



WWF-CANADA HIGH CONSERVATION VALUE FOREST SUPPORT DOCUMENT

DRAFT FOR REVIEW

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WWF-CANADA
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PRODUCED IN COLLABORATION WITH:



INTRODUCTION

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INTRODUCTION

PREAMBLE

The High Conservation Value Forest concept is a recent creation of the Forest Stewardship Council (FSC), first published in 1999, and emerges from the scientific literature regarding systematic conservation planning. Although defined by FSC for use in forest management certification, it is increasingly being applied in other areas, such as landscape management and conservation planning, conservation advocacy, responsible purchasing, investment and donor policies.

There has been rapid uptake of the HCVF approach in Canada by forestry companies. We estimate that there are up to 20 HCVF reports written for forest tenures in Canada's commercial forest zone covering over 20 million hectares of public forestland. In the last 5 years, the HCVF approach has evolved from a concept to application with independent verification under a certification process. In that time, a global tool kit has been developed by ProForest to further define HCVFs (<http://www.proforest.net/index3.htm>) and a national framework has been written for Canada (<http://www.fsccanada.org/policies/document.shtml>; see Appendix 5 in the FSC Canada National Boreal Standard) to move towards standardizing the HCVF investigation.

This first generation phase of HCVF development and application in Canada has seen a steady improvement in the data analysis, investigation, delineation and description of management prescriptions for HCVFs. While there has been steady improvement, practitioners continue to struggle with some aspects of the HCVF application, such as the threshold when a value becomes a "high conservation value" and what proportion of the distribution of a value is the most "critical and/or outstanding". As a result, World Wildlife Fund (WWF), together with The Nature Conservancy

(TNC) and other conservation partners, have prepared this support document in the spirit of providing assistance to forest and conservation practitioners for future application of the HCVF framework. While most of the existing HCVF reports and examples put forward in this document are drawn from the boreal, the guidance offered in this report is applicable to HCVF assessments throughout Canada.

This document has two main parts. An introductory section discusses overarching topics applicable to all or most of the HCVF assessment process. The remainder of the document is arranged by the 6 principal HCVF categories and 19 questions established in Appendix 5 of the FSC Canada National Boreal Standard; High Conservation Value Forest National Framework. Each section addresses one or more of the 19 questions and can be used as stand alone documents. Together, these sections can provide supplemental support to Appendix 5 for practitioners undertaking a full HCVF assessment.

WWF and TNC have focused here on those aspects of the HCVF framework most related to biodiversity conservation. HCV questions addressing vulnerable and irreplaceable elements and intact forests (HCV1 to HCV3) are discussed in more detail in the document than ecosystem services (HCV4). Furthermore, we have not provided examples of forest areas fundamental to meeting basic needs of local communities (HCV5) or forest areas critical to local communities' traditional cultural identity (HCV6). These issues require considerable consultation with communities in order to generate HCVFs. WWF and TNC encourage organizations with expertise in these social and cultural issues to provide further guidance on HCV5 and HCV6.

INTRODUCTION

INTRODUCTION

What are High Conservation Value Forests?

High Conservation Value Forests (HCVFs) are defined by the Forest Stewardship Council as forests of outstanding and critical importance due to their high environmental, socio-economic, biodiversity or landscape values. HCVFs comprise the crucial forest areas and values that need to be maintained or enhanced in a landscape. HCVFs can be identified across broad forest biomes (tropical to boreal), within a wide range of forest conditions (largely intact to largely fragmented), and in ecoregions with complete or under-represented protected area networks. Principal 9 of the FSC Canada National Boreal Standard calls for the identification, management and monitoring of HCVFs.

