

# **Out of Balance**

## **A revealing look at how public forests are managed on the Whiskey Jack Forest. (Full Technical Report)**

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# CPAWS-Wildlands League

CPAWS-Wildlands League's mission is to protect wilderness through the establishment of protected areas and the promotion of natural resource use that is sustainable for nature and communities.

Citizens concerned about Ontario's oldest park, Algonquin, formed the Wildlands League, a charitable conservation organization, in 1968. Our mandate has since grown to include wilderness protection through the establishment of protected areas and the promotion of more sustainable approaches to resource management. The League works to protect Ontario's wilderness through science-based conservation and collaborative efforts with conservation organizations, government, industry, communities and First Nations.

The Wildlands League became a chapter of the Canadian Parks and Wilderness Society (CPAWS) in 1980 and we collaborate with 12 other CPAWS chapters across the country to protect our natural environment.

We believe that we must develop new approaches to forestry and land use that better protect ecosystems, habitat, wild species, indigenous culture and resource-dependent communities. We are deeply engaged in efforts to reshape current forest policy and practices and we are pointing the way toward better methods of caring for the land and managing our resources. Fundamentally, we believe we must stop eroding the natural capital of our forests that provides us with so many different benefits.

You can learn more about our organization by visiting our website:  
[www.wildlandsleague.org](http://www.wildlandsleague.org).

# Assessment of sustainability in the Whiskey Jack Forest, managed by Abitibi-Consolidated Incorporated (ACI)

## EXECUTIVE SUMMARY

The Whiskey Jack Forest is in trouble because logging operations being carried out there are not economically, socially or environmentally sustainable.

This conclusion results from CPAWS Wildlands League's assessment of Abitibi-Consolidated's 20-year draft forest management plan (FMP) for the Whiskey Jack Forest, which was approved by the Ministry of Natural Resources (MNR) and released for public inspection on Feb. 17, 2005 (see page 10 for more details on our assessment approach).

Most of the serious problems we found in the plan can be traced back to one root cause: Extensive cutting by logging companies combined with high rates of natural disturbance (forest fires, windstorms, etc.) has left most of the forest in a young condition. These younger forests will yield fewer overall benefits than more mature forests and this means that the high rates of logging that have been the norm in the Whiskey Jack forest simply cannot be sustained.

But rather than meaningfully addressing this problem, The 2004-2024 FMP exacerbates it, by continuing to put the emphasis on keeping logging rates at current levels, at the expense of wildlife habitat, future community stability, and other forest values.

The result is a plan that fails to create an appropriate balance between planning for the protection of natural values, such as wildlife habitat, and providing timber supply; between meeting current wood supply demand and future economic opportunities; between addressing the needs of the forest industry and retaining areas for the traditional activities of Aboriginal communities.

One statement from the plan says a great deal about the planning team's approach. On page 74 of the plan, they state that:

“It was a significant challenge to implement marten core areas *while maintaining current harvest levels on the forest.*” [emphasis added].

As a result, areas dedicated to protecting habitat for marten, a species that prefers large intact areas of old forest, fall well short of minimum targets set in MNR habitat protection guidelines for the life of the plan. We found the same story repeated in the entire FMP: a desire to maintain harvest levels and a willingness to compromise other values to do so. In the longer term, this approach will only cause further harm to a forest that has already lost much of its natural wealth and diversity.

The detailed conclusions and recommendations of this report can be found within each section after a discussion of our assessment approach and findings.

## Summary of conclusions

## **Old growth**

- Forestry is cutting into old growth in the Whiskey Jack forest, reducing it to unnaturally low levels.

## **Forest intactness and fragmentation**

- Few intact mature forest areas remain in the Whiskey Jack forest, with most areas of the forest having already been divided by roads and cut. Abitibi Consolidated Inc. (ACI) has agreed to suspend most logging operations in the remnant intact areas identified by CPAWS-Wildlands League during this five-year plan. However, the future of the few remaining intact areas is threatened without a commitment from ACI and MNR to protect them in the longer term.

## **Habitat for key wildlife species**

- Habitat for a key forest species is at unnaturally low levels. ACI recently cut the last major piece of woodland caribou habitat in the Whiskey Jack Forest, leaving an area of almost 600 square kilometres in size with little useful caribou habitat.

## **Wood supply and the rate of cut**

- ACI has over-estimated the available wood supply; resulting in unsustainable logging level calculations that provide inadequate protection to wildlife and will exacerbate a pending drop in wood supply.

## **Silviculture Systems and Logging methods**

- ACI continues to rely almost exclusively on whole-tree clearcutting and has not met some requirements of environmental guidelines to reduce the environmental impact of clearcutting.

## **Protected areas and High Conservation Value Forests (HCVFs)**

- The protected-areas network in the Whiskey Jack Forest is incomplete. ACI continues to log in high conservation value forests, but has started some analysis of HCVF areas.

## **Relationship with Aboriginal Peoples**

- Grassy Narrows First Nation continues its road blockade to protest the negative effects of Abitibi's logging operations on the rights, resources and livelihood of the community.

## **Operational plans**

- ACI's approach to the size and spacing of clearcuts did not meet current provincial standards.

## **Compliance in the field**

- Generally speaking, ACI demonstrates good compliance with operational rules to protect environmental values. However, in the opinion of CPAWS-Wildlands League significant violations of guidelines designed to protect marten habitat have occurred; and protecting marten habitat protects the viability and sustainability of the forest itself.

## **Summary recommendations**

The traditional approach to forestry has created a sustainability crisis in the Whiskey Jack Forest. Major steps must be taken by Abitibi, and MNR to get back on the path of sustainability:

1. Remnant intact mature forest areas within the Whiskey Jack Forest should be permanently protected. The near absence of such intact forest within such a massive forest area requires nothing less than full and complete protection from industrial uses, including road building. Strategies should also be developed to reduce road densities and impacts in other areas (such as through decommissioning, access restrictions or active planning to reduce new road construction).
2. Abitibi and MNR should complete a proper assessment of the pre-industrial forest conditions of the Whiskey Jack Forest in order to set an objective for old-growth retention based on a better informed view of the forest's natural condition not on a comparison to current post-logging conditions.
3. MNR should ensure proper implementation of its caribou habitat guide and the protection of existing caribou habitat. Current woodland caribou habitat should not be destroyed on the premise of creating future habitat.
4. The FMP should be amended to reduce harvest levels in the next 20 years in order to reduce the impact of declining wood supplies on forest-dependent communities and ecological systems in the longer term. This change in approach should be based, in part, on reassessing the assumptions and inputs to the current harvest model.
5. Rather than letting demand for wood drive forestry planning while ecological and social values take a back seat, planners should be clearly required to plan for long-term ecological protection first with sustainable and realistic harvest levels a derived (rather than predetermined) outcome. Such planning must put the protection of the full range of forest values (from wildlife habitat and water protection to traditional uses and recreation) before or at least on an equal footing with industrial wood supply. Such an approach should be integrated into MNR's directions for implementing the new Forest Management Planning Manual with clear instructions that Forest Management Plans are not to be designed to meet wood flow targets for mills.
6. The Ontario and federal governments and Abitibi should continue to work with Grassy Narrows First Nation community to find a resolution to First Nation concerns and to ensure that the community sees real and sustainable economic and social benefits from any industrial activities on their traditional lands.
7. Abitibi should commit to achieving Forest Stewardship Council certification of all of its forest operations in Canada. Pursuit of FSC certification would provide a good opportunity to correct many of the problems in the current plan and allow the company to demonstrate to consumers and the public owners of the Whiskey Jack Forest that it is a responsible forest manager.

# INTRODUCTION

This report provides an assessment of the sustainability of the forest management approach proposed by Abitibi-Consolidated Inc. (ACI) in the Whiskey Jack Forest in northwestern Ontario. The Whiskey Jack Forest is one of 49 publicly owned forest management units in Ontario and covers an area of more than one million hectares.

Our assessment is based on the management intentions described in ACI's Forest Management Plan (FMP or "the plan") for the period 2004-2009. The FMP was due to be finalized in April of 2004, but delays in the planning process pushed this date back to Feb.14, 2005. (During the interim period, forestry operations ran on a contingency plan.)

This is the fifth in a series of reports prepared by CPAWS Wildlands League on compliance with forestry regulations and policies and the effectiveness of specific policies (such as the need for no-harvest reserves around lakes and streams) for public lands management. Our previous audits were done in conjunction with Sierra Legal Defence Fund. These previous audits are available on our website: [www.wildlandsleague.org/forestry.html](http://www.wildlandsleague.org/forestry.html).

This assessment, however, has a larger scope than our previous reports. This is the first time an environmental non-governmental organization (ENGO) has undertaken an assessment of the overall sustainability of an FMP in Ontario, including using data and computer models developed by government and industry to test assumptions and outcomes in the plan and to gauge its compliance with provincial forestry rules.

Our assessment looked at ACI's plan and performance using a number of important indicators of sustainability:

- Levels of old growth
- Forest intactness and fragmentation
- Habitat for key wildlife species
- Wood supply and harvest rates
- Logging methods
- Protected areas and High Conservation Value Forests
- Relationship with Aboriginal peoples
- Compliance with rules and regulations during logging

This list of indicators was drawn from a common vision for well-managed forests developed in 2002 by a group of 29 conservation organizations from across Canada.

As well as assessing company compliance with relevant MNR forestry rules, we also compared the plan to the standards for good boreal forestry developed by the Forest Stewardship Council (FSC). Although ACI has not committed to FSC certification, we used these standards to provide a benchmark for best current practices.

Failure to meet the requirements of an FSC standard does not mean that the company is in breach of any provincial laws or regulations, but does indicate where the company is

falling short of the most credible current standards for good forest management. Failure to comply with MNR rules, however, is grounds for MNR to withhold approval of the FMP and could lead to a challenge under the Crown Forest Sustainability Act.

*About FSC certification*

The FSC forest-certification system is a voluntary program that recognizes companies that agree to meet specific on-the-ground standards for forestry operations and be independently audited on compliance with these standards. FSC standards are developed through a public consensus-based process involving four “chambers” – industry, Aboriginal, environmental and societal – each with an equal say in the development of the standard.

The FSC national boreal standard was developed over a two-year period and represents a coming together of many different interests around a common vision for our forests. Those involved in its development, including major forestry companies, believe it represents a realistic and achievable standard for good forest management in the boreal forest region.

This report was developed as part of our two-year Forest Guardians project, supported by the Richard Ivey Foundation. The goal of the Forest Guardians project was to increase public understanding and involvement in forest management planning.

## **Ontario's Commercial Forest System**

Ontario's operational forest zone, stretching roughly from just north of Peterborough to the current cutting limit at roughly 51 degrees latitude, has been divided into 49 large Forest Management Units (FMUs), including the Whiskey Jack FMU. Although the Ministry of Natural Resources (MNR) retains the ultimate authority over managing these lands, it has delegated responsibility over forest management in these units to forest companies through Sustainable Forest Licences (SFLs) in all but three cases. (Two FMUs continue to be directly controlled by the Ministry of Natural Resources and one -- the French-Severn FMU -- is held by a community-controlled cooperative known as Westwind Forest Stewardship.)

Seven large forestry companies, one of which is ACI, control close to three-quarters of the total allocation of the annual allowable cut (the amount of wood that can be harvested from public lands each year) in Ontario.

However, the forest management system does not transfer ownership of the land or forests to companies. Rather, companies are given the right to cut trees in these licence areas if they agree to take on the responsibility of developing Forest Management Plans (FMPs) in keeping with government regulations and policies and properly undertake logging and regeneration activities. The land is effectively rented by the companies and they must keep it as a healthy forest ecosystem on behalf of the people of Ontario.

In return for access to public lands, companies pay the Crown (the government of Ontario on behalf of the people of Ontario) a tax, or stumpage charge based on the volume and value of the wood they harvest.

# Whiskey Jack Forest

The Whiskey Jack Forest Management Unit (FMU) is located in northwestern Ontario. It is bordered by the communities of Kenora to the southwest, Ear Falls to the northeast and Red Lake in the north. Woodland Caribou Provincial Park hugs the unit's northwest border. The forest unit is divided into two portions: a small southern sub-unit southeast of Kenora bordering Lake of the Woods and a northern sub-unit above the CN rail line.

