First Nations Forestry Program

In partnership with First Nations

Determining Scale of Forest Management Planning for First Nations Forests

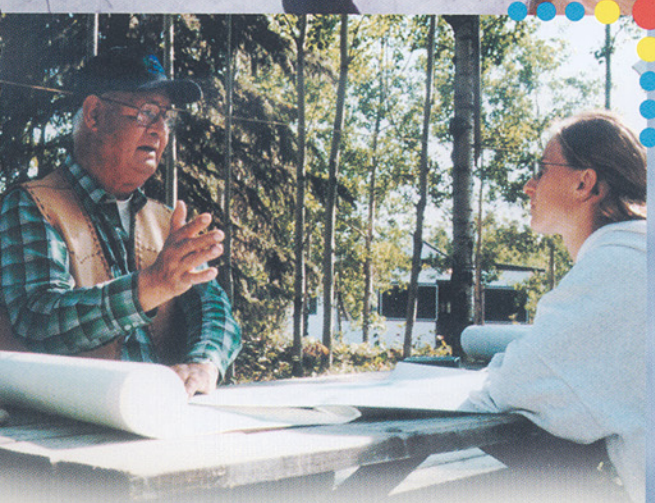

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Table of Contents

Introduction 1

Why Plan? 1

Which type of management plan will be best for my community? 2

Community Values and Vision: 4

Goals and Objectives 4

Inventory Considerations 5

Resources 6

Landbase 6

Next Steps 8

Summary 8

Appendix 9

Literature Cited 11

Introduction

What is an appropriate plan for a First Nations forest landbase?

What does my community want to do with our landbase?

What are the key things we should consider before starting?

Is the landbase large enough to manage?

Smaller forested landbases present unique challenges. The questions outlined above are the types of questions that should be asked by landowners as they assess the need for planning on their landbase. The objective of this framework is to provide a ***tool*** that can be used to determine an appropriate level of management planning. This framework is not intended to decide if management is appropriate but to determine the level that is relevant once the decision is made to go forward with a plan.

This framework was created primarily for First Nations in the Maritime Provinces where reserves range in size from twenty-six to 4,400 hectares, with a median size of 450 hectares. First Nations landbases across North America can also use this framework to assist them in their management planning decision process. This framework can also be used to identify gaps in working towards a comprehensive management plan.

Why Plan?

Financial plans, work plans and vacation plans are all types of plans made to ensure goals can be achieved. A forest management plan is similar in that it is used to identify a set of actions to be taken on a forested landbase to achieve a set of goals. Data must be gathered, people need to be consulted and resources have to be in place for a plan to be successful. For some, a plan will give a better understanding of the landbase they own, for others it will help identify financial or economic benefits to be derived from the landbase.

So ... what types of plans are there?

There are three types of plans that are appropriate for small and medium sized forested landbases.

1) **Forest level management plan:**

Values and goals at the forest level

Forest management plans are developed for diverse landscapes with clearly stated vision, goals and objectives and the necessary resources available to implement the plan. They differ from stand and area based plans by their ***consideration of values and goals at the forest or landscape level***. Harvest areas can be comprised of multiple stands, wildlife areas cross stand boundaries, and flows of products and values occur on a more or less annual basis. More detailed and diverse plans such as this require resources and an infrastructure to both plan and account for annual activities. A forest management plan will require the commitment of the community through, for example, technical resources and dedicated staff in order to be successful.

2) **Stand level management plan:**

Compilation of individual stand plans

Stands are groups of trees with similar composition or species (examples would include black spruce, mixed-wood or jack pine). Stand level plans therefore cover individual stands. A stand level management plan is a ***compilation of individual stand prescriptions***, independent of other stands within the forest. Treatment or use of stands, wildlife, and other values are considered within the stand unit, rather than across the forest. Stand level plans are appropriate for landbases that may be lacking in continuity of goals, have insufficient technical resources or a small landbase. The need to plan and account for activities is still required, but at the stand level. Flow of products is often intermittent.

3) **Area based management plan:**

All stands combined into one area

An area based plan is the least detailed plan which ***combines all stands into one area***. It treats all stands the same, regardless of type or use. An area based plan may be appropriate for small land bases or where there is limited or periodic activity. For larger areas, this type of plan is used when there are insufficient resources or management in place, and can be considered an extreme case, as most landowners should be able to garner the resources necessary to conduct operations on at least a stand basis.

