

TREE FARM LICENCE 1

**Statement of Management
Objectives, Options and Procedures
for Management Plan 9**

**October 1997
Revised February 1998**

**Skeena Cellulose Inc.
Terrace Woodlands**

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1.0 INTRODUCTION

Skeena Cellulose Inc. (SCI) is required to submit a new management plan for Tree Farm Licence 1 (TFL 1) to the province's Chief Forester before the end of 1998. It will replace the existing management plan (No. 8) which expires December 31, 1998.

This Statement of Management Objectives, Options and Procedures (SMOOP) has been drawn up as a planning document to guide the preparation of Management Plan 9. It sets out the tentative resource management objectives and describes significant issues and opportunities that need to be addressed. The document provides the public, the Ministry of Forests and other government resource agencies with an understanding of the key tasks to be done and the expected time frame for their completion.

1.1 Background

TFL 1 was originally awarded in 1948 to Columbia Cellulose Company Ltd. It was the first forest management licence granted in the province. Although there have been changes in both the licensee holder and the size of the TFL since that time, the basic intent of the licence has remained the same. Today TFL 1 encompasses a total land base of 609,000 hectares in the Skeena, Kitsumkalum and Nass valleys. Presently, it has an allowable annual cut (AAC) of 720,000 m³, of which 29,950 m³ is allocated to the MoF small business program. The current management plan took effect January 1, 1994. Some important events have unfolded since then.

- The province's new Forest Practices Code came into effect in 1996.
- The Nisga'a Agreement-in-Principle was signed in February 15, 1996.
- The current TFL agreement was transferred to Skeena Cellulose Inc. in 1986.
- A new replacement TFL agreement must be offered to the company during 1997 by the Minister of Forests.
- The 50th anniversary of the award of the TFL is next year, 1998.

The first three years (1994-96) of the current management plan term have been completed. The company has made excellent progress in meeting the commitments made in this plan. Highlights concerning these commitments are described in the next section.

1.2 Commitments

There are no outstanding commitments in the TFL document or as a result of the transfer of the TFL licence to SCI. Progress concerning commitments made in management plan #8 are described in the following sections:

Planning

- Timber inventory database is updated to December 1996.
- Total chance plans are completed for all 17 resource planning units.
- Geotechnical study of the Ishkheenickh River was completed in May 1995.
- A draft iteration of a 20 year strategic total resource plan was completed in 1997.

Harvesting

- Helicopter logging and skyline yarding in the non-conventional operability zone.
- Volume harvested from the non-conventional "L" operability class was 161,566 m³.
- 5 year cut control performance (1992 to 1996) was 101%.
- 2,086,842 m³ was harvested (1994 to 1996).

Silviculture

- Planted 2,908,152 seedlings, plantation survival 90%.
- Reforestation of all current logged areas is on schedule.
Only 290 ha of backlog NSR remains.
- Commercial thinning of 40 year old regenerated hemlock (21,449 m³ harvested from 1994 to 1996).
- Site productivity study for old growth hemlock completed for TFL 1.

Protection

- No forest fires.
- Porcupine tree damage has substantially decreased.
- Spruce terminal weevil infestation has been minimized.

Recreation

- Recreation and landscape inventories were completed in 1996.
- Recreation user demand survey was completed in 1995.
- A new recreation site was established at the fossil beds - Copper River.

2.0 MANAGEMENT OBJECTIVES

The tentative management objectives are described below. They are similar to those adopted for the previous management plan and should be considered to be draft statements. These objectives will be examined more closely and revised before they are included in management plan #9.

Corporate

To operate the company's manufacturing facilities as an internationally competitive producer of pulp and lumber products and at a minimum cover the cost of capital over the business cycle.

To maintain and operate modern manufacturing facilities in order to ensure high quality products, long term cost efficiencies and flexibility in meeting our customers' changing needs.

To commit ourselves to excellence in forestry and environmental management and to conduct our business in a responsible manner in the eyes of the public and the consumers.

To ensure all operations are carried out safely

Land Use

To manage and protect the forest resource by practicing environmentally balanced, integrated resource use within the context of government resource use legislation.

To implement sustainable forest development and harvesting practices that maintain the natural biological and ecological diversity of the flora, fauna and landscape values.

Timber

To harvest an annual volume of 720, 000 m³ of fibre (sawlogs, pulplogs and minor products) using harvesting techniques that maximize the economic utilization of fibre.

