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# **Comparison of High Conservation Value Forest Assessment, Management and Monitoring for Sustainable Forest Licenses in Ontario**

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Prepared by:

Tom Clark -- CMC Ecological Consulting

Anne Hayes -- BioForest Technologies

For:

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**Acronyms**

EA	Environmental Assessment
EMA	Enhanced Management Area
ENGO	Environmental Non Government Organization
FMP	Forest Management Plan
FSC	Forest Stewardship Council
GLSL	Great Lakes St. Lawrence
HCV	High Conservation value
HCVF	High Conservation value Forest
LLF	Large Landscape Forest
MNR	Ministry of Natural Resources
PFTC	Provincial Forest Technical Committee
P&C	Principles and Criteria (FSC)
SFL	Sustainable Forest License
TOR	Terms of Reference
WWF	World Wildlife Fund

## Purpose

The overall objective of the Regional High Conservation Value Forest (HCVF) initiative is to evaluate the effectiveness of the conservation landscape emerging from FSC with regard to existing and proposed protected areas and HCVFs (see Terms of Reference below). This investigation will be staged in two parts: a compilation and gap assessment followed by a more thorough evaluation of effectiveness based on likelihood of persistence of HCV attributes. This report describes compilation and gap assessment of HCVs.

This project has taken the available HCVF reports for Ontario sustainable forest licenses (SFLs) and classified the values that were assessed for comparative purposes. The HCVs and their management prescriptions in northeast Ontario are compiled in an EXCEL spreadsheet. This document provides a description of the spreadsheet and a framework developed to evaluate the effectiveness of the HCVFs, with reference to existing regulations and the scientific literature for effectiveness monitoring. A preliminary assessment of the likelihood of persistence will be determined primarily to assess shortfalls and then address additional requirements for future investigation.

It is essential to have the spreadsheet for this report to be useful, as many cross references are made. "WWF HCVF Spreadsheet Apr 12 07"

## Terms of Reference (TOR)

The following is a review of the five elements of the TOR, along with the approach taken during this project to fulfill the requirements.

1. Summary (e.g. table) of HCVs and HCVFs by tenure for northeast Ontario: These would be obtained from the individual reports prepared by FSC certified forests and other forest managers that have completed HCVF reports.

Approach: A spreadsheet has been developed in Excel that encompasses all values, all tenures. It is designed to allow for quick comparison across SFLs. File: WWF HCVF Spreadsheet Apr 12 07

2. Compilation of existing management prescriptions for HCVFs: Compare the HCVF management prescriptions to existing regulations and/or published information concerning management effectiveness.

Approach: The spreadsheet provides the management prescriptions by category, formatted to allow summary wording of the prescription for each value.

3. Based on the compilation and comparison, develop methods and application to assess the effectiveness of management prescriptions through consideration of existing monitoring efforts and/or applicable studies.

Approach: Monitoring has also been incorporated into the spreadsheet, along side management prescriptions and roles and responsibilities.

4. Propose management prescriptions for priority HCVFs where these are lacking.

Approach: In the discussion below, we address the issue of inadequate HCV prescriptions. Since HCV reports are audited<sup>1</sup>, they all include a prescription as this would trigger a Corrective Action request if missing.

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<sup>1</sup> We note that there are unaudited HCV reports, such as that for Abitibi's Iroquois Falls SFL, which is not FSC certified. Abitibi declined to participate in this review.

5. Propose a framework and/or specific areas of investigation for a more thorough evaluation of the effectiveness of HCVFs and the emerging conservation landscape.

Approach: This report contains a GAPS section which reviews some of the significant issues facing HCVs and provide discussion about strategy to address these. These recommendations are brought forward from the observations (grey boxes) made in sections on Values assessment and Management and Monitoring.

For clarity, the report format follows the TOR structure using subheadings as follows:

1. Values Assessment
2. Management and Monitoring
3. Gaps
4. Strategy

## Methods

As a first step, and for this contract, existing HCVs and their management prescriptions in northeast Ontario were compiled in spreadsheet format. Latest versions of the reports were obtained directly from the managers. We obtained reports in December of 2006. We took these as up to date as of that time, although some of them were written before that date. Managers are responsible for updating reports regularly, and usually annually.

We use the definition of terms provided by the FSC National Boreal Standard (version August 2004 FSC Canada) as provided in the Glossary of that document, and Appendix 5.

**Table 1 Listing of the current HCV reports in Ontario, and responsibility.**

Forest Name	Copy obtained date	Company responsible for HCVF
French Severn	December 2006	Westwind Forest Stewardship Inc
Nipissing	December 2006	Nipissing Forest Management Inc.
Sudbury	December 2006	Vermilion Forest Management Inc.
Northshore	December 2006	Northshore Forest Management Inc. (Domtar)
Algoma	December 2006	Clergue Forest Management Inc.
Spanish	December 2006	Domtar Inc.
Superior-Martel	December 2006	Domtar Inc.
White River	December 2006	Domtar Inc.
Romeo Malette	Not available	Tembec Inc.
Smooth Rock Falls	Not Available	Tembec Inc.
Gordon Cosens	February 2007	Tembec Inc.
Iroquois Falls	Did not participate	Abitibi

## Practical understanding of HCVs in the Ontario context

The following is a brief review of some of the practical and critical requirements of the way the HCVF concept has been implemented in Ontario. As with any jurisdiction, there are certain commonalities in the way that HCVF reports and requirements are met. These have evolved over the first eight years of FSC in Ontario. They have been audited in certification by three different certification bodies. They are keystones in making HCVF reports operational in Ontario because at some point the abstract concepts from the standard need to be translated into the local context (detail below):

- 1) **Forest Management Plans (FMPs)** are the road map; HCVF report is a mirror of the FMP.

- 2) **Scale** of HCVs range from points to 100's of km<sup>2</sup>; mapping is an important element of designating HCVs.
- 3) **Consultation** process is regulated in the FMP, but extra HCV consultation will be done as required.
- 4) **Communication** using the FSC HCVF lexicon is not effective in public discussions, but the reports put the discussion into the FSC language. This translation is the responsibility of the manager.
- 5) **National Boreal Standard** Appendix 5 is the framework or toolkit for all of the reports.
- 6) **Designation decisions** must be made for each value assessed, and for those designated HCV they must provide a prescription that is shown to be effective through monitoring. The manager makes the final decision. Auditors oversee the process, but cannot reverse HCV decisions.
- 7) **Audited HCV reports** are essential for the integrity of the process. Use of the term "HCV" is attractive to managers, but it requires the rigour of independent review by experienced auditors.

**Forest Management Plan:** The primary driver for HCVs must be the FMP process, which is the open public record of how and why the forest is managed as it is. It is a public record of forest management process and decision-making. It is also the regulated document that is legally enforceable in the Province. It is mandated by the Crown Forest Sustainability Act (Government of Ontario, 1994<sup>2</sup>). The process for keeping that system up to date is part of the FMP manual. Although this sounds like a constraint on the implementation of HCV management and monitoring, it is really just the local process, which guarantees that these values can be properly managed for and compliance enforced. As long as the value is properly assessed, and put forward as an HCV, then the Ontario system provides an enforceable legal framework.

**Scale:** Values may be a physical location on a map ranging from the size of a nest (a point) to dispersed values, such as rare forest types, across a wide area. If the value cannot be mapped, such as for spiritual values, the manager cannot implement a specific prescription. Although non-mapped HCVs may be possible, it has not occurred to date in Ontario.