The area contains the traditional lands of the Grassy Narrows First Nation (Asubpeeschoseewagunk Netum Anishinabek), Wabauskang First Nation, and Whitefish Bay First Nation (Naotkamegwanning). These communities use the forest for subsistence hunting, trapping and fishing, small-scale logging, tourist guiding and outfitting. The land also supports non-native nature tourism, recreational fisheries, sport hunting, trapping, and forest industry-dependent communities.

ACI holds the licence to manage the Whiskey Jack Forest (SFL #542253, effective April 1, 1997). Other companies that hold overlapping licences do the actual logging. However, ACI retains responsibility for ensuring that the rules and decisions of the FMP are being followed by all companies operating in the unit. Staff from MNR and ACI together with a member of the local citizens committee (collectively referred to as the planning team) are responsible for developing the FMP itself. ACI led the development of the plan. MNR retains the right to review and approve or reject the draft plan.

Timber from the forest supplies a veneer mill, an oriented strandboard mill, a sawmill and three pulp mills. The FMU covers over one million hectares, 73% of which is productive forest (the rest is water, rocky areas, wetlands and other non-forested land). Forest cover is dominated by jack pine, spruce, and poplar with a scattering of white birch, balsam fir, cedar and very small amounts of red and white pine.

The FMU is subject to extensive natural disturbance, with spruce budworm, fire and wind damage routinely affecting large areas of the forest. These naturally high levels of disturbance reduce the amount of wood that can be sustainably cut from the forest.

Special concerns in the Whiskey Jack Forest include relationships with native communities, conservation of old-growth areas and intact patches of forest, protecting woodland caribou habitat and the maintenance of other species such as marten that prefer mature forests. These issues must be dealt with in the context of a history of sustained harvest levels that are projected to increase in the unit in coming years .

# Approach and Scope of the Assessment

CPAWS-Wildlands League staff used their knowledge of forestry, conservation, forest-management planning requirements, their experience with field-auditing and their familiarity with the principles of good forest management spelled out by the Forest Stewardship Council to assess ACI's management of the Whiskey Jack Forest.

The assessment team followed the development of the FMP from the beginning to the conclusion of the planning process. We attended planning-team meetings and meetings of the Local Citizen's Committee and attended public open houses presented by MNR.

We obtained a copy of the draft FMP and the planning inventory for the forest as well as many digital layers of GIS information that allowed us to assess the state of the forest and ACI's plans for logging, habitat conservation, road-building, etc. We also conducted two seasons of field audits to assess the company's on-the-ground compliance with operational rules to protect environmental values.

Most importantly, we obtained the data necessary to use MNR computer models to independently assess the planning team's proposed rate of cut. This is the core of our assessment, yielding significant insights into the sustainability of the FMP. We based our assessment on the planning team's preferred management alternative that sets out the management strategies and harvest levels that ACI is proposing to use over the next five years. (The detailed methodology applied to the assessment of each section of the plan is outlined in the sections that follow.)

The assessment of ACI's performance is based on MNR rules as well as the accredited FSC National Boreal Standard for Canada. The relevant MNR rules and FSC standards used to assess each plan section are summarized and paraphrased in the sections that follow as well.

For a discussion of MNR's forestry rules, read our citizen's guide at [www.wildlandsleague.org/guardians/morethantrees.pdf](http://www.wildlandsleague.org/guardians/morethantrees.pdf).

To read the FSC Canadian National Boreal Standard visit [www.fsccanada.org](http://www.fsccanada.org).

This is not an FSC certification audit and we are not accredited to write such an audit. We simply used key requirements of the FSC standard to allow us to draw general conclusions about the adequacy of ACI's management of the Whiskey Jack Forest, including:

- Levels of old growth (FSC 6.1.5; 6.3.6)
- Habitat supply for key wildlife species (FSC 6.3.15)
- Forest intactness (and fragmentation) (FSC 6.3.13; 6.3.17)
- Wood supply and harvest rates (FSC 5.6.1; 5.6.2)
- Logging methods (FSC 6.3.3; 6.3.7; 6.3.8; 6.3.11)
- Protected areas and High Conservation Value Forests (FSC 6.4; 9.1.1; 9.3.1)
- Relationship with Aboriginal Peoples (FSC 3.1.2; 3.2.2; 3.3.1; 3.3.3)
- Compliance in the field (FSC 1.1.2)

ACI's performance in each of these areas is discussed relative to FSC requirements as well as to provincial government requirements.

# Levels of old growth

Old-growth forests have been a focus of concern about the health of our forest resources and a high-profile point of conflict between conservationists, the forest industry and government. Old growth is a natural forest condition that contributes unique ecological functions and social benefits necessary for a healthy ecosystem and forest communities. Forest management for the production of timber has generally resulted in the reduction or elimination of the old-growth component of forests. As a result, old-growth characteristics are becoming scarce on the vast area of Ontario forests open to timber management.

## **FSC Standards:**

- Maintain the average natural distribution and amount of old forests (FSC 6.3.6).
- Determine the average natural distribution and amount through an in-depth, peer-reviewed assessment of the pre-industrial forest condition (FSC 6.1.5).
- A departure of 25% from the average natural amount is acceptable (i.e. if the average amount is 10,000 ha, the minimum required amount is 7,500 ha) (FSC 6.3.6).

## **MNR Rules:**

- Current, future and historic forest conditions will be used to guide the development of old-growth objectives and targets that protect and/or restore the distribution and abundance of each forest community towards their natural geographic ranges;
- The<sup>[JS1]</sup> minimal level of red and white pine will be no less than the 1995 amount, current levels of red and white pine will be maintained and future levels will be based on desired forest condition determined through a process (similar to the one used to set old-growth objectives and targets for forest communities) that will be documented in the plan;
- Old growth as habitat for selected wildlife species will be considered as part of the sustainability assessment of alternative management strategies; and
- How much old growth is appropriate for each ecoregion and how it is spread over the landscape and amongst different Forest Management Units now and in the future are complicated matters that must be considered.

## Current Amounts of Old Growth:

### *Assessment:*

The current amount of old growth in the Whiskey Jack Forest was determined using the digital Forest Resource Inventory prepared by ACI and MNR's old-growth definitions (OMNR 2003).

### *Findings:*

Of the total Whiskey Jack Forest, 6.3 percent currently is in an old-growth condition (Map 1). Table 1 shows current percentages of old growth in all forest types.

More than half of all the old-growth forest in the Whiskey Jack forest is poplar dominated, despite the fact that poplar only makes up 18.5% of the entire forest. This is probably an unnatural consequence of the past undesirability of poplar as a source of wood fibre for industry.

Table 1 Existing Old Growth in the Whiskey Jack FMU by forest type (2004)

Forest Unit (Type)Name	Total area of forest type	% of the forest that is this forest type	Area of forest type that is old growth	% of forest type that is old growth	% of total old growth area in the forest that is made up of this forest type
Poplar dominated (PODOM)	136,819.80	18.5%	34,441.00	25.2%	52.2%
Jack pine dominated (PJDOM)	240,359.82	32.5%	10,261.28	4.3%	15.5%
Spruce dominated (SPDOM)	198,093.02	26.8%	8,070.90	4.1%	12.2%
COSHA	78,851.18	10.7%	2,810.69	3.6%	4.3%
Mixed conifer and deciduous (MIXED)	58,712.48	7.9%	7,378.07	12.6%	11.2%
Lowland black spruce (SBLOW)	13,831.60	1.9%	0.00	0.0%	0.0%
Red and white pine (PRWMX)	4,421.51	0.6%	442.82	10.0%	0.7%
CEDAR	5,793.41	0.8%	2,118.66	36.6%	3.2%
Other hardwood species (OTHWD)	1,845.07	0.2%	474.77	25.7%	0.7%
TOTALs	1,053,666		65,998.19	6.3%	

The planning team has not determined historic levels of old growth. Instead, it has set a target to maintain old growth for all species at 1995 levels, corresponding to an average target of three percent. They have compared the 1995 inventory with the one from 1977 and have concluded, that for old growth,

‘The overall result of disturbances from 1977 to the present has been the transition from a forest with a large amount of mature to over mature wood to a forest with the largest amount of area between one and forty years of age.’ (FMP final pg.20).

There is no quantitative expression of the amount of old growth for the 1977 inventory in the FMP.

The only way to credibly set a natural old growth target is to do a rigorous analysis of the pre-industrial range of old growth. However, to get an idea of what one value within that range might be, we looked at the amount of old growth in adjacent Woodland Caribou

Provincial Park. Woodland Caribou Provincial Park would represent the most natural forest condition in the immediate region because it has not been logged.

We digitized a map of the park that showed areas of jack pine greater than 100 years old (Woodland Caribou Provincial Park Background Information Figure 12, p42. 1986 Queen’s Printer for Ontario). Using GIS analysis we determined that this area made up 6.7% of the park’s land base. While the information from Woodland Caribou Provincial Park is only a snapshot in time, we believe that it suggests a target for old growth in the Whiskey Jack Forest.

In comparing the park to the Whiskey Jack Forest, we also noted that the Whiskey Jack Forest should have a higher natural old-growth level than the park because it consists of forest types that are less prone to fire disturbance and therefore more likely to reach an old-growth condition. (While the proportion of fire-dependent jack pine in the park is over 80%, jack pine dominated forest makes up only about 33% of the Whiskey Jack Forest.)

Maintenance/protection of old growth forests:

The FMP includes a stated objective “to maintain or move toward a natural age class structure that is within the estimated bounds of natural variation for the Whiskey Jack Forest through management planning and silviculture.” Specific targets for old growth were set at 1995 levels based on expert opinion. Table 2 shows the targets for each forest type.

**Table 2: Old growth targets for the Whiskey Jack Forest (adapted from Table FMP-7a of the approved FMP)**

Forest Unit	Age of Onset	% Old Growth Target (1995 FRI Baseline)	Old Growth Target Area in Hectares
CEDAR	Over 140 Years	6%	175
COSHA	Over 110 Years	2%	2,366
MIXED	Over 100 Years	3%	1,879
OTHWD	Over 100 Years	8%	55
PJDOM	Over 110 Years	2%	7,194
PODOM	Over 100 Years	4%	4,068
PRWMX	Over 130 Years	11%	132
SBLOW	Over 150 Years	10%	415
SPDOM	Over 120 Years	3%	5,806
TOTAL ALL SPECIES		3%	22,090

This corresponds to an objective to maintain an old-growth level of 22,090 ha, which is just less than 3% of the total productive forest area.

*Assessment:*

We evaluated the proposed management alternative using the Strategic Forest Management Model (SFMM) to project future changes in old-growth conditions based on the draft FMP. We compared results between the proposed management alternative and the **Null Model** findings, which project what would happen in the absence of logging. This was done by identifying the amount of forest older than the age of onset of old growth for each forest unit as set out in Table FMP 7a for each of the scenarios. The results of each scenario for the next 160 years are illustrated in Figure 1, ‘Percent of Forest in the Whiskey Jack FMU in Old Growth Conditions Over Time’.

