

DUNKLEY LUMBER LTD.

**TREE FARM LICENCE #53
NAVER**

MANAGEMENT PLAN # 5



Version 3

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Submitted by:
Doug Perdue, RPF
Dunkley Lumber Ltd.

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Management Plan #5

Tree Farm Licence #53

1. Introduction

1.1 Description of Tree Farm Licence #53

Tree Farm Licence #53 (TFL #53) is an area-based forest tenure granted by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) to Dunkley Lumber Ltd (Dunkley). Dunkley is entrusted with the management responsibilities for the area in exchange for the harvesting rights. Given this form of tenure, the benefits of good management of all the forest resources can be realized with the reward of a secure and expanding wood supply for the company.

The TFL is located in the Prince George Forest District south of the community of Hixon and north of Ahbau Creek on the east side of Highway #97. The eastern border of the TFL is located near the features of Ahbau Lake, Lodi Lake, and Stony Lake. Figure 1 (on page 2) presents a general location map of the TFL.

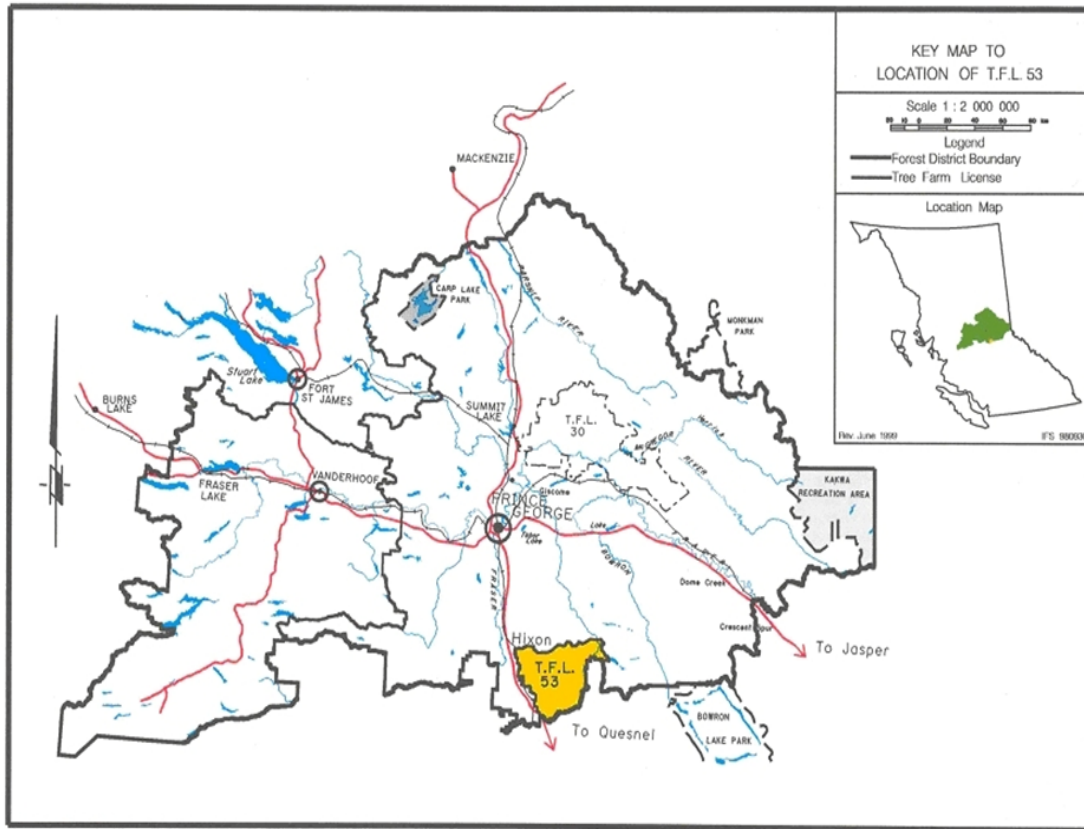
The landscape of the area is characterized by gently rolling plateaus intersected by stream networks, primarily within the Ahbau Creek and Naver Creek watersheds. The land is tree covered from the valley bottom to the top of the hills. Spruce and pine trees are the most common tree species, representing about 80% of the forest cover. Subalpine fir contributes about 15% of the tree cover. Minor amounts of Douglas fir, aspen, birch and cottonwood make up the remainder of the common tree species found on the TFL land base.