**Consultation:** For SFLs in Ontario, there is a significant effort put into consultation with the public (not always effectively). This provides a good foundation for acquiring information about the values. Expert opinion is an important part of the HCV designation decision.

**Communications:** It is unrealistic to expect native elders, trappers and the wide array of other forest users to adapt to the arcane language that FSC international has developed to explain HCVs. It is the responsibility of managers to translate the FSC requirements into the local wording. The HCVF report is primarily a communication document that brings the diverse references to natural and social values in the FMP together into an accessible form. HCVF reports should be available easily on the web. If they are not, managers misunderstand the role of these reports. We note that accessibility is not the norm everywhere. In the United States, for example, there is not a requirement to have an HCVF report, or to make information available to the public. Regional Canadian standards are the mandate for these reports, not the FSC Principles and Criteria.

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<sup>2</sup> <http://www.e-laws.gov.on.ca:81/ISYSquery/IRL34E1.tmp/7/doc>

**National Framework:** National Boreal Standard Appendix 5 is the current framework of categories and questions that guide this document. New HCVF frameworks proposed for the Great Lakes St. Lawrence (GLSL) standard are likely to significantly change the framework for the southern SFLs.

**Designation decision:** As part of the HCV process, to ensure a clear responsibility, managers are expected to designate HCVs when they are identified. This includes providing a prescription that is shown to be effective through monitoring. Managers are the final decision maker and they must take into account all of the advice and opinion that is provided. Principle 9 of the FSC P&Cs provides the overarching rules about how decisions should be made.

**Audited HCV reports:** In order to reduce confusion with the public perception of HCV analysis, it is essential that reports must be audited using the FSC HCV standard, as part of an overall FSC certificate. Although it is theoretically possible for managers to comply with the Principle 9 HCVF requirements in the absence of the remainder of the FSC Principles, FSC is about transparency and independent verification.

## 1. Values Assessment

The compilation phase of this project involved line-by-line reading of all of the available and up to date HCVF reports for Ontario. The information was captured in an EXCEL spreadsheet, as described in this report. The EXCEL spreadsheet is available as a separate document, and is recommended for full understanding of the information in this report.

For completeness, the format of the spreadsheet is described here, and this should be used as a reference. It is recommended that readers explore the spreadsheet directly, because it is more intuitive, and comparisons can be made easily.

Throughout this document we have included “observations” which are issues and notes emerging from the comparison of reports in the spreadsheet. These are numbered sequentially through the report.

### Spreadsheet Structure

We have structured the spreadsheet into 20 pages, five groups of four, based on the HCVF framework of six categories with 19 questions in the National Toolkit (Table 2). Each category has a page of values (Categories 2 and 3 are combined). Following each of these pages are pages for management prescriptions, monitoring regime, and roles and responsibilities. We recommend exploring the spreadsheet rather than attempting to visualize the organization from this explanation. The following tables may be of assistance in interpreting some of the spreadsheet.

**Table 2 Index to the layout of the spreadsheet.**

Category	Questions	Title	Tabs (pages) in spreadsheet			
			Values	Prescription	Monitoring	Roles and Responsibilities
1	1-6	Significant concentrations of biodiversity values	1	2	3	4
2&3	7-11	Large landscape level forests; Rare, threatened or endangered species or ecosystems	5	6	7	8
4	12-16	Basic services of nature	9	10	11	12

5	17	Basic needs of local communities	13	14	15	16
6	18-19	Traditional cultural identity	17	18	19	20

We refer to values as the basic attribute that is being assessed. These are recorded in the three leftmost columns of the spreadsheet and may be a species, a quality, a structure, a location...hence the FSC concept of “attribute”. In this report we generally refer to these attributes generically as “HCVs” or “values”. The key to the exploration is the classification of the values as described in Table 3.

**Table 3 Spreadsheet classifications for the HCV designation decisions.**

Category (colour code)	Spreadsheet code	Purpose	Rationale	
Blank = TBD	Blank	Left blank only during the development of the spreadsheet.	Blanks indicate incomplete spreadsheet. In particular some HCV reports were not available for this assessment.	
Not considered	0	The manager has not listed this value in the report.	The value may not be in the area, or may not be listed in the framework. If adjacent forests have assessed the value, then there may be a discrepancy.	
HCV (dark green)	1	Officially designated.	The manager has specifically listed this value as an HCV.	
Possible HCV (dark blue)	2	Officially designated as “Possible.”	A “Possible value” is one where the actual value is not mapped due to confidentiality (First Nations) or is not easily located (e.g. some snake habitat), but would be an automatic HCV if specifically identified.	
Not HCV (purple)	3	Has been assessed and does not meet the requirement.	The manager has assessed all of the appropriate sources of information (listed in the report), stakeholder input, and First Nations and expert opinion, and determined that the value does not meet the FSC definition.	
Previously designated HCV (light green)	4	This value has been designated HCV in an earlier question in the framework.	It is preferable that every value be evaluated for every question, however time may not allow. Managers may simply defer to an earlier question and not follow the complete assessment for a value that has been previously designated.	
Previously designated Possible HCV (light blue)	5	As above, for “possible HCVs”	As above.	
Unresolved (red)	6	There is a problem with the assignment of the HCV.	This may mean determination has been deferred. In some cases this is like a previously designated, where the manager has not actually evaluated the question at hand, but has deferred to a previous question.	
Action (grey)	7	An action is required by the manager.	Example -- manager has removed a new conservation reserve or protected area	

Category (colour code)	Spread-sheet code	Purpose	Rationale	
			from their landbase, and designated it NOT HCV, when it should be HCV. It is still contributing to landscape values, and the manager may be required to do some active management to protect the value, even if it is at very low risk from forestry.	
Possible error (yellow)	9	Possible error in how value has been designated.	Based on information from elsewhere in the report, there appears to be an error in how value has been designated for a particular question.	
Not applicable	n/a	Value not applicable to forest and/or question.	Some values are forest specific. Most spreadsheets cover multiple questions, so not all of the values listed on a particular spreadsheet will apply to all of the questions on that spreadsheet.	
Broad group (pink)		Distinguishes broad group from specific listings.	Example – Several specific mammals are listed as values, but some reports use the broad category “mammals” for some of the questions.	

### Scope of Analysis

It is beyond the scope of this report to discuss every possible cross reference for each category and question in detail; there are thousands of comparisons that can be made for values and SFLs. Designations are dependent on many factors, and for that level of information the reader should go back to the original HCVF report. Instead, we draw attention to some of the anomalies and apparent inconsistencies. For reference we have used titles of the form “Cat 1 Q1” that the spreadsheet uses. This should be fairly accessible to the reader.

Each question will include a distribution table which is a cross tabulation of the number of reports by the number of assessments.

Observations are highlighted in grey. These are commentaries on the spreadsheet comparisons and the approach that managers have taken. In some cases these carry forward to the Gap section that follows, if there is a significant issue that needs to be resolved.