High Conservation Value Forests may or may not be included in protected areas networks. Certainly, where HCVFs include under-represented features, then we suggest the HCVF should be evaluated for inclusion in a protected areas network. In practice, many HCVFs will continue to be managed outside protected areas and here approaches will vary (e.g. enhanced management or long-term "no-cut" reserves) but should always aim to maintain HCVF values. In regions where the forest is largely degraded, HCVF management should be consistent with a forest landscape restoration strategy that addresses ecological, social and economic objectives. Two principles are paramount: (1) HCVFs are managed to *maintain the attributes that are of high conservation value*, and (2) management employs the *precautionary principle*, which requires that where the effects of extraction and other management are unknown, values are insured through a cautious approach.

While we believe that there is a clear link between the assessment and identification of HCVFs and protected areas planning, this does not suggest that HCVFs are *de facto* protected areas. There are two general situations in which permanent protection emerges as the best management prescription for select HCVFs: (1) the intrinsic value or a confluence of values in a HCVF suggests that the attribute can only be maintained if industrial resource extraction is excluded, and (2) the HCVF is selected as a candidate protected area within a comprehensive and systematic conservation planning process.

What are the objectives of this document?

The main purpose of this support document is to assist future applications of the HCVF framework in Canada. This document emphasizes a systematic investigation and improving consistency of HCVF assessments with objectives to:

- Outline sequential steps for problem solving and information gathering for each of the principle conservation themes comprising an HCVF assessment;
- Provide further discussion related to the interpretation of HCVF thresholds;

- Improve consistency in the application of the HCVF framework by outlining well-documented, investigative techniques for HCVF assessments;
- Offer additional methods and/or analytical techniques to identify, map and assess the relevance of conservation attributes;
- Define the role of HCVF assessments within the larger context of conservation planning;

What is an HCVF assessment?

Within the FSC context, a HCVF assessment fulfills Criterion 9.1 (HCV identification). In this document, we use examples to emphasize a logical sequence of steps to complete an HCVF assessment. The ProForest HCVF Tool Kit (Part 3, 2003) provides a flow chart that likewise outlines these steps. For forest practitioners in Canada, the first step is to consult the HCV check list (Appendix 5 to the National Boreal Standard) to determine whether the conservation value potentially exists in the forest area. This will require that a thorough range of information sources be consulted, such as species at risk lists, range maps, ecosystem classifications and conservation status assessment, watershed management plans and other types of existing conservation evaluations.

The checklist (Table 1) provides a structure to investigate a range of conservation values, from species to community types and from point occurrences to landscapes, and apply the generic threshold to determine if the value is critical and/or outstanding at global, national or regional scales. In some cases, any occurrence or the entire distribution of a conservation value will be determined to be a high conservation value. In other cases, only a concentration or critical portion of the distribution of the conservation value will meet the critical and/or outstanding threshold. In all cases, and also when HCV status is not confirmed, a clear rationale should be provided for the decision.

If an attribute is confirmed as a HCV, the next step is to then delineate the HCVF at the appropriate stand to landscape scale. This is the forest area required to maintain or enhance the value. At the stand scale, this could be the distribution of site types with the potential to recover a declining tree species or ensure the potential for a particular seral stage. At the landscape scale, an entire watershed or the riparian buffers around all streams in a watershed may be delineated as a HCVF.

What are HCV thresholds?

The key decision point in an HCVF assessment for any conservation value is to determine when the value is of critical and/or outstanding importance. This threshold may be the entire distribution for a vulnerable or irreplaceable element, such as a particular species at risk or rare community type, or it may be a portion of a focal species' suitable habitat that is currently most limiting. Setting this threshold is rarely prescriptive since it relates very much to the current status, scale, future trends, and expected and observed distributions

INTRODUCTION

Table 1: Simplified HCVF checklist

HCV Category 1

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

- Species at risk
- Endemics
- Wildlife concentration areas
- Critical habitat for regionally significant species
- Outlier or range edge species
- Protected areas and candidates

HCV Category 2

Forest areas containing globally, regionally or nationally significant large landscape level forests