Which type of management plan will be best for my community?

There are four key elements you need to consider to determine the appropriate level of planning and implementation. They are:

1) Community Vision and Values: *What does the community want?*

The community's vision and values for the forest are an important element of management planning. The focus of this element is to discover how land management decisions are made or approved, what the governing bodies are and to examine the community vision for the landbase. The community's values are also considered and included at this stage.

A management plan constructed with community vision and value allows the goals and objectives to be set, which in turns determines the required inventory and appropriate management actions needed. Not having a vision for the landbase does not mean management is unnecessary or undoable, simply that a different level of planning may be more suitable.

2) Goals and Objectives: *What is the community trying to achieve?*

Once the vision has been put in place, the next step will be to identify the desired goals and objectives. Goals and objectives fall into harder economic goals and softer environmental and social goals. Goals include such elements as employment, wildlife considerations and spiritual/cultural value protection. The goals should collaborate with the vision and be achievable with the landbase and resources available.

3) Resources: *What resources are available to implement a plan?*

The third element to ensure proper execution of a developed management plan is availability and continuity of resources to ensure implementation over time. Resources include staffing, software and hardware, and contractors or consultants. Testing the resources ensures consideration has been given to an ability to implement the developed management plan and ensures consideration has been given to the ability to achieve the stated goals and objectives.

4) Landbase: *What is the composition of the landbase?*

Equally important to the community vision and values, goals and resources is the landbase itself. Important questions to address include the ability and diversity of the landbase to support the vision and goals, inventory and resources required and ultimately the most suitable level of plan to develop.

Does this tell me if I should do a forest, stand or area based plan?

The next step in this process would be to determine the appropriate level of planning to undertake on your landbase. This process will take some time and consideration as each of the four elements identified here need to be assessed.

The way to determine the level of planning to undertake is to consider the questions in each of the sections below. Based on the answers, the type of plan becomes clear. These questions also allow you to identify gaps in your ability to plan and execute your forestry activities.

Community Values and Vision:

Ask yourself and your community the following questions:

	Yes	No
1) Do the chief and council or a land manager set direction for forest management?	Forest	Stand
2) Has a vision for the forest lands been established or will a vision be established by chief and council?	Forest	Stand
3) Is harvesting or silviculture currently occurring without a management plan or authorization?	Area	Forest
4) Do a set of standards exist for forest operations on the landbase?	Forest	Stand
5) Have financial and/or professional resources been identified to execute a management plan?	Forest	Stand

This questionnaire is the first stage in determining the appropriate type of plan for your community.

Goals and Objectives

A goals and objectives exercise should then be undertaken by the community. Through a brainstorming session, the goals and objectives can be captured and compared to the landbase and vision to ensure they are realistic and compatible.

The goals and objectives are the **measurable** components of the planning exercise. Use the following table as a sample of possible goals and objectives: How much importance does the community place on the different types of goals?

Goals and Objectives		
"Hard"	"Soft"	"Soft"
Economic	Ecological	Social
Employment	Unique Areas	Cultural/Spiritual
Revenue	Wildlife	Employment
Worth	Connectedness	Demographics
Spin-Offs	Water	Aesthetics
Secondary Industry	Environmental	Recreation

Once the community is comfortable with the goals and objectives, an assessment of the available inventory will help determine whether the goals can be attained.

Inventory Considerations

The following inventory layers can be considered for the construction of either a forest level, stand level or area style management plan. Basic inventory information would include stand compositions, volumes by species, watercourses, site specific habitat and heritage/cultural areas. If your community has economic goals such as financial returns or job creation, you will need to ensure you collect information on the appropriate forest inventory, such as timber, to achieve those goals. If there are community members who have non-timber uses, the inventory assessment is an excellent time to collect information about the availability of the material they need. By tailoring your inventory assessment to your community's needs, you can determine the extent to which your community's goals and objectives are attainable.

