Rationale:**

<sup>13</sup> Municipality of White River. URL: <http://www.whiteriver.ca>

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

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 and commercial activities including forestry.

- NRVIS data
- Socio economic description in 2018-2028 WRF [FMP](#)
- [Free Use Policy - OMNRF Policy No. PL 3.03.01](#)
- Ontario [Public Lands Act](#)
- Discussions and correspondence with First Nations during forest management planning consultation sessions
- Discussions and correspondence with non-Indigenous communities and stakeholders during forest management planning consultation process

### 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 sector. It also refers to subsistence uses, thus activities such as berry picking and hunting/angling by First Nations and other local residents. Much of the following information that supports the assessment of HCV is described in the 2018-2028 WRF FMP and derived from related engagement and consultation processes.

The FMPM (last updated May 2020) requires the description of the social and economic characteristics of communities that receive substantial amounts of timber, chips or other forest products from WRF and communities that have substantial employment, directly and indirectly, related to the forest industry. It also identifies aboriginal communities located within or adjacent to the forest and their interests and traditional uses that may be affected by forest management activities.

According to the 2018-2028 WRF FMP, communities that have some socioeconomic dependence on the WRF include White River, Hearst, Hornepayne, Chapleau, Terrace Bay, Sault Ste Marie, Espanola, Kapuskasing and Michipicoten. The socioeconomic description of three communities (Marathon, Red Rock and Nipigon) that formerly depended on the WRF have been omitted from the current plan due to mill closures. Communities new to the 2018-2028 FMP include: Hornepayne, Chapleau, Espanola and Kapuskasing. A detailed social and economic description of communities on the forest is available in the Supplementary Documentation (Section 6.1.4) of the 2018-2028 [WRF FMP](#).

The following Indigenous communities are also identified in the 2018-2028 FMP as having an interest in the Forest:

- Biigtigong Nishnaabeg (Ojibways of the Pic River)
- Michipicoten First Nation
- Missanabie Cree First Nation
- Pic Moberg First Nation

Part of the Forest Management Planning process includes the development of First Nation and Métis

Background Information Reports (BIR) that provide information about traditional and current land uses, culture and other aspects of the communities' interests in the lands and resources of the WRF. Two of the four communities participated in the development of BIRs, including Pic River and Pic Mobert, who have updated BIRs on file for the 2018-2028 FMP.

***While these could be used to inform the HCV report, the communities have requested that these reports and maps not be made available the general public nor shared with the other communities without written permission of the Chief and Councils. However, known values are documented and protected through the development of these reports and conditions/prescriptions developed and implemented through the FMP process and influenced by other policy and legislation. This process is described in more detail in Category 6, Question 18 of this report.***

Because only two communities have developed BIRs, efforts to engage with communities and identify high conservation values should be ongoing. As part of ongoing engagement, all of the First Nation communities with interests in the lands of the WRF did participate in the 2018-2028 FMP planning process as members of the planning team.

### **Subsistence/Health**

The White River Forest and surrounding areas are used extensively by Indigenous and non-Indigenous communities alike. Ontario's "Free Use" policy and Public Lands Act (PLA) regulate public access to Crown lands. Access to Crown lands for most 'transient' activities, as long as they are carried out sustainably, is generally unrestricted. This includes recreational activities as well as consumptive, non-commercial activities like berry picking and hunting/fishing with proper permits/licences or consistent with Indigenous and Treaty rights.

The "Free Use" Policy specifically identifies activities or uses of public lands under the control of the Province of Ontario which do not require land use occupational authority, permission, or the payment of a fee under the PLA or the Regulations made there under. The policy further states that *"The free temporary use of Ontario's public lands is a privilege which may be controlled to a greater or lesser extent, from place to place, and from time to time, depending on what is perceived by the Area Supervisor to be in the broad public interest. To ensure effective stewardship of public lands controls in the form of access restrictions by posting or gates, or as directed in land use plans (e.g. District Land Use Guidelines, Ontario's Living Legacy Land Use Strategy) may be used to define and perhaps limit public use."*

Area of Concern prescriptions are developed during the management planning process to protect sensitive values that are identified by forest managers, in consultation with both Indigenous and non-Indigenous communities.

### **Forest Industry**

Communities in the Wawa District are highly dependent on logging and derive substantial income, employment and tax benefits from the forest industry.

In addition to natural resource-based industries, the regional 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 on and around the WRF.

**Table 7** provides a list of the communities and identifies the associated mills by type, which have historically received wood fibre (roundwood and secondary wood fibre) from the Forest.

**Table 7.** Communities and associated mills which have historically received substantial amounts of timber, chips or other forest products from the White River Forest (Source: 2018-2028 WRF FMP).

Community	Receiving Facility	Mill Type	Status
Hornepayne	Olav Haavaldsrud Timber Co. Ltd.	Sawmill (Lumber)	Idled since November 2015. Facility is now in operation under new ownership (Hornepayne Lumber Ltd. Partnership)
Hornepayne	Hornepayne Lumber	Sawmill (Lumber)	Operating
Terrace Bay	AV Terrace Bay	Pulp and Paper	Operating
Hearst	Levesque Plywood Ltd.	Veneer	Operating
Chapleau	Tembec	Sawmill (Lumber)	Operating
White River	WRFP	Sawmill (Lumber)	Operating
Kapuskasing	Tembec	Sawmill (Lumber)	Operating
Espanola	Domtar	Pulp and Paper	Operating
Sault Ste. Marie	St. Mary's Paper Corporation	Paper	Closed
Wawa	Rentech WP Canada, ULC	Biofibre Pellet	Closed - Former oriented strand board processing mill

### ***Mining and Aggregates***

The WRF straddles the westernmost part of the Timmins Regional Resident Geologist District and the easternmost part of the Thunder Bay South Regional Resident Geologist District. There are many active claims on the WRF. There are three significant areas where there are mining leases/patents. These areas are associated with the Hemlo area gold mines, Harte Gold Sugar Zone located east of Dayohessarah Lake and the Magnacon and Mishi gold properties located in the Mishibishu Lake area.

There are 37 active aggregate permits on the WRF. Of these, WRFP holds 26 permits and private 22 individuals hold the remaining 11 permits. There are a number of active forestry aggregate pits, 23 operated by the forest industry, for use in the construction of forest access roads on the WRF. The AWS prepared for the WRF contain detailed information regarding the location and operating dates for each forestry aggregate pit.

As documented in the 2018-2028 FMP, there are few implications of mineral, aggregate and quarry pits on forest management activities. Annually, mining claim holders must be notified of forest management activities scheduled on their respective mining claims. Harvest and silviculture activities must not damage or destroy claim posts. Obtaining good sources of aggregate on Crown land is a consideration during roads planning and identification of operational road boundaries. Lack of suitable aggregate sources for forest access roads can result in long aggregate haul distances for road building, or the increase use of winter access for timber extraction.

**Hydro**

The White River Hydro Project (Gitche Animki), a joint venture with Pic Moberg First Nation, is located in White River approximately 50 km south of the Town of White River. The project uses a 21 km new transmission line and has combined total design capacity of 18.9 MW. The project achieved commercial operations in April 2016.

**Tourism<sup>15</sup>**

Commercial tourism is an important economic activity on the WRF. There is one main base, 28 remote outpost lodges, five non-remote main base lodges and three non-remote outpost lodges on the unit.

A survey was sent to 10 remote based tourism operators in 2015 as part of the 2018 planning process requesting information about their business operations. 2 operators (20%) provided responses. These two operators have 3 full time employees and 3 seasonal workers with a total of 52 summer and 19 winter beds. The average annual client volume is around 1180 individuals distributed evenly throughout all seasons. The major activities offered by these tourism lodge operators include: canoeing, hunting, angling and camping. Clients are mainly from USA (97%) with less than 3% residents. The facilities on average used 30% of their full capacity. While still recent at this time of update, the impacts of the Covid-19 pandemic on the resource-based tourism industry have yet to be quantified but will be documented in the next phase of planning.

Tourism values are protected in the Forest Management Planning process by the application of Management Guidelines for Resource-Based Tourism and the use of Resource Stewardship Agreements in some areas. None of the current tourism operators has entered into an RSA on the WRF. However, tourism values on the White River Forest have been identified and protected in the FMP through the development of mitigative measures developed with input from tourist operators, the Local Citizen's Committee, the public, and the FMP planning team.

The question of road access and how it conflicts with remote tourism interest is of significance on the White River Forest and has historically resulted in conflict and requests for Individual Environmental Assessments (IEAs) during past planning processes for the WRF. Specific AOC identifiers<sup>16</sup> are included in the FMP to provide protection for tourism values as per the Wawa District Land Use Guidelines and discussions with tourism operators. Given the significance of tourism lakes and the history of conflict on the WRF, tourism lakes are designated HCV.

**Non-timber Forest Values<sup>17</sup>**

Trapping provides seasonal employment for 45 registered trappers within the White River Forest. There are roughly 53 traplines registered on the forest, however traplines may span forest management units, as they do not share common boundaries which include combined areas licensed for the trapping of furbearers such as marten, beaver, mink, otter and fox.