Streams, lakes, beaver ponds, and wetlands make up most of the 6% of the TFL land base not covered by trees. Stream gradients are generally less than 20%. Rainbow trout is the fish species identified most frequently in fish and fish habitat inventory work on the TFL. Ten other fish species were also identified in the inventory work.

Most of the TFL is located in the Sub Boreal Spruce (SBS) biogeoclimatic zone. Biogeoclimatic zonation is a Provincial level classification that defines ecosystems of similar regional climate. The Sub Boreal Spruce zone is generally found at elevations below 1200 meters. The climate consists of cool, snowy winters, and warm summers. The remaining portion of the TFL is in the Engelmann Spruce Subalpine Fir (ESSF)

biogeoclimatic zone. This zone defines the higher elevation areas on the TFL generally above 1200 meters in elevation. The climate in this zone consists of long, cold winters and short, cool summers.

Map 1. Location of TFL #53 in the Prince George Forest District



The biogeoclimatic zones are further subdivided into subzones that reflect variations in local climatic conditions. The subzones are distinguished based on differences in the plant communities found on similar soil and moisture conditions.

Table 1. TFL #53 Biogeoclimatic Zones

| BEC Zones | Gross Area (ha) | Crown Forest Area (ha) | Timber Harvesting Land Base (ha) |
|--------------|-----------------|------------------------|----------------------------------|
| ESSF wc3 | 22.8 | 22.8 | 22.4 |
| ESSF wk1 | 14,107.7 | 13,584.9 | 12,272.4 |
| SBS dw1 | 2,523.9 | 2,355.1 | 1,477.1 |
| SBS mk1 | 26,150.7 | 23,901.8 | 19,616.0 |
| SBS mw1 | 18,046.9 | 16,626.5 | 13,520.5 |
| SBS wk1 | 26,987.3 | 24,199.1 | 20,377.3 |
| Total | 87,839.3 | 80,690.3 | 67,285.7 |

1.2 History of TFL #53

1.2.1 Major Area Revisions

There have been no major changes to the boundaries of TFL # 53 since its creation in September 1989. There have been revisions of the digital boundaries of the TFL that result in small area changes to the size of the TFL. The area changes are “mapping” refinements rather than additions or deletions to the TFL area.

1.2.2 Changes in AAC and Ownership

The lands that now make up TFL #53 have had a relatively long history of activity related to its natural resources. Mining boomed in the late 1800's and again in the 1930's. Logging and milling operations commenced in the 1930's and continue today. The forestry operations have consolidated over time. Small portable bush mills have gradually given way to larger, modern operations capable of supporting the needs of a forest industry that includes sawmilling, pulp and paper production, and value added manufacturing. This has been realized through more efficient utilization of the timber resource.

Dunkley set up operations at Strathnaver in 1951 and has been an active member of the Hixon-Strathnaver community ever since. Since the mid-1960's, Dunkley's quota position has been insufficient to meet its mill demands. Currently, the allowable annual cut on the TFL satisfies approximately 10% of the sawmill requirements.

In June 1977 the Novak family, through Novak Bros. Contracting Ltd., bought all the shares of Dunkley Lumber Ltd. from the Dunkley family. Ownership has been retained by the Novak's to the present day.

