



PROJECT SUMMARY

Ecosystem
Management

Forest Productivity

Public Involvement

Adaptive
Management

Morice & Lakes IFPA projects are exploring ways to enhance forest productivity through a better understanding of factors affecting productivity, through intensive silviculture treatments, by increasing the area of productive forest land, and by improving site productivity estimates.

A Forest Productivity Tactical Plan for the Morice & Lakes TSAs



Fraser Lake Sawmills



Introduction

The principals of Tweedsmuir Forest Ltd are holders of an Innovative Forest Practices Agreement (IFPA) in the Morice & Lakes TSAs. A central purpose of the IFPA is to focus forest management activities and investment in management related knowledge in order to sustain and increase forest productivity and harvest levels on crown forest lands. Since inception, the Morice & Lakes IFPA has undertaken a number of strategic analyses and innovative projects to explore the potential of these two management units.

Concurrently, government is devolving responsibility for key elements of forest management such as timber supply analysis, forest health responsibilities, forest inventories, and growth and yield to licensees. Prior to assuming responsibility for government programs, licensees will likely revise and prioritize these programs to meet their own needs and objectives. The Forest Productivity Council has produced a Forest Productivity Strategy for the province that is meant to assist in program development and prioritization.

Additionally, Sustainable Forest Management Plans are also now in place for both TSAs and the first round of scenario planning is forecast to be complete by February 2005. A tactical plan, which reflects these broader initiatives and provides a framework for funding forest productivity investments is needed.

Scope and Objectives

The purpose of this project was to produce a tactical plan to guide IFPA forest management investments for both the short and long term in the Morice & Lakes IFPA. The plan addresses program scope, potential activities, project relationships and timelines, and planning responsibilities, and provides a logical framework for an effective forest productivity program within the context of the current funding environment. Specific project objectives include:

- identifying stakeholder expectations with respect to timber productivity, investment, and risk tolerance;
- identifying both short and long term initiatives to sustain and increase forest productivity;
- ensuring that recommendations for implementation are practical;
- providing communication products to assist in information transfer; and,
- providing stakeholders with information that can be utilized in making strategically sound investments in forest productivity.

Methods

An assessment of recent forest productivity initiatives was undertaken including a review of literature generated within the IFPA as well as relevant literature from other jurisdictions. Likewise, interviews were conducted with key stakeholders from the IFPA as well as individuals responsible for forest productivity investments in other areas of the province. Timber supply and resource management issues were discussed and information needs and priorities for enhanced timber productivity were identified.

Results and Discussion

The three most important reasons for obtaining forest productivity information in the M&L IFPA are to:

- support the immediate imperative of mitigating beetle impacts,
- alleviate the potential mid-term wood supply shortage, and
- support the scenario and SFM planning processes including the provision of data related to achieving targets and monitoring indicators.

Tactical recommendations to do this are summarized below. Recommendations are based on the existing legislation and policy environment, provincial forest productivity strategies, IFPA strategic objectives, programming in other jurisdictions, identified operational needs and technical requirements concerning beetle management, the potential mid-term wood supply shortage, and the scenario planning process. Project work and the program initiatives that comprise the program are summarized in Table I. Detailed project descriptions, expected outcomes, and rough cost estimates for most of these projects are outlined in the M&L IFPA Forestry Plan.

Project work described in Table I is organized by program initiative: inventory, growth and yield, monitoring, operations, and data management. In organizing project groups, consideration was given to technical requirements, scale, timeline, expected benefits, and costs. The relative priority of the projects is indicated by the order in which they are listed. A tinted cell in the table indicates a larger scale project (more than \$100,000.00).

While there is clearly overlap and linkage between groups, projects within a particular group are more strongly related to each other than projects in other groups. Many projects are interdependent and it would not make sense to undertake one of them without embarking on others in the group in sequence. The main report includes a schematic depicting project sequencing and relationships and how the information generated relates to program objectives. Potential redundancies are also described. Possible internal program redundancies could occur if inventory or monitoring work is undertaken on an area which already has reasonable information or where separate studies are initiated when the information could be obtained more cost effectively by “piggy backing” on another project (VRI field sampling, for example). In general, the risk of internal redundancies is low. The more important, and difficult to avoid, type of redundancy is external. A number of examples are provided where similar initiatives have

been completed or are being undertaken by other agencies (shelf life studies, inventory update systems, multi-block survey design, remote sensing for inventory updates, monitoring program design, building an ingress model for beetle affected stands, etc). It is recommended that some of the IFPA’s proposed projects be deferred until similar projects have been completed elsewhere or until it becomes clear that completion timelines, format and statistical reliability, or proprietary constraints prevent it from being used effectively by the M&L IFPA.

A key concern in implementing a forest productivity program in the Morice & Lakes IFPA is lack of dedicated funding. Funding through the Land Base Investment Program (LBIP) of the Forest investment Account (FIA) has been largely allocated and may not be available in future years. Other government funding sources such as the FIA Forest Sciences Program or the Federal Mountain Pine Beetle Initiative have limited potential. Perhaps the most promising source of potential government funding is the Federal Softwood Industry Community Economic Adjustment Initiative. It is more likely, however, that growth and yield information will need to be regarded as a business investment that must be funded out of operating capital much like market research. In the absence of outside agency funding, IFPA member organizations will need to undertake co-operative investment planning and execute cost-effective activities related to forest productivity and resource information needs. The incentive for licensees to invest, however, is hampered by tenure arrangements and past experience with government, which has been anything but positive when it comes to accepting licensee-generated growth and yield data.