### Comparison of Values by Category and Question

#### *Cat 1 Q1 Species at Risk (SAR)*

Distribution:

Values (values assessed > 5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Monarch butterfly			2	7			1			
Bald eagle	2	8								
Great grey owl	4	1	4	1						
Peregrine falcon	1	3	2	4						
Red-shouldered hawk	5	5								
Short-eared owl	4		2	3			1			

Woodland caribou	6	3								1
Wood turtle	5	3	2							

Species at risk generates a large number of assessments by virtue of the number of species. The spreadsheet provides a complete list of the assessments of these species. There are a large number of “3”s indicating values are present and have been assessed but did not rate as HCVs. Species such as Red-shouldered Hawk and Bald Eagle, which are listed species, clearly rank as HCV across a number of forests. Note that eagles have been de-listed in part of the Province.

The first question is a good opportunity to evaluate consistency of assessment between SFLs, because there are eight values (species) which are reviewed by a large number of SFLs. The species that are treated in a consistent manner (see the above Table): Monarch Butterflies, Bald Eagle, Red-shouldered Hawk, Wood Turtle, Caribou – all high profile values. Less consistent are Great Grey and Short Eared Owls (hard to find nest), Peregrine Falcons (usually not in immediate range of operations due to location). Consistency probably does not impact the value which is the most important test.

1. In the evaluation of consistency between SFLs, Algoma SFL stands out as identifying a large number of values. These do not have specific management or monitoring actions determined. A closer look at the Algoma report has shown that there is ambiguity about the designation decision. We are treating this as an anomaly at this time. Most designations are correct, but uncommon species may not be designated officially. The French Severn has identified many similar species, but has used the concept of “possible HCV”, which means that if a definitive location is identified then the requirement for a prescription and mapping happens. This is administratively less onerous for forests where historically many values may have been identified but they are not well defined. The nuances of the difference between the French Severn approach and the Algoma approach is important. Readers should take time to understand the use of “possible” HCV to be sure that apparent inconsistencies are real. This is described in Table 3.
2. There appears to be variability in some HCV assignments. Although it takes some scrutiny of adjacent units in the spreadsheet to assess consistency, there is enough variability that there is a need to explore the differences for some individual HCVs for which there should be some consistency in identification. This is a general observation about the overall application of the concept of HCVs. Resolving the consistency issue will take a line by line, question by question comparison, and discussion with managers to ensure that apparent inconsistency is actually based on the local needs and situation. Comparability is the fundamental purpose of a standard.
3. Rank each value considered. This comment will come up in several categories. Managers discuss but do not rank some values. In other words, they do an assessment of the characteristics, but come up short of stating whether the value is an HCV or not. It is important that there be clear HCV designation decisions.

Example:

- a. E.g. Spanish: Report did not really deal with mosses. A designation was avoided by noting that mosses were in protected areas that are HCVs. This does not adequately address whether or not the moss species are HCVs.

This may be an editorial issue, and could be addressed through a careful review of the report, to ensure the managers are diligent.

**Cat 1 Q2 Endemic**

4. There are no endemics in the area. Information on sub species level is not really available. Snails did garner several mentions, but were not designated HCVs.

**Cat 1 Q3 Concentration areas**

Distribution

Values (values assessed > 5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Herons	1	4		4			1			
Birds				9						1
Waterfowl			1	5	1		1			2
Fish	5		1	4						
Deer	5	4		1						
Moose		4		5			1			

5. Deer, moose and herons are typically identified as having important concentrations. These are not uniformly designated as HCV. In some cases, managers determine that because the values are common and addressed by conventional FMP prescriptions, there is no need to make them HCVs. Of the GLSL SFLs, Northshore is an outlier in not identifying concentration areas as HCVs. This is particularly noteworthy for deer, as shown in the table above, where only Northshore does not identify deer as an HCV. However the manager does have discretion, and clearly deer (wintering areas) are not in any serious risk. Designations of deer and moose occur in other forests because of their economic and public importance, rather than any risk. Impact on a wintering area could drop the quality of hunting experience and have economic impacts. This is a legitimate concern with many forest users.

6. As in Observation 3 above, each value should be ranked on its own merits, regardless of whether it is in a protected area or not.

We have provided four examples from this question:

- a. French Severn: According to the report, Massassauga rattlesnakes are very important, but designated in Q1. They should be ranked in Q3 independent of Q1.
- b. Gordon Cosens: According to the report, lake sturgeon and moose aquatic feeding areas are not HCVs because they are already protected through existing forest management planning guidelines. In this example, lake sturgeon and moose should be ranked independent of guidelines.
- c. Spanish: Waterfowl habitat areas might qualify as individual HCVs but the sites in which they are located are already protected within the Spanish River Provincial Park, which is an HCV in Q6. In this example, waterfowl habitat areas should be ranked independent of parks.
- d. Gordon Cosens: According to the report, values associated with OLLs are not HCVs because they are already protected through existing forest management planning guidelines. The problem is that individual values that would be HCVs if they were not in OLLs are dismissed.

In these examples, the values may not be significant enough to warrant HCV designation under this question, but they should be evaluated. Multiple designations of the same value may be informative. If a value is designated as an HCV because there is a regional concentration and it is at the northern extension of its range, the management prescription could be different. This is a significant issue and is raised in the conclusion of this report.

**Cat 1 Q4 Regionally significant**

Distribution:

Values (values assessed > 5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Blue spotted salamander	4			5						
Bald Eagle	3	1		4	1					
Bay breasted warbler	3			6						
Black backed woodpecker	2			7						
Boreal chickadee	2			7						
Broad-winged Hawk	3			6						
Great grey owl	3		2	4						
Least flycatcher	1			8						
Pileated woodpecker	1			8						
Ruby-crowned kinglet	1			8						
Ruffed grouse	1			8						
Spruce grouse	2			7						
White throated sparrow	1			8						
Black bear	1			8						
Deer mouse	2			7						
Lynx	2			8						
Marten	1			8						
Moose	1			8						
Northern flying squirrel	1			8						
Snowshoe hare	1			8						

The list above is based largely on the FMP’s official category for regional species that serve as indicators of general forest trends. This is not exactly the concept that the HCVF framework was aiming at; however, managers have included that list to be cautious.

Another reason for the low number of HCVs in this category is that most reports do not evaluate them because they are already designated in Q1. This is discussed in the Gaps section of this report because there are some important implications to not fully assessing every value for every question. The practice of not making a full assessment is a poor practice. There may be some situations where the cumulative characteristics of a value justify HCV designation in Question 19. See this discussion later in Cat 6 Q19 (Values that did not meet thresholds for Qs 1-18).

7. Elk, Caribou and Bald Eagles are exceptions. These are not uniformly identified as regionally significant across SFLs; again this reflects earlier designation in other questions. SFLs should be encouraged to fully assess each value in each question.

**Cat 1 Q5 Species near the edge of range**

Distribution:

Values (values assessed >5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Bur oak	4	1		4					1	
Red oak	4	1		4					1	
Yellow birch	2	3	1	2					1	

In general, only trees are identified in the category. Species range distributions are considered by managers, but tend not to be the main cause for designation. This is an area where closer consideration of HCVs for distribution may add to the discussion of management options. For example, managers tend to be very conservative when approaching white pine at the northern end of their range. Scientists are clear that because fire is very restricted today, there needs to be some intervention such as underplanting of pine. If the species is not recognized as being at the north end of its range, then the urgency of maintaining the range may not enter into the discussion of management options.

8. Note that Sudbury Forest has identified several tree species as HCVs due to their northern extension. This, in practice, means that the manager must have a practical and effective prescription to address sustainability of the species. The Sudbury forest managers are confident that their interventions are effective and well monitored. Other units do not designate, possibly from a concern about the HCV designation consequences. If they designate, then they need to count on the silvicultural ground rules to meet the “precautionary” test. This is a concern if the practices are not adequate.