It has been estimated that the average annual value of all fur harvested on the Forest is \$52, 827 or approximately \$2200/year of revenue per trapline. Income levels were not provided by trappers when requested in the last 2018-2028 plan. While this may supplement local annual incomes, it

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<sup>15</sup> White River Forest, 2018-2028 Forest Management Plan. Section 6.1.4 Social and Economic Description.

<sup>16</sup> Remote Tourism Lakes, Canoe Routes, Remote and Semi-remote Tourism Values, Lake Trout Lakes

<sup>17</sup> Ibid.

does not represent a significant portion of a viable income from the Forest and is not deemed critical.

There are about 37 Bear Management Areas (BMA's) in whole part of the White River Forest. However, the areas may span forest management units as they do not share common boundaries. There are 23 active, 4 reserves and 10 vacant BMA's. 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. Similar to traplines, Bear Management Areas do not generate substantial revenues for the Crown or in the local economy though they do represent a portion of the total revenues derived through hunting on the Forest.

For the year 2015/16 there were seven individuals with commercial baitfish license areas registered on WRF, however the areas may span forest management units as they do not share common boundaries. A survey was sent to all baitfish licensees in January 2016 and two (28.6%) responses were received. On average, a registered licensee has about 20 commercial baitfish area encompassing approximately 8000 waterbodies. Each licensee harvests about 700 dozens per baitfish area, which is roughly 14,000 dozens per licensee. About 60% of harvested baitfish are sold to anglers and 40% to dealers with an average income of 1100 per baitfish area or \$1.57 per dozen. 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. The White River Forest contains several officially sanctioned snowmobile trails under the management of the Ontario Federation of Snowmobile Clubs.

Hunting and fishing are also popular activities on the forest. The recreational activity and tourism within the White River Forest contributes to the economies of several of the communities within and adjacent to the Forest Unit.

Although recreation was not identified as a critical value 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 across the WRF.

### ***Timber for Local and Personal Use***

Local residents have an interest in fuel wood for heating and the LCC and public were interested in ensuring that small volumes of timber are available for local use, including small volumes for building logs, small saw mills and other personal uses. Provisions are made for public access to fuel wood and personal use timber through a permitting process administered by MNRF.

### **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. 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 under Question 18.

Given the significance of tourism lakes on the WRF and in Wawa District, tourism lakes are designated HCV<sup>18</sup>.

## **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).**

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

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### **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](#)
- First Nation and Métis Background Information Reports
- 2018-2028 White River [FMP](#) -- Discussions and correspondence with Indigenous communities during forest management planning consultation sessions
- 2018-2028 White River [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 WRF, including:

- Pic River
- Pic Mobert
- Michipicoten
- Missanabie Cree

All of these communities have in the past used portions of the White River Forest for various traditional land use activities. A brief description of the communities and demographics, as available, follows below.

#### **Netmizaaggamig Nishnaabeg (Pic Mobert First Nation)<sup>19</sup>**

The Netmizaaggamig Nishnaabeg (Pic Mobert First Nation # 195) is an Ojibwe First Nation with two reserves which lie off Highway 17 approximately 55 km east of Marathon, Ontario, along the eastern shores of White Lake, within the Superior Robinson Treaty area. Netmizaaggamig Nishnaabeg consists of approximately 1,010 members. Between 350 and 400 of the First Nation's population, live on-reserve at Pic Mobert South and Pic Mobert North.

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<sup>18</sup> This designation was reviewed in September 2020, including a review of available web info, the updated 2018-2028 FMP and discussion with the forest manager.

<sup>19</sup><http://www.picmobert.com>

### **Biigtigong Nishnaabeg (Ojibways of the Pic River)<sup>20</sup>**

Biigtigong Nishnaabeg (Ojibways of the Pic River) is located 16 km southeast of Marathon, Ontario off Highway 17. The reserve land is 332.7 hectares (822 acres or 1.28 square miles) in size. The traditional territory encompasses over 2 million hectares combined with Exclusive and Shared territory on the north shore of Lake Superior. Pic River First Nation has asserted Aboriginal Title and has filed a comprehensive land claim in the Ontario Superior Court for Aboriginal title over its traditional territory. Biigtigong Nishnaabeg has approximately 1200 members with some 500 living on reserve. Employment ranges from band administration, health/recreation fields, renewable energy to mining and forestry.

### **Michipicoten<sup>21</sup>**

Michipicoten First Nation Gros Cap IR49 reserve and its surrounding lands include extensive coastline along the shores of Lake Superior, the addition of lands settled through various land claim settlements, including the reserves as Missanabie and Chapleau. Michipicoten First Nation has approximately 1,020 members dispersed in various locations around Ontario and beyond.

### **Missanabie Cree<sup>22</sup>**

The Missinabie Cree is a community of approximately 374 members, also referred to as Mushkegowuk Cree. According to data from the First Nation (2016), there are a total of 457 registered members, with 99% living off the reserve. Their traditional territory centres in and around Missinaibi Lake, Dog Lake, and Wabatongushi Lake in northern Ontario. In 2011, the Missinabie Cree First Nation and the Government of Ontario signed an agreement to provide the Nation with 15 square miles (39 km<sup>2</sup>) of land as an initial allotment of a total 70 square miles (180 km<sup>2</sup>) to which they are entitled under [Treaty 9](#). **Available Information on Indigenous Values<sup>23</sup>**

All four communities participated in the forest management planning process for the WRF 2018-2028 Forest Management Plan, with community members sitting on the Planning Team. Their involvement in the development and implementation of the plan was based on an agreed-upon consultation approach. All of the Indigenous communities were invited to update their First Nations and Métis Background Information Reports (ABIRs). These reports and maps provide information regarding the past use of timber resources, and other forest resources on the Forests which span over each individual Indigenous traditional areas, as well as forest management related issues, successes and failures, and valuable historical background information.

For the planning for the White River Forest, the First Nation and Métis Communities were also provided with the digital version of the proposed allocations to complete their own review of their values information and identify to the MNRF where negotiations or discussions on changes to 19 allocations needed to occur. It is important to note that these reports are works in progress, and updates or changes in values information or content in the reports may be required as new information become available. As values are updated, they will be incorporated into the Annual Work Schedule.

The First Nations have in recent years undertaken their own values mapping exercises and land occupancy mapping projects. These values are not currently shared with the MNRF Wawa District. However, updated BIRs were prepared by Netmizaaggamig Nishnaabeg (Pic Mobert and Biigtigong Nishnaabeg (Pic River) First Nations. The communities have requested that these reports and maps not be made available to the general public nor shared with the other First Nations without written permission of the Chief and Councils of the individual First Nation.

<sup>20</sup> <http://www.picriver.com/>

<sup>21</sup> <http://www.michipicoten.com>

<sup>22</sup> <http://missanabiecree.com/>

<sup>23</sup> 2018-2028 WRF FMP.

The Report on the Protection of Identified Aboriginal Values<sup>24</sup> was also updated for the 2018-2028 FMP. This report documents proposed forest management operations of interest to the specific community, Indigenous and other values, a discussion of the AOC prescriptions developed for the protection of Indigenous values and a discussion of how Indigenous use of the forest has been addressed in the plan. This report is part of the FMP record held by Wawa District.

### **Protection of Cultural Heritage Values**

There are several Identified Cultural Heritage Resources found within the WRF. Cultural heritage resources on the WRF are currently protected under the 2007 Forest Management Guide for Cultural Heritage Values. There are 4 different classes of cultural heritage values as defined by the Guide, including:

- Archaeological Sites
- Archaeological Potential Areas
- Cultural Heritage Landscapes
- Cemeteries

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. Cultural heritage sites are documented on FMP maps (Cultural Heritage Values (MU060\_2018\_FMP\_P1\_MAP\_ValCult\_00) – Cultural heritage site), though the information may not always be publicly available as it is considered sensitive information.

The 2018-2028 FMP (Section 6.1.8) includes three AOCs and their associated prescriptions related to cultural heritage values, including:

- APA – Archeological Potential Areas
- CH – Cultural Heritage Values
- CV – Confidential Value

The prescriptions are described in the Supplementary Documentation to the White River 2018-2028 FMP and are designed to ensure that cultural heritage values are preserved on the Forest.

### **Do the communities consider that the forest is culturally significant?**

The communities of Netmizaaggamig Nishnaabeg (Pic Mobert) and Biigtigong Nishnaabeg (Pic River) not only consider the “White River Forest” to be culturally significant but absolutely critical to their culture. In 2006, both First Nations completed BIRs. Both communities traditionally use and occupy the land which is referred to as “The White River Forest”.

From 1993-2005, three different Land Use Studies for Biigtigong Nishnaabeg (Pic River) 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

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<sup>24</sup> White River 2018-2028 FMP, Section 6.2.2 The Report on the Protection of Identified First Nation and Métis Values.