*Findings:*

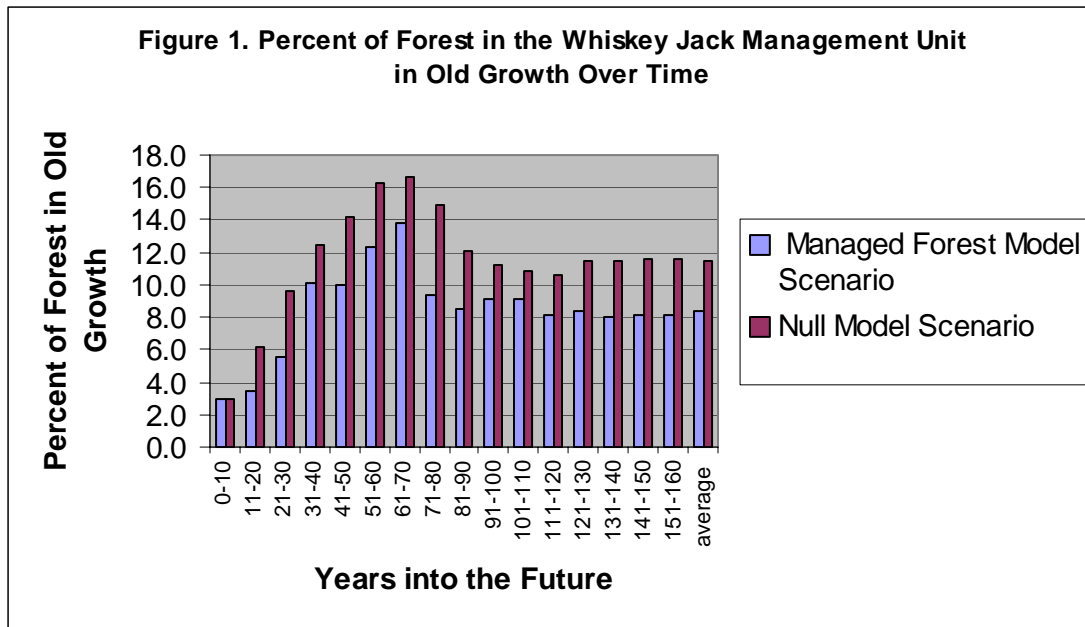
The two scenarios are labelled in Figure 1 as follows:

- The planning teams’ proposed management alternative where logging is the dominant disturbance: Managed Forest Model Scenario
- The amount of old growth that was predicted without any logging or fire suppression, where fire is the dominant disturbance: Null Model Scenario.

SFMM projects the amount of old-growth forest for the next 160 years. Note that in both scenarios, the old-growth levels fall to almost 3% in the first ten-year period. This is because even when no harvesting occurs, natural disturbances like wildfire reduce old-growth levels in the model in the absence of fire suppression. The succession rules built into the model acting on the current age class distribution also reduce the amount of old growth. For example, in the age class 161-170, jack pine dominated forest is scheduled to succeed to young spruce and jack pine between 31 and 50 years old. This is a necessary simplification of true natural processes that is inherent in the model. If logging had not previously reduced old growth, it is possible that such low levels would not be predicted in the Null Model.

What is key to note is that while both the Managed Forest and Null Model scenarios reduce old growth below 6% for the next 30 years, the Null Model Scenario rebounds faster and maintains 38% more old growth on average over the 160 year period. This analysis shows only 2 outcomes. The Managed Forest Model ‘harvests’ as much old growth as the Null Model ‘burns’ or transfers into younger forests. In practice, ACI and MNR could likely maintain current levels of old growth through reduced harvest levels and continued fire suppression.

Over the long term, the model predicts old growth levels averaging 8.4% for the Managed Forest and 11.5 % for the Null Model.



**Conclusions:**

- The planning team has not developed a reasonable estimate of the historic amounts of old growth in the Whiskey Jack Forest as required by Ontario forest policy.
- Current old-growth levels in the Whiskey Jack Forest are likely below natural levels and are projected to drop even lower in the next 10 years.
- The planning team has set an unreasonably low objective for old-growth protection.
- The proposed management alternative and forecast harvest levels will further reduce old-growth levels to a very low level in the next 10 years.

It is important to note that the accuracy of computer projections decreases as the projections become more distant from the present.

**Recommendations:**

- ACI should complete a proper assessment of the historical/natural levels of old growth that were historically present in the Whiskey Jack Forest. MNR should provide technical assistance for this task.
- The planning team should set an objective for old-growth retention based on this historical level of old growth.
- In the interim, the FMP should be amended using an old-growth objective of maintaining current levels of old-growth condition.

# Forest intactness and fragmentation

The fragmentation of the forest into small and widely dispersed blocks of intact habitat is one of the more serious impacts of industrial forestry. This process occurs as logging proceeds through an area, and the number and size of older forest patches diminishes as roads and clearcuts divide the forest into a jigsaw pattern of smaller and younger forest blocks. Many species require large areas of older forest to survive and find their long-term survival chances diminished in such a forest. The marten is just such a species. The purpose of MNR's forest management guide for marten is to ensure that some of these large areas of old forest will always exist on the landscape. This makes the marten guide one of the most important ones to implement properly for good forest management.

## FSC Standards

- Large areas (thousands of hectares) of contiguous core forest habitat exist and are maintained in the forest (FSC 6.3.13).
- The proportion of the forest maintained in these large areas is guided by an evaluation of the naturally occurring amount and a target of maintaining at least 20% of this amount (FSC 6.3.13).
- The naturally occurring amount is determined through an in-depth, peer-reviewed assessment of the pre-industrial forest condition (FSC 6.1.5)
- These large areas consist of mature and old forest, and no more than 5% recently disturbed forest (FSC 6.3.13).
- To the greatest extent possible, these areas do not include any roads (FSC 6.3.13).
- The applicant implements a comprehensive access management plan (FSC 6.3.17) that:
  - avoids road building in or near protected areas or candidate protected areas;
  - describes abandonment and maintenance strategies for all roads;
  - maintains remoteness in areas with sensitive biological or cultural values or where required for tourism;
  - identifies and maintains level of remoteness based on achieving a fair and equitable balance between demands for remoteness and motorized access.

## MNR Rules

MNR guides for the protection of habitat for marten and woodland caribou can contribute to reducing fragmentation by requiring planners to address these species' need for large blocks of older forest (see next section for further details). However, MNR has no comprehensive access policies specifically designed to reduce the forest fragmentation impacts of forestry.

### How fragmented is the Whiskey Jack Forest by roads?

*Assessment:*

We did an analysis of the forest using the digital forest resource inventory (FRI) data to see how fragmented the forest is and therefore how suitable it is for interior forest species such as marten.

*Findings:*

This analysis indicated that the forest is highly fragmented by roads. In total, there are 807 kilometres of logging roads in the forest (FMP-26). Map 2 shows the roads as well as the few remaining areas that are intact according to our criteria.

What is the extent of intact mature forest in the Whiskey Jack Forest?

*Assessment:*

Intact mature forest areas were identified with our GIS system using FRI data. They were identified as intact if they met the following criteria\*:

- Are at least 2.5 km from roads, 1 km from utility lines and 500 m from railways (consistent with Room to Grow habitat-quality criteria).
- Contain some forest stands at least 5 km from existing roads.
- Contain forest stands at least 60 years in age.
- Contain less than 20% of forests in a recently disturbed state (natural or logging) if the area in question was smaller than 20,000 ha.
- Contain less than 25% of forests in a recently disturbed state (natural or logging) if the area in question was smaller than 25,000 ha.

(\*These criteria were developed by the Partnership for Public Lands.)

*Findings:*

Five intact forest areas totalling 48,855 hectares (4.6% of the FMU) were identified in the Whiskey Jack Forest (Map 3). See Table 3 for details on these areas.

Table 3: Intact forest areas in the Whiskey Jack Forest

	Area (ha)	Forest %	Water %	Other %	Forest < 60 yrs (ha)	Forest < 60 yrs (% of area)
<b>Intact 1</b>	6,635	78.1	14.4	7.5	413	6.2
<b>Intact 2</b>	3,296	86.3	2.2	11.4	257	7.8
<b>Intact 3</b>	4,618	85.7	1.8	12.4	723	15.7
<b>Intact 4</b>	7,476	69.8	11.1	19.0	650	8.7
<b>Intact 5</b>	26,830	68.0	21.4	10.6	5,768	21.5
<b>Total</b>	48,855					

Are intact areas being maintained?

CPAWS Wildlands League has proposed that ACI avoid planning any harvesting or road building in these intact areas over the five-year term of this FMP in order to preserve an opportunity for conservation planning through a High Conservation Value Forest assessment (see the HCVF assessment section).

ACI says that it has "removed most planned harvest areas within the draft plan submission that are within the intact areas CPAWS Wildlands League provided." However, the final FMP shows that an area of about 450 ha. is scheduled to be logged on the northern border of the largest intact fragment (#5).

Is there a comprehensive road access plan for the forest?

The draft FMP does not include a comprehensive access plan for the forest, despite CPAWS Wildlands League's recommendations to the company and MNR to include such a plan. (It does include road planning that discusses abandonment policies and practices, but not a comprehensive policy as required in FSC 6.3.17.) A comprehensive access plan is critical to avoid further fragmentation and to restore intact areas in the forest and would allow a cumulative assessment of the impacts of all roads, utility corridors, etc.

**Conclusion**

- There are only a small number of remnant patches of intact mature forest in the Whiskey Jack Forest. This is primarily a result of extensive forest fragmentation caused by clearcuts and logging roads.
- The FMP falls short of meeting habitat requirements for marten cores because of the highly fragmented nature of the forest and poor habitat conditions.

**Recommendations**

- ACI should conduct an assessment of High Conservation Value Forests and work with MNR to protect these forests (including the remnant intact areas) from logging.

# Habitat for key wildlife species

Forest conditions change as a result of both natural disturbances (fire, wind) and logging. However, the regeneration of forest areas disturbed by logging is often quite different than for forests following a natural disturbance. This means it is important to accurately predict the results of proposed forest management activities using computer models to see what the impacts will be on the quantity and quality of wildlife habitat in the future. Management decisions should be based on maintaining appropriate amounts of habitat for wildlife.

## FSC Standards

- Quantitative habitat objectives have been set, using expert input, for species chosen to represent a range of habitat requirements, and plans have been developed and are being implemented to achieve the objectives (6.3.15).
- The applicant is involved in implementing plans to protect the habitat of species at risk (FSC 6.2.4).
- If plans to protect the habitat of species at risk are incomplete or inadequate, the manager applicant takes a precautionary approach to managing the habitats of species at risk (6.2.5).

## MNR Rules

### Habitat supply for selected species

The *Forest Management Planning Manual* (FMPM) states that the management approach “should not threaten availability of preferred habitat for selected wildlife species at the eco-regional level (Figure A-2, p A-64).” This is often interpreted as meaning that wildlife habitat should persist within what are called “the bounds of natural variation.”

The planning team modeled habitat supply for marten, moose, white-tailed deer, caribou, boreal red-backed vole, northern flying squirrel, snowshoe hare, American kestrel, boreal chickadee, white-throated sparrow, Swainson’s thrush, American redstart, Connecticut warbler, great grey owl, pileated woodpecker, spruce grouse and the golden-crowned kinglet.

For our analysis, we looked at two species: marten and woodland caribou. Because of their requirements for large, intact older forest -- a natural forest characteristic that is often threatened by logging -- these species are of special interest as indicators of this forest type.

### Habitat suitability of marten cores

The *Forest Management Guide for the Protection of Marten Habitat* requires that 75% of marten cores exist in a suitable condition:

- “Suitable” refers to habitat that currently possesses attributes that make for preferred marten habitat, such as large blocks of dense evergreen cover, large trees with cavities and lots of logs and dead trees.

- more than 40% of the volume of trees should be spruce, balsam, cedar
- in some locales, white pine, jack pine and red pine can also be important species for marten habitat.
- the crown of the forest should have at least 50% closure.

The objective is to maintain or move toward having 10-20% of capable marten habitat area in suitable conditions arranged in core areas of 3,000 to 5,000 hectares. “Capable” habitat is defined as any forest type that could, at some point in its development provide suitable conditions for marten. “Suitable” habitat refers to habitat that currently possesses attributes that marten prefer, such as large blocks of dense evergreen cover, large trees with cavities and lots of logs and dead trees.

Most of any given boreal forest management unit may be considered capable marten habitat, which means that the guide essentially requires that large patches of habitat making up 10-20% of the forest be off-limits to logging at any time (75% of this core area must be “suitable” habitat). However, these are not permanent protected areas – current areas can eventually be logged and replaced by other areas as long as the new areas meet the required habitat conditions.

Under special circumstances, some partial or selective logging is allowed in a small portion of marten cores.

