Out of Balance:

A revealing look at how public forests are managed in the Whiskey Jack Forest

Taking a closer look

At CPAWS Wildlands League we are committed to seeking better ways of conserving our forests, working with individuals, industry and governments, so that the wilderness we value will endure for generations.

Over the past three years, CPAWS Wildlands League has taken an in-depth look at forestry practices and plans in the one-million-hectare Whiskey Jack forest unit in northwestern Ontario (see **Map 1**) to assess whether they are sustainable. The management of this publicly owned forest for the purposes of industrial forestry has been entrusted to newsprint maker Abitibi Consolidated Inc (ACI) through a licence agreement that is overseen by the Ontario Ministry of Natural Resources (MNR). The current Forest Management Plan ('the plan'), through which this licensing is implemented, is a five-year plan written with a long-term strategic direction of 20 years (April 1, 2004 – March 31, 2024). ACI led the development of the plan, which MNR subsequently approved. However, the plan was only finalized early in 2005.

We chose the Whiskey Jack Forest due to its proximity to Woodland Caribou Wilderness Park (one of the largest and most significant protected areas in Ontario), its proximity to intact and unlogged northern boreal areas, its dynamic natural forces (with frequent wind and fire disturbances) and the on-going conflict in the area between industrial activities and the Grassy Narrows First Nation community.

A forest shadow

The Whiskey Jack Forest has changed dramatically. The rolling forests and countless remote lakes of this vast forest have become entangled in a sprawling network of roads and clearcuts, and the area's forest cover has been mostly reduced to a patchwork of young second-growth trees. Both forestry and natural disturbances like fire and wind have taken a toll on the forest.

This forest is still home to numerous wildlife and fish species, but habitat for some species such as woodland caribou has been severely degraded. It was once vital to woodland caribou herds that now only skirt the northern edge of the area. As well, provincial goals for marten habitat retention have not been met. Aboriginal people have used the land for generations, but conflict between First Nations people and industry has been a recurring theme for decades.

The Whiskey Jack Forest has changed dramatically.

Through a careful examination of the details and assumptions in the five-year 2004 Forest Management Plan for the Whiskey Jack Forest, we assessed the sustainability of planned logging activities – both economically and ecologically. We used government and industry data and the computer models that they have developed to guide forest-management decisions. As well as assessing 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. The FSC forest-certification system is a voluntary program that recognizes companies that agree to meet specific standards for forestry operations and be independently audited on compliance.

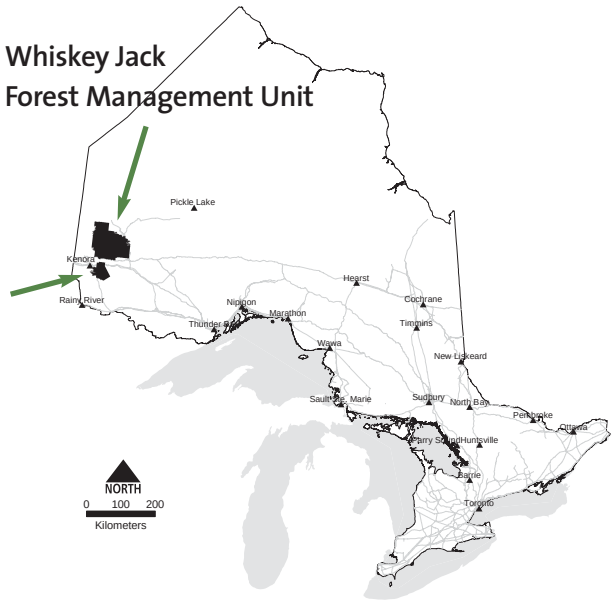
The FSC national boreal standard represents a coming together of many different interests around a common vision for our forests. Those involved in its development, including major forestry companies, believe it represents a realistic and achievable standard for good forest management in the boreal forest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

Computer models used in forestry planning are becoming increasingly important for driving the major decisions that will shape the future state of the forest, from how much wood will be cut to how much old or intact forest will be retained. CPAWS Wildlands League is the first Ontario conservation group to actually look at how these models are being used by analyzing the scenarios developed by the planning team using their own computer models.