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.

### ***Old Logging Camps***

Some members of the community have undertaken a project to examine old logging camps in the area. At this time they have recorded a number of them, many on the WRF. MNR has committed to adding these sites along with a description to the District GIS for future records. At this time there are not designated as HCV, but they are possible depending on the particular values. Although these are not yet designated HCV, if they are identified as an HCV with archeological designation, then the prescription would follow the prescribed buffer or site disturbance prescription from the Guide for cultural heritage protection.

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

Changes to the forest have brought numerous and irreversible changes to traditional Indigenous 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, building infrastructure 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. Changes in the forest structure and composition as a result of harvesting have made it necessary to travel for long distances by motorized vehicle to undertake hunting, fishing and trapping activities.

The types of foods and medicines that can be accessed have changed as well. Berry pickers are wary of picking blueberries and other seasonal berries that may have been sprayed by forest herbicides. Some traditional gathering sites for medicinal plants have been lost due to road construction, and habitat change. Wild foods are not as plentiful and available as they once were and more food comes from commercial sources. It was noted by community elders and members that the changes to the forest have led to changes in the relationship with the foods and medicines that are found in it. This has also led to a loss in traditional knowledge that has been passed down through generations.

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

All of the traditional lands used and occupied by First Nations and Métis people could be considered historically critical to the survival of communities and culture. The question of valuing one forest area over another is not compatible with the worldview of many Indigenous communities, who consider the entirety of the forest their home.

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.

With regard to the White River Forest, the tangible values it offers (fish, game, shelter, sustenance) are similar in nature to those found on other forests, with the exception of cultural heritage values. These are generally specific to First Nations communities and related to their past occupation of the land. In Ontario, these are protected under relevant forest management planning guidelines for the preservation of cultural heritage values as discussed.

Category 6 requires that to be considered an HCV, the forest must be critical to the culture. While many communities still practice traditional land use activities, these are no longer fundamental to

meeting the basic needs of community members and families except for some areas that are specifically identified by the communities. Many adjacent areas to the White River Forest offer similar values as are found there. As such, the White River Forest is not definitively more important or valuable than the other surrounding Boreal forest landscapes.

### **HCV Designation Decision:**

For the purposes of this report it is noted that certain 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 values are designated HCV:

- Known First Nations values (as documented in First Nation and Métis Background Information Reports and values maps)
- Archaeological sites (only sites that have been verified to hold cultural artifacts, either native or non-native)

Because only two of the four communities on the Forest have completed BIRs, the information on Indigenous values is not comprehensive. 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 2007. 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<sup>25</sup>. Prescriptions for operations in areas of concern are recorded in Section 6.1.8 of the White River 2018-2028 Supplementary Documentation of the FMP<sup>26</sup>.

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

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### **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:**

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<sup>25</sup> White River Forest, 2018-2028 Forest Management Plan. Section 6.1.8

<sup>26</sup> This designation was reviewed in September 2020, including a review of the web info, the updated 2018-2028 FMP and discussion with forest managers.

There are no overlapping HCVs designated in this question that have not been previously described<sup>27</sup>.

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<sup>27</sup> This designation was reviewed in September 2020, including a review of the web info, updated 2018-2028 FMP and associated documentation and other available 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 8 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 the 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 because of the wide range of values. The direct contact information for each of the specialists is provided to allow interested people to get directly in touch. This is in lieu of attempting to keep the information on monitoring up to date.

### Keeping Up to Date with Effectiveness Monitoring

Auditors have commented that HCV reports in general tend to direct the auditors/public to the people responsible for monitoring, rather than describing the monitoring program itself.

In a "living" document (sorry for the cliché), which is what an HCV report is, forest managers should keep everything up to date all the time. In practice, it is very difficult to keep plans and descriptions up to date. In this report the use of internet hyperlinks (URLs) is intended to ensure that the background information is current.

It is expensive to do frequent updates. It takes several days to do a full edit and update of a report. In the case of effectiveness monitoring this report uses the approach of linking directly to the person who actually writes and is responsible for the monitoring plan. Monitoring is particularly difficult to keep up to date because it is not managers, but often science staff who are responsible. They can be hard to identify, let alone contact.

Rather than try to find monitoring plans all the time, this report tells you how to call the experts. They will send the most recent monitoring documents. This ensures that the reports are up to date.

Another reason for contacting the provincial scientists directly is that monitoring programs done locally struggle to reach a scientific sample size. Local biologists are a good source of information about effectiveness monitoring. It is very expensive to monitor a number of species and Ontario is fortunate to have a large active group of biologists who are responsible for ensuring that the effectiveness of forestry prescriptions is proven. The overall contact group is the [Provincial Forest Technical Committee of the Ministry of Natural Resources and Forestry](#).

Auditors have supported this approach in the past. They have been able to get direct answers to their monitoring questions. In the end, the HCV report is just a communications document; it does not drive any management or monitoring on its own.

This process feeds directly into the [adaptive management](#) requirement that MNRF is committed to for all values in the forest.

Table 8. 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 no special prescription are not listed.