#### Rules for protecting caribou habitat

- Because caribou require large areas of old forest as winter habitat, the *Forest Management Guidelines for the Conservation of Woodland Caribou -- A Landscape Approach* (also known as the “Caribou Guide”) tells managers to make sure there is enough of that habitat now and in the future. The manager has to make sure that at any point there are enough of these blocks in the right condition (size and forest age) to meet the caribou’s needs.
- Each of these areas 10,000 ha. or greater in size will either be designated as a retention tract (and not cut) or will be made available for logging. The Caribou Guide offers a “decision guidance matrix” for determining whether or not areas should be retained.
- Mature capable habitat that is actively used by caribou (caribou have been located in at least two of the past five years) and capable habitat located within 30 km. of the southern edge of contiguous caribou range (a ragged line that wanders north and south of 50 degrees north latitude along the edge of unaccessed forest) should generally always be designated as retention tracts.

The objective in the draft FMP is to maintain wildlife habitat supply within the natural bounds of variation. Although this sounds reasonable, the low end of the natural bounds of variation has been defined as a level 20% *below* the lowest amount predicted to occur naturally without any logging over a 100-year period. (This approach is standard MNR-approved practice.)

#### *Assessment*

The planning team’s selected management alternative was reviewed using the Sustainable Forest Management Model (SFMM). SFMM projects changes in harvest levels, forest

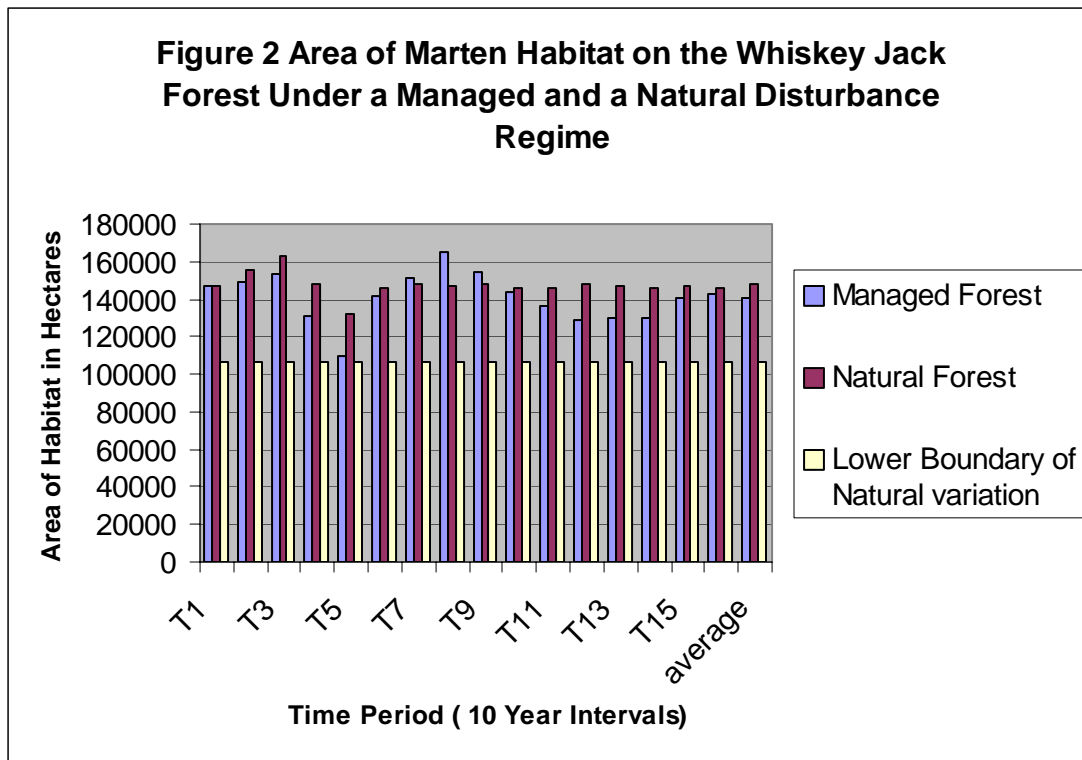
age classes, forest species and habitat over time that will result from the management decisions made in the draft FMP. Additionally, we used the Marten Analyst computer modeling software to review the quality of suitable habitat that the planning team is planning to maintain for marten. Finally we assessed the plans to protect and restore tracts of significant woodland caribou habitat.

*Findings:*

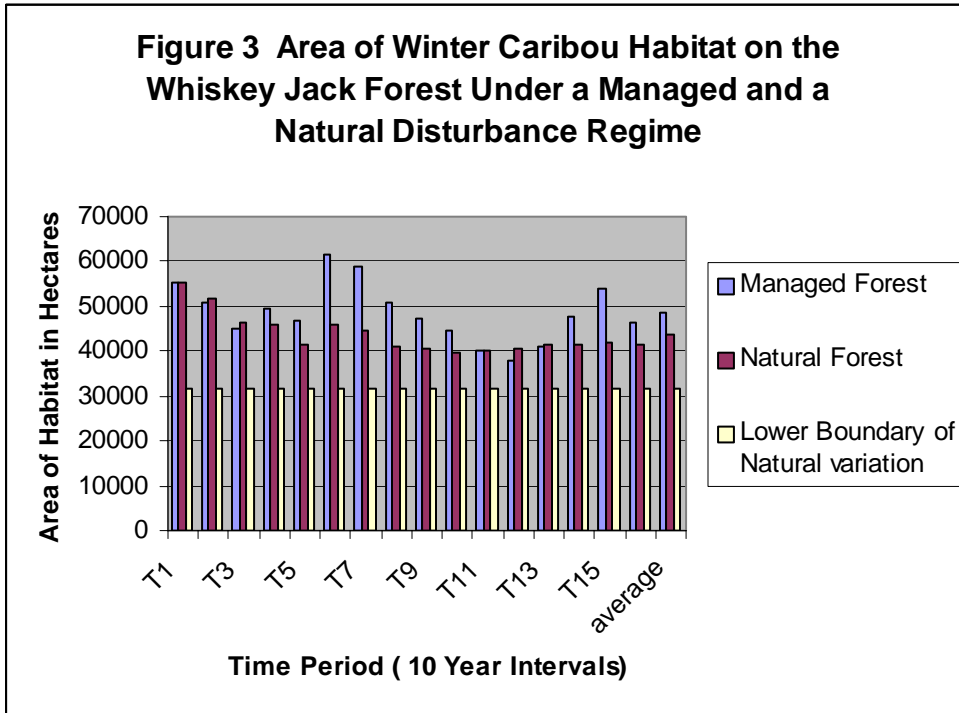
The model projections for these species are illustrated in Figures 2 and 3. The figures depict the area of preferred habitat during each of the ten 10-year periods (100 years total) for the management alternative (T1-T16).

Three model outputs are shown:

1. The amount of habitat projected to occur as a result of the planning team’s proposed management approach and harvest level (‘Managed Forest’)
2. The amount of habitat that occurs over the 160 years of the null model, which forecasts forest changes in the absence of logging and fire control (‘Natural Forest’).
3. The lowest amount of habitat that occurs over the 100 years of the null model run, minus 20%. This is the lower bound of natural variation according to MNR policy and the objective in the draft FMP.



**Figure 3 Area of Winter Caribou Habitat on the Whiskey Jack Forest Under a Managed and a Natural Disturbance Regime**



Habitat projections for both species appear to meet the objective for habitat levels set in the draft FMP, although the amount of marten habitat available dips precariously close to these limits in the T5 period and the null model on average produces more habitat. For caribou, the managed forest appears to provide more habitat, likely because fire suppression maintains more older jack pine stands, which are particularly fire prone but also preferred winter habitat for caribou.

However, there are at least two problems with these model projections. First, they do not reflect the fact that the ability of the Whiskey Jack forest to provide marten core areas and caribou habitat has already been severely compromised by past harvesting. So the "Natural" model predictions are based on an already "unnatural" forest. Second, the projections do not indicate how the habitat is actually configured on the landscape (e.g. is it scattered in small, less useful blocks or concentrated in large core areas?).

The FMP itself outlines the true starting condition of the forest when it says on page 74 that,

“ It was a significant challenge to implement marten core areas while maintaining current harvest levels on the forest.”

And, in keeping with this observation, we see in the FMP that marten core areas do not, in fact, reach the required 10% minimum of the Management Unit area until 2064, at

least in part because of the planning team's decision to not reduce harvest levels in the near term. On page 221, the plan states,

“During the duration of the 1999-2004 FMP, the planning team made the conscious decision to 'harvest all eligible wood within the caribou habitat zone with the exception of the travel corridor and the calving area.' As a result of this decision, currently little suitable caribou habitat is available on the Whiskey Jack Forest.”

This decision ran directly counter to the intent of the caribou guidelines. The habitat zone that was cut was being actively used by caribou and included important wintering, calving and travel corridor areas. It should have been retained as currently used habitat on this basis alone. But given that the zone is also within 30 km. of the southern limit of caribou range, it also should have been automatically reserved from harvest, according to the decision matrix contained within the caribou guide.

This is linked to the second weakness of the model habitat projections. The model merely lists the total amount of habitat, but doesn't illustrate how the habitat is arranged on the landscape. Both marten and caribou require habitat to be in large chunks of contiguous forest. If it is fragmented and separated by clearcuts, roads, young forests and other disturbances, it is not very useful for these species. We have already seen that the Whiskey Jack is a highly fragmented landscape and therefore it is safe to assume that the habitat projected by the model is most likely fragmented (and less useful) as well.

## 1. Marten habitat

### *Assessment*

We examined the draft FMP to determine the planning team's approach to protecting marten cores. We reviewed the analysis of marten habitat conditions and the team's selection of marten cores using the Marten Analyst software.

### *Findings:*

Suitable habitat in large core areas was difficult for the planning team to find because of the legacy of extensive natural disturbances, logging and forest fragmentation in the Whiskey Jack Forest. Of the 112,380 hectares of marten cores deferred in the FMP, only 25,484 hectares are in suitable habitat (23% vs. the required 75%). So while the planning team has deferred just over 10% of the total FMU area in marten cores, most of the habitat within these cores is not adequate to meet MNR requirements (and the needs of marten). The result is that only 3.7% of suitable marten habitat is in cores.

The planning team predicts that as a result of their management decisions, the amount of suitable habitat will increase to 71,071 ha (10.5%) in 60 years. This increase is a result of the long-term deferral of marten cores from logging and the maturing of the young forest within these cores over time. Unfortunately these cores will no longer be deferred from harvesting by this time. Actually, the current plan does not account at all for maintaining marten cores on the unit for the full planning horizon, only the first 60 years, at which time the volume and area reserved for marten become available for harvesting. Even if alternate marten core habitat were substituted at this time, there is no guarantee that any new cores would be composed of similar high quality habitat.

As noted earlier, the planning team had considerable trouble deciding on the marten blocks. ACI argued that they reduced timber supply unacceptably and resulted in increased fragmentation because of new roads that had to be constructed to reach stands eligible for harvest.

## 2. Caribou habitat

### *Assessment*

We examined the draft FMP to determine the planning team’s protection plans for woodland caribou, a threatened species in Canada and Ontario.

Woodland caribou once ranged over Ontario as far south as Algonquin Park. In the past 125 years, the species’ range has steadily shrunk – pushed northward by the spread of industrial forestry and other human activities. Woodland caribou have been designated a threatened species in much of Canada. In the 1950s caribou would have likely ranged across much of the Whiskey Jack Forest. Up until the 1970s there was still a population in the southeast portion of the FMU centered on Cliff Lake. Today caribou habitat on the Whiskey Jack Forest is almost nonexistent.

### *Findings*

Table 4 describes the planning team’s management intent for the remaining blocks of caribou habitat. Blocks 1 and 7 are the only mature tracts of forest that will be deferred from harvesting to provide caribou habitat.