**Cat 1 Q6 Conservation areas**

Distribution:

Values (values assessed >2 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Enhanced Management areas		1			1					
Forest Reserves		1							1	
Conservation Reserves		2							2	
Parks		5								

A number of the reports do not mention conservation reserves, forest reserves, or enhanced management areas. In fact, this table includes values that were not assessed by five or more forests, which is the cut-off for inclusion on distribution tables for the other questions. They are included in this table because of the importance of land use, and to illustrate the confusion over these designations. Hence the numbers in the table for these are low.

The confusion about how to address land use is manifested by some conservation reserves that may be referred to in the report as simply the OLL lands. Managers seem evenly split about whether or not to designate protected areas as HCVs. This ambiguity has been created for a number of legitimate reasons. Arguably, the protected areas are not at risk whether they are designated or not. However, there are several issues, discussed below, and several of these are brought forward to the discussion of gaps at the end of this report, under the category of “land use”.

9. Protected areas in landbase or not? -- This section of the spreadsheet uses a classification called "action," meaning that the manager should take action. This has been used because in several cases there is a discrepancy in the designation because the managers have removed the protected area from their landbase and not designated it. This is done usually to avoid the complication of describing HCVs and protected areas. Intuitively managers feel that if it is protected, there are no required management actions. It may not be part of their netted down landbase. It is not clear from the framework and the legal definitions of SFL areas whether protected areas should be included. Managers would be in conformance if conservation areas were excluded from their HCV list, but it appears to be a more straight forward approach if they are designated. Management prescriptions generally would involve park integrity and road access around the perimeter. This is required in most parks regardless. Most managers want to include some of the "core" landscape benefits of parks in their other FMP requirements. In our interpretation of the HCV requirements, managers should bring these areas into their designated list. The southern SFLs have more of a discrepancy according to the spreadsheet.

10. Atlas harmonization -- Currently the Ontario Crown Land Atlas<sup>3</sup> is undergoing a harmonization exercise. Aligning some of the designations is critically important to many user groups and First Nation land claims. Forest managers need to know the area available for harvest. It is hard to know the effect of this exercise on the ultimate land base. As part of this exercise, harmonization will occur between regions, which in several cases have designated areas the same, but the guidelines give different acceptable uses. Enhanced management areas are one of these.

Importance of land use designation -- The land use designations in the spreadsheet cover a relatively small number of rows and columns, but are exceedingly important in certification decisions. This is one of the key areas in the report because for HCV designations to be useful to outside reviewers and auditors, there must be some consistency in the way that mandatory land use designations are recorded. The *Ontario Land Use Strategy* outlines the intended strategic direction for the management of 39 million hectares of Crown lands and waters in a planning area covering 45 percent of the Province. Table 4 is a copy of the current land use designations in use in Ontario. Any new or revised plans for Crown lands will be consistent with the intent of the *Strategy*. It replaces the direction contained in a number of existing land use planning documents. Planning is a continuous process. The strategies in the approved document will be subject to revision as a result of changes in government policy, new or refined resource information, and proposals for land use change resulting from other processes. The crown land atlas is the public record for these decisions.

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<sup>3</sup> Source: <http://crownlanduseatlas.mnr.gov.on.ca/supportingdocs/alus/contents.htm>

**Table 4** Summary of Land Use Categories in the Planning Area (Source: Living Legacy <http://crownlanduseatlas.mnr.gov.on.ca/supportingdocs/alus/landuse7.htm#table2>)

Land Use Category	Number	Area (ha)	% of Planning Area
Provincial Parks (see notes 1,2,3)	246	3,674,788	8.14
Algonquin recreation/utilization zone (see note 2)	1	591,129	1.31
Conservation Reserves (see notes 1,3)	300	1,537,194	3.41
Forest Reserves	14	31,419	0.07
General Use Areas	-	31,441,816	69.68
Wilderness Areas (see note 4)	8	724	.002
Enhanced Management Areas (Total)	86	1,602,349	3.55
<i>Natural Heritage</i>	24	51,478	0.11
<i>Remote Access</i>	35	613,509	1.36
<i>Great Lakes Coastal Area</i>	3	50,101	0.11
<i>Fish and Wildlife</i>	5	210,163	0.47
<i>Recreation</i>	19	677,098	1.50
<i>Resource-based Tourism</i>	0	0	0.00
<i>Intensive Forestry</i>	0	0	0.00
National Parks	2	186,521	0.41
Private and Federal lands (excluding national parks)	-	6,058,918	13.43
TOTAL PLANNING AREA (including private and federal lands)	-	45,124,858	100.00

1. The existing and recommended parks and conservation reserves have been combined in this table.
2. The recreation/utilization zone in Algonquin Park where logging is permitted is not included in the area for existing parks and is shown separately.
3. Numbers for parks and conservation reserves are based on the consolidation of additions with existing protected areas. A detailed breakdown of these areas is provided in Table 1.
4. Numbers for Wilderness Areas are for areas regulated under the Wilderness Areas Act, and which are outside existing or recommended Provincial Parks or Conservation Reserves.

**Cat 2 Q7 Native species persistence**

11. This appears to be one of those questions that managers shy away from. Largely there are no values identified in this group. Note that this refers to land areas primarily, similar to the last question, but from a wildlife view. There are several forests with unresolved designations. However, there are more forests that probably did not fully address the question. It is difficult to audit and may not be useful in Ontario.

**Cat 3 Q8 Rare ecosystems**

12. Rare ecosystems difficult to classify and map -- Scanning down the spreadsheet gives some indication of the challenge of these designations. There is a long list of interesting but obscure ecosystem names. Rare ecosystems do not occur on more than one unit very often. The most comprehensive inventory of these values is from the Natural Heritage Information Centre (NHIC). Even those listings are vague and difficult to locate for mapping purposes. The spreadsheet has a number of comments about problems such as: "existence not confirmed", "no local evaluation done", and deferrals to other questions. NHIC does not make information readily available and in many cases may not have exact maps for these values.

13. Most rare ecosystems are not designated HCVs, but the rationale for these decisions can be clouded because of the indistinct identification of the ecosystems. Realistically, rare ecosystems will be set aside by forest managers without question. The responsibility lies with the Ministry of Natural Resources (MNR) and other resource agencies to properly identify these.

**Cat 3 Q 9 Declining Ecosystems**

Distribution

Values (values assessed >5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Old growth black spruce	9			1						
Old growth forest of any composition	9			1						
Old growth hemlock	7	3								
Old growth red pine	7	3								
Old growth tolerant hardwoods	8	1	1							
Old growth white pine	5	2		1			2			

Overall, the amount of old growth identified as HCVs may be small. A comparison can be readily made through FSC certification reports and other information. We note that for the table above, only old growth ecosystems were listed. For example, several forests identified Hemlock of all age classes as an HCV.