What we found in our assessment were overly optimistic assumptions about the forest's ability to sustain high levels of logging, poor implementation of MNR guidelines for the protection of caribou and marten habitat and inadequate accounting for the past impacts of logging on wildlife and habitat. In fact, our assessment shows that rather than focusing on much needed ecological restoration for the Whiskey Jack Forest, the current plan is focused on maintaining cutting rates based on overly optimistic wood-supply calculations. Combined with serious gaps in basic ecological information about the forest, this is preventing the development of a much-needed new approach to management (and restoration) of this forest.

The result is a plan that will perpetuate or even aggravate problems, such as the dramatic reduction of old growth left in the forest (currently accounting for only 6.3%),

Map 1: Whiskey Jack FMU



Extensive logging has left the Whiskey Jack Forest with only a handful of areas of intact forest. Intact forests are critical for species that need space between themselves and human disturbance.

unsustainable logging rates, diminishing habitat for threatened woodland caribou as well as degraded habitat for other wildlife, and ongoing conflict with the Grassy Narrows First Nation community.

Unfortunately the major underlying problem of the Whiskey Jack plan – a keep-wood-flowing-to-the-mills planning approach – is seriously undermining efforts to move forestry toward planning for ecological sustainability rather than simply planning for timber supply. In approving the plan, MNR has endorsed this approach.

A hollow plan

Loss of intact wilderness

Intact areas are large areas of natural forest that have not been fragmented by roads and logging. Most of the original intact pre-logging mature forest has been lost in the Whiskey Jack Forest. Today, there are only five areas covering in total just 4.6% of the landbase in the unit (see **Map 2**) that meet commonly accepted standards for being mature intact forest. They are comprised mostly of forest more than 60 years old with low levels of recent disturbance that are considered remote (at least 2.5 km from the nearest road with at least some interior areas that are a minimum of 5 km from any road). Such areas are critical to species such as woodland caribou that are sensitive to human disturbance. Overall, only 8.6% of the total land base of the unit (5.7% of its forested land) is permanently protected from industrial development.

To its credit, ACI has agreed to postpone most logging operations during this five-year plan in the remnant mature intact areas identified by CPAWS Wildlands League. This provides a window for addressing how to protect these areas in the longer term.

Currently, ACI's and MNR's proposed overall approach to managing the unit is to move to even larger clearcuts in an effort to reduce the forest fragmentation caused by smaller clearcut blocks and associated road networks. This is an unproven strategy that assumes the new forest will contain all the values of the original. Without meaningful protection of current intact forest, species that depend on large undisturbed areas will suffer.

Conflict with Grassy Narrows First Nation community

There is a major outstanding dispute in the Whiskey Jack Forest. To protest MNR and ACI's management of their traditional lands, members of the Grassy Narrows First Nation

For the full results of our assessment, please visit www.wildlandsleague.org

community – supported by the Anishinabe Nation in Treaty #3 – have maintained a roadblock since December 2002. Grassy Narrows has also boycotted the MNR-led forest-management planning process.

The widespread practice 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 that have been harmed by clearcuts.

Some community members asked the provincial Minister of the Environment for a full environmental assessment of the forest-management plan because of the impacts that clearcutting will have on several of the community's traplines. This request was denied by the Minister of the Environment.

ACI 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 ACI has made some 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.