Table 4: the planning team’s management intent for seven blocks of suitable caribou habitat as described in an appendix to the draft FMP

<b>Block</b>	<b>Forest condition</b>	<b>Management Direction</b>
1	Mature forest	Defer until 2104
2	Clearcut recently	Defer until 2104; Some roads were slated for removal in the previous plan; considering further removal of roads.
3	1988 burn	Unavailable for harvest until 2088
4	1983 burn	Once eligible, log with large harvest blocks to provide large even-aged stands in the future.
5	Clearcut in the 1990s	Road has been abandoned. Part of this area has been set aside as a new protected area.
6	Recently clearcut	Unavailable for harvest until 2084
7	Mature forest	Retain to provide a corridor of mature conifer that would connect Block 1 to Woodland Caribou Provincial Park.

There is no indication in the plan that any attempt has been made to coordinate caribou management with adjacent forest management units in keeping with the direction in the

Caribou Guidelines. Some work was done to identify winter habitat in adjacent Woodland Caribou Provincial Park.

The draft FMP was also reviewed to determine the extent of existing and planned motorized access restrictions in the forest.

Of the 807 kilometres of roads in the forest, public motorized access has been restricted on only 85.5 kilometres: Thirteen kilometres are part of a North Kenora Pilot Project , which provides for the maintenance of remote access tourism through barriers and the decommissioning of the Sydney Lake road. This road provides access into the northern portion of the Kenora forest; 35 kilometres are signed “No travel Jan.1-Sept.30”; a Ministry of Transportation gate prevents access to 10 km.; and 27.5 km. are signed “No Travel without Permit.”

Approximately 111 km. of secondary road and the network of tertiary roads that branch out from them will be abandoned over the course of this planning period because they are no longer useful for forestry operations.

The 1999-2004 FMP led to the construction of the Iriam Lake Road into a block of caribou habitat to provide access for logging. In the current FMP, the planning team is planning to retire this road as well as the active network of secondary and tertiary roads that originates from it. Although we believe that the caribou habitat block should never have been harvested, we support the road closures as being consistent with caribou habitat requirements and MNR rules.

### **Conclusion:**

- Although consistent with MNR requirements, projected levels of habitat for caribou and marten are below the range of what would reasonably occur in the absence of forestry operations.
- The future of woodland caribou in this forest has been severely compromised by a decision in the 1999 forest management plan to log most of the remaining suitable caribou habitat in the Whiskey Jack Forest.
- ACI has made a good decision by choosing to retire the Iriam Lake Road in order to increase the likelihood of caribou recovery in this area.

### **Recommendations**

- The closure plan for the Iriam Lake Road should follow the recommendations laid out in Appendix 1 of this report.
- ACI and MNR should designate the area of the Whiskey Jack Forest north of the English River system as part of Northwest Caribou Recovery zone. Timber harvesting and road management should be conducted in a way that ensures a healthy, self-sustaining caribou population in this zone, which stretches across multiple forest management units.
- Managing to mitigate harm to caribou should also minimize the stress on the habitat needs of other vulnerable wildlife, such as marten and wolverine, in this zone.
- South of the English River, managers should focus on properly meeting the requirements of the marten guide.

- An equivalent area of marten core deferral should span the full horizon of the model projections (160 years) in SFMM, but does not have to include the same exact blocks.
- The planning team should consider deferring the chosen marten cores beyond the current 60 years unless replacement cores provide the same amount of suitable habitat.

## Wood supply and harvest rates

The determination of how much wood can be sustainably cut from the forest is the backbone of the entire forest management process. It involves the use of a complex computer model, a data inventory of the forest, and forestry knowledge to calculate how much timber is available for cutting while also retaining sufficient habitat for wildlife and protecting other forest values.

### **FSC Standards: (FSC 5.6.1; 5.6.2)**

- Harvest rate is based on a precautionary approach that reflects the presence and quality of information and assumptions.
- Areas unavailable for harvest (candidate protected areas, tree retention, riparian reserves) have been removed from the calculation.
- The harvest rate has been adjusted to reflect the requirements of old growth maintenance, maintenance of contiguous core forests, etc.).
- The harvest rate has been adjusted to reflect constraints related to planning for indigenous peoples' and social values.

### **MNR Rules:**

Nearly every piece of forestry legislation and policy has an impact on harvest levels in some way, which means that listing a complete set of rules here is not practical. However, there are three important documents that are most often used for guidance in setting harvest levels.

- The *Forest Resource Assessment Policy* (FRAP, 2003) provides guidance for gathering data necessary for developing the inputs into the Strategic Forest Management computer model. It also requires an assessment of the ability of forest to meet current wood supply demands and potential increases.
- The *Regional Wood Supply Strategies Appendix 2: Best Practices for Wood Supply Modeling* should be adhered to in the modeling and forest analysis process. These strategies recommend that the following be accurate: an up-to-date inventory of the forest resources available; an assessment of the amount of land available for commercial forestry; assumptions about how the forest grows and changes over time; estimates about how forest practices will impact the resource (e.g., how much forest will be left behind in an area after harvesting operations).
- The *Forest Management Planning Manual for Ontario's Crown Forests* (FMPM, 1996, 2004) describes the process for determining forest sustainability through the determination of harvest and renewal levels to meet desired forest conditions and benefits including wildlife habitat, tourism potential and fibre supply for industry. The planning process is supposed to set measurable objectives and targets by which the sustainability of the forestry operations can be measured.

*Assessment:*

The selected management alternative was examined using the Strategic Forest Management Model (SFMM). SFMM shows changes in harvest levels, forest age classes, forest species and habitat over time that result from the management decisions made in the draft FMP. Our review has two parts: an assessment of the harvest levels that will result from the selected management alternative; and an assessment of the quality and accuracy of the assumptions and inputs used by the company. The quality of outputs obtained from the model is equally reliant on both of these considerations.

1. Harvest Levels

Harvest level calculations are one of the key outputs of the computer modeling process. A precautionary approach for determining harvest levels would consider all the goods and services a forest provides equally. In reality, however, planning team decisions often focus on maintaining mill supply (see the notation cited on page 25 about the planning team's approach to marten habitat, for example). Protecting long-term ecological and social values are considered mostly as "constraints" that should be minimized to the greatest extent possible.

*Assessment:*

The total harvest volume of all tree species over a 160-year planning horizon was examined. We ran the model with the approved management plan input data and again with a reduction in the harvest levels in the next ten years. The projected harvest volumes for the next 160 years are displayed in Figure 10 for both the approved plan ("2004 FMP") and with reduced harvest levels ("Reduced T1"). Harvest target volumes forecast in SFMM for the 2004 FMP match the volume objectives in the FMP .

*Findings:*

As for most management units in Ontario, the Whiskey Jack forest is facing a long predicted decline in wood supply and thus harvest levels for the period 20-50 years from now. This decline is the result of a lack of 30 –50 year old forests that would be harvestable in 20-50 years. The lack of forests in these age classes is a result of many possible factors, some of which are conflicting: fire suppression that prevented new stands from forming 30-50 years ago, extensive natural disturbances that wiped out stands that would now be in this age range; past over-harvesting combined with poor regeneration; and continued high harvest levels in the near future.

The decline may result in fibre shortages and higher costs for the forest industry and tough times for those who depend on it for employment. As MNR staff pointed out in their review of the draft FMP "...the forest does not have the capacity to meet Abitibi's wood supply demands and yet that target was met in the short term at the expense of those forest based communities that depend upon the forest in the longer term" (LOI 328 (21)).

Although the final plan improved the situation somewhat with a reduction in harvest levels in the next ten years, this wood supply trough (and resulting impact on communities and workers) can be further reduced (but not avoided), as the reduced T1 scenario demonstrates. In other words, by accepting a reduction in cutting rates today, we can lessen the future impact of the wood supply decline.

With our own simple model manipulations we reduced harvests by 9.5% over the next ten years and found that harvests in all subsequent ten-year periods increased. The most dramatic increase is in 21-30 years from now when harvest increases by 6.7%. Over the entire 150-year planning period, reducing harvests now results in slightly increased wood supply

In their review of the draft FMP, MNR staff pointed out that the jump projected in wood supply after 60 years in the model is artificial and misleading -- it is the result of marten core deferrals expiring and freeing up almost 10% of the FMU for harvesting. The reality is that wood supply will have to continue to be lower than this level to meet the continued requirement for marten cores (which may shift in location, but will still require the same essential landbase).

Figure 10:



## 2. Inputs assessment

The key inputs and assumptions to the Strategic Forest Management Model (SFMM) were examined and investigated. These key inputs determine the validity of the estimated wood supply and sustainable rate of cut. Our information was gathered from a number of sources, including the planning inventory, SFMM input files and the draft FMP.

### *Calculating area available for harvest*

The first step in any harvest calculation is to remove the areas of the FMU that are not available to the licence holder for logging. In other words, the available landbase should be reduced to reflect the portion that is private, federal or otherwise legally unavailable for logging, areas that are naturally not forested (like rocky outcrops and open muskeg), protected areas (provincial parks or conservation reserves) and no-harvest reserves that are required around sensitive areas like lakes and streams.

### *Findings:*

#### **Protected Areas**

The planning team removed all protected areas (protected areas and conservation reserves) from their land base before calculating harvest levels. The total amount removed was 47,390.9 ha. (4.4% of the total forest management unit).

#### **No-harvest reserves**

A total of 73,535 ha. has been removed for no-harvest reserves such as riparian zones and fragile soils. This represents about 10% of the landbase and appears to be a reasonable estimate of required reserves.

#### **Unforested and non-productive forest lands**

Natural non-forested areas and non-productive forest areas like waterbodies, open and treed bogs and rock outcrops totally 327,734 ha. have been removed This is about 31% of the landbase and seems reasonable for a unit with so much water and rock.

#### **Barren and scattered lands**

In the model, the planning team does not account for any barren and scattered land. This is forest land that is not considered part of the current productive forest because it is not yet proven to be satisfactorily regenerated following logging or fire. Instead, they have re-assigned 78,585 ha. of barren and scattered land in their Forest Resource Inventory

(FRI) to the category of young forest with an average condition and stocking (density) of trees.

Normal practice is to bring these areas back into the production forest category in the model slowly over time to reflect their gradual regeneration. The FMP indicates that most of the barren and scattered was reclassified based on the *belief* that it had been adequately regenerated. In the FMP there is a commitment to physically re-assess the barren and scattered areas as part of updating the inventory. These surveys had been carried out by the summer of 2005 according to the plan author who indicated that the regeneration was ‘excellent’.

Nevertheless, the planning team’s approach resulted in an increase of 14% in the volume available for harvest and the available harvest area in the first ten years of the planning period. This contravenes the Best Practices for Wood Supply Modelling (OMNR, 2004. Provincial Wood Supply Strategy. Ont. Min. Nat. Resour., Queen’s Printer for Ontario, Toronto. 92 pp. Appendix 2.), which states that “ B&S must not be considered the same as free-to-grow forest in contributing to the AHA [Available Harvest Area] (first term)”.

It seems imprudent to reclassify Barren and Scattered areas in advance of regeneration surveys being completed when doing so boosts predicted wood supply substantially. This practice could seriously over-estimate available harvest.

### **Roads and landings**

The planning team accounts for roads and landings at a rate of 1% of forest available for harvest for the next 60 years. These areas need to be removed from the model because they exist in a permanent or semi-permanent unforested condition. This is a reasonable estimate of the proportion of the FMU that will be converted to roads and landings.

### **Habitat areas deferred from logging**

ACI is required to set aside deferrals of marten core habitat and caribou habitat (see the Intact Forests discussion). The planning team has accounted for the unavailability of these areas for a long term (60 years and 100 years, respectively) until other habitat becomes available.

### *Current and future forest condition assessment*

After accounting for the portion of the FMU that is not available for forestry, the next important step is to ensure that accurate assumptions are being made about how the forest grows and changes. Knowing the likely amount of wood available at any time depends on an accurate knowledge of the growth and yield characteristics of the forest.

### *Findings:*

### **Natural disturbance rates**

Forest companies generally only log mature stands of trees. Areas that are disturbed by other forces like fire, wind and insect damage are not available for logging. The rate of natural disturbance reduces the level of logging that can be sustained over time.