Harvest methods in order of most occurrence will include overhead cable systems, ground skidding and helicopter.

Fibre utilization will be maximized to meet market condition requirements.

To pursue forest management and harvesting strategies that will ensure a sustainable long term fibre supply and maintain the forest productivity.

To cooperate with the Ministry of Forests in the administration of a Small Business Forest Enterprise Program AAC apportionment of 29,950 m³.

Visual Quality

To maintain visual quality from forest development activities along highway corridors.

Silviculture

To continue a basic silviculture program that regenerates all logged areas in accordance with the Forest Practices Code of British Columbia Act.

Forest Health

To maintain the forest in a healthy condition by pursuing pest management strategies that minimize the activity and outbreaks of pest infestations and disease.

Fire Protection

To pursue a fire protection program that minimizes losses to the timber resource from wildfires.

Water

To minimize the potential for any adverse effects of forestry practices on the stream network as they pertain to water quality, quantity and flow, fish and wildlife habitat, recreation, aesthetics and designated water users.

Recreation

To ensure that a broad range of recreational opportunities continue to be available for the public.

Fish Habitat

To maintain the aquatic biological productivity of all resident and anadromous fish streams.

Soils

To minimize site disturbance and maintain the long term productivity of forest soils.

Biodiversity

To maintain biological diversity over the landscape and recognize that the continuance of forest biodiversity will ensure a sustained timber resource.

Wildlife

To maintain a broad diversity of wildlife habitat capable of supporting existing wildlife populations.

Public Involvement

To provide the opportunity for local communities in the Terrace region to participate in key resource decisions that affect management of the TFL 1.

Aboriginal Bands

To cooperate with local aboriginal communities to provide training and employment in forest operations.

To participate in the Ministry of Forest's First Nations referral and consultation process.

Integration with Other Licenced Users of the TFL

To seek input from other licensed crown users when preparing operational plans.

3.0 RESOURCE INVENTORIES

This section describes the current status of resource inventories.

- (a) **Timber** - a re-inventory was completed in 1992 and is updated for logging depletion and silviculture enhancement. The most recent update will be to December 31, 1996
 - (b) **Environmentally Sensitive Areas** - ESAs were completed for categories in 1992 (except Ew) and are approved by the Regional Manager. No additional updating is required.
 - (c) **Recreation** - a new recreation features inventory was completed in 1996 and has been submitted to the Regional Manager for approval .
 - (d) **Visual Landscape** - a new visual landscape features inventory was completed in 1996 and has been submitted to the Regional Manager for approval.
 - (e) **Fisheries** - the existing stream and fisheries information has been converted to the stream classification as defined in the Forest Practices Code.
 - (f) **Wildlife** - there is no wildlife habitat mapping for TFL 1. MELP has not notified SCI of any critical or sensitive habitat areas that lie within the operable productive forest area. Terrestrial ecosystem mapping has been completed or is near completion for the following RPU's: Ishkheenickh, Lava, Meadow, Beaver - Mayo, South Kalum, Whitebottom and Kitnayakwa.
- It should be noted that forest ecosystem networks mapping is no longer required. They are replaced by total resource plans and landscape level biodiversity planning.
- (g) **Terrain** - terrain and soil hazard classification, Level C mapping, has been completed for 80% of the TFL 1 landbase. Only the Headley and part of the Kiteen RPU's remain to be completed. Level C mapping should be 100% complete for the TFL 1 landbase by April, 1999.
 - (h) **Cultural Heritage Resources** - the BC government keeps a register of archaeological sites for the Skeena region. An archaeological overview assessment of TFL 1 was undertaken by the company in 1994. Site specific archaeological impact analysis are being completed for areas described as having high potential. To date, no significant area or netdowns have been required.
 - (i) **Range** - there is no range use within TFL 1.

4.0 MANAGEMENT ISSUES/OPPORTUNITIES

4.1 Issues

We have listed below a number of topics which will need to be covered either in the new management plan or as the subject of further study or analysis prior to finalizing the management plan.

1. Issue:

The Nisga'a Agreement-in-Principle identifies an operable area of 33,000 hectares within the Nass valley portion of TFL 1 that would be transferred to the Nisga'a First Nation upon final ratification of a treaty agreement. This will result in a substantial reduction in the TFL AAC. It is possible that a final agreement will be ratified before management plan #9 is completed.

Action:

A timber supply analysis scenario will examine the effect on the TFL AAC of excluding the Nisga'a AIP area from the total TFL 1 land area.