14. Old growth ecosystems are the most likely candidates for this designation. There is a possible discrepancy between the reports called Pre-industrial Condition or PIC reports and the identification of HCVs. As shown in the above Table, based on the spreadsheet, there are relatively few HCVs identified for old growth forest. This needs to be examined forest by forest for a clear analysis, and the PIC reports for each forest need to be the basis for this comparison. All FSC certified SFLs in Ontario have PIC analyses. These reports document the historical species distribution, age classes and patch size, among other things. The PIC report is only guidance for the managers, meaning there is no expectation that the forests will be returned to the historical condition. However, the guidance is useful because Ontario requires emulation of natural patterns, and the PIC report provides the direction. Forest managers taking the forest towards short rotation red pine plantations and away from white pine old growth would have a problem. With this in mind, the PIC reports should be compared with current patterns on the forest. Where there are situations in which old growth does not meet the requirements of the standard it is de facto HCV.

**Cat 3 Q10 Large Landscape Forest**

Distribution:

Values (mainly values assessed >5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
EMAs	7				1			2		
Conservation Reserves	7						1	1	1	
Parks	8						1	1		
Specifically identified as LLF		1								

The sparse evaluation of the Large Landscape Forest (LLF) criterion is a symptom of concern about the implications of LLFs. Only one forest is actually identified an LLF in north-eastern Ontario, although some SFLs are missing and, at the time of these reports, some discussions were still ongoing in the north. LLF is in the category of land use and consequently has significant political implications. Managers have limited ability to create LLFs.

15. Large Landscape Forest (LLF) needs to have more rigorous scrutiny both from the manager's side and the environmental side. Managers are wary of poor analysis of roadless/roaded areas from the Global Forest Watch database. The framework is not very clear about the concept of LLFs. Do they tie in with the protected areas network? How many roads are acceptable? Do diffuse seasonal roads compromise the quality of the value? Is there a quantifiable measure of road density?

Examples of the way the reports addressed this value include:

- a. Nipissing and other SFLs: Several of the most intact areas on the forest were included in or encompassed by either parks, conservation reserves or enhanced management areas. Conservation reserves and parks were withdrawn from operable land base so they are not HCVs. They should be HCVs.
- b. Identification of roadless/roaded areas by Global Forest Watch is inaccurate.
- c. As an HCV, LLF seems to be disconnected from the rest of the FSC standard.

**Cat 3 Q11 Diverse or unique forest ecosystems**

Distribution:

Values (values assessed >2 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A

Special forest type	2
Special Lakes	2
Provincially Significant Wetlands	1
Total number of assessments with this rank	4 1 14 6 4 10 many

We have included in the distribution table, a tabulation of “Total number of assessments with this rank” to show how the spreadsheet is widely dispersed. There is much overlap with earlier questions in the consideration of HCVs. Four new ones are identified under this question. Arguably, although it could be considered ambiguous, managers are finding some designations appropriate. We do not regard this as a problem.

16. The unique ecosystem question has some overlap with earlier questions, but ironically, it seems to be a less “unique” question, causing the managers to assess other ecosystems identified earlier. Although it is worthy of note, this is not really a high priority for restructuring the framework, or reanalysing HCV reports. Several issues arose in the spreadsheet. Point c brings up an important commitment that Ducks Unlimited has made. This is brought forward to the final list of recommendations in this report.

Examples:

- a) White River / Pineland: 'Especially diverse ecosystems' have been incorporated into parks and conservation reserves. Parks and conservation reserves need to be HCVs. This has been previously discussed.
- b) Nipissing: Room-to-grow is HCV in Q6. Should be ranked independent of Q6, specifically addressing the uniqueness (not representativeness) of the ecosystem.
- c) White River / Pineland and most of the SFLs: Official surveys for provincially significant wetlands have not been done on the White River or Pineland.
- d) Gordon Cosens (Units identified through WWF Enduring Feature mapping exercise): HCV Designation Decision section does not actually say whether or not this is an HCV because uniqueness needs to be verified. Units identified in Enduring Feature mapping exercise are put in deferral process - not sure if that is an HCV either.

**Cat 4 Q 12-16 Basic services of nature**

Distribution:

Values (values assessed>5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Q 12 Town Water supply		2		8						
Q 13 Provincially Significant Wetlands		1	1	3	1		1	1		
Q16 Agriculture				5						
Q16 Fisheries				8					1	

These “service” values are often underestimated as HCVs. Water supply is an important value in the north, despite an abundance of water. Two forests identified them as HCVs. Human activity in the forest such as commercial fisheries or agriculture may seem a stretch, but there are potential impacts, and, although there were no HCVs identified, the managers did a fair analysis to see if there were any real risks.

17. Services of Nature – The write ups for the assessments of these values appear to be cursory, however careful reading shows, most of these “services” questions are addressed in a serious manner, especially those such as water supply, which can have severe human consequences. In most cases forest managers have taken a precautionary approach well before FSC required it. For example, due to the need for source water protection and watershed plans, any area where there is a Conservation Authority has in place a watershed planning team. Reference to these ongoing plans for soil stability and water problems was done for the assessment of HCVs. These plans provide an excellent resource for reviewing of HCVs if necessary.

**Cat 5 Q 17 Basic needs of local communities**

Distribution:

Values (values assessed>5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
Bear management Areas	2			8						
Berry picking areas	5			3			1			1
Food	5			5						
Hunting grounds	3			5			1			1
Recreation trails	4		2	4						
Traplines				9			1			

There tends to be a wide range of activities and values that cover many facets of native and non-native culture. It is very difficult to make these analyses meaningful in the brief context available in the HCV report format. The primary question must be to ask if the report properly reviews the assessments that are available, and at least provides summary information.

There are a diverse number of human activities that are classified as subsistence. No doubt that the FSC definition of subsistence is more international in scope and may not include the Ontario concept of subsistence. Managers evaluated these activities fairly and did return some positive HCV designations. Realistically, activities such as trapping, either native or non-native, are subsistence activities by any definition. Many of the participants are not financially well off. As well, the activity has been carried on for a lot longer than forestry, giving it some cultural status. Another significant entry was tourism, but it is identified under a number of different activities, and so does not stand out.

18. Native community needs -- We did not identify major gaps or issues with the approach to non-native activities. For native activities we identified some areas where there was a minimal list. In most cases, this shows lack of effort to communicate about the First Nations needs, rather than a real lack of concern. Most First Nations issues and values are addressed in Principle 3 of the FSC standard, and the FMP process has a significant amount of consultation required. Both companies and the government do expend resource on native liaison. We did not specify a high priority concern in this area.

**Cat 6 Q18 a&b Traditional cultural identity**

Distribution:

Values (values assessed>5 SFLs)	Number of forests that gave the following rankings									
	0	1	2	3	4	5	6	7	9	N/A
<b>First Nation</b>										
Archaeological sites	4		5							1

Historical fishing sites	5	5	
Pictograph	4	5	1
Plant or fibre gathering site: Berries	5	5	
Plant or fibre gathering site: Medicine	5	5	

Category 6, the last questions, address the sometimes difficult cultural values that comprise an important part of HCV assessment. These are categorized differently from the economic activity of the previous question.

Managers take First Nation values as a given for designation as HCVs, although, because of confidentiality concerns, these are not available in the mapped information. MNR has liaison officers in most Districts that are responsible for ensuring a reasonable understanding of native values is available for the FMP, and consequently for the FSC assessment and HCV analysis. Audit information about the quality of the native values mapping is the best input to this report. Although the HCV assessment is important, it is difficult for outsiders to get information about these values.

Non-native values are more accessible and are quite broad reaching. In a pragmatic way, managers have reached their own understanding of the social importance of HCVs in this category. We did not identify any major gaps or issues.

