Canadian Forest Products Ltd.

Vanderhoof Division



FOREST STEWARDSHIP PLAN 2

#### TABLE OF CONTENTS

1	Interp	retation4
	1.1	Definitions4
	1.2	Agreement Holders and Agreements:5
2	Term	of the Forest Stewardship plan5
3	FuRT	HER Public REview
4	Identij	fying Forest Development Units (FDU)5
	4.1	New Forest Development Units6
	4.2	Items Identified in FDU6
	4.3	Areas within the FDUs Considered to Have Received the Minister's
		Approval7
5	Result	s and Strategies7
	5.1	Order Establishing Landscape Biodiversity Objectives for the PG TSA –
		October 20, 20047
	5.2	Objectives Set by Government for Soils9
	5.3	Objectives Set By Government for Wildlife9
	5.4	Objectives Set By Government for Water, Fish, Wildlife And Biodiversity
		Within Riparian Areas10
	5.5	<b>Objectives Set By Government for Wildlife and Biodiversity – Landscape</b>
		Level 13
	5.6	Objectives Set By Government for Wildlife and Biodiversity – Stand Level 13
	5.7	Objectives Set By Government for Visual Quality14
	5.8	Objectives Set By Government for Cultural Heritage Resources15
	5.9	Objectives in respect of Agricultural Development Areas & Settlement
		Reserve Areas17
6	Measu	ures
	6.1	Invasive Plants17
	6.2	Natural Range Barriers19
7	Stocki	ng Requirements

7.1	General Standards	20
7.2	Variations from General Standards	22
Signatures of	Persons required to prepare plan	
Appendix A: H	Forest Stewardship Plan MapS	27
Appendix B: H	Regeneration and Free Growing Stocking Standards	
Appendix C: C	Commercial thinning Stocking Standards	

#### INTERPRETATION

- 1. In this **FSP**, the singular includes the plural and the plural includes the singular, unless the context indicates otherwise.
- Unless otherwise expressly indicated, or indicated by context, terms used in this FSP have the definition given them, as of the date of submission, in FRPA and the Forest Act and the regulations under them.

## 1.1 Definitions

1

"Agreements" means the replaceable Forest Licenses (FL), listed in Table 1.

"Agreement holders" means the companies and organizations listed in Table 1.

"**Basal area equivalency**" means in the case of individual wildlife tree retention, calculated by comparing pre-harvest basal area to post harvest basal area in dispersed wildlife tree retention areas. The area allocated to retention is the proportional amount of area in post-harvest basal areas (e.g., 10% of the pre-harvest basal area left dispersed over a whole cutblock would be equal to 10% retention).

"**Date of Submission**" means the date specified in section 2.1 that this **FSP** was submitted to the Minister for approval;

"**Danger Tree**" means any tree that is hazardous to workers because of location, lean, physical damage, overhead hazards, deterioration of limbs, stems, or root systems;

"FDU" means forest development unit;

"FPPR" means the Forest Planning and Practices Regulation, as amended from time to time;

"FRPA" means the *Forest and Range Practices Act*, RSBC 2002, c. 69, as amended from time to time;

"FSP" means this Forest Stewardship Plan;

"Implementation Date" means the date the Term of this FSP begins, as specified in section 2.3;

"**Merchantable Stems**" means a tree or stand of trees that has attained sufficient size, quality and (or) volume to make it suitable for timber harvesting as specified in the license document.

"**MSP**" means a mechanical treatment that modifies the site to provide favorable conditions for natural or artificial regeneration by means of planned soil disturbance;

"Qualified registered professional (QRP)" means, with respect to an activity for which this forest stewardship plan requires a qualified registered professional, a person who has appropriate education and experience to carry out the activity, and

Canfor Vanderhoof FSP 2

ii) is a member of, or licensed by, a regulatory body in British Columbia that has the legislated authority to regulate its members performing the activity

"TSA" means Timber Supply Area;

"Term" means the period specified in section 2.2.

# 1.2 Agreement Holders and Agreements:

This **FSP** applies to the **agreement holders** and agreements indicated in Table 1 Table 1 List of Agreement holders and Agreements.

Agreement Holders	Agreements	Area of Harvesting Rights
Canadian Forest Products Ltd.	A18157	All FDU's
Canadian Forest Products Ltd.	A18165	All FDU's
Canadian Forest Products Ltd.	A40873	All FDU's
Canadian Forest Products Ltd.	A94503	As per schedule A

## 2 TERM OF THE FOREST STEWARDSHIP PLAN

- 2.1.1
  - 1. The date of submission of this **FSP** is October 28, 2019
  - 2. The Term of this FSP is five years beginning on the date specified by the Minister.