Destruction of old-growth forests

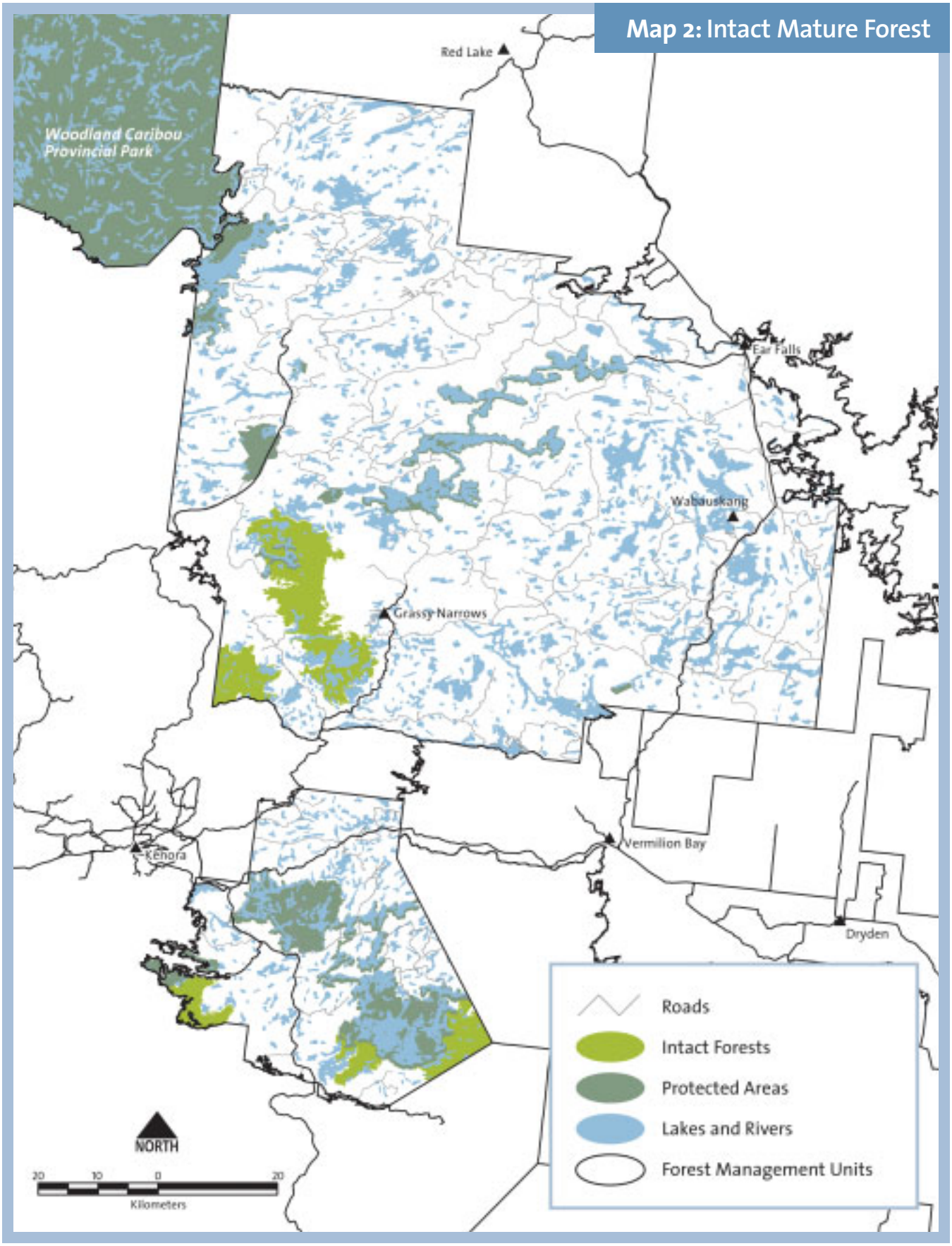
In order to properly assess the impact of logging on old-growth habitat in the Whiskey Jack Forest, we need to know what the natural condition of the forest would be like without logging. Unfortunately, neither the Ontario government nor the company has conducted a detailed study of the forest's pre-industrial condition to determine what would be a naturally occurring percentage of old-growth. However, two sources of information suggest that the plan will result in significantly less old growth than would exist in a natural forest.