#### ***Cat 6 Q 19 Values that did not meet thresholds – Manager option***

This is the miscellaneous category intended for “overlapping” values. One HCV is identified that does happen to fit into that description. Other than that one HCV, there is some discussion about other values that are previously designated, and may also fit into the “overlapping” category, but assessment is sparse for this question as the spreadsheet shows.

Although the framework poses some questions, it also gives some latitude to managers to arbitrarily identify HCVs. This is discussed in some reports, and is a good concept. It should not be a concern if managers force an HCV into the framework based on public concern.

19. In practice, HCVs are identified before they get to this question, and then managers do not fully evaluate whether there is a concentration or not. In addition, there does not seem to be a rigorous layering of values and HCVs to assess whether a concentration is occurring or not. In general, if a geographical area is identified as an HCV, then it is not reconsidered. As well, any value occurring in another HCV tends not to receive separate HCV designation, because this is regarded as redundant. Practically speaking, there may need to be a separate prescription for a value depending on its characteristics. This is discussed elsewhere.

## **2. Management and Monitoring**

The TOR requires the compilation of existing management prescriptions for HCVFs and comparison of the prescriptions to existing regulations and/or published information concerning management effectiveness. A full review of all of the specific prescriptions for all of the SFLs in this study is not feasible because they cover a wide range and would require considerable expertise to critique in detail. Our discussion is at a broader level, grouping the various prescriptions to give a bigger picture. In Table 5 is an overview of the types HCV prescriptions, examples, and general effectiveness. Several concerns are raised about effectiveness for some types of prescriptions.

**Spreadsheet review of prescriptions**

Management prescriptions are summarized in the spreadsheet by category, formatted to allow summary wording of the prescription for each value. The management pages in the spreadsheet for each category follow the values assessment pages.

**Table 5 Types HCV prescriptions, examples, and general effectiveness.**

Prescription type	Example	Effectiveness
<p><b>Operational Exclusions Or Instructions to Silvicultural staff</b></p>	<p>Exclusions are like buffers, but tend to refer to coarse filter values that are encountered during normal operations. They are not mapped. When treemarkers, who are trained, encounter certain plants or trees, such as white elm, black cherry, ironwood or tolerant hardwoods, they will simply mark them according to the Silvicultural Ground Rules as captured in the prescription.</p> <p>Wording in some HCV reports: “Excluded from forest operations when encountered.”</p> <p>“...north of Highway 17 (e.g. yellow birch and red/bur oak). When these species are encountered, use marking prescriptions to retain these trees and promote natural regeneration”</p> <p>“Collect local red spruce seed; increase the amount of red spruce by planting, especially in and around the Loring and other deer yards. Train staff and tree markers to identify red spruce and to retain it in the stand”</p>	<p>Natural values can be addressed through this operational mechanism. This is not a reliable approach because it is very dependent on training of the operations staff.</p> <p>Where treemarking occurs, this can work for some of the obvious values (distinctive plants or trees such as red spruce). In general, this is a coarse filter approach, but HCVs should not be coarse filter values. See discussion in the Fine Filter vs. Coarse Filter Approaches to HCV Management section of this report.</p> <p>It is not easy to monitor, nor can compliance inspections be expected to cover this, except where treemarking prescriptions are explicit. Although this approach is effective for many values, there is some concern that HCVs need a higher level of attention.</p>
<p><b>Area of Concern Prescriptions (Buffers etc)</b></p>	<p>Buffers are appropriate for point values or linear values that can require separation from active logging. These are usually described in Table 17 of the FMP. They are part of the planning process, unlike operational exclusions above. There may also be seasonal restrictions, road building restrictions and many other practices.</p> <p>Here is a good example from an HCVF report. It contains ample information to visualize the buffer. “...prescription consists of a 400 to 800 m AOC with a</p>	<p>The FMP process, as outlined by the Environmental Assessment (EA) for Timber management Crown Lands in Ontario, requires that guides be prepared for the conservation and protection of many values. Some of these apply to HCVs. The EA states that the guides need to be kept up to date, and that there be monitoring in place to show the prescriptions are effective.</p> <p>The guides are reviewed and updated every five years. Currently they are under revision.</p>

Prescription type	Example	Effectiveness
	<p>central reserve of 400 m that prohibits clearcutting. An additional 400 m reserve may be applied, depending on line of sight from the nest. Eagle nests are easily identified and are located mainly during routine surveys by MNR .”</p>	
<p><b>Protected Areas &amp; other land use designations</b></p>	<p>These areas are protected from forest management (including possible buffers around the perimeter).</p> <p>Or</p> <p>Deferred from Harvesting.</p>	<p>Official protected areas are easily protected. More difficult is deferrals of candidate areas. In practice, MNR has resisted deferrals because this circumvents the responsibility of the owner – MNR in this case. Land use decisions are not the prerogative of the forest manager. Recent land use process generated significant increases through the MNR designated special process (Ontario Living Legacy).</p> <p>Companies lack clarity on this issue for some designations, and for incomplete networks. For example, the following management prescription is vague and does not appear to be relevant to protected areas, even though that is what it addresses:  <i>“Specific prescriptions are developed in cooperation with XXXX and local municipalities.”</i></p> <p>Lack of clarity in the designation of a particular area means that there is neither a monitoring approach nor a mandate for compliance. For simplicity, this issue is called “clarity of provincial land use designations”</p>
<p><b>FMP strategies</b></p>	<p>This approach means that the manager has had to develop special procedures that must be followed to conserve the value. Old growth is typically addressed this way, as well as other landscape issues.</p> <p>Example:                      The FMP contains detailed prescriptions and targets that are linked to specific strategies for the maintenance and restoration of white and red pine in the xxxx over the long term. The following is a brief summary: (i) For the PRWSH Forest Unit, use a 2-cut</p>	<p>This is the best example of how to address HCVs. By having a special strategy in the FMP, the manager has acknowledged the importance of the value. The FMP also requires monitoring, and compliance. There is a special audit on FMP activities (called the Independent Forest Audit). These meet the effectiveness monitoring requirement.</p> <p>At issue, however, is some HCVF reports which simply state: “For specific strategies surrounding red and white pine, refer to the Red and White Pine Management Strategy</p>

Prescription type	Example	Effectiveness
	<p>uniform shelterwood silvicultural system to harvest and regenerate stands containing at least 12 m<sup>2</sup> of white or red pine basal area per hectare. Use certified tree markers to mark stands for harvest and to identify significant wildlife habitat values. Use tending if required to control competing vegetation. (ii) For the PRWST Forest Unit with &lt; 12 m<sup>2</sup> of red or white pine per hectare (possibly white including spruce), harvest the stand using a seed tree prescription. The number and spacing of residual seed trees retained is adjusted according to the initial density of trees (see Table 2.3.3-4 in the FMP). Use certified tree markers for this operation, as for the PRWSH treatment above. Supplement the area by planting red and/or white pine. (iii) Establish new red and white stands on appropriate sites.</p>	<p>(Supplementary Documentation” 33)</p> <p>The trouble with this approach is that it ignores the communications role that the HCVF report plays. In most cases, a simple cut and paste (such as the example at left) with a cross reference to the FMP provides ample information about what is actually going on. Readers who are outsiders are not helped by only a reference to the FMP. FMPs are too lengthy and difficult to comprehend for the general public.</p>
<p><b>Not at risk from forest operations</b></p>	<p>This applies for some HCVs, which are genuinely not in the line of forest operations. Some values, for example, occur in Provincially Significant Wetlands. These are not accessible to logging, and there should be no direct impact. Indirect impacts such as increased access must also be considered, and the best practice is for the manager to assess whether there is any way that road building can have an effect on nearby values.</p>	<p>This approach is acceptable, as long as the manager has genuinely considered direct and indirect (access) impacts.</p>

### **Fine Filter vs. Coarse Filter Approaches to HCV Management**

MNR has spent a considerable effort to clarify their approach to different forest values. Stemming from a concept in the early 1980s called “coarse filter fine filter” approach to managing forest values, MNR embraced this as the only practical approach in extensive forest management. In essence this means that there are a number of “best practices” for the general conservation of wildlife and environment. Although some individuals are destroyed during forestry operations, they are abundant or resilient populations that do not suffer a long term set back. Species that are not as robust are considered fine filter species. These need specific management actions to conserve them.

