Morice & Lakes IFPA

April 2008
Summary No. 61

Morice & Lakes Innovative Forest Practices Agreement

Project Summary

Developing and implementing Sustainable Forest Management Plans for both the Lakes and Morice Timber Supply Areas is the central objective of the Morice and Lakes Innovative Forest Practices Agreement. The adaptive management cycle and public involvement are both important components of this planning process.

Lakes Timber Supply Area

Sustainable Resource Management Plan

Introduction

The Integrated Land Management Bureau (ILMB), formerly the Ministry of Sustainable Resource Management, has a mandate to develop legal objectives for biodiversity and has completed that process in the Lakes Timber Supply Area (TSA). Stating in 2005, ILMB, in cooperation with the Morice and Lakes Innovative Forest Practices Agreement (IFPA), pursued a joint project to coordinate their efforts related to establishing spatial Old Growth Management Areas (OGMAs) and biodiversity objectives for the Lakes TSA. The project has culminated with the completion of Sustainable Resourse Management Plans for the north and south portions of the Lakes TSA.

The IFPA Sustainable Forest Management (SFM) Plan is in place for the Lakes TSA. This plan incorporates objectives and indicators for biodiversity elements into licensee certification programs, operational planning and adaptive management systems. The expectation is that there is enough commonality in these planning activities for the SRMPs and the SFM Plan to generate efficiencies both in developing and monitoring.

Objectives

The main objective of this project is to develop biodiversity objectives for the Lakes TSA that address the following landscape elements:

- Seral targets
- Spatial OGMAs
- Stand level biodiversity (wildlife tree retention)
- Landscape connectivity
- Patch size distribution

These objectives may become legal objectives in an SRMP or may reside within the Lakes TSA SFM Plan, or both.

Process Overview

The SRMP technical process was led by ILMB with active participation and support from the Ministry of Forests and Range and the MinIstry of Environment. A partnership agreement is in place between ILMB and the Morice & Lakes IFPA participants (through their Innovative Forest Practices Agreement).

Government and industry participants work within the IFPA technical committee framework and utilize timber supply modeling and GIS analysis support from other projects within the Morice & Lakes IFPA program to develop and refine biodiversity objectives, as defined by indicators and targets.

Technical Committee Meetings

A series of Technical Committee meetings began in November 2005 with the focus on developing or

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refining biodiversity objectives for the Lakes North and Lakes South. Over that time, the Technical Committee has refined the location of candidate OGMAs in the Lakes South and developed candidate OGMAs and corridors in the Lakes North.

In addition, draft objectives for a number of biodiversity elements have been reviewed and refined by the members of the Technical Committee.

Once a suite of draft OGMAs was prepared, a series of analysis summaries were undertaken to determine the relative value of the candidate OGMA's parameters used to delineate candidate OGMA's including biological suitability, land use plan priorities and contribution to regional timber supply. In addition, attribute information was summarized for these areas as described in the Landscape Unit Planning Guidebook.

Field Checking

A field check of candidate OGMAs was also undertaken to verify information and validate recommendations. This involved air and ground calls by a Registered Professional Biologist

Timber Supply Analysis

The OGMA and corridor inputs and draft biodiversity objectives were input into a timber supply analysis to test the impact of full SRMP Implementation on available timber supply. As with the FRPA Implementation Scenario (conducted by the IFPA in 2006), the policies and practices associated with full implementation of the FRPA are also incorporated in the full SRMP Scenario. In addition to the FRPA Implementation Scenario assumptions, adjustments were also made to capture all the assumptions of the Lakes South SRMP and Lakes North SRMP. The full SRMP Scenario differs from the previous FRPA Implementation Scenario in the following ways:

1. Candidate Old Growth Management Areas (COGMAs) are removed from the THLB in Lakes North Landscape Units.
2. A partial cutting regime is modeled in selected areas of Lakes North Landscape Units.
3. Wildlife tree retention (WTR) amounts are increased in both the Lakes South and Lakes North Landscape Units.