- Large landscape level forests

HCV Category 3

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

- Naturally rare ecosystem types
- Declining ecosystem types
- Remaining intact forests (where large landscape level forests are rare or absent)
- Unique and/or diverse ecosystem types

HCV Category 4

Forest areas that provide basic services of nature in critical situations

- Forests critical for drinking water quality
- Erosion
- Flooding
- Fire barrier
- Ameliorating microclimate for agriculture and fisheries

HCV Category 5

Forest areas fundamental to meeting basic needs of local communities

- Forest areas fundamental to meeting basic needs of local communities

HCV Category 6

Forest areas critical to local communities' traditional cultural identity

- Forest areas critical to local communities' traditional cultural identity

of each conservation attribute within the tenure and in comparison to the ecoregional context. The examples in this document, however, attempt to identify *a priori* thresholds primarily by considering the relation of the regional distribution to the occurrences in the tenure for select conservation attributes, as well as consideration of the current understanding of the behaviour and dynamics of the attribute.

Furthermore, the decision-making process described in this document to determine HCVF thresholds emphasizes the nature and status of the conservation value. That is, current management practices or regulations are not a consideration for HCVF status, although these may be appropriate considerations to establish the suitable management or monitoring effort of the forest manager.

Two general examples can be used to illustrate the consideration of regional distributions to establish HCVF thresholds.

- (1) Moose are common in northern Ontario and even limiting habitat such as moose aquatic feeding areas, is likely not to be considered HCVF. In southern, fragmented landscapes, however, and approaching the southern

portion of moose range, it is conceivable that moose aquatic feeding areas can be considered critical habitat and listed as HCVFs.

- (2) Bald eagles are listed as endangered in Ontario. Isolated breeding pairs are likely not HCVFs in northern Ontario where populations are more stable than in other areas of the province. However, a cluster of as few as several nests (i.e. several breeding pairs) in a single watershed may constitute a significant concentration that meets HCV thresholds. In this case, the watershed may be designated as a HCVF. In southern Ontario, single nesting pairs may be considered HCVs since these populations have experienced greater historical declines.

During assessment values are designated as HCV, not HCV or *potential* HCV. The potential HCV designation should be used in cases where occurrence is not confirmed, need further information about distribution and abundance, and/or further consultation is required.

Question 19 from the HCVF National Framework pertains to the significant overlap of ecological and/or cultural values that individually did not meet HCV

INTRODUCTION

thresholds, but collectively do constitute HCVs. This final analysis step of an HCVF assessment requires that all potential HCVs and those that nearly missed the critical thresholds be tracked and recorded throughout each of the 18 preceding steps of the analysis.

How is scale addressed in the HCVF framework?

Geographic scale is interpreted in two ways throughout this document. Attributes can be listed as globally, nationally or regionally significant. This type of interpretation usually does not change with the geographic scope of the assessment since the rating of risk is often applied by an agency based on objective criteria at various scales (i.e. IUCN red list). That is, the risk rating does not change whether you consider the attribute at a local level or a national level.

A second treatment of scale considers the local forest (i.e. tenure) within the broader regional landscape. In this report, we will illustrate situations where the HCV determination of an attribute within a tenure can be altered by also considering the regional distribution of the attribute. Here, the issue of scale refers to the geographic study area under consideration for a particular conservation attribute.

How does an HCVF assessment relate to comprehensive conservation planning?

Comprehensive conservation planning has a goal to maintain long-term ecological integrity across landscapes through a combination of actions such as best management practices, completing permanent protected areas networks and establishing special management zones to address complimentary conservation values (e.g. caribou calving areas, marten core areas, etc.). It is best to undertake conservation planning across large regions in order to make appropriate decisions about management or strict protection for any particular forest area.

Although we emphasize in this document that consideration of conservation values at a regional scale is more appropriate to make HCV decisions, the nature of the forest tenure system dictates that final HCV recommendations are made at the scale of the forest concession.