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<p><i>Haliaeetus leucocephalus</i></p> <p>Bald Eagle</p>	Nest Sites	<p>AOC ID BE</p> <p>A. Bald Eagle Primary Nests (BE1)</p> <ul style="list-style-type: none"> <li>• 400 m radius Buffer centered on primary nests.</li> <li>• Nests known or suspected to have been occupied (see <a href="#">FMP</a> 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.</li> </ul> <p>B. Bald Eagle Alternate Nests (BE2)</p> <ul style="list-style-type: none"> <li>• 200 m radius Buffer centered on alternate nests.</li> <li>• 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 &gt; or equal to 3 consecutive years, in which case the nest is considered inactive.</li> <li>• Direction applies to nests known before, or found during operations.</li> </ul> <p>C. Bald Eagle Inactive Nests (BE3)</p> <ul style="list-style-type: none"> <li>• 100 m radius Buffer centered on inactive nests.</li> </ul>	<p>Compliance: OMNRF and Company compliance staff routinely ensures prescription is implemented in forestry operations. For more info contact Neil McDonald at NFMC</p> <p>For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p> <p>Effectiveness monitoring is conducted by OMNRF through the Guides Unit: Phil Elkie Phone: 807 620 1581 Email: phil.elkie@ontario.ca</p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<p><b><i>Caprimulgus vociferous</i></b></p> <p>Whip-poor-will</p>	<p>Nest habitat</p>	<p>Whip-poor-will habitat described as follows:</p> <ul style="list-style-type: none"> <li>Whip-poor-will habitat known or suspected to be occupied by a breeding pair and areas known or suspected to have been occupied within the last 4 years</li> <li>Direction applies to habitats known before, or found during operations</li> </ul> <p>Reserve/Modified Dimensions:</p> <ul style="list-style-type: none"> <li>125m radius AOC placed around all known Whip-poor-will locations (including nesting, perching and roosting sites) within a single breeding territory. The radius may be offset from centre to include a mix of both forested and non-forested terrain.</li> <li>125m radius AOC placed around all suspected Whip-poor-will locations (based on breeding bird calls) within a single breeding territory. The radius may be offset from centre to include a mix of both forested and non-forested terrain.</li> </ul> <p>Harvest, Renewal and/or Tending Operations:</p> <ul style="list-style-type: none"> <li>Harvest, renewal and tending operations are not permitted within the AOC</li> <li>The critical breeding period is May 1<sup>st</sup> to August 31<sup>st</sup></li> </ul>	<p>Compliance: OMNRF and Company compliance staff routinely ensures prescription is implemented in forestry operations. Neil McDonald, NFMC.</p> <p>For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p> <p>Effectiveness monitoring is conducted by OMNRF through the Guides Unit: Phil Elkie Phone: 807 620 1581 Email: phil.elkie@ontario.ca</p>
<p><b><i>Chordeiles minor</i></b></p> <p>Common Nighthawk</p>	<p>Nest habitat</p>	<p>AOC id GN (Ground nester) 50-150 m AOC based on species as follows: <b>Radius of AOC</b> 50 m buffer.</p> <p>Ground nests known or suspected to be occupied by the common nighthawk found during operations.</p>	<p>For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p> <p>Effectiveness monitoring is conducted by OMNRF through the Guides Unit: Phil Elkie Phone: 807 620 1581 Email: phil.elkie@ontario.ca</p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<i>Contopus cooperi</i> Olive-sided Flycatcher	Suitable Habitat	Operational Prescription: AOC around a nest consists of a Reserve. Delineated habitat comprises the AOC.  Conditions on Harvest, Renewal and Tending  Reserve: Variable AOC based on the <a href="#">SSG</a> • No harvest, renewal or tending operations are permitted.	For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT
<i>Myotis septentrionalis</i> Northern Long-eared Bat, or Northern Bat  <i>and</i>  <i>Myotis lucifugus</i> Little Brown Bat	Bat hibernacula	Bats are managed through OMNR, 2010. Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales. Section 4.2.6. AOC ID is BAT  Five 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. <b>Reserve: 100 metre</b> • No harvest, renewal, and tending operations are permitted within the inner 100 metre reserve. <b>Modified: 101-200 metre</b> • Harvest, renewal, and tending operations that retain residual forest are permitted in the outer 00 metre modified zone subject to timing restrictions. • Harvest, renewal, and tending operations involving heavy equipment are not permitted within the outer 100 metre modified zone of the AOC during the hibernation and associated entrance and emergence periods. • The hibernation and associated entrance and emergence periods run from September 1st to May 30th.	For more information contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<b><i>Rangifer tarandus</i></b> Woodland Caribou	Suitable Landscape in the Coastal Continuous Zone	<p>The following strategies among others were used to address Caribou Habitat considerations:</p> <ul style="list-style-type: none"> <li>• Connectivity was enhanced through the creation of a total of 20 marten cores on the WRF including all but 3 marten cores within the Discontinuous Zone. There were also six of these marten cores that provided good connectivity to marten cores developed on the Nagagami Forest to the northeast and east. These marten cores provide mature conifer which is preferred habitat for woodland caribou;</li> <li>• A total of 18.4% of the landbase accounting for 93,037 1 hectares was reserved from harvesting. This includes a total of 26,461 hectares of parks and protected areas, 31,804 hectares of protection and 34,772 hectares of management reserves;</li> <li>• The WRF is also adjacent to the large Pukaskwa National Park, a 1,878 square kilometre federal park protecting the Lake Superior shoreline and a significant amount of the Discontinuous Zone;</li> <li>• In addition the Crown Land Use Harmonization (CLUAH) project team has identified the Obakamiga and North Pukaskwa Wildland Areas as potential areas to be excluded from management to enhance the connectivity between the two Continuous Zones. There is still Phase 2 planned harvest area within the potential Obakamiga and North Pukaskwa Wildland Areas in the Discontinuous Zone. Should these potential area become new parks or protected areas through the CLUAH process they will be removed from planned operations;</li> <li>• Planned Phase 2 harvest areas were designed so as to maintain connectivity by concentrating harvest in some areas to help create future caribou tracts and by deferring harvest in other areas to provide current caribou tracts;</li> <li>• There were 13 lakes distributed across the WRF and mostly in the Discontinuous Zone that OMNRF will manage as natural self sustaining lake trout lakes. Unless approved by the MNR new primary and branch roads are not allowed within 1,000 metres of these lakes and there are no operational roads allowed within 400 metres (skid trails only between 200 m and 400 m). One branch road was dropped and five branch roads had portions dropped (i.e. 727-01, 10-0, 91-01, 99-01, 226-00, and 726-01) to benefit lake trout. This will also be beneficial to caribou by reducing roads densities and linear features on the WRF;</li> <li>• There are five tourism lake AOCs (i.e. DTLR, IR2003, TVNR and TVSR) that provide substantial reserves, reduced road densities and modified operations zones that will improve connectivity around lakes for caribou.</li> <li>• Other points are outlined in the FMP phase 2.</li> </ul>	<p>Based on advice provided by MNRF Specialists :</p> <p>Darren Elder darren.elder@ontario.ca Larry Ferguson larry.ferguson@ontario.ca</p> <p>For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p> <p>Company compliance staff ensure prescription is implemented in forestry operations. For more info contact Neil McDonald at NFMC</p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<b>Landscape Species</b>	<p>SAR Species - <a href="#">Olive-sided Flycatcher</a>; <a href="#">Canada Warbler</a>; <a href="#">Monarch</a></p> <p>Endemic Species – <a href="#">False Northwestern Moonwort</a></p>	<p>Overview of the landscape approach to management. See also the <a href="#">FMP</a> 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 Reserve: Variable AOC depending upon species • No harvest, renewal or tending operations are permitted</p>	<p>For information on the prescription and local monitoring contact the OMNRF biologist:</p> <p>Management Biologist   Wawa District (Natural Resources and Forestry)   705-856-4708  </p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<b>Riparian Species</b>	<a href="#">Lake Sturgeon</a> ; <a href="#">Northern Brook Lamprey</a> ; <a href="#">Silver Lamprey</a> ;	<p>Protection of species located near water is covered by <a href="#">FMP</a> Table 63: Pic Forest Conditions on Regular Operations (CROs)  Sample:  Conditions on Water Crossing Decommissioning and Rehabilitation</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p>Conditions on Water Crossing Installation and Maintenance</p> <ul style="list-style-type: none"> <li>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;</li> <li>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</li> <li>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;</li> </ul>	<p>For information on the prescription and local monitoring contact the OMNRF biologist:</p> <p>Management Biologist   Wawa District (Natural Resources and Forestry)   705-856-4708  </p>
<b>Edge of Range White and Red Pine</b>	White pine or Red Pine Stands or individuals	For these species, there is no harvest allowed.	For more info contact Neil McDonald at NFMC
<b>Parks and Conservation Reserves</b>	Protected areas as identified in the <a href="#">Crown Land Use Policy Atlas</a> (Parks and Conservation Reserves) Areas legally are outside of the WRFP license area, but immediately adjacent.	<p>AOC for parks ID PC. Discussion FMP page 209  Reserve/Modified Dimensions:200 m from the park boundary.  The <a href="#">FMP</a> includes an Area of Concern for park boundaries consisting of a 30 metre buffer (15 m reserve and 15 m modified area). 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 MNR will be marked as per standards detailed in the Module 13 Line Marking of the Implementation Toolkit.</p>	<p>Ontario Parks and MNR district staff monitor access and minimize impacts from scheduled operations adjacent to Protected areas.</p> <p>The FMP outlines in detail the compliance rules.  For details contact Tricia Young   District Planner   705-856-4726   <a href="mailto:tricia.young@ontario.ca">tricia.young@ontario.ca</a></p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<b><i>Pukaskwa National Park</i></b>	Park Boundary	<p>Pukaskwa National Park has a special prescription. The AOC (ID PNP) requires respect for the 5,000 metre Zone of Cooperation measured from the boundary of Pukaskwa National Park (Terms of Reference for the Pukaskwa National Park/White River Forest Zone of Cooperation Working Group, 2006). THE FOLLOWING IS ABRIDGED See the Phase 2 FMP for complete description.</p> <p>There are no reserve/modified dimensions for the Pukaskwa National Park Boundary AOC prescription.</p> <p>Stands have been allocated in a discontinuous fashion along the Park boundary to create a "lacy" edge effect and to avoid un-natural "straight lines". All or portions of, stands along the boundary have been dropped to create this effect. In recognition of the values associated with Pukaskwa National Park (uniqueness of the National Park/White River Forest Interface zone) the following prescriptions should be implemented: WRFP should contact Pukaskwa National Park staff prior to commencing any operations within the "interface zone". The notification will be made in writing (e-mail) to the Pukaskwa National Park Manager (or his/her designate). Pukaskwa National Park will have the opportunity (upon their discretion) to verify that the harvest allocations and/or road centre lines have been properly flagged and marked.</p>	<p>For further information contact Tricia Young   District Planner   705-856-4726   tricia.young@ontario.ca Or contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p>
<b><i>Coastal Continuous Caribou</i></b>	Coastal Continuous Zone of Caribou Habitat	<p>This coincides with Caribou management as described in the FMP. As such the prescription for <a href="#">Caribou</a> in this Table, above. The landscape approach to management in the Boreal Forest dominates the objectives contained in the FMP.</p> <p>The items listed above in the description of <a href="#">Caribou</a> management are the same for this LLLF management and are not repeated here. See above.</p>	<p>Based on advice provided by MNRF</p> <p>For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p> <p>Company compliance staff ensure prescription is implemented in forestry operations For more info contact Neil McDonald at NFM</p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<b>Areas of Natural and Scientific Interest</b>	Features defined in District Land Use Plan	Four Areas of Natural and Scientific Interest (ANSI) occur on the WRF. ANSIs allow modified harvest that maintains the biological or geological value.	The contact person for this is MNRF contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT
<b>Tourism Lakes</b>	Economic, cultural values that also contribute to connectivity for wildlife	<p>AOC identifier(s): RTL – Remote Tourism Lake</p> <p>Description of Natural Resource Feature, Land Use or Value(s):</p> <ul style="list-style-type: none"> <li>▪ Description of natural resource feature(s), land use(s) or value(s) (listed in order of importance): <ul style="list-style-type: none"> <li>i. Designated tourism main base lodge and associated waterbody 9 10</li> </ul> </li> <li>▪ Dimensions of area of concern: <ul style="list-style-type: none"> <li>i. Remote main base lodge or outpost camp – A 0-400 metre AOC measured from the established 12 property boundary of main base lodge location. 13</li> <li>ii. Remote main base lodge or outpost camp water and viewscape reserves – A 0-2000 metre AOC 14 measured from the beginning or edge of standing timber.</li> </ul> </li> </ul> <p>For more details see AOC prescriptions in <a href="#">FMP Supplementary Documentation</a>, Section 6.1.8 of the 2018-2028 FMP, p. 307.</p>	<p>The contact person for this relationship is MNRF liaison Officer Jennifer Pine Phone: 705- 856-4746 Email: jennifer.pineontario.ca</p> <p>Company compliance staff ensure prescription is implemented in forestry operations For more info contact Neil McDonald at NFMC</p>
<b>Walley Spawning Habitat</b>	Select Walleye spawning areas of significant contribution to economic sustainability White Lake, Fungus Lake, Kabenung Lake.	<p><b>AOC Code RHZ (RHZ-1, RHZ-2, RHZ- 3, RHZ- 4) Riparian Habitat Zones:</b> All sizes of lakes, rivers, high moderate and low potential sensitivity ponds and streams. These restrictions are based on the Forest Management Guide for Conserving Biodiversity at the <a href="#">Stand and Site</a> Scales, <b>Section 4.1.1.</b> Most of the prescription is aimed at general good riparian management for fisheries and water values. The restrictions also cover spawning habitat.</p> <p>Due to the length of the prescription it is not repeated here. See <a href="#">Stand and Site Guide</a>, Section 4.1.1. Note that the value here is the spawning habitat, and as such monitoring consists of compliance inspections for any forestry activities near the spawning areas. It does not include population monitoring, which is the responsibility of MNR biologists.</p>	<p>For information on the prescription and local monitoring contact OMNRF Zach White zachary.white@ontario.ca Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p> <p>For more info contact Neil McDonald at NFMC</p>