2. Issue:

A land and resource planning process for the Kalum TSA which incorporates TFL 1 is in the preliminary phases. A terms of reference has been developed by the Table, but is not yet approved by the Inter-Agency Management Committee. This process is currently scheduled to complete a consensus zonation proposal within 18 to 245 months. It is not expected that this LRMP process will be completed prior to the approval of Management Plan #9.

Action:

The company is completing a land and resource zonation for the TFL 1 landbase and intends to have the new management plan designated as a higher level plan by the provincial Chief Forester under the Forest Practices Code.

3. Issue:

The proposed Beaver/Upper Kitsumkalum protected area, if approved, would result in additional reduction of 16,300 hectares from TFL 1 with consequent drop in AAC.

Action:

The wildlife habitat values in this area can be retained through the zonation framework proposed for the Beaver-Mayo resource planning unit. The company has an expectation that this candidate protected area may be dropped or significantly altered within the next 12 months. If not, the AAC impact will be examined as a landbase scenario in the timber supply analysis.

4. Issue:

Landscape units, as defined by the Forest Practices Code, have not been identified for the Kalum Forest District including TFL 1, hence objectives for biodiversity emphasis levels cannot be decided.

Action:

Resource Planning Units have been defined for TFL 1 and serve as the basis for both land zonation and for setting resource goals for the TFL. The company will be providing input to the Kalum District Manager on the Landscape Unit Planning Strategy.

5. Issue:

The operability classification has proven to be reasonable but could be updated as more harvesting is feasible in the non-conventional area than previously assumed.

Action:

The total productive forest landbase has been divided into four operability classes. SCI will be updating the operability classification this summer primarily by restratifying the non-conventional class into areas by logging system.

6. Issue:

Activity in the cottonwood management zone has been passive primarily due to a soft market for cottonwood logs.

Action:

Although SCI feels there has been no change in this situation the present cottonwood management strategy will be re-examined for the management plan. The company intends to log the cottonwood AAC volume by the end of 1998.

7. Issue:

The long term productivity of TFL 1 may be underestimated as the assignment of site index to old growth stands after they have regenerated is considered too low.

Action:

The MoF recently completed an old growth site index adjustment study for the Kalum Forest District which included paired plots in the TFL. The report suggested that the average site index in the Kalum Forest District was underestimated by 11.3 metres for mature hemlock. SCI will be examining the use of these adjustments in the timber supply analysis.

8. Issue:

There is potential for an enhanced forest management program on TFL 1.

Action:

SCI will be examining scope and potential for intensive management of regenerated stands on better sites. The timber supply analysis will quantify the effect on fibre flow from a combination of shorter (financial) rotations and commercial thinning.

9. Issue:

Picking of pine mushrooms in the early fall has become an annual event attracting large numbers of seasonal pickers combing the landbase. This harvest is unregulated. It results in overcrowded campsites and heavy concentrations of temporary campers.

Action:

The MoF is looking for ways to manage the impact of this seasonal influx of people.

10. Issue:

Aboriginal heritage - the Skeena and Nass valleys have a rich history of aboriginal occupation and culture. Most of the main settlements were along the banks of these major rivers. It is important that archaeological sites are not disturbed or destroyed from logging activities.

Action:

The company will continue to consult with First Nation bands to ensure that proposed development activity does not conflict with known cultural resources. Archaeological impact assessments are carried out on high potential areas.

In addition to these issues the MoF Regional Manager has also requested that the company address numerous other topics in the management plan. These include:

- a strategy for managing recreation features and visually sensitive landscapes
- a consultation process with the Nisga'a during the transition period
- a strategy for the maintenance and deactivation of the road network
- identification of community watersheds and licenced water users
- proposed standing tending regimes and maximum density limits
- a strategy for archaeological and cultural heritage assessments
- a consultation process with the Irene Meadows Community Association

5.0 PLANNING PROCEDURES

5.1 Timber Supply Analysis

A forest landbase can produce many different harvest levels depending on the management assumptions chosen and the net operable landbase used. A timber supply analysis will be completed to determine potential harvest level options and to prepare a rationale for the AAC that will be proposed to the provincial Chief Forester for approval.

The forest estate model TREE FARM will be used. This is a simulation model and has been approved by MoF Timber Supply Branch for TFL planning.