Inventory Considerations		
Forest Stands	Non-Timber Plants	Other Potential Uses
Water	Rice	Community Expertise
Non-Timber Values	Mushrooms	Biodiversity
Ecological Areas	Berries	Black Ash
Wildlife Areas	Herbs	Craft Woods
Heritage/Historical Areas	Sweetgrass	Maple Sugar
Cultural Areas		Social Values
Roads, Other Access		Animal Sheds
Landforms, Terrain		
Recreation Areas		
Travel Corridors		
Riparian Zones		
Wintering Areas		
Nursery Areas		Other Aboriginal Inventories
Migration Areas		Provincial/Federal inventories
Rare/Endangered		

Resources

The resources test is used to ensure the plan can be developed and implemented and that there will be continuity so that the plan will be implemented over time. The main purpose of these questions is to see if the community requires additional resources beyond what it currently has. Can the plan be created? Who will oversee the plan? Are there enough crews to carry out the plan? How will the results be collected and accounted for?

Questions to ask at this stage include:

- What professional and technical people are there in the community?
- What training is required to achieve the goals and objectives?
- Do trained harvesting and silviculture crews exist?
- Will the land manager be around for a number of years?
- What computer resources are required and available?
- What software is required and available?

This is a very important area and there are options available to a community, including training of its people to do the work or hiring contractors and consultants to help the community.

Landbase

Finally the landbase should be examined closely to see what can be done. Use the following table to assess an appropriate level of management planning.

Guidelines:	Forest	Stand	Area
Current Management	Active	Active	Passive
Landbase Area	> 750 ha	750-250 ha	< 250 ha
Number of Stands	> 50	50-20	< 20
Diversity Measure	Cutover to Overmature	Broken	Broken
Cover Types Found	Softwood, Mixedwood, Hardwood	Broken	Broken
Inventory Available	Comprehensive	Broken	Lacking
Activity Scheduling	Even Flow	Interrupted	Interrupted
Vision, Goals Attainable	Yes	Maybe	Probably Not

What does the landbase tell you? If the landbase is large and diverse and the goals and resources are in place, a forest level plan can easily be developed. If on the other hand the landbase is small, with little variability, perhaps a stand or area based plan is all that is needed.

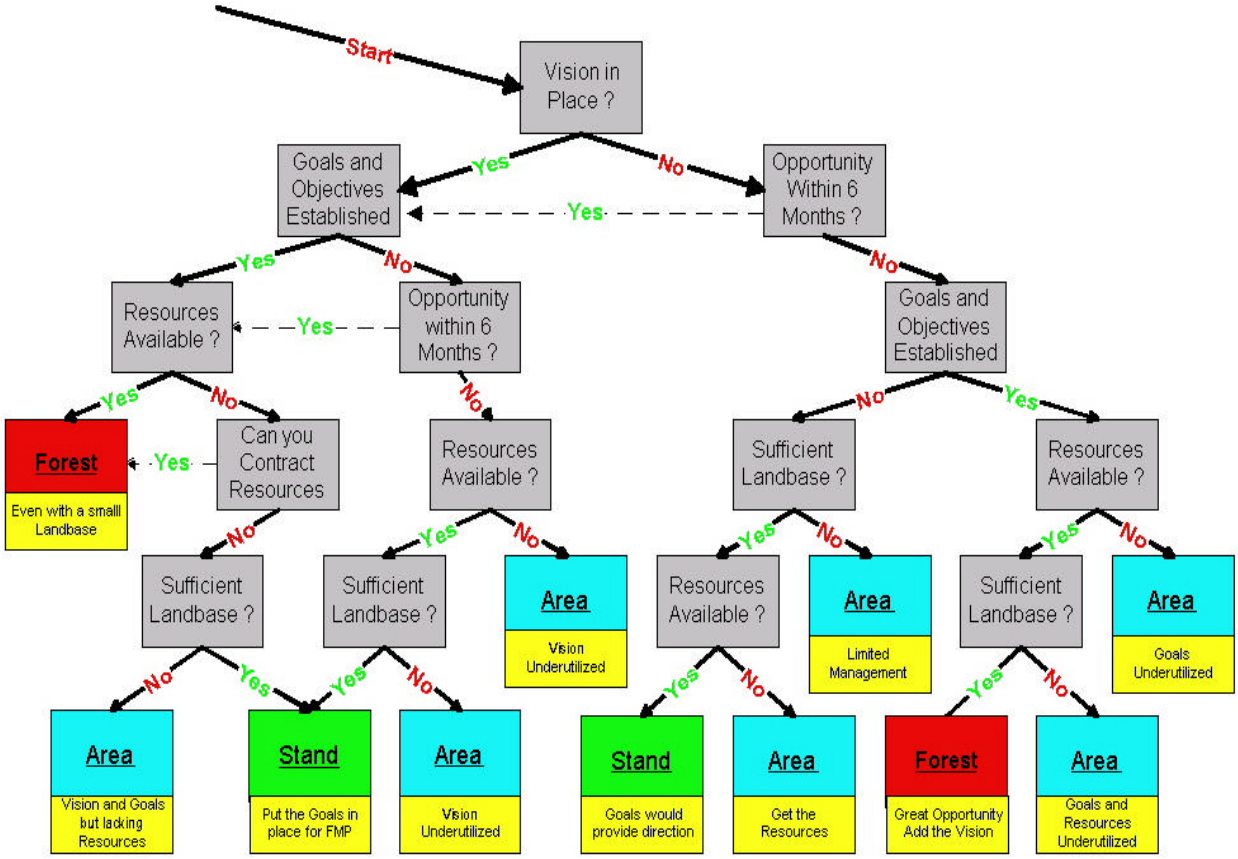
Back to the question: Forest, Stand or Area Plan?