There were five sensitivities conducted within the full SRMP Scenario. They were designed to test the affect on available timber of:

1. Adjusting wildlife tree retention levels in the Lakes North;
2. Including OGMAs in the THLB;
3. Expanding partial cutting in the Lakes North to include all 'vegetation important for biodiversity' and 'hydro-riparian' areas;
4. Applying Lakes South corridor assumptions to Lakes North corridors; and,
5. Cumulative Impacts of Lakes North SRMP Objectives.

Results

A number of products have been developed in this project. A seral stage analysis was used to develop an understanding of where constraints, or future constraints, to harvesting may exist.

Thematic Map Layers

Thematic map layers include shape files of candidate OGMAs for both the Lakes North and Lakes South.

Summary Tables

Summary Tables were prepared for:

- Lakes South OGMA Area Analysis
- Lakes North Seral Stage Analysis (long term target hectares and current state)
- Lakes North Old Growth Retention
- Lakes North Candidate OGMA Area Analysis
- Lakes North Wildlife Tree Retention
- Lakes North Landscape Connectivity Network Area Summary

Timber Supply Analysis

There are three main differences between the full SRMP Scenario and the FRPA Implementation Scenario. In the full SRMP Scenario, candidate OGMAs in the Lakes North were removed, wildlife tree retention requirements were increased throughout the TSA, and partial cutting was implemented in selected areas of Lakes North SRMP corridors. The combined effect of these three modeling inputs and assumptions was to reduce the available harvest throughout the planning horizon with the exception of the first ten years (Figure 1).

The Cumulative Impacts Sensitivity tested the cumulative impacts of Lakes North SRMP objectives by removing SRMP objectives from the modelling assumptions and inputs and reverting to the FRPA Scenario inputs in the northern landscape units. The periodic harvest levels of these forecasts are shown graphically in Figure 2. The cumulative impacts of the Lakes North SRMP objectives as modeled here amount to:

- An average 2.1% lower harvest level in the short term between 2003 and 2022;
- A 9.6% lower minimum harvest level between 2023 and 2027;
- An average 4.4% lower harvest level in the mid-term between 2023 and 2102; and,
- An average 4.6% lower long-term harvest level from 2103 through 2252.

Prior to running the Cumulative Impacts Sensitivity the impacts were estimated based on the results available at that time. The short-term impact was estimated at between 0.5% and 1.5%, which was exceeded when tested. The mid-term impact was estimated at between 4.8% and 5.1%, a range which exceeds the result of the sensitivity test. The long-term impact was estimated at between 3.7% and 6.8%, a range which includes the test result.