First, we examined the 1986 composition of Woodland Caribou Provincial Park's forest, adjacent to the Whiskey Jack. Even though the park had a significantly higher proportion of jack pine – a species prone to frequent fire – roughly 6.7% of the park was identified as old growth. The Whiskey Jack Forest only has 6.3%. Second, we used the MNR's Computer Harvest Model to compare the amount of old-growth predicted under the plan to the predicted amount that would occur in the absence of logging or fire suppression (which goes hand-in-hand with logging to protect timber supplies). A severe drop in the proportion of old growth occurs over the next 10 years under both scenarios, but without logging or fire suppression, the forest rebounds faster and maintains 38% more old-growth on average over the next 150 years, eventually stabilizing at between 11% and 12%. However, even this significant difference may be understating the case because it is very likely that the Whiskey Jack Forest would naturally have started out with (and maintained) a higher percentage of old-growth forest in the modeled period if it had never been logged in the first place.

Map 3 shows that natural disturbances together with extensive logging has resulted in an abundance of young forest.

To compensate, ACI and MNR could maintain current levels of old growth through reduced harvest levels and continued fire suppression. As it is, the remaining old-growth forest in the unit is now particularly vulnerable to natural events like fire and windstorms because there is so little of it left.

Map 2: Intact Mature Forest



Our assessment found that only 6.3% of the Whiskey Jack Forest is currently in an old-growth condition.

Diminished wildlife habitat

Computer modeling of future wildlife habitat conditions in the Whiskey Jack Forest predicted that logging would not dramatically change the amount of habitat available. However, the serious problem with this prediction is that the starting point for this comparison is today's forest – a forest that has already lost much of its most valuable wildlife habitat, such as large intact or old growth areas.

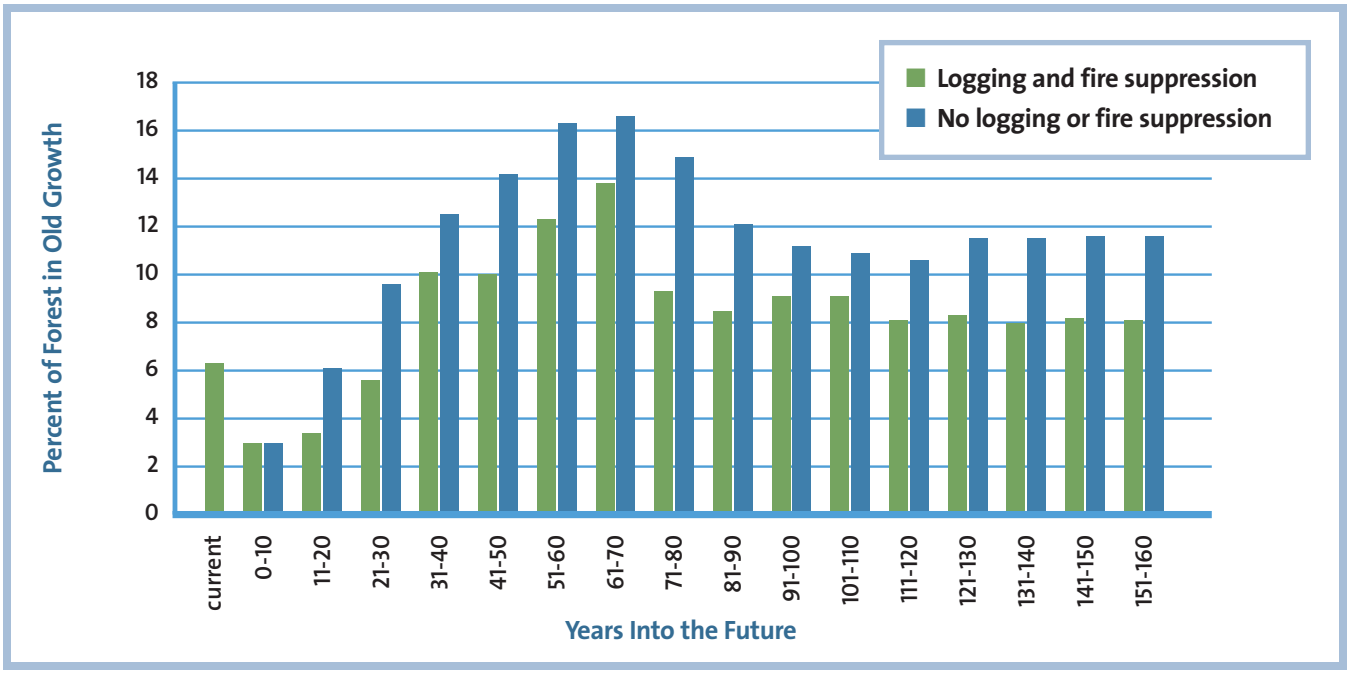
The model, for example, shows that the area of caribou habitat available in the unit will not be dramatically impacted by logging or road building. But what the model doesn't tell us is that much of the best habitat in the unit for woodland caribou – a species listed as threatened in Ontario – has already been destroyed. The Forest Management Plan (p. 221) states, for example, that:

"During the duration of the 1999-2004 [Forest Management Plan], 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."

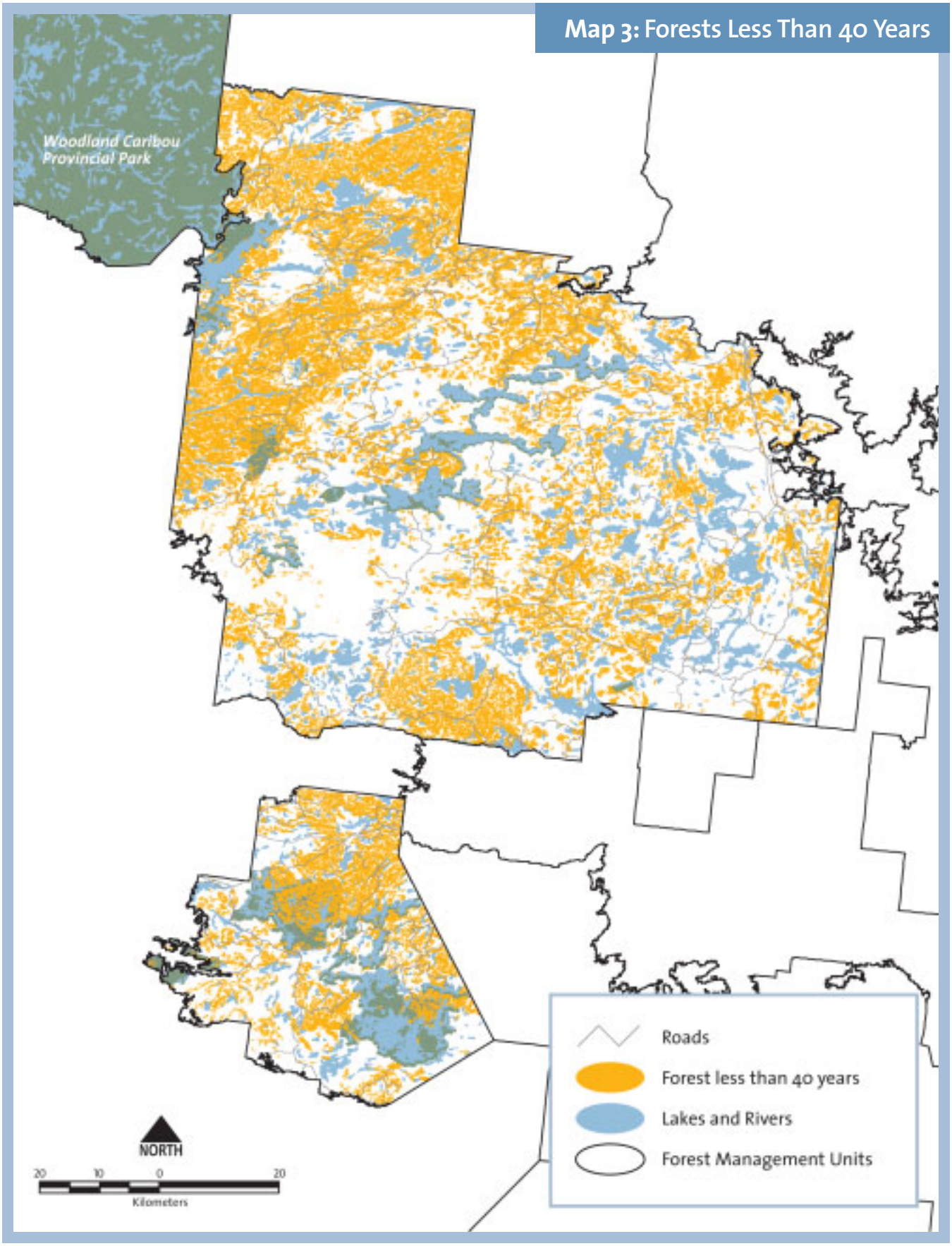
So, essentially, there is little or no caribou habitat left for further logging to impact and therefore little difference between the natural and industrial model scenarios.