Dunkley decided in 1978 that a TFL would be the most effective form of tenure to provide a secure timber base. A TFL would also provide a greater incentive to manage the forestlands and increase allowable cut levels, thereby maintaining the employment base in the Hixon and Strathnaver areas. Dunkley's forest licence was converted into a TFL, and TFL #53 came into existence in 1989. There are no Tiber Licences or Private Land within the TFL.

The vision at Dunkley is to improve the secure wood supply. A TFL is an essential component of achieving the vision. Additional measures to secure fiber are pursued through the acquisition of renewable forest tenures, and agreements with other forest

tenure holders. The goal is to have long term secured wood supply moving from the current level of 30% up to 60% of the logs needed to run the sawmill. This level of security allows Dunkley to remain highly competitive in accessing the additional log supply on the open market needed to maintain a two-shift operation at the mill. Attainment of this vision will provide long-term security to Dunkley, the employees, and to the local communities.

During the term of the first management plan: 1989-1994, a forest inventory specific to the TFL was completed and programs were implemented to reforest previously logged areas with the goal of increasing the amount of second growth forest (backlog NSR reforestation). In addition, harvesting operations focused on salvaging stands damaged by fire, insects or windthrow (reducing non-recoverable losses). These activities resulted in a modest increase in the allowable annual cut (AAC) on the TFL.

For Management Plan #2 (MP #2): 1995-1999, strategies were developed and implemented to both maintain the area of productive forestland on the TFL, and to increase the growth of the trees on that land.

In addition to these programs, the Forest Practices Code (FPC), biodiversity guidelines, and riparian management were implemented during MP #2. These initiatives ensure the management of timber and non-timber resources are carried out to a high environmental standard. Again, the positive results of the stewardship of the TFL was realized in a modest increase in the AAC.

During the term of Management Plan # 3 (MP#3) the successful programs initiated in previous management plan eras were continued and improved upon. A Biodiversity Plan was completed to address stand level, landscape level and wildlife management on the TFL.

It was also during the term of MP#3 that one issue, the mountain pine beetle (MPB) infestation, increased in magnitude to become the focus of most of the management and planning on the TFL. MPB infestations are natural events, however due to a combination of an abundance of suitable hosts (mature lodgepole pine trees), and favourable climatic conditions, the infestation had grown exponentially throughout the Central Interior of British Columbia. Dunkley utilized all possible resources in an effort to control the MPB on the TFL. In spite of the company's best efforts, the beetle infestation continued to grow on the TFL. In the fall of 2002, the size of the infestation was so large that the AAC of 239,500 m³/yr established in 2000 was insufficient to enable harvesting of all of the infested trees.

In order to continue an aggressive control program, Dunkley requested an AAC uplift. This was granted, by the Chief Forester, in June 2003. The AAC was increased to a level of 500,000 m³/yr until December 2004 when the next AAC determination in conjunction with Management Plan # 4 (MP#4) set the AAC at 880,000 m³/yr to enable the continued focus on addressing mountain pine beetle.

In 2008, with mountain pine beetle salvage wrapping up, Dunkley requested and received a reduction in the AAC to 219,000 m³/yr in recognition that the mountain pine beetle focused AAC uplift was no longer appropriate.

TFL53's current AAC is 219,000 cubic metres per year and was set in 2010 as part of the MP # 4 process. The 2010 determination was made prior to the availability of new forest inventory information that better described the TFL in a post-MPB environment. Consequently, the 2010 timber supply analysis was completed using pre-MPB forest inventory and volume assumptions that attempted to quantify live volume after a catastrophic epidemic. The condition of the forest inventory after a period of rapid beetle-driven change created uncertainty regarding some of the inputs used in determining an AAC. The Deputy Chief Forester at the time indicated that Dunkley should complete a new inventory for the tree farm, to assess the merchantability of balsam, deciduous and dead pine and monitor pine plantations that have suffered losses from the MPB. A new tree farm inventory was completed in 2012.