Several resource management options will be modelled and analyzed. The analysis will provide a range of harvest flow levels depending on the combination of management assumptions and landbase options used in each. Preliminary analysis results will be assessed from the management assumptions that make up the planned management strategy. Sensitivity analysis and additional scenarios may be done to assess which factors affect the analysis results.

The analysis options will include:

1. **Gross Operable Landbase** - this will determine the theoretical biological harvest level for the productive forest area unconstrained by non-timber resource factors.
2. **Current Management** - this will model the current management of TFL 1 with integrated resource management emphasis. It will include the conventional and non-conventional landbase, the cottonwood management zone, as well as Forest Practices Code requirements for block size, adjacency and green-up.
3. **Minus Nisga'a AIP landbase** - this will examine a harvest level from a reduced TFL landbase, resulting from deletion of the Nisga'a AIP area from Option 2.
4. **Enhanced Forest Management** - the net operable landbase from Option 2 will include a defined management zone having an enhanced timber emphasis. Within this zone incremental silviculture techniques such as commercial thinning and short rotations will be practiced.
5. **Planned Management** - this option will model the proposed management strategies for the next five years as well as assumptions that will affect the management and the landbase for the next 30 years and are assumed to continue to the end of the analysis period.

6. ***Minus Beaver/Upper Kitsumkalum Protected Area*** - this will examine a harvest level from a reduced TFL landbase, resulting from the deletion of the Beaver/Upper Kitsumkalum proposed Protected Area from Option 2.

The technical procedures to be followed will be described in a Data Information package for TFL 1. This will be completed in the format required by MoF Timber Supply Branch and submitted for their review. It will include the following information:

- a detailed description of each scenario covering the management assumptions and data inputs
- the inventory data bases
- management zones
- definition of analysis units
- landbase netdowns
- yield curve development

5.2 Recreation Analysis

A recreation analysis report was prepared in 1997, drawing on the information in the updated recreation features inventory. The results will be used to determine recreation objectives and a management strategy.

5.3 Public Consultation Procedures

A review strategy for public consultation has been submitted to the regional manager (Appendix I). It outlines the key stages at which the company will be seeking public consultation:

- initiation of the planning process
- review of the draft SMOOP
- open-house viewing of management plan #9

6.0 SCHEDULE

Skeena Cellulose Inc. is obligated to prepare the management plan to the satisfaction of the provincial Chief Forester. Timely responses to submissions made during the course of preparing the plan are needed from MoF staff to enable completion on schedule.

A tentative schedule is attached that identifies the activities and milestones that need to be completed by June, 1998. The key milestones in this schedule are:

Advertising initiation of planning process	December, 1997
Regional manager approval of SMOOP	February, 1998
Completion of 20 year plan.....	April, 1998
Completion of timber supply analysis report.....	July, 1998
Public open-house of management plan	July, 1998
Chief forester approval.....	December, 1998

7.0 OBJECTIVES FOR EMPLOYMENT AND ECONOMIC OPPORTUNITY

Skeena Cellulose Inc. operates sawmills at Smithers, Carnaby, Terrace and a pulpmill at Prince Rupert. The company is the largest employer in this region.

The business has created employment opportunities in both woodlands operations and manufacturing facilities. The work force is primarily drawn from the local communities in the Northwest including the aboriginal villages in the Nass Valley.

SCI's preference is to employ local residents whenever possible. Preference is given to locally based contractors for ongoing work. The company has encouraged Nisga'a people to establish logging and silviculture contracting companies, by providing training and employment opportunities.

Log Volume Processed

All logs harvested from TFL 1 are processed at the company's manufacturing plants. Sawlogs are sorted in the woods and delivered to the Terrace Sawmill. Pulplogs and lower grade sawlogs are delivered to the Poirier Log Yard in Terrace. These logs are merchandized to recover additional sawlog volume. Portable chippers process the residual logs into chips, which are transported to the company's pulpmill.

The company only utilizes minor volumes of cedar. The majority of cedar harvested is either traded or sold on the local market.