## **3 FURTHER PUBLIC REVIEW**

The **Agreement holders** will, in addition to the requirements of **FPPR** section 20 and 21, commit to making proposed harvesting and road construction publicly available at least once on an annual basis, measured from April 1st to March 31st, during the term of this **FSP**. Comments from and replies to, first nations, stakeholders and members of the public will be recorded in a tracking system.

## 4 IDENTIFYING FOREST DEVELOPMENT UNITS (FDU)

# 4.1 New Forest Development Units

There are two **FDU's** for this **FSP** referred to as the Vanderhoof South and the Vanderhoof North.

# 4.2 Items Identified in FDU

The **FSP** maps, included in Appendix B of this **FSP**, identify items as per Table 3. It is understood that ongoing updates occur and these maps are current based on submission date only. As per **FPPR** section 14 (2) and (3) Table 2 also addresses the identified content related to all FDU's.

Туре	Species/Item	FSP maps	FSP section	Related Order
Ungulate	Northern Caribou	Yes	NA	U-7-012
Winter Range				
Section 7	Northern Caribou	Yes linked	5.3.1	December 30, 2004
Species at		to FDU		notice
risk notice				
Ungulate	Mule Deer	Yes	5.3.2	U-7-011
Winter Range				Grandfathered
Wildlife	Stellako River	Yes	NA	Designated Dec. 7,
Management				2011 under section
Area				4(2) of the Wildlife
				Act.
PG TSA	Old Forest old interior and	No	5.1	Land use order
Biodiversity	young forest patch.			establishing
Order				landscape
				biodiversity
				objectives for PG
				TSA.

Table 2: Identified **FSP** content

Recreation	Established sites	Yes	NA	NA
Visuals	Scenic Areas	Yes	5.7	GAR order
				September 18, 2008
Lakeshore	No government objectives at	NA	NA	NA
management	this time			
zones				
Community	No government objectives at	NA	NA	NA
Watersheds	this time			
Fisheries	No government objectives at	NA	NA	NA
sensitive	this time			
watersheds				

Permits	Road	NA	Appendix D	
Permits	Cutting Permits	Yes	NA	NA
Declared	Declared Areas	Yes	NA	NA
Areas				

# 4.3 Areas within the FDUs Considered to Have Received the Minister's

# Approval

The following areas are included within the FDUs and, under **FRPA** and the **FPPR**, are considered to have received the Minister's approval:

(a) Cutting Permits: as indicated on the **FSP** Content Maps and Road Permits listed in Appendix D.

# 5 RESULTS AND STRATEGIES

5.1 Order Establishing Landscape Biodiversity Objectives for the PG TSA – October 20, 2004

The following definitions apply to the results and strategies in Paragraph 5.1.1 in respect of the Order establishing Landscape Biodiversity Objectives for the Prince George TSA established under section 4 of the FPC:

"ecological unit" means the unit of measurement for old forest, interior forest and young forest patch size, as described in the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area.

"interior old forest" has the same meaning as in the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area.

"**old forest**" has the same meaning as in the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area.

"**participating agreement holders**" means those forest tenure agreement holders who have agreed, through the signing of a Memorandum of Understanding, to participate in collaborative management of the old forest, interior forest and young forest patch size requirements within the Prince George Timber Supply Area.

"trend" means to change or develop in a general direction.

"**young forest**" has the same meaning as in the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area.

- **5.1.1** The following results/strategies relate to the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area and apply to all the FDU's.
  - (a) subject to subparagraph (b), the agreement holders of this FSP will, along with all participating agreement holders, maintain at least the minimum percentage of old forest and interior old forest as set out in the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area measured on an annual basis, as set out in the reporting protocol contained within the Memorandum of Understanding for the Order;
  - (b) If an ecological unit is deficient in old forest or interior old forest, the agreement holders of this FSP, will not apply for new cutting permits in old forest or interior old forest in that ecological unit, until
    - the unit has achieved the minimum percent of old forest and interior old forest, or
    - the agency of government responsible for administering the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area has approved a recruitment strategy;

Once the recruitment strategy is approved new cutting permits will be consistent with the strategy.