Many conservation targets typical of comprehensive conservation planning are addressed in the HCVF assessment. This includes special elements (vulnerable and irreplaceable elements at species and ecosystem scales and wildlife habitat for regionally significant species), habitat condition, ecosystem services, cultural values, and consideration of long-term viability and persistence. The HCVF assessment indirectly considers ecological representation, connectivity, restoration and threats or risk to conservation attributes from sources other than forestry operations.

In this way, the HCVF assessment can be used to inform protected areas planning. Information documented about conservation attributes and thresholds in a HCVF assessment can be used to set protected areas targets. In addition, HCVFs, or HCV

zones, can be evaluated for suitability in a permanent protected areas network. Finally, a protected areas design together with HCV zones can be evaluated for conservation effectiveness regarding ecological representation and persistence.

Precautionary approach

Whether an HCVF assessment is undertaken within or outside of an FSC process, we strongly recommend that the investigator is consistent with the precautionary approach expressed in FSC's Principle 9, that "decisions regarding HCVFs shall always be considered in the context of a precautionary approach." This should apply both at the identification stage and during the determination of suitable management prescriptions to maintain the HCV.

Similar to the discussion regarding HCV thresholds, addressing uncertainty in the application of the precautionary approach will vary by region, situation and practitioner. Some investigators will be more inclusive of values to address uncertainty. That is, HCV thresholds may be relaxed to ensure that potential HCVFs are included. This is more likely to be the case for HCVF assessments conducted for data poor areas or where data is of dubious quality. Where data are scarce for evaluating HCV status, modeling approaches (e.g. predictive habitat modeling) may also need to be considered to estimate expected regional and tenure-scale distributions.

The HCVF National Framework emphasizes that application of the precautionary approach is also an important component of the management of HCVFs.

Threats assessment

Understanding threats to HCVs is critical to understand cumulative impacts and developing effective management prescriptions. Therefore, a threats assessment should be conducted prior to drafting a management plan, and could be incorporated in be into the HCVF assessment. Threats assessments should not be limited to direct and indirect adverse impacts from forest operations, rather they should address the full suite of factors that could adversely impact forest resources. Tourism and other public access for recreational consumption (fishing, hunting, off-road vehicles), other industrial uses, and pollutants may constitute threats that can and should be considered in determining a HCV threshold and setting appropriate management prescriptions given the probabilities of long-term persistence.

Next steps – HCVF management prescriptions and monitoring

Criteria 9.3 and 9.4 of the FSC Canada National Boreal Standard address appropriate management prescriptions and monitoring activities. Management prescriptions for HCVFs are often considered to be enhanced or special management. However, where the existing regulatory requirements have been proven to be effective in maintaining the attributes for which the HCV has been defined, there may not be a need to modify the prescriptions. Furthermore, the potential

INTRODUCTION

forestry impact and/or level of protection of the HCVF should also be considered in determining the forest manager's responsibility for management and monitoring.

For example, management prescriptions for HCVs associated with shoreline habitat (i.e. non-forested habitat) may be limited to road and access planning to ensure that opportunities are not created that could potentially increase off-road vehicle traffic and other forms of human disturbance. Similarly, if the entire or critical portion of the distribution of a HCV exists within regulated protected areas, then the agency responsible for the protected areas has a greater obligation for monitoring the portions of the HCV in those areas. Regardless of jurisdiction, monitoring should always be conducted at spatial and temporal scales appropriate to the HCV.

The focus of this support document is on HCVF assessment (Criterion 9.1); WWF and TNC do not address Criteria 9.3 (HCVF management) or 9.4 (HCVF monitoring) here, however it is important to recognize that the four criteria are related and that HCVF assessments are not static documents. The outcomes of monitoring programs need to inform revisions to the thresholds and management strategies in an iterative process. An adaptive approach helps reduce uncertainty encountered during both the assessment and management planning stages.

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