The planning team’s estimated natural disturbance rate was once every 299 years. This is less frequent than some other estimates (e.g., Bridge, 2001 suggests a fire cycle of 270 years). Additionally the draft FMP itself cites natural fire cycles of 50 to 150 years (p. 20)

depending on forest type. This estimate does not include wind disturbance. It seems likely that this selected cycle underestimates the rate of natural disturbance on the Whiskey Jack Forest.

### **Forest Growth and Yield**

The rate of growth was determined using standard yield tables with local growth and yield information. Estimated yields were below the maximum for the species cited in USDA Silvics of North America 1 (Burns, R.M. and B.H. Honkala. 1990.). However, some yields seem quite high compared to other Ontario boreal units. More confidence could be placed on yield forecasts if the records of how the yield curves were calculated were available and if they were based on local sample plots. These high yields again may lead to an over-estimation of areas available for harvest. In their review of the draft FMP, MNR staff asserted that the estimates were too high and were based only on professional judgement rather than on local knowledge or information.

### **Regeneration levels**

To forecast the long-term response of forests to logging, it is necessary to estimate how forests will regenerate after logging. The availability of wood in the future depends on the extent and speed of forest recovery.

### **Rotation age**

The model includes estimates of when stands of trees become available for logging. The planning team has estimated that they will be able to log forest stands at between 45 and 125 years of age depending on the forest type and site. The earliest ages of logging (50 years for poplar-jack pine) seem optimistic and are based on the assumption that the company will implement effective silvicultural techniques to decrease the rotation age.

### **Accommodating Other Forest Values**

The harvest calculation is also dependent on meeting other objectives in the forest. Constraints on available wood supply have to be made in order to ensure desired levels of wildlife habitat, old growth, species diversity, etc.

### *Findings:*

#### **Old-growth objectives**

The planning team is obligated to protect and maintain the natural amount of old growth in the FMU. As noted in our section on Old Growth Levels, the current plan allows old growth levels to fall below that which would likely occur for the next 20 to 30 years under more natural conditions.

We believe that current old growth levels should be maintained until a pre-industrial condition analysis of old growth is completed. Failing to incorporate this important constraint properly in the harvest calculation significantly inflates harvest levels in the short term.

#### **Wildlife habitat**

The biggest problem is that marten cores are not deferred for the entire time span of the model as noted in the section on Wood Supply and Harvest Rates. The increase in wood supply after 60 years would not occur if an equal area in marten cores was properly

deferred for the entire model period. (As stated earlier, the marten cores will be required for the entire modeled period, only their geographic location may change. This is not reflected in the wood supply calculation.)

### **Diversity of forest types (forest conversion)**

Logging can lead to species conversions at the landscape level (e.g., mature spruce forests are replaced by young poplar-birch forests in many areas). The model therefore allows the manager to place restrictions on how much the amounts of different forest types in the unit are allowed to change (thereby requiring forest managers to ensure that the same species that are cut are regenerated). This is referred to as the stability of forest units.

These levels are usually applied only if there is a radical change in forest unit make up from a desirable future forest condition. In this case they were not applied, probably to allow easier model runs (the more restrictions on the model, the harder it is to find a feasible balance of competing demands). The final version of the model shows a fairly stable forest composition through the planning horizon.

### **Conclusions**

Changes in the forest resulting from the proposed management alternative

- The proposed management alternative (SMA25) provides less habitat for key wildlife species than would have occurred naturally.
- Most areas unavailable for forestry (protected areas; reserves; unforested land; roads and landings) were accurately accounted for and removed from the operational land base.
- The wood-supply objectives used in the draft FMP result in increased pressure on non-timber values (wildlife, old growth) and will result in exacerbated wood-supply declines that will have impacts on forest-dependent communities.

### **Inputs Assessment**

- The estimated available wood supply (area and volume) have increased as a result of increasing the forested land base by re-classifying barren and scattered land as young forest without documented surveys at the time these decisions were made.
- While it does not influence sustainability in the short term, the long-term estimated available wood supply is substantially and artificially inflated for the period after 60 years by the return of the marten core deferral areas to the available forestry land base.
- The estimated available wood supply may be inflated as a result of underestimating the amount of forest likely to burn or blow down based on historic rates of natural disturbance.
- The estimated available wood supply is potentially inflated as a result of unrealistic growth and yield estimates.
- The available wood supply is artificially inflated by old-growth objectives that fall short of requirements to protect and restore natural levels of old growth.

## **Recommendations**

- The FMP should be amended with a new management alternative with the following objectives:
  - Distribute available harvest more evenly across the next few plan terms in order to reduce the impact of declining wood supplies on forest-dependent communities.
  - Maintain natural levels of old growth based on a proper assessment of the pre-industrial condition of the forest
  - Keep an equivalent area of marten cores in deferral for the entire planning timespan.
  - Undertake a more thorough analysis of actual growth and yield through sample plots, harvest records, etc.

In the development of the new management alternative, the planning team should revisit the assumptions and inputs to the harvest model.

# Silviculture Systems and Logging Methods

The way in which a forest is logged impacts the type of forest that will grow back as well as the ability of the forest to continue to provide critical habitat characteristics.

Traditionally, logging methods were developed based on their efficiency in harvesting and regenerating timber. The new ecosystem-based approach to forestry dictates that logging methods should be chosen that maintain important habitat characteristics and ensure the maintenance of natural species composition.

## **FSC Standards: (6.3.3; 6.3.8; 6.3.11)**

- Silvicultural prescriptions maintain stand structural diversity over time
- Size and configuration of cuts is determined after landscape-level objectives are met and size-dependent impacts mitigated. Size-dependent impacts include public and Indigenous community concerns; hydrological impacts; concerns of forest users such as recreational users and trappers; forest fragmentation.
- 10-50% of each cut is left in standing tree retention, except in small cuts where average tree retention is 5%.

## **MNR Rules:**

### Logging Methods

- The MNR has several guides that describe recommended silvicultural approaches for different forest types. Clearcutting is the most widely recommended practice. The new Mixed Wood Guide, released in 2003, recommends alternatives to clearcutting in mixed forests (forests with both coniferous and deciduous trees): “Maintain a natural proportion of uneven-aged forest within the bounds of natural variation.” Achieving this requires either the lengthening of rotation ages (e.g., cutting a forest again 120 years after it was first cut, rather than after only 60 years) or by using alternatives to clearcutting that don’t remove all the trees during harvest.

### Clearcut Size:

- 80% of the number of clearcuts in a boreal forest management unit must be smaller than 260 ha.
- Less than 50% of second-order watersheds should exist in a disturbed (burned, logged, etc.) state.

### Separation distances between clearcuts:

- Clearcuts between 10-260 ha. in size must be separated by a minimum of 100 m and an average of 200 m.
- For every increase in clearcut size of 100 ha, the separation distance must increase by 50 m (i.e. two 560 ha clearcuts must be separated by a minimum of 250 m and an average of 350 m).
- Clearcuts in different size categories must be separated by the distance required by the smaller clearcut (i.e., a 200 ha clearcut and a 5000 ha clearcuts need only be separated by a minimum of 100 m and an average of 200 m).

### Tree retention:

- 2-8 % of the harvest area must be left in uncut patches of trees within the cut (these are called insular patches). The actual amount depends on forest type and will be listed in the FMP.
- 8-28% of the harvest area must be left in "fingers" or "peninsulas" of uncut trees that extend from the cut boundary into the block. The actual amount depends on forest type and will be listed in the FMP.
- 25 trees per hectare (living or dead) must be left uncut and dispersed individually throughout the cut or in small clumps. At least six of these must be "high quality" potential cavity trees at least 30 cm in diameter at breast height.

*Assessment:*

Clearcutting using the full-tree logging method is proposed for all logging in the FMP. In some cases, seed tree harvests, which leave healthy trees on the site to provide natural seeding and regeneration is proposed.

*Findings:*

The near universal use of clearcutting demonstrates a lack of innovation in exploring partial harvest approaches that are increasingly being recognized as ecologically appropriate in the boreal forest, especially in mixed-wood forests. Similarly, despite the fact that full-tree harvesting (in which the entire tree including branches is cut into logs or chipped for pulpwood on site) is increasingly viewed as greatly exacerbating the impacts of clearcutting on soil nutrients and wildlife habitat, only a few industry leading companies are employing alternatives to this practice. ACI has communicated to CPAWS Wildlands League that it "is currently examining other methods of slash dispersal/disposal and may use other logging methods if equipment is available or selected by ...contractors."

In a recent offer to Grassy Narrows First Nation, ACI has proposed to cease clearcutting within 20 km of the community and, instead, only apply alternative harvesting methods that it develops with the community in this zone. This is a commendable gesture, but, unfortunately, the proposal details have not been incorporated into the FMP.

White pine, red pine, white cedar, white spruce and black ash are relatively rare on the Whiskey Jack forest. White and red pine are provincially significant tree species because logging has caused their severe decline throughout their historical range. Cedar and black ash are culturally important for Aboriginal people.

Maintenance of all of these species is important for conserving biodiversity in this region. Unfortunately, the plans for these species are ambiguous as shown in this quote from page 193 of the management plan:

“The company does not harvest species like cedar, white pine, and black ash. Harvest areas that are strongly represented with these species are allocated to be available for other operators to provide wood for specialty markets or personal use. These areas will not be harvested unless there is demand for them at time of harvest.”

Given the rarity of these species, any commercial logging is a cause for concern. Rare trees species should only be harvested when absolutely necessary to promote the regeneration of that species..

## Clearcut size and separation

### *Assessment:*

The planning team's proposals for clearcut size and separation were examined in conjunction with the map produced by the NDPEG tool, which assists in making these decisions.

### *Findings:*

#### **Clearcut Size**

Thirty-nine percent of planned clearcuts are larger than 260 ha (37 of 94) a number which exceeds MNR rules by 19%. Ninety-four percent of the total area in planned clearcuts will be in cuts larger than 260 ha.

Both the FSC standard and MNR rules dictate that decisions on clearcut size should be influenced by consideration of hydrological impacts. Both logging and natural disturbance can result in increased peak stream flows that increase the potential for erosion and damage to aquatic habitats. The FMP states that 153 second-order watersheds already exceeded MNR's 50% disturbance rule at the start of the plan.

#### **Separation Distances**

Clearcut separation rules are meant to reduce the impacts of clearcuts by ensuring a minimum amount of uncut forest is retained between cuts. Larger cuts should be separated by larger distances. Table 7 shows that the proposed allocation of planned clearcuts in the draft FMP results in separation requirements being violated in three size classes of disturbances: 261-520 ha, 2501-5000 ha and 5001-10,000 ha. The most severe case is in the 5001-10000 ha disturbance size class. The minimum average distance according to NDPEG is 3,880 m. The average calculated for the plan is only 280 m.

Table 7: Comparison of planned clearcut separation distances in 2009 to the minimum MNR requirements of the NDPE guide, in various clearcut size classes.

Size Class	10-260	<b>261-520</b>	521-1,040	1,041-2,500	<b>2,501-5,000</b>	<b>5,001-10,000</b>	10,001-20,000	> 20,000
2009 Plan End separation distance	430	<b>220</b>	<b>430</b>	2180	<b>730</b>	<b>280</b>	0	0
NDPE min avg separation distance	200	<b>250</b>	<b>450</b>	1,050	<b>1,950</b>	<b>3,800</b>	7,550	10,000

ACI says that the clearcuts that violate the separation rules would have actually been joined except that AOC reserves on lakes and rivers separate them, thus giving the impression that they are planning large harvest blocks close together.

### Completeness of the planning team's analysis

*Assessment:*

The dataset of disturbances used by ACI to calculate their compliance with clearcut size and separation rules was examined and compared with the planning inventory for the forest using our GIS system.

*Findings:*

Table 8 shows that nearly 27% of all the disturbances in the Whiskey Jack forest were excluded from ACI's analysis – they were simply not considered when assessing the number, size and location of clearcuts and burns in the forest. This may make ACI's characterization of planned clearcut size and separation distances highly inaccurate. It may also boost harvest levels because these areas may be recorded as available for logging when they are in reality in a young forest condition.