It is troubling to note how the decision to virtually eliminate caribou habitat in the unit came about. MNR's *Forest Management Guidelines for the Conservation of Woodland Caribou: A Landscape Approach* sets out a management approach that should be used to create future caribou habitat by using logging to try to mimic the impact of natural

Figure 1: Percent of Forest in the Whiskey Jack Management Unit in Old Growth Over Time



Map 3: Forests Less Than 40 Years



Almost all remaining woodland caribou habitat in the unit was deliberately logged due to a poor interpretation of caribou guidelines.

Bruce Petersen

wildfire on the forest. This approach is not intended to be used to target *existing* caribou habitat for logging, but that appears to be what was done by planners in the Whiskey Jack Forest. A far better approach would have been to protect existing habitat while managing the remainder of the forest to try to create increased future habitat for woodland caribou.

On a more optimistic note, planners have now proposed to close roads within the caribou habitat zone. This is merely making the best of a bad situation and may only increase the remote chance that caribou will eventually re-inhabit these logged-over areas.

During CPAWS Wildlands League's field compliance visit, we found mixed results with regards to how operations were carried out under the previous plan. While harvest operators exhibited an impressive 97% compliance rate in retaining no harvest reserves, marten as well as caribou have been impacted by improper implementation of provincial guidelines. The *Forest Management Guide for the Protection of Marten Habitat* indicates that 10-20% of the forest should be set aside at any time in mature conifer dominated cover to provide adequate insurance that marten populations will remain healthy. During the previous plan period, clearcut logging was carried out in marten cores with the knowledge and agreement of both ACI and MNR. This is a clear violation of the rules. Additionally, we found in the 2004 plan that marten core areas do not achieve the required 10% minimum of the Management Unit area in suitable marten habitat until 2054. In fact there is only 3.7% of the unit in such habitat deferred in the first ten years of the plan. The statement in the plan that, "It was a significant challenge to implement marten core areas while maintaining current harvest levels on the forest," explains the reason why guideline objectives could not be met: providing wood to the mill is the overriding concern of the forest managers.

Unsustainable harvest levels

The determination of how much wood can be sustainably cut from the forest is the backbone of the entire forest management-planning process and harvest level calculations are one of the key outcomes of the computer modeling process.

A proper precautionary approach for determining acceptable harvest levels would consider all the goods and services a forest provides – such as wildlife habitat, water source protection or recreational use – on an equal footing with industrial uses, particularly logging. In reality, however, the forest industry and MNR often put their focus on maintaining (or increasing) the flow of wood to mills, while longer-term ecological or

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social values are treated as "constraints" that should be minimized as much as possible.