This concept moves over to HCVs in that values can be regarded in a similar coarse filter fine filter way. Coarse filter values are those that are conserved by general good management practices, such as routine buffering around waterways, proper water crossings, etc. Fine filter values need special prescriptions based specifically on the requirements of that value. Moreover, if a value is an HCV, then the prescription must be shown to be effective through monitoring and compliance activities by the manager. This makes a clear distinction between HCVs and non-HCVs. In Ontario, effectiveness monitoring has been a part of the development of an extensive set of guides that have evolved over 25 years. Some of these are applicable to HCVs.

Exclusions are like buffers, but tend to refer to coarse filter values that are encountered during normal operations. They are not planned for or mapped. When treemarkers, who are trained, encounter certain plants, or trees, they will simply mark appropriately for the value. For some values, such as rare plants that should just be left undisturbed, this operational approach is not easy to monitor, nor can compliance inspections be expected to cover this, except where treemarking prescriptions are explicit. This type of approach needs careful consideration to ensure compliance with the precautionary approach.

20. Operational exclusions -- The concept of coarse filter fine filter described above raises some concerns when there are HCVs that do not have specific prescriptions, or very generic ones, such as “do not harvest when encountered.” This means that the manager is relying on operations staff to know how to identify the value, identify the value, apply the prescription to the value, and report the occurrence so that monitoring can occur. It is an issue for some HCVs that do not have specific prescriptions.

### ***Clarity of reporting***

21. HCV management prescriptions in the reports are generally clear. In Table 5 are examples of some of the reported prescriptions. There are situations where the prescription is obliquely referred to, with no cross-reference or specific FMP reference. This is not acceptable. This issue is brought forward as a significant concern in the Gap section of this report because the essence of the HCV report is communication, and some reports are not adequate in that regard.

### ***Overall consistency of management approaches among SFLs***

There is an expectation that there should be a uniform assessment and management of HCVs across different SFLs. This is true to some extent and, for certain species covered by guides, this is the case. The values section discusses the issues around assessment. In the management prescriptions, the SFLs tend to be consistent, especially for values like wildlife species (covered by guides), special silvicultural prescriptions (covered by silvicultural guides), landscape concerns (old growth is mandated by policy which follows the FSC requirement closely), and land use (protected areas have simple no cut prescriptions). We did not identify a specific problem in consistency for management activities.

**Monitoring**

The primary difference between HCVs and other values is that prescriptions for management must be shown to be effective through a monitoring plan and implementation. In Ontario, the government also monitors effectiveness. In many cases, the government monitoring provides enough evidence for auditors to assess the effectiveness of management. The primary role of the monitoring component of HCVs in Ontario is to connect the SFL or forest level prescriptions with actual government monitoring, or if necessary, other agencies that may be responsible. Most forest managers are not equipped or staffed to do sophisticated monitoring of some of the natural or social values. Government research staff and regional expertise plays a very important role in providing the substance behind the HCV management prescriptions.

**Table 6 Overview of the Effectiveness of Prescriptions**

<b>Type of prescription</b>	<b>Comment</b>	<b>Effectiveness (in brief)</b>
<b>Operational Exclusions or Instructions to Silvicultural staff</b>	Natural values can be addressed through this operational mechanism.	This is not a reliable approach because it is very dependent on training of the operations staff.
<b>Area of Concern Prescriptions (Buffers etc)</b>	The FMP process, as outlined by the Environmental Assessment (EA) for Timber management Crown Lands in Ontario, requires that guides be prepared for the conservation and protection of many values.	Works well for conventional values. Special considerations are not covered by some guides
<b>Protected Areas &amp; other land use designations</b>	Official protected areas are easily protected. More difficult is deferrals of candidate areas.	Regulated areas are protected; unregulated are not.
<b>FMP strategies</b>	By having a special strategy in the FMP, the manager has acknowledged the importance of the value. The FMP also requires monitoring, and compliance.	The best approach for an HCV
<b>Not at risk from forest operations</b>	Assessment may show that there is no risk. Value should still be identified.	Acceptable, as long as the manager has genuinely considered direct and indirect (access) impacts

**Reporting**

Effectiveness reports are not always easy to obtain. Understandably there are a large number of values and finding up to date assessments of the efficacy of each prescription entails tracking down different experts scattered through MNR and other agencies. Diligence in ensuring that efficacy is being monitored is a critical role for non-government organizations. This is brought forward to the list of gaps.

**3. Gaps, Issues, Roles and Responsibilities**

**Clearly identify responsible positions for protection of values**

From Observation 13, we take one example of the problem of lack of clarity of responsibility. In general, MNR is responsible for all non-timber values protection. In particular, the responsibility

lies with MNR and other resource agencies to properly identify rare ecosystems. The rationale for these decisions can be clouded because of the indistinct identification and lack of boundaries. Realistically, rare ecosystems will be set aside by forest managers without question. Other examples of the importance of administrative responsibility exist.

#### ***Ensure efficacy is monitored***

Monitoring is another area where, on public forest, the expectation is that the government will lead, in this case by monitoring the effectiveness of prescriptions. This is also mandated by the Class EA decision that provides the framework for widespread forest management in Ontario. In most cases, monitoring is occurring, although the level of monitoring can be questioned. Note that the FSC Principle 9 requirement in criterion 9.4 is that “annual monitoring shall be conducted”. The implications of the wording of that criterion are potentially enormous, but in practice, annual monitoring occurs for a class of values, but not necessarily for every value. It is the MNR monitoring system that has the responsibility for most of criterion 9.4. ENGOs routinely participate in the Provincial Forest Technical Committee (PFTC), which serves as the overseer of the monitoring of values prescriptions in the Province. This vigilance of provincial activity should be shared and coordinated with the HCV procedures.

#### ***Ensure efficacy is reported publicly***

For the same reasons as the previous section, reporting of the effectiveness of prescriptions to the public is done through PFTC. Diligence in ensuring that efficacy is being monitored and reported is a critical role for ENGOs and other non-government organizations.

#### ***Rankings and designation of individual values for every question***

Some values contain more than one HCV. For example, an area such as an enhanced management area may contain an LLF, nesting peregrines, and culturally significant artefacts from a First Nation. These should receive multiple HCV designations and prescriptions. Related to this, in several of the questions, particularly in Q4, managers tend to defer to previous designations for high profile HCVs. For example, a species is designated as an HCV because it is a SAR in Question 1, then no analysis takes place for Q3 (concentration) or Q4 (regional significance).