Based on the present AAC level, the destination of log transfers and sales are:

TFL 1 - Annual log production		SCI	690,050 m ³
		SBFEP	29,950 m ³
Transfers and sales by destination			
transfer		Terrace sawmill	410,000 m ³
transfer		Skeena pulpmill	170,000 m ³
chips		Skeena pulpmill	70,000 m ³
sale/trades		Terrace market	<u>40,000 m³</u>
			<u>690,000 m³</u>

Manufacturing Facilities

The current fibre requirements and production capacity of SCI manufacturing facilities are:

Terrace sawmill (operating days - 250)

Sawlog requirement	700,000 m ³
- company sources (TFL/FL)	615,000 m ³
- purchase sources	85,000 m ³
Lumber production	300,000 m ³
Residual chip production	240,000 m ³
Sawdust to Eurocan Pulpmill	80,000 m ³
Hog fuel to Skeena Pulpmill	120,000 m ³

TFL 1 provides approximately 59% of the log requirements for the Terrace sawmill. The majority of the sawmill production is manufactured for the export market, primarily Japan. A smaller amount is manufactured for the North American market. The majority of the lumber produced is manufactured and sold as HemBal. The sawmill's residues are completely utilized. A portion of the sawdust is sold to Eurocan's pulpmill in Kitimat. The hog fuel is used by the Skeena pulpmill.

Skeena Pulp Operations (operating days 335)

The Skeena Pulpmill consists of two manufacturing lines that have a combined capacity to produce 1,400 tonnes per day or 480,000 tonnes per year of northern bleached softwood kraft pulp. The operation includes a woodroom with an annual processing capacity of 700,000 m³ pullogs through the whole log chipper.

Annual fibre requirements (chips/pullogs)	2,700,000 m ³
Annual fibre supply	
- company sources (TFL -chips/pullogs)	470,000 m ³
- other company sources	1,055,000 m ³
- purchase sources	1,175,000 m ³

Employment Levels

The company's operations create significant employment in the region. Operations in Terrace and Prince Rupert directly employ just under 1000 people and provide work for another 400 under contract.

8.0 COMMENTS FROM SMOOP & OEEO

This SMOOP document was advertised in the Terrace Times as being available for public viewing on October 27, 1997. Copies were also sent to stakeholders. The response received was minimal; one telephone inquiry and a written acknowledgment from the Irene Meadows Community Association without comments and a request by the Regional District of Kitimat-Stikine to make a presentation at their February 1998 board meeting. Attempts to arrange a meeting with Nisga'a band council had not materialized as at February 13, 1998.

Despite the lack of response from the public advertising, SCI will continue its open policy and is prepared to receive comments at any point during the planning process.

File: 19710-30 TFL1MP

February 19, 1998

Bruce Bodie, R.P.F.
Forestry Manager
Skeena Cellulose Inc.
Terrace Operation
4900 Keith Avenue
Terrace, British Columbia
V8G 5L8



Dear Bruce Bodie:

Please be advised that the SMOOP for Management Plan #9, TFL 1, submitted February 16, 1998, is accepted.

Thank you for providing documentation of your efforts to meet with the Nisga'a Tribal Council.

The next step in the Management Plan (MP) process is for SCI to submit a timber supply analysis information package to Atmo Prasad (Timber Supply Branch). Please follow the format outlined in the "Provincial Guide for the Submission of Timber Supply Information Package, Version 2.0", dated February 1997.

Please be reminded that subparagraph 2.14(g)(ii) of the licence document provides for the timber supply forester to notify the licensee to include other information in the information package that is readily available and relevant to an assessment of the timber supply. This notice may be provided to you within one month of acceptance of the SMOOP.

At this time, there is one topic to be addressed in the information package. My memo of December 8, 1994, stated:

.../2

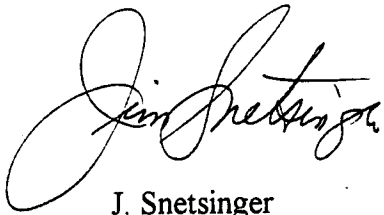
"The identification of forest ecosystem networks (or other wildlife mapping) must be completed by December 31, 1995. All ESA-equivalent categories must be digitized to allow analysis with forest cover mapping prior to preparation for MP 9."

I understand, from your cover letter of February 16, 1998, that wildlife mapping standards have now evolved beyond forest ecosystem networks and that wildlife issues will be dealt with by landscape level biodiversity planning and riparian management areas.

Please be advised that the information package must provide an acceptable method of estimating wildlife netdowns.

Please direct any questions to Steve Willis at 250-847-7674.

Yours truly,



J. Snetsinger
Regional Manager
Prince Rupert Forest Region

cc: Brian Downie
District Manager
Kalum Forest District

Brad Harris
Senior Tree Farm Licence Forester
Resource, Tenures and Engineering Branch

Atmo Prasad
Timber Supply Forester
Timber Supply Branch