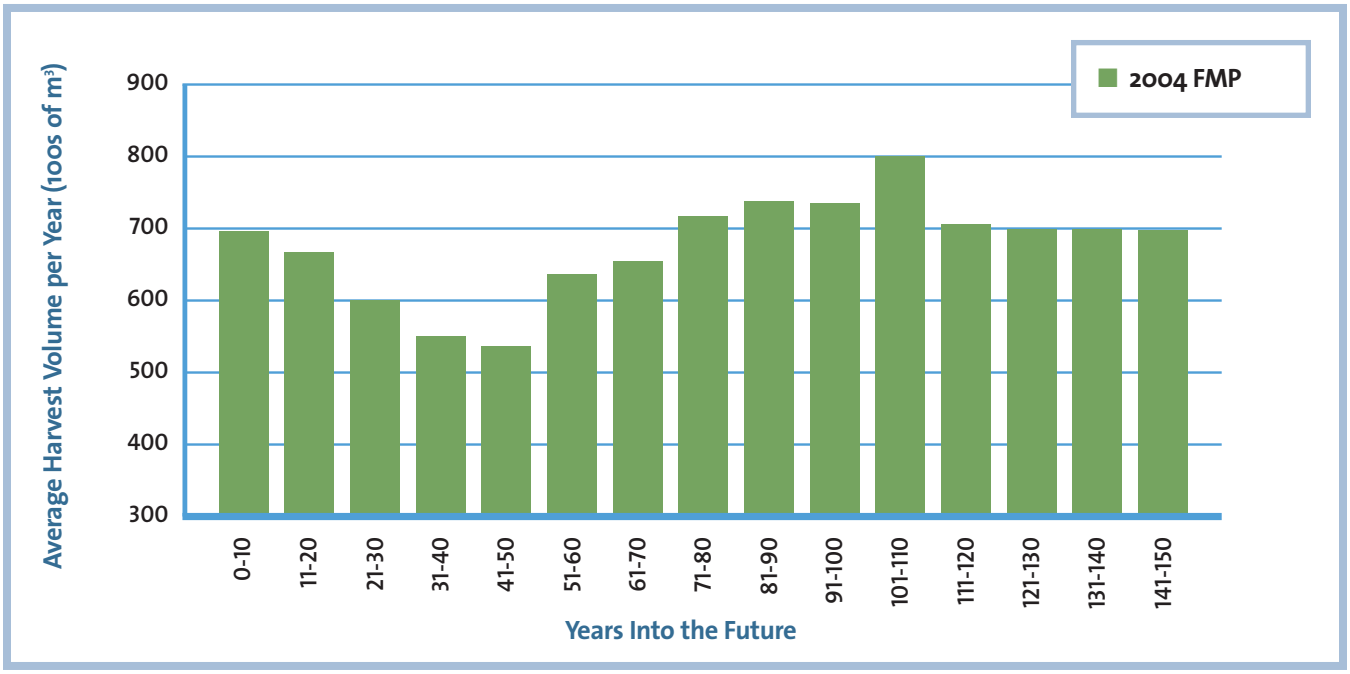
Figure 2 depicts the planned volume of timber harvested over time, as predicted in the 2004 Forest Management Plan. It plainly shows that wood supply is expected to decline for the next 20-50 years followed by a rebound and then a leveling-off of supply.

There are two factors to carefully consider when looking at projections such as this: accuracy declines the further out on the time scale we go (in other words, it has a better chance of being right about what will occur over the next few decades than about the next century); and the outcomes are completely dependent on both the quality of the information and the assumptions that have been fed into the model.

