

APPENDIX 19: RESEARCH NEEDS ANALYSIS

1.0 INTRODUCTION

On June 30, 2004 a Detailed Forest Management Plan (DFMP) for the Vanderwell FMA (FMA 9700036) was submitted to Alberta for review and approval. One of the objectives developed by the DFMP planning team was the support for research and innovation into sustainable forest management.

There were three specific commitments made to ensure this objective is achieved, they are as follows:

Strategy 14.4.1: Identify areas where increased knowledge is required in order to reduce the uncertainty that results from assumptions made in the strategies being implemented as per this Detailed Forest Management Plan.

Strategy 14.4.2: Develop a schedule detailing how and when knowledge gaps identified in Strategy 14.4.1 are to be filled.

Strategy 14.4.3: Implement research to fill knowledge gaps as defined in the schedule produced in Strategy 14.4.2.

This document is intended to achieve the commitments made in Strategy 14.4.1 and 14.4.2. Section 2.0 details background information required to understand the intent of the objective, as well as how it fits into the larger picture of achieving the goal of maintaining an environment that allows the forest industry to remain competitive in provincial, national and international markets. Section 3 provides a list of, with background information on the areas identified by the Planning Team that warrant research. Section 4 describes a schedule of when and how each research topic will be implemented.

2.0 BACKGROUND INFORMATION

In the DFMP document submitted June 30, 2004 the Planning Team committed to identifying areas where increased knowledge can be used to reduce the uncertainty of assumptions made in the DFMP. This document is intended to meet this objective, and is to be submitted to Alberta for review prior to February 28, 2005.

In order to facilitate discussion in this topic area, Vanderwell Contractors (1971) Ltd. created a draft document for the Planning Team to review and provide input on prior to the development of this document. The Planning Team met on February 8, 2005 to review and discuss research needs within the Vanderwell FMA. Since this time Vanderwell has also facilitated discussion at the Slave Lake Forest Public Advisory Committee regarding this topic. Comments received during both of these meetings have been used in the development of this document.

Though Vanderwell is a quota holder in three FMA's, each of which has its own DFMP, and its own research needs, it is essential that the potential research topics included in this document have the potential to reduce the uncertainty of the assumptions made in the Vanderwell DFMP. The research projects do not have to take place within the Vanderwell FMA, though it is imperative that research topics have the ability to provide knowledge that can be used to make more informed decisions in the future.

Vanderwell expects that the next step in the process is to develop specific research projects for each area of interest, according to the schedule contained within this document. The status of this research will be reported in the Stewardship Report.

3.0 UNCERTAINTY IDENTIFICATION, RATING AND REDUCTION STRATEGY

Throughout the research needs analysis process, the Planning Team has identified the following topics as requiring research within the Vanderwell FMA. The next section details the schedule with which each topic is to be researched.

1. Growth and Yield – In order to monitor actual growth and guide adjustments to yield projections, a growth and yield program must be developed that targets priority to stands types not well represented by the current yield information.
2. Caribou range monitoring – One of the major driving forces in the development of the goals, objectives and strategies for the Vanderwell FMA was the presence of the Caribou zone that encompasses 80% of the FMA. Due to the significance of caribou to the overall management within the FMA the company will implement a range monitoring program in conjunction with Alberta.
3. Stands with Conifer Understory Transition Strategy – in order to determine if stands subject to conifer understory protection transition as assumed in the DFMP a monitoring program will be developed. This monitoring program will be included in the Growth and Yield program.
4. Understory Protection success rating – in order to determine if understory protection harvesting techniques are successful at protecting 70% of the conifer understory, the company will develop an operational monitoring program to assess the success of understory protection harvests. The results of the assessments will be reported in the Stewardship Report.
5. Fur bearer monitoring – In order to assess the impacts of forest management on fur bearing animals, the company will strive to utilize existing research being conducted within the Slave Lake area, with the possibility of expanding an existing program into the Vanderwell FMA.
6. Avian Monitoring - In order to assess the impacts of forest management on birds, the company will strive to utilize existing research being conducted within the Slave Lake area, with the possibility of expanding an existing program into the Vanderwell FMA.
7. Integrated Reforestation Strategy – In order to monitor the success of reforestation on reclaimed land use dispositions the company will develop and implement a monitoring program for these sites. The monitoring program will be consistent with the regeneration standards used within the FMA.
8. Watercourse Classification – In order to ensure that forest management activities do not have a negative impact on fish habitat, each watercourse flowing within the Vanderwell FMA will be classified as to its fish bearing capacity.

4.0 RESEARCH SCHEDULE

The following table provides information on when and how research into the above topics will be implemented.

No.	Topic	Timeline	Description
1	Growth and Yield	Prior to March 1, 2006	As per Alberta Standards.
2	Caribou range monitoring	Commence in Jan-Feb 2006	In discussion with Alberta determine methodology.
3	Stands with Conifer Understory Transition Strategy	Prior to March 1, 2006	To be determined through discussion with Alberta.
4	Understory Protection success rating	Prior to April 1, 2005	Operational assessment protocol.
5	Fur bearer monitoring	Prior to November 1, 2005	Possible integration with other regional projects.
6	Avian Monitoring	Prior to November 1, 2005	Possible integration with other regional projects.
7	Integrated Reforestation Strategy	Submitted with regeneration standards (December 30, 2006)	To be determined during regeneration standard development.
8	Watercourse Classification	Prior to development of next DFMP.	To be determined.

5.0 SUMMARY

This document is intended to describe how and when research is going to be implemented that is applicable to forest management in the Vanderwell FMA. The next step in the process is the development and implementation of strategies and/or research proposals to address the areas identified as warranting further research.

More detail surrounding each strategy/proposal will be appropriately detailed in the Stewardship Report.

APPENDIX 20: RESULTS OF YIELD CURVE STATISTICAL ANALYSIS