

**LILLOOET TSA TYPE II
SILVICULTURE STRATEGY**

FILE NO. 4611017

STATUS REPORT

**Prepared for:
Lillooet TSA Association**

**Prepared by:
Timberline Natural Resource Group Ltd.**

**April 19, 2007
Reference: 4061944**



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File: 4061944

Lillooet TSA Association
c/o Cirque Resource Associates
218 Pyper Way
Kamloops, BC
V2C 4R6

Attention: David Cameron, RPF, FFT Effectiveness Evaluations Coordinator

Reference: *Status Report – Lillooet TSA Type II Silviculture Strategy (file: 4611017)*

Dear Dave,

As discussed, enclosed is a status report for the work completed to date on the Type II Strategy for the Lillooet TSA. Phases 1 through 6 are complete with deliverables ready for submission. These include mapping products for the preliminary studies associated with the Type II. The base case analysis (phase 7) is nearing completion with all inputs developed and simulation work underway.

Thank you for your input on the project to date. Please call if you have any questions or comments related to this summary or any other aspect of the project.

Yours truly,
TIMBERLINE NATURAL RESOURCE GROUP LTD.

A handwritten signature in black ink, appearing to read "Bill Kuzmuk", is written over a thin vertical red line.

Bill Kuzmuk, RPF
Senior Resource Analyst



601-1207 Douglas Street Victoria BC V8W 2E7

Tel: (250) 480-1101 • Fax: (250) 480-1412

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1.0 STATUS OF LILLOOET TSA TYPE II STRATEGY

A Type II Silviculture Strategy (Type II) is being prepared for the Lillooet TSA Association. Timberline Natural Resource Group (Timberline) was awarded a contract in December 2006 to prepare the Type II. The following is a summary of the phases completed to date. The phase references are the same as those outlined in the Timberline proposal and the contract prepared by the Lillooet TSA Association.

1.1 Phase 1 – Preparatory Consultations

A significant component of this phase was a workshop involving all key stakeholders involved with management of the TSA. Participants included:

- Licensees – Ainsworth, Interwest and B.C. Timber Sales (BCTS);
- Ministry of Forests and Range (MoFR);
- Ministry of Environment (MoE);
- First Nations;
- Experts from other agencies or consultancies who provided valuable input to the Type II process;
- Lillooet TSA Association; and
- Project team (Timberline and Integrated Silviculture Services).

Participants reviewed issues, and a consensus summary of management objectives, assumptions, silviculture regimes, and special management considerations was developed.

Some important topics discussed at the Type II meeting were:

- Genetic gains and species for planting;
- Silviculture regimes;
- Fertilization opportunities and the timing of treatment to address timber supply issues;
- Site index estimates;
- Silviculture systems;
- Unsalvaged losses; and
- Habitat issues and objectives.

Deliverable: A summary document was prepared and distributed to all participants. It outlines the assumptions and scenarios to be included in the Type II. Any participants who were not able to attend the meeting were provided with the summary documentation.

1.2 Phase 2 - Data Assembly

All GIS inventory source data from the recently completed Lillooet TSA TSR 3 was collected from a variety of sources. Review of the individual GIS coverages took place during this phase.

Deliverable: Metadata documentation of the GIS data being used in the Lillooet TSA Type II Strategy.

1.3 Phase 3 - Information Update

The following steps were completed to ensure the inventory data is updated to an acceptable standard, and to capture information that will enhance the Type II process for the TSA Committee.

VRI Update - Harvest, fire, beetle and other disturbance since the last inventory update has been captured and data updated to Dec. 31, 2005 accordingly. Inventory age, height and volume must be projected to mid to late 2005. NSR has been populated with data from results, and where this is not available, with average regeneration assumptions from latest TSR analysis.

Road development update – No additional road development was added to the existing database.

PEM-based SIBEC application – Using the Lillooet TSA Predictive Ecosystem Model (PEM) SIBEC 1 and 2 estimates for site index have been assigned.

Truck haul cycle times – Estimates have been added to the data.

Land Base Classification (netdowns) – All land base classification (netdowns), blocking and resultant development is complete.

Output: Updated GIS database.

1.4 Phase 4 - Spatial Modelling for Roads and Beetle

Beetle Impact Model: Incorporate data from the Beetle Impact Model developed by Marvin Eng of MoFR. Based on this information beetle impact coverage for two, five and 10 years has been estimated and included in the spatial data set.

Road Development Model: Based on the existing and proposed road development from licensees, and a spatial buffer, the short-term accessed land base has been predicted. Using road density assumptions from Timber Merchantability model, road development for the next 20 years have been projected and buffered to indicate the mid-term accessed land base. Road development for the total land base has been estimated to identify the long-term accessed land base.

Deliverable: Overview planning maps with beetle impact and road development have been prepared.

1.5 Phase 5 - Timber Merchantability Model

Timber merchantability information based on the process for the Merritt TSA is complete. This includes classifying each forest stand into a value category using a series of value and costs estimates developed for the management unit.

Deliverable: Overview timber merchantability maps and area summary tables by operator within the TSA.

1.6 Phase 6 - Retention Area Modelling and Mapping

The retention modelling from the 2005 analysis *Lillooet TSA Old Growth Management Area (OGMA) Definition* has been used for the Type II Strategy.

Deliverable: Overview planning maps with retention areas.

1.7 Phase 7 - Base Case Timber Supply Modelling

Updated timber supply modelling data files including retention rank and merchantability for each resultant polygon, and incorporation of Marvin Eng's mountain pine beetle mortality model have been output from GIS for input to the timber supply model.

All growth and yield assumptions and forest cover requirements for non-timber resources have been generated for input to the timber supply model. Assumptions and scenarios agreed to during the initial consultation meeting have been translated into modelling inputs.

The base case scenario is nearing completion and a summary document of the inputs and results is being prepared.

Deliverable: A summary of base case modelling inputs and results, including tabular and graphic presentations.