The wood supply decline is a province-wide phenomenon that has complex causes. Fundamentally, it is a result of our failure to manage the forest well for future generations. This is bad news for the forest, the indigenous people who live in the forest, for the forest industry and for workers in a variety of forest-based enterprises (or for future forest-based enterprises for that matter). In order to keep a healthy forest industry in the area, there simply needs to be a viable wood supply.

The choice today is whether to voluntarily reduce harvest levels over the next 10-20 years to give the forest room to recover or to maintain current cutting rates and wood flow to mills. The 2004 plan takes the latter approach, which will actually make the coming decline worse. With our own simple model manipulations we reduced harvests by 9.5% over the next ten years and found that predicted wood supply in all subsequent

Figure 2: 2004 Whiskey Jack Forest Management Plan Predicted Harvest Level Over Time



Forest planners must put conservation and community concerns on an equal footing with timber objectives.

ten-year periods increased. The most dramatic increase is 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.

Over the longer term, it appears from the modeling results illustrated in **Figure 2** that wood supply levels will recover to current levels in about 80 years and can then be sustained at that level thereafter. But there are two key questions about this scenario: Is this recovery really going to happen given what we know about the reality of the forest's current on-the-ground condition and the decision to keep harvest levels high in the near term?; and, even if such a recovery does occur, what will be the ecological price of returning to these high harvest levels?

From our examination of model assumptions we found a number of factors that led to an inflation in the estimated wood available to ACI:

- Not adequately accounting for forest that regulations require be left behind for wildlife habitat. The model simply assumes these trees are available for harvest and increases possible cut levels accordingly.
- Underestimating how frequently the forest will burn or be damaged by wind, again causing the model to overestimate the forested area available for harvest.
- The decision to immediately categorize areas with unknown regeneration condition as young fully stocked forest, rather than more prudently transferring only a percentage of these areas from one category to the other every year to better mimic the actual way a forest develops or else waiting until regeneration surveys were complete. Instead the planning team relied on informal field assessments to make the decision to re-classify this land. ACI claims they later verified their decision through formal surveys. If this is true it is like writing a cheque for an expensive item without being sure of your bank balance. This approach is a violation of best management practices as outlined in MNR's Provincial Wood Supply Strategy.
- Questionable estimates of forest growth and yield. These rates describe how fast a forest grows and how much timber it will produce. This is a key input to a sustainable calculation of wood supply. If not accurate, the potential again exists for over-harvesting based on overly optimistic predictions. Although ACI claims that it used some local information for estimating these rates, MNR asserts that these estimates are too high and that ACI relied on their own judgement rather than on any local knowledge or information.

Planning for real sustainability:
Recommendations for improving forest planning

1. Remnant intact 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. ACI and MNR should complete a proper assessment of the pre-industrial forest conditions of the Whiskey Jack Forest in order to determine how much old-growth and wildlife habitat to retain as well as desired future amounts based on a well-informed understanding of the forest's natural (unlogged) condition and 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. ACI and MNR should 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 to ensure they are accurate.
5. Rather than letting demand for wood drive forestry planning while ecological and social values take a back seat, MNR and the industry 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. ACI and the Ontario and federal governments 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 use on their traditional lands.
7. ACI 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.

Conclusion:

The Whiskey Jack Forest is in trouble because logging operations being carried out there are not economically, socially or environmentally sustainable. 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 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 high rates of logging in the Whiskey Jack forest simply cannot be sustained.

But rather than meaningfully addressing this problem, the 2004-2024 plan exacerbates it by continuing to put the emphasis on keeping logging rates at current levels, often 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.

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CPAWS Wildlands League is a leader in working to ensure that forestry in Canada is sustainable and that the ecological impacts of resource use are minimized. We have recently published an assessment of alternatives to clearcutting ("A Cut Above: A look at alternatives to clearcutting in Canada's boreal forest") and a look at the future of the forest industry in Ontario ("Wood, Jobs and Wilderness: The future of Ontario's forests"). Please visit www.wildlandsleague.org/forestrynews.html for more information on our work.