We note that in many cases values may not be significant enough to warrant HCV designation under the later question, but they should still be evaluated. Multiple designations of the same value may be informative. If a value is designated as an HCV because there is a regional concentration and it is at the northern extension of its range, the management prescription could be different. Also, Q19 provides an opportunity for a manager to include lesser values that may occur together in an HCV. If these values are not assessed earlier, then Q19 is not properly assessed.

#### ***Concentration of animals***

From Observations 5 and 7, the question of regional concentrations seems to be handled less consistently than other questions. Ungulates including Caribou, Elk, Deer, Moose and colonial nesting Herons are typically identified as having important concentrations. These are not uniformly designated. In some cases, managers determine that these species receive adequate protection through the normal FMP process. Of the GLSL SFLs, Northshore is an outlier in not identifying concentration areas as HCVs. This is particularly noteworthy for deer, where only Northshore does not identify deer winter concentrations as an HCV. It is important to note that managers have the final right to designate and the local conditions may influence the decision.

#### ***Protected areas as HCVs***

From Observation 6, we note that in several cases there is a discrepancy in the designation because the managers have removed the protected area from their landbase and not designated it. This is done usually to avoid complication of describing HCVs and protected areas. Intuitively, managers feel that if it is protected, there are no required management actions, it may not be part of their netted down landbase. It is not clear from the framework and the legal definitions of SFL

areas whether protected areas should be included. From a practical point of view, it appears that there are advantages to managers to claim credit for the protected areas in their landbase. Managers wish to claim credit for things like interior forest, old growth or other such values that are in the protected area but may not technically be in their SFL area. This means they should also designate the protected areas as HCVs. This argument seems straight forward but there are reasons wh managers may not want to include them. Although this is not a point that is worthy of intense debate, it would be preferable if there was consistency.

#### ***Clarity of Land use designation and Harmonization***

From Observation 10, the current efforts by the government to harmonize the land use activities that are allowed within the Crown Land Atlas is a critical step for HCV designation. Some of the Enhanced Management Areas, for example, allow a wide range of activity. Some are regarded as LLF areas. To qualify for this there needs to be minimal roads, and tight control, with monitoring. Not all Enhanced Management Areas would meet this requirement. Protected areas may also allow nonconforming uses. Vigilance on the Enhanced Management Area front is particularly important.

#### ***Rare ecosystems difficult to classify and map***

Observation 12 notes that the lack of coordination between forest management systems for classification of forest ecosystems and academic classification systems. Forest management which is practical (Forest Resource Inventory, and Forest Ecosystem Classification or FEC based), and tends to be for larger forest stands. Ecosystem classification for ecological values can be more fine scale and not coordinated with the FEC system, when special rare ecosystems are involved. The classification systems do not align. A practical solution to this would be some additional research focussed on identifying, on the ground, mapped stand boundaries for rare ecosystems.

#### ***Declining ecosystems particularly old growth***

Observation 14 points out that an important comparison between old growth and the future forest condition should be made to ensure that “declining” forest types are conserved. Reports called Pre-industrial Condition or PIC reports need to be examined forest by forest for a clear analysis. All FSC certified SFLs in Ontario have PIC analyses. These reports document the historical species distribution, age classes and patch size, among other things. The PIC reports should be compared with current patterns on the forest. Where there are situations in which old growth does not meet the requirements of the standard it is de facto HCV.

#### ***Large Landscape Forest (LLF)***

From Observation 15, the HCV framework is not very clear about the concept of LLFs. Do they tie in with the protected areas network? How many roads are acceptable? Do diffuse seasonal roads compromise the quality of the value? Is there a quantifiable measure of road density? Enhanced Management Areas provide some of the qualities of LLFs, so which ones do qualify? There needs to be a conceptual examination of LLFs and more clarity brought to the standard, or managers will continue to define the concept for themselves, and will naturally tend to avoid the hard choices.

#### ***Provincially Significant Wetlands Evaluation***

From Observation 16, most of the SFLs do not have official surveys for provincially significant wetlands. There is a commitment on the part of Ducks Unlimited to complete an automated approach for the SFLs. The status of this project and its availability for use in HCV assessments needs to be evaluated. This is an important contribution to forest management for a number of reasons aside from this report.

#### ***Standards revisions***

As a side issue to this report, but one that has implications to the future assessments, in the current draft of the GLSL standard, the revisions to the HCVF framework will change to require “concentrations of species at risk (SAR)”. This means that most SAR will not be included as

HCVs because concentrations are rare. Even if there is a minimum requirement of three for a concentration, there will be no situations that will arise in the managed forest, outside of some wetlands. Any modifications to the HCVF framework have regional and national implications. Ontario will be split into two separate frameworks, with many similarities but enough differences to cause problems for making comparisons.

## 4. Next Steps and Strategies

This analysis shows clearly that a complex subject such as HCVs is not a simple “check box” exercise. Understanding the spreadsheet takes time, and understanding the nuances of how forest managers have come to their HCV designations takes time. A great effort was put into reading and comparing reports, line by line, and cross tabulating the assessments of the managers. It is important that this effort be maintained so that the whole HCV concept remains rigorous. This means that there needs to be a significant resource input to the concept.

There appears to be variability in some HCV assignments. Although it takes some scrutiny of adjacent units in the spreadsheet to assess consistency, there is enough variability that there is a need to explore the differences for some individual HCVs for which there should be some consistency in identification. This is a general observation about the overall application of the concept of HCVs. Resolving the consistency issue will take a line by line, question by question comparison, and discussion with managers to ensure that apparent inconsistency is actually based on the local needs and situation. Comparability is the fundamental purpose of a standard.

Is it worth the effort for ENGOs to pursue this complex subject area? Arguably, FSC will address the complexity of HCV assessment and management through their audit system. The auditors take principle 9 seriously, although certifying bodies have an uneven level of expertise around HCVs. We have discussed problems in the United States approach. Regionalization of FSC means that there is a local flavour to the assessments. In the case of Ontario, there is a fairly strong flavour, because we have had to make a fairly abstract international concept work in a region characterized by a dozen certified SFLs with an average size close to 1 million ha, and a decidedly industrial outlook. Companies have cooperated, within their ability to do so. The strong role of government in values protection has been a complication because MNR’s programs are under-funded (Environmental Commissioners Ontario 2007<sup>4</sup>).

Vigilance by ENGOs needs to be focussed if there is any hope of making a contribution, and pushing the companies in the right direction. The subject is complex enough that inappropriate comments can have a deleterious effect on the values themselves.

### Recommendations

The following is a list of the primary recommended action items of this report:

1. Clearly identify responsible positions for protection of values
2. Ensure efficacy is monitored
3. Ensure efficacy is reported publicly
4. Rankings and designation of individual values for every question
5. Concentration of animals
6. Protected areas as HCVs
7. Clarity of Land use designation and Harmonization
8. Rare ecosystems difficult to classify and map
9. Declining ecosystems particularly old growth
10. Large Landscape Forest (LLF)

<sup>4</sup> Environmental Commissioner of Ontario. 2007. Doing less with less: How shortfalls in budget, staffing, and in-house expertise are hampering the effectiveness of MOE and MNR. A special report to the Legislative Assembly of Ontario. April 24, 2007. Office of the ECO.

11. Provincially Significant Wetlands Evaluation
12. Standards revisions