- (c) Subject to subparagraphs (d) and (e), the agreement holders of this FSP, will, along with all participating agreement holders, manage young forest toward the patch size distribution as set out in the Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area, measured on a 5 year interval as set out in the reporting protocol contained within the Memorandum of Understanding for the Order.
- (d) At the end of each 5 year monitoring interval, the current interval's patch size distribution results will be compared to the previous 5 year monitoring interval's patch size distribution results and the **trend** will be assessed against the target patch size distributions as set out in the Order.
- (e) If a trend toward the patch size distribution has not been achieved, the agreement holders of this FSP will, along with all participating agreement holders, provide the appropriate government agency with:
  - (i) a rationale for the **trend** away from the patch size distribution, and
  - (ii) a strategy for how the objective will be achieved in the shortest time as is practicable, with consideration of the participating agreement holders' harvesting rights.

# 5.2 Objectives Set by Government for Soils

For the objective for soils that is set out in Section 5 of the **FPPR**, the **Agreement holders** will adopt as a result and strategy, for all FDU's, sections 35 and 36 of the **FPPR** as those sections were on the date this **FSP** was submitted for approval.

# 5.3 Objectives Set By Government for Wildlife

## 5.3.1 Species at Risk Notice

In respect of the notice entitled "Indicators of the Amount, Distribution, and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Vanderhoof Forest District", issued in December 2004 in accordance with section 7 of the **FPPR**, the results and strategies that apply for each FDU are to ensure that primary forest activities carried out by the **Agreement holders** of this **FSP** will be managed in a manner that meets the distribution and attributes set out in the notice for the Northern Caribou within the Tweedsmuir – Entiako Caribou Population Range for the term of this **FSP** so that no more than 6100 ha of the THLB is impacted. This result and strategy only applies to the Vanderhoof South FDU.

## 5.3.2 Grandfathered Ungulate Winter Range U 7-011

In relation to the UWR objective set out in Mule Deer Ungulate Winter Range Order - #U7-011, the result or strategy that applies to each FDU if the area is within the Mule Deer Ungulate Winter Range, is that the holders of this FSP will design cutblocks and roads so that the resulting altered forest landscape is consistent with the Order.

# 5.4 Objectives Set By Government for Water, Fish, Wildlife And Biodiversity Within Riparian Areas

As per **FPPR** 12.1 (2) exemption from writing a result and strategy for **FPPR** section 8 objective, the **Agreement holders**, when conducting primary forest activities within all FDU's will undertake to comply with the default practice requirements of section 47 (stream riparian classes), 48 (wetland riparian classification, 49 (lake riparian classification), 50 (riparian management area restrictions), 51 (riparian reserve zone restrictions), 52(2) (riparian management zone restrictions) and 53 (temperature sensitive streams) of the **FPPR**.

For the purposes of section 12 (3) of the **FPPR** for the retention of trees in the riparian management zones (RMZ) within a gross block area, the results that apply to the agreement holders' areas of primary forest activity in all FDU's are:

- (1) The site plan will identify how the retention meets the following:
  - (a) within 10m of an S4 stream, retain a minimum of 20% of the area, basal area or merchantable stems;
  - (b) within 10m of an S5 stream, W3 wetlands, or L3 lake, retain a minimum of 10% of the area, basal area or **merchantable stems**.
  - (c) within 10m of an S6 stream, retain a minimum of 5% of the area, basal area or **merchantable stems**.

- (d) within 5m of a S4, S5, S6 stream, retain over the length of the stream reach naturally occurring ground vegetation, shrubs, advanced regeneration, nonmerchantable conifers and deciduous, and non-merchantable stems, to the extent practicable considering partial cutting activities.
- (e) The minimum targets set out in Table 3 for stream classes S1A, S1B, S2 and S3, W1 and W5 wetlands and L1A and L1B lake classes.

Table 3 - Riparian Management Area, Reserve Zone and Riparian Management Zone Specifications and Retention Table

	Riparian	Riparian	Riparian	
	Reserve	Management	Manage -	
Riparian	Zone (RRZ)	Zone (RMZ)	ment Area	Minimum Tree Retention within the
Class	Minimum	Minimum	(RMA)	RMZ
	Width (m)	Width (m)	Minimum	
			Width (m)	
Streams	3	l		
S1 - A	0	100	100	Minimum 20 % of the RMZ area.
S1 - B	50	20	70	Minimum 20 % of the RMZ area.
S2	30	20	50	Minimum 20 % of the RMZ area.
S3	20	20	40	Minimum 20 % of the RMZ area.
S4	0	30	30	As per 5.4 a, d
S5	0	30	30	As per 5.4 b, d
S6	0	20	20	As per 5.4 c, d
Wetland	ls	1		
W1	10	40	50	Minimum 20% of the RMZ area.
W3	0	30	30	As per 5.4 b
W5	10	40	50	Minimum 20% of the RMZ area.
Lakes				
L1A	0	0	0	NA
L1B	10	0	10	All reserve
L3	0	30	30	As per 5.4 b

The retention in table 3 is based on area or **basal area equivalency**.