Table 8: Amount of disturbance in the Forest Resource Inventory for the Whiskey Jack Forest that was excluded from the disturbance analysis used to make decisions regarding clearcut size and separation.

Disturbance type from the Forest Resource Inventory (FRI)	Area (ha) of disturbance missing
HARVEST	7915.22
FIRE	20,892.22
BUDWORM	21,643.57
BLOWDOWN	813.06
UNCLASSIFIED	14,009.96
Area of disturbance < 20 yrs and <= 3.0 m not included by ACI	65,274.04
Area of disturbance used in NDPEG tool by ACI	178,751.14
Total disturbance	244,025.18
Percent difference	26.75%

Is the planning team retaining enough trees in clearcuts for wildlife habitat?

*Assessment:*

We looked at the FMP sections dealing with Natural Disturbance Pattern Emulation (NDPE) and reported on how well the planning team met the requirements for residual forest left in and around clearcuts in the form of peninsular and insular retention. If one thinks of a clearcut as analogous to a lake then the retention of chunks of forest that stick out into the cut are peninsulas and 'islands' of forest cover are termed 'insular' retention.

*Findings:*

Sixty of the 83 (72%) planned disturbances in the Whiskey Jack forest that contain clearcuts meet or exceed the NDPE requirements for peninsular residual tree retention. Only 19 (23%) meet or exceed the NDPE requirements for insular residual tree retention.

The FMP states, “Additional insular areas and peninsular area will be included in the harvest area during harvest.”

The planning team claims that due to the landscape pattern of previously harvested or naturally disturbed areas, identification of more peninsular area within planned clearcuts was not possible. This position is a result of how the planning team has chosen to deal with pre-existing disturbances.

The FMP records that,

*“There are some planned clearcuts that have relatively small new cut areas within the total area that require large proportions of peninsular area as a result of harvesting practices prior to the peninsular requirement within NDPE. In these situations, peninsular area has been added to the new harvest area within the planned clearcut but not to the requirement levels of the whole disturbance.”*

According to the NDPE guide, residual retention requirements are to be applied to an entire “planned clearcut.” Planned clearcuts include both new proposed harvest areas as well as past disturbances (logged or natural) that are contiguous with the new area. This means that if the past disturbances have high levels of residual trees, fewer residual trees may be required in the new harvest areas because the average for the whole planned clearcut may still meet the requirements. In such cases, planned residual tree retention appears quite low, but still meet the NDPE requirements for the entire disturbance area. On the other hand, if the previous disturbance had low levels of retention, the new clearcuts should increase retention areas sufficiently so that the whole planned clearcut meets the NDPE level of retention. In these cases, the planning team chose not to boost retention levels sufficiently to satisfy the NDPE requirements for the entire planned clearcut (including past disturbances), although the requirement for the new cuts have been met. This approach, while supported by MNR interpretation and direction, violates the intent of the NDPE guide to simulate the amount of forest remaining after a natural disturbance. As a result more timber is made available to harvest.

In other words, contrary to the NDPE approach, it has refused to bring the overall average of the contiguous area up by increasing retention in the new proposed cut.

## **Conclusion**

- The planning team is failing to reduce the impact of full-tree clearcutting by investigating viable silvicultural alternatives better suited to mixed wood boreal forests.
- The planning team is very unclear about its intentions when it comes to logging rare forest types that should be protected.
- The planning team is violating restrictions on the proportion of clearcuts that can be larger than 260 ha.
- The planning team is violating separation requirements for clearcuts.
- The planning team has under-reported the amount of impacted forest in their disturbance analysis.
- The planning team is not retaining enough patches of residual trees for wildlife in accordance with MNR rules.

### **Recommendations**

- ACI and MNR should amend the FMP to implement some of the alternatives to clearcutting recommended in MNR's new *Mixed Wood Silvicultural Guide*.
- ACI and MNR should amend the plan to clearly protect stands of white pine, red pine, cedar, white spruce and black ash from all logging unless it is absolutely necessary in the short term to regenerate the species.
- ACI and MNR should amend the plan and recalculate the harvest allocation and cut-block layout to bring them into compliance with clearcut size and separation rules while fully taking into account previous disturbances.
- ACI and MNR should redo the disturbance analysis in order to fully account for the number of disturbances on the Whiskey Jack forest.
- ACI and MNR should amend the plan to increase planned peninsular residual retention to meet guideline requirements in all planned clearcuts. It should ensure that residual retention in new harvest areas is generally in-line with requirements for the whole disturbance area.

# Protected areas and High Conservation Value Forests

Protected areas in Ontario are those lands where forestry, mining and hydroelectric development are not permitted. Protected areas provide habitat to threatened and vulnerable species and make a significant contribution to maintaining ecosystem health and safeguarding our natural heritage. They also have an important scientific and educational value, and provide an essential benchmark for comparison with lands managed for resource extraction and industrial development -- they can help us understand how natural ecosystems work. Protected areas are also important for human health and well being. They can provide enjoyment and relaxation through recreational use and also contribute to the economic prosperity of local communities through tourism and other non-extractive businesses.

Many emerging international agreements on forest principles require the designation of protected areas, meaning that such areas are becoming increasingly important for ensuring access for Canadian wood products to international markets. As well, forest certification systems often require the identification and regulation of protected areas. These systems are becoming very important for assuring customers and public land owners that forestry companies have adopted "best practices" in their operations.

The concept of High Conservation Value Forests (HCVFs) was developed by the Forest Stewardship Council. HCVFs are forests that have extraordinary conservation value for either ecological or cultural reasons.

## **FSC Standards: (6.4.1 – 6.4.6; 9.1.1, 9.3.1)**

- The applicant completes or makes use of an existing gap analysis to address the need for new protected areas.
- The applicant designs and contributes candidate-protected areas that make a maximum contribution to filling gaps in the protected areas system.
- The applicant works cooperatively with interested parties in the analysis of gaps and candidate protected areas.
- The applicant undertakes efforts to identify and map the presence of High Conservation Value Forests.
- The applicant develops management strategies and measures to maintain or restore High Conservation Values that have a high probability of success.

## **MNR Rules:**

Ontario has approximately 6 million hectares of protected area (9% of the province), however, the distribution and size of protected areas varies across the province. As part of the 1999 Forest Accord, the Province of Ontario committed to support an increase to the existing parks and protected area system within an approved framework known as Room to Grow. This process ensures that any future increases in wood supply serves two important purposes:

- 1) creating new opportunities for industry; and

2) providing opportunities to expand Ontario’s protected areas system so that all ecosystems in Ontario are adequately represented.

The Room to Grow Framework was officially adopted by the provincial cabinet in July 2003 and it now plays a fundamental role in forestry planning and practices in Ontario. The process of identifying the need and location of new protected areas is triggered whenever:

- There is surplus wood (higher than 1999 use levels) not being used by existing mills;
- There are plans to harvest a previously unused or underutilized tree species;
- There are wood increases from intensified forest management;
- Wood is made available due to mill closures or changes in operations.
- The SFL holder voluntarily initiates a protected-areas expansion.

*Assessment:*

Maps of the Whiskey Jack Forest showing the existing protected areas were examined. We also met with ACI to briefly discuss protected areas and to provide an assessment for the company of “gaps” in the protected areas system within their planning area. This analysis is based on a mapping and evaluation process developed jointly by the Ontario Ministry of Natural Resources and the Partnership for Public Lands in March 2000. Gap analysis maps and digital data were provided to the company for future consideration.

*Findings:*

The protected areas network in the Whiskey Jack forest is not complete. Map 4 shows the 14 protected areas that are found within the Whiskey Jack forest. They total 89,233 ha, of which about 50% is water and/or non-productive forests (e.g. wetlands, rock). This represents approximately 8.5 percent of the public land in the FMU. Six protected areas are Provincial Parks. These include parts of Woodland Caribou, West English River, Eagle-Dogtooth, Rushing River, Tide Lake and the Maynard Lake Parks. Eight are classified as Conservation Reserves. These are Dryberry Lake, Scotty Lake, Solitary Lake, Clay Lake, Scenic Lake, Lake of the Woods, Campfire River and Twilight Lake. Ninety-eight percent of these protected areas were added in 1999 with ACI’s cooperation as part of the Ontario’s Living Legacy land-use decision.

Map 5 shows the current level of completeness of the protected areas network, according to the MNR/PPL gap analysis. This information is also presented in Table 9

Table 9: Summary of the gaps in representation of the protected areas network within the Whiskey Jack Forest.

<b>Gap analysis (MNR/PPL) summary</b>	<b>Gaps (ha)</b>	<b>% FMU in gaps</b>
Major gaps	85,125	8%
Moderate gaps	435,598	41%
Partial gaps	110,835	10%
Adequate / little or no gaps	141,992	13%
Other (including water, patent lands)	290,054	27%

Is the company willing to fill the gaps in the protected areas network?

ACI is a signatory to the Ontario Forest Accord and supports the Room to Grow Policy Framework. ACI has recently expressed an interest in the results of the protected areas gap analysis and in identifying sites that would be required to complete the network. We have decided not to perform this task until it can be done cooperatively with the local First Nations.

Has the company identified HCVFs?

ACI has not yet identified HCVFs in the Whiskey Jack Forest, however, the company has recently indicated an interest in identifying HCVFs in the forest.

Once identified, will HCVFs be protected?

ACI has not yet made a formal commitment to follow through with protecting the HCVFs that are identified. However, they have considered our request to avoid any logging or road building in the remnant intact mature forest areas that we identified through our intact forests analysis (Map 4) and have removed almost all forest operations that were planned in these areas. Doing so will preserve opportunities for conservation arising out of the full HCVF analysis.

**Conclusion**

- The protected-areas network on the Whiskey Jack Forest is incomplete according to the protected-areas gap analysis developed jointly by the MNR and the Partnership for Public Lands.
- ACI is a signatory to the Ontario Forest Accord, which resulted in the creation of 98% of the protected areas in this FMU.
- ACI is a supportive member of the Ontario Forest Accord Advisory Board and of the Room to Grow policy framework, which supports the completion of the protected-areas network while mitigating wood-supply impacts.

**Recommendations**

- ACI should conduct an assessment of High Conservation Value Forests and work with MNR to protect these forests (including the remnant intact areas) from logging
- ACI should involve local Aboriginal communities in their assessment of HCVFs.
- MNR should support ACI's efforts to identify and protect HCVFs and candidates to complete the protected areas system.

# Relationship with Aboriginal Peoples

Aboriginal Peoples have lived on Canada's lands for thousands of years. Aboriginal treaty rights to hunt, fish and trap are constitutionally protected in Canada. First Nations in Ontario interpret the treaties they signed as treaties of sharing and coexistence.

Governments have legal responsibilities to protect these rights as well as to provide meaningful consultation regarding land and resource issues. There are additional legal responsibilities for the province of Ontario to provide a more equal participation for Aboriginal People in the benefits provided through timber harvesting. The relationships that governments and licensed companies have with Aboriginal People, and the extent to which Aboriginal and treaty rights are respected, are key components of good forest management.

FSC Standards: (FSC 3.1.2; 3.2.2; 3.3.1; 3.3.3)

- The applicant obtains agreement from each affected Indigenous community verifying that their interests and concerns are clearly incorporated into the management plan
- The applicant has jointly established opportunities for long-term economic benefits from forest operations, where that is the desired objective.
- The applicant develops management activities to ensure that Indigenous resources are not threatened or diminished.
- The applicant supports efforts to conduct land use studies and mapping which result in an Indigenous areas of concern protection agreement (3.3.1)
- Where Indigenous communities have indicated that forestry operations on particular blocks or sites are creating a threat of serious environmental, economic or cultural impacts, the applicant suspends or relocates forestry operations until disputes are resolved.

The Forest Management Planning Manual also describes rules for consultation with First Nations communities.

## *Assessment:*

We did not undertake a systematic assessment of the relationship between ACI, MNR and local Aboriginal communities. We have simply recorded some significant events over the past two years and outstanding issues of contention between local Aboriginal people, ACI and MNR. We did assess the state of traplines held by Grassy Narrows members and reported on the extent of disturbance within these areas.