Dunkley's management strategy within the tree farm over MP #4 has been to maintain the enhanced silviculture program, improve inventory data and minimize volume losses to insects, forest blow-down and wildfire.

Table 2. TFL #53 AAC History

| Year | Allowable Annual Cut Level (m ³ /year) |
|------------------|--|
| 1989-1993 | 187,630 |
| 1991-1999 | 204,700 |
| 2000-May 2003 | 239,500 |
| June 2003 – 2004 | 500,000 |
| 2005 – 2007 | 880,000 |
| 2008 – 2010 | 219,000 |
| 2010 - present | 219,000 |

2 Planning

2.1 TFL #53 Licence Document

The TFL #53 Licence Document is the contractual agreement between the Crown and Dunkley that describes the roles and responsibilities of both parties. It addresses in part, timber disposition, merchantability specifications, cutting authority, access, contracting and reporting requirements.

It also outlines the requirements of the Management Plan and Timber Supply Analysis process.

2.2 Higher Level Plans

There are five gazetted recreation sites on the TFL. The objectives for these recreation sites are higher level plans.

2.3 Forest Stewardship Plans

A Forest Stewardship Plan (FSP) contains the results and or strategies developed by Dunkley to achieve the objectives set by Government under the Forest and Range Practices Act for forest values in the TFL. The FSP also details the stocking standards that must be achieved on harvested areas on the TFL.

The FSP provides an opportunity for the public, First Nations and stakeholders to comment and provide input on their expectations on resource management on the TFL.

Dunkley has an approved FSP for TFL #53 that has a term of March 8, 2018 to March 7, 2022.

2.4 Other Plans

The Prince George LRMP (March 1999) has been approved by the Minister of Forests, the Minister of Energy and Mines and the Minister of Water, Land and Air Protection. Dunkley supported the development of this strategic plan through active participation as a member at the LRMP table and continues to support its implementation. The TFL was designated as a single Enhanced Resource Management Zone in the LRMP. The management intent for the zone is the development and enhancement of the timber

resource consistent with the objectives of the RMZ.

2.5 Forest Certification

Dunkley is committed to being a participant in the Sustainable Forestry Initiative (SFI) Program. This program has a comprehensive set of principles, objectives, performance measures and indicators that together demonstrate our commitment to the practice of sustainable forestry.

The SFI program has two sets of standards that we must comply with. The 2015-2019 Forestry Management Standard addresses the management of the forests for which we are responsible. The 2015-2019 Fiber Sourcing Standard addresses wood obtained from outside the forest tenures that we have responsibility for.

2.5.1 SFI Principles

The SFI objectives are:

- To practice sustainable forestry.
- To strive to protect the long-term productivity, health and conservation of forest resources.
- To protect water quality, special sites, wildlife habitat and biodiversity.
- To manage the visual impact of harvesting and provide recreation opportunities.
- To promote the efficient use of forest resources.
- To encourage the use of sustainable forestry practices among forest landowners.
- To comply with forest, environmental and social laws and regulations.
- To support research and to provide training and education on sustainable forestry practices.
- To maintain social licence by demonstrating community involvement, and socially responsible practices, and through recognition and respect of First Nations rights and traditional knowledge.
- To provide public information on progress in fulfilling the commitment to sustainable forestry.

- To continually improve sustainable forestry management.

The program uses independent auditors to assess forest management practices against the objectives, targets and indicators that make up the standard.

3 Timber Supply Analysis

In accordance with Section 35(1) (vii) of the Forest Act of British Columbia, Dunkley Lumber Ltd. has undertaken a timber supply analysis of Tree Farm Licence #53, in support of and leading to the preparation of Management Plan # 5.

A Timber Supply Information Package supporting the analysis was submitted to the British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development's Forest Analysis and Inventory Branch and approved on February 20, 2020. A complete Information Package is provided in Appendix 1 as part of the Timber Supply Analysis Report.

The Timber Supply Analysis Report assesses the short and long-term timber supply implications of current management practices within TFL #53.