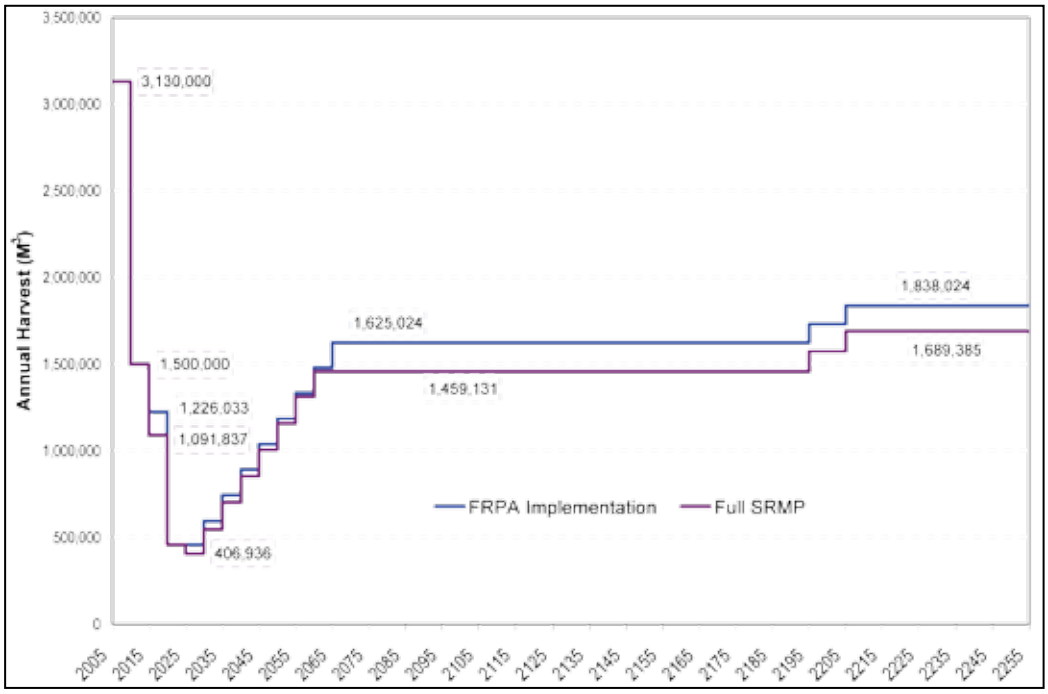

Figure 1. IFPA Lakes TSA Full SRMP Scenario Relative to FRPA Implementation Scenario.

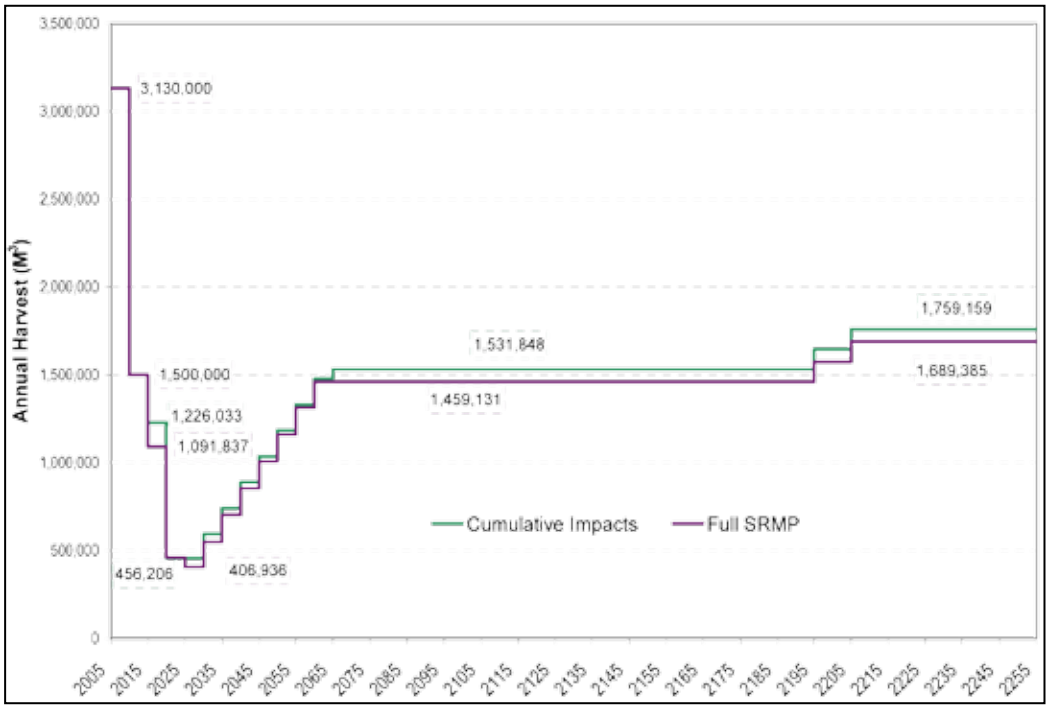

Figure 2. IFPA Lakes TSA Full SRMP Scenario Cumulative Impacts Sensitivity Harvest Flow.

Discussion

The process used to develop biodiversity objectives was a transparent approach to information sharing and knowledge transfer between government and industry. The cooperation provided by all participants led to a very robust suite of biodiversity objectives which are measurable and can be implemented by licensees in the Lakes TSA.

Recommendations

It is recommended that the collaborative approach between licensees and government agencies used in this project be used elsewhere to jointly develop management strategies that will be implemented on the ground to support sustainable forest management objectives.

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Acknowledgements

Dwight Scott Wolfe of Tesera Systems, Inc. wrote this summary with technical assistance provided by David Stuart. Layout and editing by Ritchie Morrison of Tetrad Communications.

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