HCV	Attribute	Prescription or Management Direction For general information only, for regulatory requirements see the <a href="#">FMP</a>	Current Monitoring for compliance, effects, effectiveness, status
<b>First Nation Values</b>	Community values as identified by FNs.	<p>Many values are confidential but the restrictions are public information. The AOCs in the <a href="#">FMP</a> that pertain to First Nation community values are as follows:</p> <ul style="list-style-type: none"> <li>• APA – Archaeological Potential Areas</li> <li>• CH – Cultural Heritage Values</li> <li>• CV- Confidential Values</li> </ul> <p>Detailed prescriptions can be found in Section 6.1.8 of the <a href="#">Supplementary Documentation</a> to the 2018-2028 FMP</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 MNRF liaison Officer MNRF Jennifer Pine Phone: 705- 856-4746 Email: <a href="mailto:jennifer.pineontario.ca">jennifer.pineontario.ca</a></p>
<b>Archeo-logical Sites</b>	Officially registered Archeological sites with Ministry of Culture	<p>Follows the prescribed buffer or site disturbance prescription from the Guide for Cultural Heritage Protection.</p> <p>Forest Management Guide for Cultural Heritage Values. Section 3.3</p>	<p>Compliance with the prescription is determined by with oversight from OMNRF. For information contact Katherine Cappella   Manager   416-314-7132   <a href="mailto:katherine.cappella@ontario.ca">katherine.cappella@ontario.ca</a> (Archaeology Program Unit, Ministry of Heritage, Sport, Tourism and Culture Industries)</p> <p>MNRF Jennifer Pine Phone: 705- 856-4746 Email: <a href="mailto:jennifer.pineontario.ca">jennifer.pineontario.ca</a></p>
<b>Old Logging Sites</b>	Unofficial sites located by local interest groups.	<p>If identified as an HCV with archeological designation, then the prescription would follow the prescribed buffer or site disturbance prescription from the Guide for Cultural Heritage Protection.</p>	<p>Katherine Cappella   Manager   416-314-7132   <a href="mailto:katherine.cappella@ontario.ca">katherine.cappella@ontario.ca</a> (Archaeology Program Unit, Ministry of Heritage, Sport, Tourism and Culture Industries)</p> <p>contact OMNRF Zach White <a href="mailto:zachary.white@ontario.ca">zachary.white@ontario.ca</a> Phone: 705-856-4715 Resource Management Supervisor - WAWA DISTRICT</p>

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- Naylor, B.J., J.A. Baker, D.M. Hogg, J.G. McNicol and W.R. Watt. 1996. Forest management guidelines for the provision of pileated woodpecker habitat. OMNRF Forest Management Branch. 26p.
- OMNRF. 2013. Forest Management White River Forest 2008-2018 for the Period April 1, 2013 to March 31, 2017. Phase I and II FMP Link: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> -- then follow the instructions on the website. All FMP documentation is available at this location including values maps.
- OMNRF. 2018. [Forest Management White River Forest 2018-2028](#).
- OMNRF. 2014. [Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales](#). Toronto: Queen's Printer for Ontario. May 2014, 211 pp.
- OMNRF. 2014. Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales. Background and Rationale for Direction. May 2014, 582 pages. <https://www.ontario.ca/document/stand-and-site-guide-background-and-rationale>
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## Appendix 1. Map locations for the HCV report.

The following files are contained on the [OMNRF FMP website](#) and list the values assessed in this HCV report. To view these maps, go to this [LINK](#) and at the bottom of the page a selection of files will appear. Select Phae 1 then Final Plan and Final Plan Additional Maps. These range in size from 6 to 7 megabytes in size.

Examples of available maps:

### Other Values

Caibouzones.pdf - Caribou Zones

Mdigl.pdf - Bedrock Geology and Mineral Deposits Map

Minland.pdf - Mining Lands Tenure and AMIS Site Locations

Mmpet.pdf - Metallic Mineral Potential Estimation Tool (MMPET) Index

Rdcor.pdf - Scale:Notes:FMP18 - Planned Road Corridors February 06, 2018

Rumsaccess.pdf - Road Use Management Strategy and Access Printed February 06, 2018)

Speciainterest.pdf - FMP18 - Special Interest (Designated remote Tourism; Lake Trout AOCs)

Valbha 00.pdf – Baitfish Area

Valpotentialsensitivity 00.pdf - Potential Sensitivity Classification for Lakes, Ponds and Streams

Valsignificant mafa 00.pdf - Significant Moose Aquatic Feeding Areas Values

### Indigenous Values Map

No Indigenous values have been displayed due to sensitivity of information.

### Custom maps

On request, maps for some non confidential values can be provided. Contact Neil McDonald at NFMC.

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

NHIC credits below. This information is from the area of the WRF – some additions were made to the WRF list.

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>	<a href="#">Bald Eagle</a>	HCV	S2N,S4B	NAR		Aves	2009-10-26	2009-10-26
<i>Falco peregrinus</i>	<a href="#">Peregrine Falcon</a>	Poss	S3B	NAR	SC	Aves	2009-02-13	2009-02-13
<i>Asio flammeus</i>	<a href="#">Short-eared Owl</a>	Poss	S2N,S4B	SC	SC	Aves	1998-10-22	2009-02-13
<i>Contopus cooperi</i>	<a href="#">Olive-sided Flycatcher</a>	HCV	S4B	SC	THR	Aves	2007-10-23	2009-02-13
<i>Riparia riparia</i>	<a href="#">Bank Swallow</a>	HCV	S4B	THR	THR	Aves	2009-02-13	2009-02-13
<i>Cardellina canadensis</i>	<a href="#">Canada Warbler</a>	Lndscp	S4B	THR	THR	Aves	2009-02-13	2009-02-13
<i>Ichthyomyzon fossor</i>	<a href="#">Northern Brook Lamprey</a>	Ripar	S3	SC	SC	Petromyzontida	1997-10-10	2009-10-22
<i>Ichthyomyzon unicuspis</i>	<a href="#">Silver Lamprey (Great Lakes)</a>	Ripar	S3	SC		Petromyzontida		2011-12-05
<i>Acipenser fulvescens</i>	<a href="#">Lake Sturgeon (Great Lakes)</a>	Ripar	S2	THR		Actinopterygii		2009-10-22
<i>Myotis lucifugus</i>	<a href="#">Little Brown Myotis</a>	HCV	S3	END	END	Mammalia	2018-03-28	2018-03-28
<i>Myotis septentrionalis</i>	<a href="#">Northern Myotis</a>	HCV	S3	END	END	Mammalia	2010-12-07	2010-12-07
<i>Rangifer tarandus</i>	<a href="#">Caribou (Boreal population)</a>	HCV	S4	THR	THR	Mammalia	2008-12-19	2008-12-22
<i>Bombus terricola</i>	<a href="#">Yellow-banded Bumble Bee</a>	Poss	S3S5	SC		Insecta	2015-12-31	2015-12-31
<i>Bombus bohemicus</i>	<a href="#">Gypsy Cuckoo Bumble Bee</a>	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 teretinervis</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
- David Bradley | Botanist | david.j.bradley@ontario.ca
- Colin Jones | Provincial Invertebrate Zoologist | colin.jones@ontario.ca
- Donald Sutherland | Zoologist | donald.sutherland@ontario.ca
- 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. HCV Assessment Team bios.