Having worked through the questions above, you now should be in favor of one of the three management plan options:

1) Forest Level management plans would be conducted on diverse, large landbases with many options for management.
2) Stand Level management is appropriate for mid-sized landbases with interrupted levels of harvesting, silviculture and wildlife management.
3) Area based management planning: On small, uniform or inactively managed landbases, treating the entire area as one and doing a stand based prescription may be an appropriate option. This does not preclude managing for site-specific opportunities.

An easy way to determine the appropriate type of plan would be to use the following flowchart: The flowchart also shows at each point the things that a community could do to develop a more comprehensive plan.

A planning checklist (appendix) is also included.

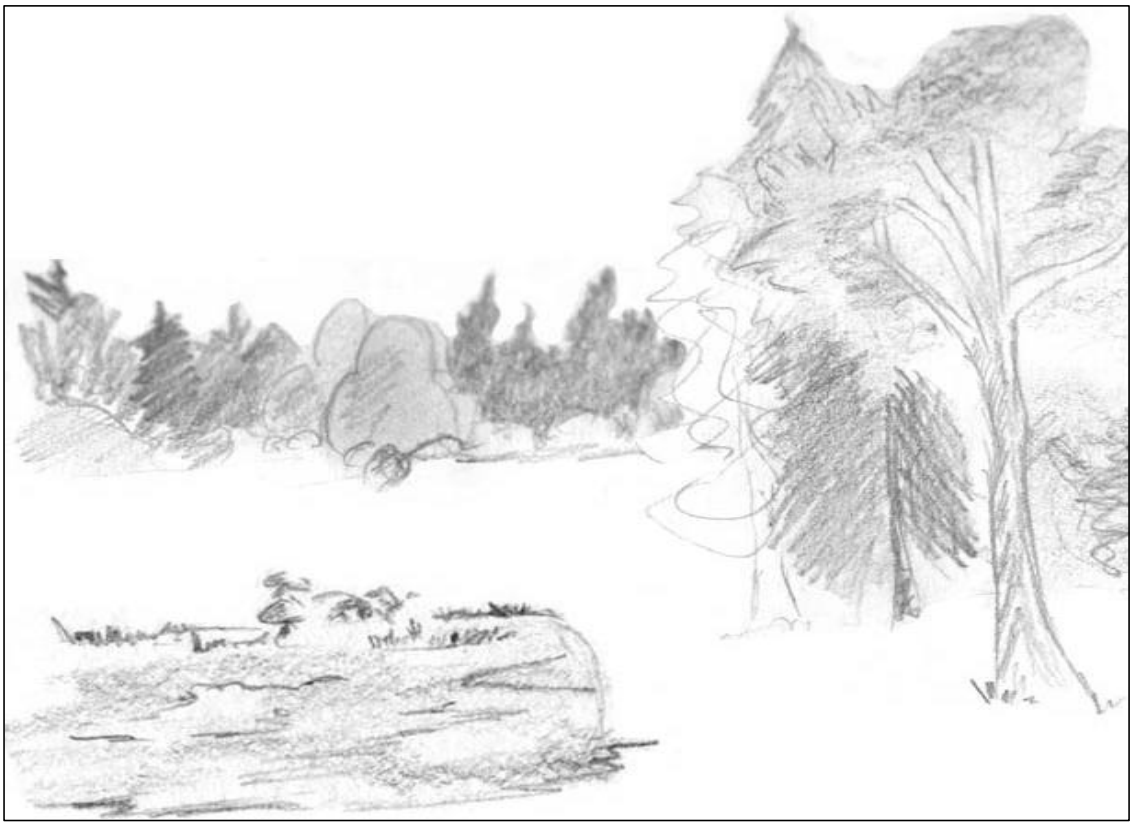


Next Steps

The next steps are to look at each of the Vision, Goals, Resources and Landbase and determine if the community can do them or if additional help if required. The Vision and Goals should come from the community, and they can be determined through a series of facilitated meetings. Having someone trained in facilitating can help the community effectively identify its vision and goals. For the resources, are there people within the community that can conduct the forest inventories, do the harvesting or silviculture work and manage wildlife areas or is training required? The community also has the choice of all of that work being done by outside contractors if it so desires. By thinking about each of Vision, Goals, Resources and Landbase you can easily break down what the community will do and where assistance is required.

Summary

Planning for forestry activities on small and medium sized landbases should take into consideration a number of elements. It is useful to think about what the community wants, the resources that are available, what the landbase can provide and what benefits are desired from that landbase. Thinking through all of these elements will help ensure a successful plan can be put in place and the community's goals can be achieved. Also remember that the landbase is dynamic so the plan and process should be dynamic also.