•

# 5.5 Objectives Set By Government for Wildlife and Biodiversity – Landscape Level

In relation to the objective set by government for wildlife and biodiversity set out in section 9 of the **FPPR**, the results or strategies that apply to the areas of primary forest activity in each FDU are the same as the results or strategies set out in section 5.1.

# 5.6 Objectives Set By Government for Wildlife and Biodiversity – Stand Level

5.6.1 Wildlife tree retention

As per **FPPR** 12.1 (4) instead of are result and strategy In relation to the objective for wildlife and biodiversity at the stand level set out in section 9.1 of the **FPPR**, the agreement holders adopt as a result and strategy sections 66 for all FDU's as that section was on the submission of this **FSP**.

## 5.6.2 Restrictions on harvesting

In relation to the portion of the objective (**FPPR** 9.1) that relates to **FPPR** section 67 and restrictions on harvesting, as per **FPPR** 12.5 (2) the **Agreement holders** will use the following strategy:

- 1. No harvesting of wildlife trees retention area will occur unless the following conditions are met:
  - a) Consistent with **FPPR** section 67 the trees on the net area to reforest of the cutblock to which the wildlife tree retention area relates have developed attributes that are consistent with a mature seral condition; or
  - b) The wildlife tree retention areas are damaged or destroyed by insect, fire or blowdown; or
  - c) The incursion is to provide road access or maintain road safety where no practicable alternative exists.
- 2. For conditions 1 b) and 1 c) additional requirements must be met prior to harvesting wildlife trees.
  - a) A **QRP** has reviewed the wildlife trees, including a field review, and has determined and documented the following:
    - i) The cutblock(s) to which the wildlife trees relate has greater than 3.5% wildlife trees considering both the replacement and the wildlife trees to be removed.

- ii) The replacement wildlife trees are a similar stand structure, age and species to the natural stands in the area.
- iii) The replacement wildlife trees address cultural values or the existing wildlife trees were not protecting any specific cultural values.
- iv) The replacement wildlife trees address wildlife habitat or the existing wildlife trees were not protecting any specific wildlife feature or species at risk.
- v) The replacement wildlife trees provide an equivalent size (ha) and/or number (stems) to the wildlife trees being removed.

# 5.7 Objectives Set By Government for Visual Quality

Definitions applicable to this **FSP** section:

"Alteration" means changing or making something different as a result of conducting harvesting or road construction by the Agreement holder.

A **Significant Public Viewpoint** (**SPV**) means a position of importance or consequence to the public, from which a landscape is observed and has relevance to the landscape being assessed.

For established Scenic areas the following results and strategies apply to all FDUs:

5.7.1 For scenic areas with visual quality objectives established

The following result applies in relation to the objectives set by government for visual quality as per GAR order September 18, 2008.

In this Result:

When evaluated from a **SPV**, the **Alteration** resulting from harvesting conducted by the Agreement **holder** within a known scenic area will be consistent with the visual quality objectives established for the scenic area and will achieve the following results for all **FDU**'s:

a) *Preservation (P) VQO/VQC*: Will be, very small in scale and not easily distinguishable from the pre-harvest landscape.

- b) *Retention (R) VQO/VQC*: Will be, difficult to see, small in scale, and natural in appearance.
- c) *Partial retention (PR) VQO/VQC*: Will be easy to see, small to medium in scale, and natural and not rectilinear or geometric in shape.
- d) *Modification (M) VQO/VQC*: Will be very easy to see, and is large in scale and natural in its appearance, or small to medium in scale but with some angular characteristics.
- e) *Maximum modification (MM) VQO/VQC*: Will be very easy to see, and is very large in scale, rectilinear and geometric in shape or both.
  - 5.7.2 Other circumstances

Despite 5.7.1 when the **Agreement holder** determines that the visual quality objective cannot be fully met due to efforts to address forest health or visual rehabilitation, the following result and strategy will apply to the area in question for all FDU's:

- 1. In the situation where the **QRP** determines that the **alteration** can be largely consistent with visual quality objectives as per **FPPR** 25(1) the **Agreement holder** will:
  - a) In advance of a cutting permit submission, submit an FSP amendment not requiring approval providing notice that this section of the **FSP** is being used; and;
  - b) Ensure the visual design is consistent with the objectives and describe which one of, ease of seeing or scale cannot be consistent and;
  - c) Describe what mitigation is being implemented to be as consistent as practicable.
  - d) Achieve the result as specified in the notification.