**Neil McDonald:** Neil McDonald is the Forest Managers representative. Neil is a registered professional forester who has worked for NFMC since 2013. Neil precipitated in the development of the White River 2018 FMP and has authored 3 Contingency Plans and the Pic Forest FMP. Neil has participated in 3 Independent Forest Audits and annual FSC certification on the Pic and White River Forests since 2014.

**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](http://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 ecologist with a B.SC in Environmental and Resource Science from Trent University and completed a diploma in Ecosystem Management at Fleming College. She has worked on six HCV reports.

Appendix 4. Peer Review and Comments provided by Lacey Rose, RPF

The following review follows the requirements of the [HCV Resource Network guidance for peer reviews](#). The form is prepared by Tom Clark.

For simplicity the responses to the comments are embedded in the text of the review. The WRFPP response is highlighted in grey with bold text in the forms that follow the cover letter. The changes have been made in this HCV report.

CV of the reviewer is available on request. For confidentiality reasons it is not in this report which will be distributed on the internet.

**Lacey Rose, RPF****619 Forest Park Road, Pembroke, ON, K8A 6W2 | Email: [laceyjeanrose@msn.com](mailto:laceyjeanrose@msn.com) | Phone: 613-638-1911**

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**Tom Clark**

January 22, 2014

Bracebridge, ON, P1L 1W8, Canada  
(705) 645-2580  
[tom@TomClark.ca](mailto:tom@TomClark.ca)

RE: Review of HCVF Assessment for the White River Forest

Tom,

Thank you for the opportunity to review the White River 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)<sup>28</sup> 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 White River Forest. I have made a number of suggestions that may improve the clarity of the report.

Most of the issues that are identified as “major” will simply involve editorial work and the addition of clarifying text.

- In the Scope of the Assessment section, add more details about the operation and responsibilities of WRF. Also, add information that will demonstrate the scope of operations and economic impact/reliance on the forest industry from wood products harvested from the WRF.
- Identify whether comments were received on the HCV report and if they resulted in any change to the report. Identify if First Nations were consulted.

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<sup>28</sup> <http://www.hcvnetwork.org/resources/hcv-network-governance/Guidance%20on%20HCV%20assessment%20reviews%20-%20Version%202.1-%20updated%20September%202010.pdf>

A number of minor issues were identified that may help improve the document. Most of these were editorial in nature. Others included:

- Highlight the composition and qualifications of the assessment team by including a list or referencing contributors through the FMP.
- Reference how data gaps are filled through operational planning and other day-to-day operations during the implementation of the FMP.
- Reference specific maps that should be viewed for specific HCV values in Appendix 1, or identify if they are not available for viewing.

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.

Sincerely,

Lacey Rose, RPF

Attachments:

Electronic copy of this review

CV for Lacey Rose

## Review of HCV Assessment for the license forest area of White River Forest, Ontario, Canada

The following forms are based on the Peer Review procedure from the HCV Resource Network. They have been modified by CMC to fit into a form structure, but otherwise follow all of the requirements.

For questions contact Tom Clark 705 645 2580 tom@tomclark.ca

### Part 1

#### 1. Executive summary of the document

In this section the review evaluates:

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

Findings:

The key findings are presented in Table 1. Some additional information is would improve the table, including:

- If HCV or possible HCV are designated, the management and monitoring fields should be filled out (e.g #18 Old Logging Camps is missing information).
- Include Olive-sided Flycatcher in the “DESIGNATION Decision & Link to Management & Monitoring” column.
- Links to Management & Monitoring are provided in the last column for some HVC elements and not others. Consistency would improve the table.
- Correct the following editorial: Bald Eagle et al, under “Management” column, delete “no” since it is assumed the harvest buffers are in fact how these values are protected. Also, in the Monitoring column, delete the words “contact info” since specific contact info is not provided for other elements.
- Element 13: Suggest deleting “PSWs only in the Timmins area” since Timmins is not in the MU and PSWs have been designated in other parts of the province.
- Element 16: Under Management column, suggest inserting a simple explanation instead of only a reference, like has been done in other elements (e.g. Modified harvest according to general good riparian management for fisheries and water values).

Issues: None  Minor  Major  N/A   
 Minor edits will improve the clarity of Table 1.

WRFP: Changes made – Logging sites notes added, Olive Sided corrected, Links reactivated after WORD problem. Links to the prescription are in the far right column, a note was added to clarify this. Editorial changes made. Contact info location clarified. Timmins reference removed. Explanation inserted.

#### 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 scope of the assessment is well-written and clearly described in three sections of the report: Overview of HCVF Assessment, Purpose & Method and White River Forest Description.

A description of the nature and management of White River Forest is provided in the Forest Description section, highlighting the actual area available for forest management activities and describing the administrative boundaries. More detail about the specific roles of the SFL/applicant (planning, implementing, regeneration, values protection, compliance, etc) and OMNR (review and approval, compliance monitoring, values database, etc) would be helpful, as well as the operation /history of the SFL (when was it established?).

Should clearly identify who “the manager” (Pg. 13) is that makes the final designation of HCVs. Is it the General Manager of WRFP?

Under the Expert Opinion sub-section, a reference is made that “the responsibility for non-timber values rest with the provincial government”. This is somewhat misleading. Although OMNR is responsible for value information collection and data management, the “applicant” is responsible for the protection of these values in operating areas. Make sure to be clear about this.

Addition of a smaller scale map of the forest showing communities, referenced parks and other protected areas, and other relevant features would be a good addition.

The scale of the forest is described but not much discussion has been given to the impact and scale of forest management operations. It may be of benefit to mention the annual harvest area as a percentage of the Crown landbase and/or production forest to further these points, for example, x% of the White River Forest is allocated for harvest annually. A sentence about actual harvest area may also add more to the understanding of the scale of management in this forest.

It is important to explain “impact and scale of proposed operations” on an ecological and social level, as well as on an economic level. It is important for the reader to realize the economic impacts of precautionary principles on operations. How many mills/communities are dependent on wood from the area? Employment dependency? There is more detail in the Assessment results of Category 5, Element 17, but this is important information to have front of mind through the whole report. The history is interesting and well-written but the current situation would be more relevant.

Add a time reference to page 14, 1<sup>st</sup> paragraph under History, eg. Currently, employment in the forest sector is increasing with the (re?)opening of mills in White River and Terrace Bay in (insert year).

#### Other editorial suggestions:

- The link in the footnote on page 11 doesn't seem to work.

- On page 12, under Assessment for HCV Attributes, the “first phase” is referenced. It is confusing that the HCV and FMP processes both have Phase I and II. Would clarify if you were to state which process you are referring to, e.g. “of the HCV assessment process”.
- Include full names of The Nature Conservancy (TNC) and World Wildlife Fund (WWF) or add to acronym list.

Issues: None  Minor  Major  N/A

Add more information about WRFPs roles in managing the forest, and its operation. Add information about the economic scope and impact of operations in the Overview or Forest Description to give the reader a clear picture up front.

WRFP: Two paragraphs added describing the SFL and government responsibilities; text added about the Superintendent, Operations & Forestry for WRFP who designates HCVs; clarified the operational responsibility of the manager for values; Map added; Acronyms spelled out; editorial suggestions added.

Current scale and annual harvest of the operations is not described in the report as it would be immediately out of date. Other information sources are better for this. The operations are growing / changing weekly at this point. WRFP appreciates the concern about the impact of the precautionary principle. At this time, as operations ramp up, there have not been any significant impacts from designating HCVs. Most of the significant impacts of prescriptions are already included in FMP requirements through Conditions on Regular Operations (CRO) or in Area of Concern (AOC) prescriptions. There is no up to date “employment dependency” stats at this time. Stats Canada reports are out of date, given the changes. WRFP judged it would not be very helpful to include time dated information in a “living” document.

### 3. Wider landscape context and significance of the assessed area

In this section the review evaluates:

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

Findings:

The position of the WRF is described in the Forest Description, with references to its position with respect to important watersheds and ecodistricts. The current state of the forest industry is mentioned. The value of the WRF to First Nation communities, recreationalists and outfitters is described. A good amount of detail is included in the assessment of Elements 17 and 18. The larger-scale caribou habitat strategy is well described, which spans other Districts.

The text box for “White River Forest” is cut off in Figure 2. It would improve the map to have a legend that describes the mapped features (park area, major roads, etc). Otherwise, this map gives a very good overview of the location and scale of the forest.

Issues: None  Minor  Major  N/A

Editing Figure 2 as described above would improve the map quality, but not required.

WRFP: Current Map was adjusted and a new local map added.

#### 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:

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 Local Citizen's Committee was consulted for comment on all values, and are considered experts and representatives of social value in the area. It is also highlighted that the entire FMP process goes through a public review and consultation, as well as specialized consultation with First Nations.

It would be beneficial to provide a list of the assessment team and their qualifications, at least providing a reference to the FMP list of authors/contributors/reviewers. It is not immediately clear who the assessment team is.