The results of several sensitivity scenarios are described in this report. Each scenario was designed to isolate the impact that various individual modeling assumptions may have on the future timber supply for the tree farm.

The harvest flow scenarios were designed in order to meet the following basic objectives:

- Assess the impact that current management strategies may have on future timber supplies.
- Assess the impact that alternative management strategies may have on timber supply, thereby providing Dunkley and the FLNRORD with information to ensure decision-making is informed and in keeping with the objectives of the Crown.
- Assess the sensitivity of uncertainties regarding the land base, growth and yield and various management assumptions on the future harvest level for the tree farm.

4 Public Review Strategy

The MP, including the Timber Supply Analysis Report, will be submitted to the Chief Forester to facilitate an allowable annual cut determination for the TFL. As the first step of the process, a Referral and Public Review Strategy was submitted to the Omineca Regional Executive Director of the FLNRORD for approval.

4.1 Comment Opportunities

The MP process has a series of activities that occur over time to arrive at a final MP submission. Two opportunities for public review and comment are included in the steps. A draft Information Package (IP) has been made available for review and comment. The comments were considered and appropriate changes to the IP were made in a final IP submission to the Forest Inventory and Analysis Branch of the FLNRO.

The second opportunity for review and comment is the draft MP. The draft MP also includes the timber supply analysis as part of the plan. Comments received during the review of the draft MP will be considered and appropriate changes to the MP document will be included for submission of a final MP to the Chief Forester of FLNRORD for acceptance.

The MP process contains the following steps:

1. A Referral and Public Review Strategy (this document) is submitted to the Regional Executive Director.
2. The Regional Executive Director approves the Referral and Public Review Strategy.
3. A Draft Information Package is submitted and made available for review.
4. A 60-day Information Package review takes place.
5. Dunkley considers any comments received and submits a final Information Package.
6. The Forest Inventory and Analysis Branch accepts the Information Package.
7. A Draft Management Plan is submitted and made available for review.
8. A 60-day MP review takes place.
9. Dunkley considers any comments received and submits a final MP.
10. The Chief Forester approves the MP and determines an allowable annual cut for TFL # 53.

There may be additional iterations at some steps in the process to arrive at an acceptable final product.

5 Information Sharing Strategies

5.1 Review Agencies

FLNRORD is the primary agency in the review process. FLNRORD will coordinate the review and comments from interested provincial and federal agencies.

5.2 First Nations

Dunkley will share the draft IP and the draft MP with the First Nations that we regularly communicate with for review and comment on operational TFL activities. Dunkley will share the opportunity to review the draft documents by way of a letter and an invitation to meet and discuss the information. FLNRORD will lead the consultation throughout the MP process. The First Nations included in the information sharing process include:

Nazko First Nation
Lhtako Dene Nation
Lheidli – First Nation Tenneh Band
Tsilhqot'in National Government

5.3 Other TFL Stakeholders

Dunkley will send letters, at both the draft IP stage and the draft MP stage, to potentially interested stakeholders. The stakeholders contacted will be based on a list that is used to share information on operational activities that we are conducting on the TFL. The contacts include trappers, guides, range users, and the community of Hixon.

5.4 The General Public

Newspaper advertisements will be placed in the Quesnel Cariboo Observer and the Prince George Citizen for both the draft IP and the draft MP inviting review and comment. The ads will run in two publications for each document. The ad will specify the review period, and the contact information to arrange for information exchange and the opportunity to provide comment. A draft of each advertisement will be provided to the FLNRORD District Office for review prior to placement.

5.5 Summarizing the review process

Following both the draft IP and draft MP review steps, a Public Review Summary will be

submitted to the FLNRORD. The summary will detail all comments received, the name of the commenting organization, the date and type of communication, the considerations and the actions taken in response to the comments. This information will also be included in the final MP submission.

A summary of the information received will be included in Appendix 2.