Some of the long-term outputs or results that can be expected in the Morice & Lakes IFPA from implementing a growth and yield program such as that outlined above are:

- more accurate timber supply reviews and Annual Allowable Cut (AAC) determinations,
- improved forecasting of timber and non-timber values,
- better data for land-use planning processes,
- better data for forest certification,
- timber and non-timber resource information to support indicator monitoring, and
- more information contributing to continual improvement within the M&L IFPA.

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Table 1. Key components of a forest productivity plan in the M&L IFPA.

Inventory	Growth and Yield	Monitoring	Operations	Data Management
Near Term (complete within 1 to 2 years)				
	PEM Validation -Morice			Business Case Analysis for Forest Productivity Investments
Multi-Block Silviculture Survey Design	Complete a Needs Analysis for Experimental Trials	Identify Existing G&Y Installations		Design Automated Inventory Update System
Orthophoto Completion	Develop Shelf Life Curves for Beetle Wood	Design G&Y/ Inventory Monitoring Program		Strategic Harvest and Investment Planning (SHIP) Tech Plan
Mid Term (complete within 3 to 10 years)				
VRI Retrofit (Morice and part of Lakes)	PEM Validation - Lakes	Implement Monitoring Program	Incremental Silviculture Treatments	Implement Automatic Inventory Update System
Inventory Update Method for Beetles	SIBEC Support	PFT Trial Maintenance		
Phase 2 ground sampling with NVAF	Develop a Model for Predicting Post Harvest Natural Regeneration in Beetle Stands	PSP Re- measurement		
Reevaluate ESA Classifications in both TSAs	Forest Genetics Trial			
Update Visual Inventories in both TSAs	Hard Pine Stem Rusts Analysis			
Road Inventory and Classification (part of Lakes and all of Morice)	Site Potential Across Site Series and Conifer Species in the SBSmc2			
	Investigate Stand Break-up		Alternative Harvest System Trials	
	Develop Wood Quality Yield Curves for Post Harvest Regenerated Stands		Road and Landing Rehabilitation	
	Commercial Thinning Problem Analysis and Ht/Diam Ratios		PFT Rehabilitation	
	PI Height Diameter Ratio Study			
Long Term (more than 5 years to complete or ongoing)				
Inventory Updates	Timber Supply Analysis	PSP Re-Measurement and other aspects of the Monitoring Program	Incremental Silviculture Treatments	
	Yield Curves for Partial Cut Stands			
	TASS support (localize silviculture impacts/ mixed wood data)			

Roles and Responsibilities

Overall direction for the Morice & Lakes IFPA program is provided by a strategic committee. A technical committee, which guides implementation of project work, is made up of representatives from all the licensees and BC Timber Sales in the two TSAs as well as the Ministry of Water, Land and Air Protection (WLAP) and the Ministry of Sustainable Resource Management (MSRM). Project work to be conducted by the IFPA collective is identified by the technical committee, consistent with IFPA and forestry plan goals, and with the objectives and internal programs of individual member organizations. Responsibility for delivery of the IFPA program is dispersed among several groups and individuals and any decision-making by the technical committee is a collaborative

process with these various groups and individuals. The implementation committee assigns companies, individuals, or stakeholders specific tasks or engages contractors as required. In terms of a forest productivity program, this structure is working reasonably well. Interviews with the licensees from within the IFPA indicated that a possible improvement would be to amalgamate the technical committee and implementation committee roles. It was also recommended that the technical committee identify one or more individuals within their membership for each of the five program categories that have the technical background to guide and administer projects.

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It is imperative that government agencies and other groups (certification bodies for example) that have a mandate to approve data, systems, experimental design, etc., are formally involved in both program design and implementation. This is particularly true where there are no well-defined government standards or where modifications to government standards are needed based on local information needs. An effort must be made to identify key individuals who must be involved based on the list of activities in Table I. Mechanisms for getting these people involved as the project unfolds also need to be formalized.

Conclusion

Although factors such as the tenure system, budget environment, and vague government direction on responsibilities for forest productivity make the design and implementation of a forest productivity program difficult, the M&L IFPA is well set up to be a leader in this respect. The strategic objectives of the group, their mandate for innovative practices, and their commitment to adaptive management and certification are commensurate with forest productivity programming. The tactical plan will help member organizations acquire growth and yield data, inventory information, analysis tools, and data management systems to make sound decisions regarding forest practices, develop effective forestry plans, and improve timber supply.

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References

- Forest Productivity Council of British Columbia. 2001. Forest Productivity Strategy 2001-2005. MoF.
- Harmeny Systems, Farnden, C. 2003. Prince George Timber Supply Area Growth and Yield Strategic Plan. PG TSA.
- Petterson, K. 2003. The Morice & Lakes Timber Supply Areas Sustainable Forest Management Plans. M&L IFPA.
- Petterson, K. 2003. The Morice & Lakes TSAs Innovative Forest Practices Agreement Forestry Plan. M&L IFPA.
- Rogers, R. 2003. Mountain Pine Beetle Management Decision Support System (DSS) Tools Analysis. M&L IFPA.
- Thrower, J.S. & Associates. 2003. Strategic Recommendations for a Growth and Yield Program for the M&L IFPA Area. M&L IFPA.

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Morice & Lakes
IFPA

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