## Summary of the Dispute between Grassy Narrows, ACI and MNR.

There is a major outstanding dispute in the Whiskey Jack Forest. To protest Abitibi's management of their traditional lands, the Grassy Narrows First Nation community -- supported by the Anishinabe Nation in Treaty #3 -- has maintained a roadblock for more than three years. Grassy Narrows has also boycotted the MNR-led forest-management planning process, reflecting the widely held view amongst First Nation communities and organizations in Ontario that the forest-management planning process is inadequate to meet the obligation of government and companies to meaningfully consult with First Nations.

The widespread extent of clearcutting in the Whiskey Jack Forest is a key concern of the Grassy Narrows First Nation community. The community asserts that industrial forest management is adversely affecting their livelihoods, impinging on their constitutionally protected Aboriginal and treaty rights, and affecting the health of fish and wildlife populations on which the community depends. For example, traplines that depend on mature forest to provide habitat for valuable marten and other furbearers have been degraded by clearcuts.

Some community members have asked the provincial Minister of the Environment for a full environmental assessment of Abitibi’s forest-management plan because of the impacts that clearcutting will have on several of the community’s traplines.

Abitibi has stopped operations in the area around the community and the blockade, but continues to operate in the rest of the forest. The company, Grassy Narrows, and the provincial and federal governments are meeting periodically to discuss the impasse, but no resolution has been reached.

Although Abitibi has made some modest efforts to provide economic benefits to First Nations communities in or near the Whiskey Jack Forest, the dispute with Grassy Narrows stands out as a serious problem that needs to be resolved.

Impacts of logging on traplines

An analysis of the state of all traplines within the Whiskey Jack Forest was conducted using digital forest resource inventory data. The percentage of each of the traplines that was disturbed by logging or natural causes in the last 20 years was assessed. Several trappers were also asked for their perspectives on the impacts of logging on their traplines.

Table 10 summarizes the state of two of the many traplines in the Whiskey Jack Forest. Maps 6 and 7 show the amount of recent disturbance within these traplines. These traplines are also two of the three traplines that have been the basis of an ongoing lawsuit against MNR and ACI. This suit argues that Ontario has no power under Treaty 3 to give ACI its forestry permits because the forest operations of Abitibi-Consolidated infringe upon First Nation’s constitutionally protected rights to hunt and trap.

Table 10: Summary of disturbance in two traplines

Trapline	Total Trapline area (ha)	Non-forested area including water (ha)	Area logged in the past 20 years (ha)	Area naturally disturbed in the past 20 years (ha)	Total forested and not disturbed
Andy Keewatin	29,785	6,631 (22%)	5,072 (17%)	1186 (4%)	57%
Willie Keewatin	25,785	6,320 (25%)	5,514 (14%)	3094 (12%)	49%

The numbers in the table above are approximate and are limited by the accuracy of the information in the planning inventory. In many cases, the type of disturbance (harvest,

fire, wind, budworm) isn't listed and in some cases disturbances seem to be entirely missing from the inventory.

After the 2004 Plan was approved by MNR, the Grassy Narrows Trappers' Council made a formal request to the Minister of the Environment to conduct a full environmental assessment of the Plan based on trapline impacts. The community supported this request. The Minister refused the request.

### **Conclusions**

- Logging operations continue to significantly threaten and diminish the resources of the Grassy Narrows First Nation.
- The interests of the Grassy Narrows First Nation have not been incorporated into forest management plans by ACI and MNR.
- ACI has made an offer to the Grassy Narrows First Nation to try to resolve the impasse that has developed with that community. However, the community has indicated that the terms of this proposal are not adequate to satisfy its concerns.
- The concerns expressed by the people of Grassy Narrows cannot be adequately addressed without the involvement of both the federal and provincial governments.

### **Recommendations**

- ACI and representatives from the provincial and federal governments should continue to meet with representatives from Grassy Narrows First Nation in order to come to a resolution of the long-standing conflicts that culminated in the community's road blockade. At a minimum, a resolution would have to address the following issues:
  - Capacity building and funding of Grassy Narrows and other First Nations communities to increase their ability to develop a community-based land-use plan.
  - Substantive resource-planning and decision-making authority devolved to the communities.
  - Plans for benefits and revenue sharing with the communities.
  - An effective consultation process developed with the communities.

## **Compliance in the field**

### **FSC Standards**

The applicant has a good record of compliance with relevant federal, provincial, and municipal laws and regulations (FSC 1.1.2).

### **MNR Rules**

MNR has many rules to protect environmental values during forestry operations. The topics we considered are described below. See *More Than Trees: A citizen's guide to making conservation a bigger part of forest management* for a description of some of MNR's rules. [www.wildlandsleague.org/guardians/morethantrees.pdf](http://www.wildlandsleague.org/guardians/morethantrees.pdf).

### *Assessment*

Compliance with laws and regulations was assessed in two main ways. First, we conducted our own field inspections to quantify the degree to which logging operations were conforming to key environmental protection rules.

### Field inspections of operational compliance with environmental protection rules

#### *Assessment:*

In the fall of 2002, we randomly selected past harvest areas from 1999, 2000 and 2001 for inspection. In the fall of 2003 we augmented these inspections by visiting harvest areas from 2003. Our investigations in 2003 were aided by a team of local people who took part in our field-audit training.

Compliance was assessed in several areas:

***AOC reserves:*** We checked to see if the no-harvest reserves designated around lakes, streams or other values were intact. This involved measuring the width of the reserve and comparing it to the width of reserve in the harvest prescription.

***Bridges and culverts:*** Culverts and water crossings were inspected opportunistically as we traveled from site to site within the unit. At each site we examined the adequacy of erosion controls, construction, sedimentation control, stream flow for fish, placement of the culverts, and the condition of the road and roadbed at culvert locations.

***Roads:*** We noted any examples of rutting of the roadbed that would lead to erosion into nearby waterbodies.

***Garbage:*** We noted any examples of garbage that were left in the forest.

***Wasteful practices:*** We noted any examples of cut logs being left in the forest rather than being taken to the mill.

***Logging:*** We assessed whether tree retention met the MNR requirement to leave six trees standing per hectare. Although the rules for tree retention have increased dramatically, these new rules did not come into effect until 2004. We also noted examples of slash piles (piles of branches, twigs, foliage) that were not cleared or burned. Failing to do so inhibits re-growth on the site.

We established two categories of violation. Our minor violation classification category matched as closely as possible the MNR categories of “minor” and “moderate” and our major violation category covers the MNR classes of “significant” and “very significant”.

#### *Findings:*

Rates of compliance discovered by our field audit varied depending on the topic (Table 11). ACI demonstrated an impressive 99.7% compliance rate for no-harvest reserves. Only one minor non-compliance was found. Table 12 shows that compliance with no-

harvest reserves and watercrossing construction and maintenance were better in the Whiskey Jack forest than in any other FMU we had previously assessed.

Table 11 Violation rates observed in our field investigations in the Whiskey Jack forest for selected operations in 1999, 2000, 2001 and 2003.

Type	Observations	Major violation	Minor violation	Percent violation
AOC reserves	33	0	1	0.3
Culverts	38	2	12	37
Roads	N/A	1	3	N/A
Garbage	N/A	0	2	N/A
Wasteful practices	N/A	0	2	N/A
Logging	20	3	2	25

Table 12 Comparison of violation rates in past field investigations done by CPAWS Wildlands League and Sierra Legal Defence Fund.

FMU	AOC violations (percent)	Water crossing violations (percent)
Algoma (Clergue Forest Managemetn)	27	N/A
Algonquin Park (Algonquin Forestry Authority)	35	53
Magpie (Debreuil Forest Products – Buchanan Group)	18	39
Spanish River (Domtar)	33	64
Whiskey Jack (ACI)	<b>0.3</b>	<b>25</b>

During our field audits we came across two road closures, both of which were well designed and constructed and with a relatively high likelihood of success.

We found garbage at two locations, three examples of roadbed erosion, two examples of large unburned slash piles and two examples of wasted wood stacked and left at the roadside.

We discovered three major logging violations during our field visits. In each of these cases, ACI or its contractors had clearcut within marten core areas -- a practice clearly prohibited by the *Forest Management Guidelines for the Projection of Marten Habitat*.

Our follow-up research revealed that MNR had approved ACI's proposal to log in marten cores as part of the 1999-2004 FMP. Although this plan was approved by the district and regional managers of MNR, we maintain that logging in marten cores is not permitted.

### **Conclusion**

- Generally speaking, ACI demonstrates good compliance with operational rules to protect environmental values.
- ACI has seriously violated the *Forest Management Guidelines for the Protection of Marten Habitat* by clearcutting in marten cores.
- MNR approved ACI's clearcutting in marten cores.

### **Recommendations**

- MNR should ensure proper implementation of its *Guidelines for the Protection of Marten Habitat*.
- ACI should continue its impressive compliance in maintaining no-harvest reserves.

## More CPAWS Wildlands League Resources

CPAWS Wildlands League is a leader in forestry research and providing public information on forestry. We have extensive information about forest planning, forestry issues and forest values on our website at [www.wildlandsleague.org/forestry.html](http://www.wildlandsleague.org/forestry.html).

Our Woods, Jobs and Wilderness Fact Sheet looks at the challenges facing Ontario's forest industry and forest-dependent communities. It is available online at [www.wildlandsleague.org/forestrypubs.html](http://www.wildlandsleague.org/forestrypubs.html)

The Wildlands League has produced two comprehensive factsheet series on forestry issues. Our Forestry in Ontario factsheet series covers issues ranging from Boreal Forest Certification and Good Boreal Forestry to Shoreline Forests and Control of Public Forests. The entire series is online at [www.wildlandsleague.org/forestrypubs.html](http://www.wildlandsleague.org/forestrypubs.html)

Our Forest Diversity – Community Survival factsheet series, produced in the late 1990s, looks at many of the economic aspects of forestry, from the impact of mechanization on employment in the forestry industry to the potential of value-added wood products or other forest-based businesses like ecotourism. This series is also available online at [www.wildlandsleague.org/forestrypubs.html](http://www.wildlandsleague.org/forestrypubs.html)

Over the past five years, CPAWS Wildlands League has undertaken a series of audits of forestry operations in conjunction with Sierra Legal Defence Fund. These audits have looked at issues ranging from company compliance with logging operation standards to the effectiveness of access controls on logging roads. This series is also available online at [www.wildlandsleague.org/forestrypubs.html](http://www.wildlandsleague.org/forestrypubs.html) and a description of our Forest Watch audit program is available at [www.wildlandsleague.org/audit.html](http://www.wildlandsleague.org/audit.html)

Reports on our pilot projects, including an assessment of the feasibility of the Forest Tenant model and on our work to engage citizens in forest management planning for the Whiskey Jack forest, are also available in the forests section of our website.

CPAWS Wildlands League has also produced *More Than Trees: A citizen's guide to making conservation a bigger part of forest management*. This guide is available on our website at [www.wildlandsleague.org/guardians/morethantrees.pdf](http://www.wildlandsleague.org/guardians/morethantrees.pdf).

CPAWS Wildlands League also works closely with other organizations involved in forestry issues, including the Forest Stewardship Council (FSC) and Global Forest Watch Canada. You can get more information about these organizations at [www.fsccanada.org](http://www.fsccanada.org) and [www.gfwcanada.org](http://www.gfwcanada.org) or follow the links from our website.

If you do not have web access or would like to order printed copies of any of our publications, please call 1-866-510-WILD (9453) x46 toll free. (In Toronto, please call 416-971-9453 x46).

Map 1 Old Growth Forest on the Whiskey Jack Forest

Map2 Roads, Fragmentation and Intact Mature Areas in the Whiskey Jack Forest

Map 3. Intact Forest Over 60 Years Old in the Whiskey Jack Forest, based on CPAWS Wildlands League's criteria

MAP 4:  
Protected Areas in the Whiskey Jack Forest

MAP 5:  
Gaps in the Protected Areas Network in the  
Whiskey Jack Forest

MAP 6:  
Andy Keewatin trapline area

MAP 7:

Willie Keewatin trapline area