Issues: None <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major <input type="checkbox"/> N/A <input type="checkbox"/> Include a list or reference the FMP for the assessment team and their assessment role/expertise.
---

WRFP: HCV Assessment Team bios added to Appendix 4

##### 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.

The preparation of the FMP represents a substantial process, and although the planning process is referenced and discussed, some mention should 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 <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major <input type="checkbox"/> N/A <input type="checkbox"/>
---

It would be beneficial to make 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.

**WRFP:** It is beyond the scope of this report to describe this infrastructure but we provided a paragraph and a link to the Natural heritage Information Centre and to Land Information Ontario at the request of the reviewer.

#### 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 described. A visit to the Local Citizen’s Committee took place to review values. The FMP public consultation process is in-depth, and referenced as serving as part of the HCV consultation process. The FMP documents the process and public input that was received. Specific organizations were invited to comment on the report, and are noted. The report states that new comments may be received at any time.

The consultation with experts is identified in the Expert Opinion sub-section as occurring through the FMP process with MNR staff, as well in the assessment methodology for relevant Elements. It would add clarity to the report to add a sentence each for consultation components 2 and 3 in the consultation sub-section instead of just “the other three steps of the consultation process are documented in this report and in subsequent updates to this report” – e.g. state that the experts consulted are listed in the assessment methodology for each Element.

Other groups that were invited to comment on the HCV report should be listed (“regional stakeholders” referenced), including MNR invitation to review if applicable, to demonstrate that relevant stakeholders were appropriately consulted. The consultation section does not indicate if First Nations were consulted as part of the HCV process, aside from the FMP process.

If any comments are received from those invited to comment on the HCV report or identified values, they should be summarized to show if the views or information was incorporated into the process, as appropriate.

Issues: None  Minor  Major  N/A

In the Consultation sub-section, include whether comments were received from those consulted on the HCV report (LCC, listed organizations) and if those comments resulted in addition/change to the report. Identify if First Nations were consulted as part of the HCV report process. Describe methods that consultation was sought – how were stakeholders and other groups invited to comment on the HCV report?

WRFP: A paragraph was added to the text describing this. LCC values were identified first through the FMP process and that is the source for most of the values. The FMP

process provides the core values that are designated HCV. The FMP process is the main LCC contribution, since there is a huge time commitment to values discussion at those ongoing monthly meetings. The HCV process relies on that. That said, the LCC provided further impetus to the identification of some of the local historical values during the HCV meeting that they held.

There were no comments from Regional stakeholders at the time of this printing. They would be considered at any time, as the text says.

Consultation on values for First Nations occurs through the government following the Nation to Nation approach. Their values are included and locations that are provided through the FMP receive automatic HCV status (normally through buffers). First Nations do not often share their values with Resource Companies for obvious reasons. That is why the confidential maps are not available in this report.

## 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:** Table 3 addresses the assessment of all SAR potential habitat as HCV. Comments include:

- Peregrine Falcon: finish point (3) with “possible HCV”.
- Bobolink: The statement “MNR biologists did not feel a special prescription was required at this time” leads one to believe the designation should be “HCV no special prescription required”, since there have been recorded sightings (point 1).

WRFP not currently on forest

- Barn swallow: “Supervisory staff have been trained to identify SAR” seems out of place here. Suggest putting it in the intro or deleting.

WRFP Done

- Common Nighthawk: Are there occurrences in the MU?

WRFP not currently on forest

- Olive-sided flycatcher: Occurrences in MU? Designated HCV. Should no special prescription be required if already protected by shoreline wetland AOCs? Suggest change to “Due to possible interactions with forest operations, listed as HCV. Since habitat is protected through the protection of shoreline and wetland features, no special prescription is required”. Change to HCV no special prescription required.

WRFP: No change. There is a prescription and it is debatable if it is “special”.

- Black Tern: It seems like Yellow Rail and Black Tern have similar habitats and assessments of potential impacts, and are both protected through regular protection of wetlands. Should they both receive the same classification? Also, states on pg. 18 that listed species must be HCV.

WRF: It is special concern which is not “listed” under the Endangered Species Act which addresses endangered and threatened only. We acknowledge this is confusing. There is not functional change to the management due to this confusion.

- Rusty Blackbird: Occurrences on the MU? In point (3), suggest editing as follows: There is potential for interaction with forestry operations, however, shoreline AOC prescriptions address general habitat concerns.

WRF: The text appears to say that now.

- Little Brown Bat: fill in “Rank/Status”. Occurrences on MU?

WRF: Added Distribution not clear on WRF.

- Small-footed bat: “Maybe at risk” Is this a legitimate status? It is not on the list and was evaluated over a year ago. Perhaps “under evaluation” would be better, or just “Not at risk”.

WRF: “Maybe at risk” is a general comment not its status. It is being re-evaluated.

- Woodland caribou: Point 2 under assessment states “forest management practices have fragmented mature coniferous forest”. So have natural disturbances. Suggest adding “and natural disturbances”, otherwise it seems as though forestry is the only cause of fragmented forests.

WRF: Clarified that anthropogenic fragmentation includes roads.

- Snapping turtles: Range also includes central Ontario. Are there any occurrences in WRF? If no chance of occurring, why was it evaluated? Explain why no special prescription is required.

WRF: This species is listed by MNR, so it was assessed.

- Northern brook lamprey: Why is road construction not a factor in WRF?

WRF: Adjusted text

- Monarch Butterfly: Should better state rationale. Is present and is listed, so as per earlier statements, should be HCV. Why is no special Rx required? Explain. Could use same wording as point (3) for Northern Brook Lamprey. As it is currently written, decision in (3) is “Possible HCV” but stated differently underneath.

WRF: In Ontario it is special concern, which is not listed in Endangered Species Act Ontario.

- General: be sure to note for each species if it is known or suspected to occur in the WRF. This information is included for some species by not others.

Under Assessment Results (p.18), COSEWIC and COSSARO are mentioned for the first time. Suggest explaining what the committees are (independent committees of experts), and spelling them out or adding them to the acronym list at the beginning of the document. Also in this paragraph, it states that OMNR holds the responsibility “for their management as mandated” by the ESA. Clarify that this is for collection/managing information on locations of SAR and enforcing their protection, but not managing. The applicant is responsible for their protection if working in or near habitat.

WRF: acronyms added and links

The Landscape Driven Biodiversity section on page 28 needs context. Why is it included here? Reference it in Table 3 to connect (there is a link to this section in the table, but referenced as caribou habitat discussion), change the title of the section, or move to Element 3. The 2<sup>nd</sup> sentence in paragraph 7 on this page is incomplete.

WRF: Linkage clarified. Short answer -- Caribou is the only landscape driven species. No room in the table to describe.

**Element 2:** No endemic species identified. Appropriate background and assessment given.

**Element 3:** The 3<sup>rd</sup> paragraph on page 32 is an almost exact repetition of the paragraph above.

Possible seasonal concentration areas are well evaluated and designated appropriately.

WRF: Typo fixed

**Element 4:** Page 35, discussion of marten, 2<sup>nd</sup> sentence. Change to “Managing for marten habitat helps to provide for mature forest used by a variety of wildlife species” or clarify meaning some other way – whether you mean group of wildlife species or mature forest types.

Page 35, moose paragraph, last sentence. Suggest clarifying by changing to: “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.”

WRF: Changes made

**Element 5:** Under Assessment Results:

- Page 36, 3<sup>rd</sup> paragraph: what is a “reasonable” list of species?
- Page 36, Last paragraph, 1<sup>st</sup> sentence: not sure of the intent of this sentence. Do you mean the management and maintenance of the representation of ecosites? Or are you implying that there are ecosites that are unmanaged/don’t fall within the productive forest land base? Clarify.

WRF: Comprehensive list; added “There may be other species along the coast not in production forest which are not inventoried”

**Element 6:** Under Assessment Results:

- 1<sup>st</sup> paragraph: Include units (ha) for areas.
- Area and description was omitted for National Park Pukaskwa.
- Under Enhanced Management Area (pg.42), last sentence, forgot element # for reference.

WRF: Done

Cat 2 (B) - **Element 7**

Under Assessment Results:

- 2<sup>nd</sup> paragraph, 1<sup>st</sup> sentence: CFSA also requires that operations be completed according to approved FMPs. Should change to “(as FSC and CFSA require)”.
- 2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence: Does the FMP direct land uses other than forestry?
- Editorial: last paragraph of Discontinuous Zone section: A full description should be obtained *from the FMP*, and the Supplementary Documentation of *the plan*. Also, first use of CRO. Spell out or add to acronym list.
- Coastal Continuous Caribou (p.45):
  - o Re. “decided to drop regular and contingency...”. Do you mean defer? Is it possible that these operations will be allowed to take place once direction is received?

- "...no impacts on this zone during Phase 2...". Suggest adding "ecological", since there are likely social and economic impacts to reducing harvest area.

WRFP: Done

**Cat 3 (C) - Element 8:**

Under Rare forest types from Inventory (p.47), replace hard maple with soft (red) maple to match page 36-37.

WRFP: Done

**Element 9:**

Under Rationale, add "...that may be rare *to the area*..."