Appendix

Planning Checklist:

Use the following list to help determine what level of planning your should undertake or to identify gaps for each of the following planning levels. The leaves indicate components to consider for each of the planning levels.

Planning Checklist	Forest	Stand	Area
Community Vision			
Vision Statement			
Authority, Responsibility and Approval			
Signatures of Approval			
Goals and Objectives			
Social Objectives			
Community Concerns			
Community Involvement			
Community Expertise			?
Training and Employment			
Forest Products			?
Historical Areas			
Visual Quality			
Ecological			
Non-Timber Resources			
Biological Diversity			
Wildlife Areas			
Archeological			
Economic			
Employment			
Harvesting			
Silviculture			
Recreation			
Crafts			
Forest Products Certification			
Forest Stewardship Council (FSC)	?		
Smart-wood	?		
ISO / CSA	?		
Sustainable Forest Initiative (SFI)	?		

Planning Checklist	Forest	Stand	Area
Area Description			
Inventories	✋	✋	
Forest Stands	✋	✋	✋
Non-Timber Resources	✋	✋	
Wildlife Areas	✋	✋	?
Old Growth	✋	✋	
Recreation	✋	✋	?
Watercourses	✋	✋	✋
Terrain/Landscape	✋		
Cultural Areas	✋	✋	
Fisheries	✋		
Soil Resources	✋		
Ecological Land Class.	?		
Maps			
Harvest Areas	✋	✋	✋
Silviculture Areas	✋	✋	✋
Wildlife			
Wintering Areas	✋	✋	✋
Travel Corridors	✋	✋	
Nesting, Spawn	✋	✋	
Migration	✋	✋	
Riparian Areas	✋	✋	✋
Watercourses	✋	✋	✋
Recreation	✋	✋	
Protected Areas	✋	✋	✋
Site-Specific Areas	✋	✋	✋
Roads and Access	✋	✋	✋
Minerals	✋		
Harvesting and Silviculture			
AAC Calculations	✋		
Harvest Methods			
Stand Replace	✋	✋	
Gap Replace	✋	✋	
Silviculture Systems Time Frames	✋ ✋	✋ ✋	
Protection			
Fire Protection	✋	✋	✋
Insect Protection	✋	?	
Monitoring and Updates Communications Plan	✋ ✋	✋ ?	
Utilization Standards	✋	✋	✋
Cruise Manual	✋	✋	

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