Under Forests – Old Growth: Use proper tense "...of old growth *existed in* the forest at plan start (2008)..." It would be more relevant to compare plan start area to plan end WITH allocations to show the impact of forest operations on old growth. There is still an increase in total area of old growth (to 22%). It might be beneficial to reference if old growth objectives set in the FMP were achieved, and that they are set to work towards natural levels of old growth that would exist in the absence of human intervention. Otherwise, it is not possible to tell if old growth has "significantly declined", as asked in the element question.

WRFP: edits done; too much information to get into the Old Growth objectives here.

Also, unclear if "widespread" in following paragraph means it is scattered, all over or at high levels. Provide context. Suggest: "As a result of the high level and increasing representation of old growth in this forest, it is not regarded as regionally significant; and not designated HCV."

WRFP: Done

**Element 10:** Page 49, under EMA. It says there are no EMAs in the WRF, but on page 42 it says there is one EMA in the forest.

WRFP: Typo fixed. There are no EMAs on the forest.

**Element 11:** No concerns. Significant and unique ecosystems assessed, and as a result, ANSIs designated.

**Cat 4 (D) - Element 12:**

Page 51, under Source Water Protection, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence: Do you mean "...in the FMP *through AOCs developed for the protection of water*"?

P. 51, 5<sup>th</sup> paragraph, 1<sup>st</sup> sentence: Suggest changing to "In addition, forest management guidelines have been put in place by OMNRF to mitigate *impacts of forestry activities on river ecosystems*." There should not be any impacts if guidelines are carried out correctly.

WRFP: Done

**Element 13:**

Under PSW: 1<sup>st</sup> paragraph reads at first that no wetlands were evaluated, but then that "designated wetlands have been evaluated...". Not clear if there are PSWs or not in WRF. Add "...of the wetlands were *evaluated* using..." and change "have been" to "*must be*".

2<sup>nd</sup> paragraph, 1<sup>st</sup> sentence, delete “generally” and add “...water quality *and other values the feature provides*”.

WRF: Done

**Element 14:** Under Assessment Results, 1<sup>st</sup> sentence, suggest adding “...be dangerous *or be negatively affected as a result of human manipulation of forest cover*”. The way the sentence is currently written makes it sound like out of sight, out of mind.

WRF: Done

**Element 15:** Appropriate.

**Element 16:**

Page 53, 2<sup>nd</sup> paragraph. States that water temperature can increase after the harvest of shoreline forest and affect nutrients/food input into aquatic community. The newest, best-available science in the SSG encourages carefully implemented harvest up to shoreline at appropriate scales. Although the 2008 FMP was written pre-SSG and the AOCs do not allow harvesting up to shoreline, you may wish to remove or re-word some of this so as to not limit future management options on the WRF.

Last paragraph under HCV Designation (p.55): references question 13 (PSWs), which does not speak to fisheries or wild rice.

WRF: Done

Cat 5 (E) **Element 17:**

- Under Forest Industry section, briefly quantify “substantial income”. How much contributed to economy annually? How many people employed? A higher level of detail is provided for non-timber values (trapping, etc).
- In Table 7, Marathon is crossed out. If this is because the mill has closed, that is worth noting, as well if there have been any other mill closures and the resulting impacts on communities.

WRF: Unfortunately there has been no employment until the last few months by the forest sector.

Cat 6 (F) **Element 18:**

- Page 62: Under “Will changes to the forest potentially cause an irreversible change to the culture?”
  - o Deforestation means permanently removing forest cover to convert the land for non-forest use (e.g. paving or developing). I realize this information was probably prepared previously by the community but FSC has concerns about deforestation and this is not an accurate use of the term. Switch for “forestry” or “logging” if possible.
  - o 2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence: suggest changing to “*Hunters used to consider it save to consume...*”
- Pg.63, 4<sup>th</sup> paragraph. Provide a source or reword/delete “...these are no longer fundamental to meeting the basic needs of community members and families”. Some may argue.

WRFP: These points are arguable; they are probably not in the significant dependence for non natives. This was clarified. Added -- except for some areas that are specifically identified by the communities.

**Element 19:** Appropriate.

Issues: None  Minor  Major  N/A

Comments in this section are suggestions for clarity purposes that could improve the readability and credibility of the report.

WRFP: Comments above

### **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 make informed decisions on HCVs, in addition to consulting other sources. 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 MNR staff.

Issues: None  Minor  Major  N/A

Data is complete and accurately evaluated.

### **5.3. Reference to HCV toolkits**

Findings:

The FSC Canadian Boreal Standard is referenced as the accredited standard, first in the Summary section. A link is provided but does not link directly to the standard.

The Common Guidance for the Identification of High Conservation Values is referenced for introduction of HCV concepts on page 3 and throughout, with active links. The Proforest HCVF Toolkit is also referenced on page 11.

Issues: None  Minor  Major  N/A

### **5.4. Decision on HCV status**

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

**Findings:**

The suggestions made in Section 5.1 would improve clarity of HCV decisions.

Issues: None  Minor  Major  N/A

Some Elements need editing to make HCV decisions clear, such as Old Growth, and others as discussed in 5.1.

**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 HCVs are referenced in Appendix 1 with instructions on how to access them online. The apparent shortage of maps is addressed on page 2, with an explanation as to why. It would improve the usefulness of this appendix if it were made clear on what FMP maps specific HCV values can be viewed, if they can be viewed at all (e.g. which map will show white/red pine occurrences, or Provincial Parks, etc).

Some of the maps listed in Appendix 1 are not pertinent to the HCV report (e.g. Bear Management Areas).

Confidential maps referenced as part of the discussion on Indigenous Values in Element 13 were not included, which is appropriate, as noted due to sensitivity. A note about the confidentiality of species at risk values would be appropriate.

An offer for custom maps for non-confidential values is made in Appendix 1, which is a nice gesture.

Editorial: replace “BPF” with “WRF” on page 74.

Issues: None  Minor  Major  N/A

In Appendix 1, reference which maps that should be viewed for each designated HCV value, or link somewhere in the document to which FMP map is relevant to specific HCV values.

WRFP: We have opted to let the reader choose from the selection of maps that are provided by MNR. Unfortunately MNR does not accept direct links to maps. We hope this situation is rectified in the near future.

**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 describes whether forest management activities pose a threat to the values discussed. Comments are noted in 5.1.

Issues: None  Minor  Major  N/A

## **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 8 were reviewed and are in line with Provincial standards for value protection.

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

## **6.3. Protection of HCVs from land use conversion**

Issues: None  Minor  Major  N/A

## **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:**

Table 8 in the report is intended to contain information on responsibility, prescriptions, monitoring and associated expert.

- It is unclear throughout the table whether the AOC described in the prescription is a reserve or a modified area. For example, BE1, has a 400m AOC. Does not state if this is a reserve or modified. If the intent is to keep the table simple, much of the less relevant information (e.g. what constitutes an occupied nest) could be removed to make room for the actual prescription. Or, if the desire is to keep the detailed direction out of the table, ensure a consistent approach with all HCVs in the table (e.g. olive sided-flycatcher states reserve).
- In Bald Eagle prescription, reference FMP glossary since no glossary is included in the HCV report.
- For olive-sided flycatcher, insert the specific AOC width and remove "variable AOC".
- Clarify if harvest is prohibited for only white and red pine trees, or an entire stand that contains x% PWR composition. Can other tree species in the stand be managed? Would the stands be managed appropriately to encourage the regeneration of white and red pine?
- Parks and CRs: The dimensions are listed as 200m from park boundary, but following sentence only describes 30m.
- Tourism Lakes: Without the "as described below", unclear why there are two different reserve widths. Also, the reference after "partial harvest" is not included.

- Archeological Sites: Reference the CL/CLP/CV AOC code in the FMP and describe briefly.

Issues: None  Minor  Major  N/A   
 Improve clarity of prescription/management direction as described above.

WRFP: a note was added clarifying that the table is an illustration only and that the regulatory requirements are in the FMP.

**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 should ensure that specific AOC IDs are referenced. AOC codes are included for some, but not all HCVs in Table 8, some because there is no corresponding AOC in the FMP. Those that aren't should be fully described in Table 8 (e.g. Olive-sided flycatcher).

Issues: None  Minor  Major  N/A   
 Clearly describe how HCV values are protected from impact, by linking to AOC ID in FMP or describing in table.

WRFP: See 7.1 above

**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" describes how the report will be reviewed in the future.

Issues: None  Minor  Major  N/A

**8. Responsible management of other conservation values**

**8.1. Conversion of non-HCV ecosystems**

Issues: None  Minor  Major  N/A

**8.2. Responsible management of other conservation Values**

Issues: None  Minor  Major  N/A

**Part 2 Suggestions Notes**

Page	Suggestion
Multiple and reference	Link to eFMP has changed. The current link included in the document doesn't work anymore, but does still direct to the updated link.

WRFP Link fixed

**Disclaimer:**

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