# 5.8 Objectives Set By Government for Cultural Heritage Resources

#### In this Section:

"**Cultural heritage evaluation**" means the sharing of information and engagement with applicable First Nations, for the purpose of gathering cultural heritage information. This discussion includes, an appraisal of the value of an object, site, or location of a traditional societal practice that is of historical or cultural significance to First Nations. This discussion includes options for mitigating or protection of any impact to that object, site, or location of a traditional societal practice as a result of the forest practice contemplated. This covers values not regulated under the Heritage Conservation Act and are of continuing importance to First Nations people.

In relation to the objective set by government for cultural heritage resources set out in section 10 of the **FPPR**, the strategies that apply to all FDU's are:

- a) before an Agreement holder commences harvesting, the agreement holder will:
  - (i) Gather and summarize information as per information sharing processes defined by government.
  - (ii) Ensure that a **cultural heritage evaluation** is completed.
- b) Where an **Agreement holder** receives site specific information or identifies a cultural heritage resource the **Agreement holder**, will:
  - (i) Make a record of the communication with the affected person or group.
  - (ii) Identify the location and attributes of the cultural heritage resource in question, both on a map and on the ground;
  - (iii) As part of the discussion evaluate the direct impact of the planned development on the cultural heritage resource;
  - (iv) conserve or protect the cultural heritage resource at the known location, considering the information discussed on:
    - (A) the relative value or importance of the cultural heritage resource to the continued traditional use by a First Nations person;
    - (B) the relative abundance or scarcity of the cultural heritage resource;
    - (C) the extent of the traditional use of the cultural heritage resource, and;
    - (D) the impact on the Agreement holder's government granted timber harvesting rights in conserving or protecting the cultural heritage resource,
  - (v) Provide the results of the **cultural heritage evaluation** to government and/or the party providing the information upon request.

c) The agreement holder will ensure all primary forest activities will be consistent with the recommendations given in a cultural heritage evaluation referred to in subparagraph (a), and

Where a previously unidentified cultural heritage resource feature is encountered or made known during primary forest activities, the **agreement holder** will cease operations to the extent necessary to protect the feature, until the process described in b) can be carried out.

- 5.9 Objectives in respect of Agricultural Development Areas & Settlement Reserve Areas
- 5.9.1 In relation to the land use objectives set by government for agricultural development areas (ADA) and settlement reserve areas (SRA) in the Minister of Agriculture and Lands Order dated November 21, 2006, when carrying out primary forest activities, the holders of this FSP will follow the practices and conditions of the Order, where these areas overlap the FDU areas.

# 6 **MEASURES**

# 6.1 Invasive Plants

Definitions applicable to this **FSP** section:

"Areas Disturbed" means: areas of exposed mineral soil greater than 0.1 ha from our primary forest activities outside the net area to reforest (NAR). Despite the net area to reforest criteria, the first 50m of rehabilitated roads and a 20 m buffer (as measured from the edge of the running surface and out into the cutblock) on permanent access structures will be treated if disturbed. The maintained running surface of permanent access structures will not be treated.

"Seeded" means using a seed mix that has been checked to ensure regulated or undesirable plants are not introduced and a "certificate of seed analysis" has been obtained as proof of this check. Canada Common Number 1 Forage Mixture or a native seed mix will be used. Seed mixtures containing invasive plants will not be used. "Area of known" means areas where invasive plants are known to occur based on the provincial database system for invasive plants, areas identified by Agreement holders, and a 500m buffer around those areas.

"**Provincial resources**" means the provincial database system for invasive plants, any relevant reports from the Invasive Alien Plant Program and qualified **FLNRORD** staff. NW invasive plant council

The measures for preventing the introduction or spread of invasive plants in the FDUs are:

- (a) Invasive Plants are those plants listed in the Invasive Plants Regulation.
- (b) On an annual basis the **Agreement holders** will train woodlands staff and longer term (greater than 1 year) woodlands contractors in:
  - (i) Identifying invasive plants that exist or threaten to establish within the **Agreement holder's** FDU and;
  - Best practices for preventing the spread of invasive plants (current document Best Practices for Preventing the Spread of Invasive Plants During Forest Management Activities, 2013, or replacement document).
- (c) on an annual basis, the Agreement holder will identify area of known sites and newly identified sites of invasive plants using information gathered from the provincial resources and Agreement holder's staff;
- (d) Any cutblocks that overlap areas identified in part (c) will have that information identified in the cutblock(s) site plan. The site plan will identify at least 2 best practices to follow to prevent the spread of invasive plants.
- (e) where the Agreement holder's staff or contractors identify new sites of invasive plants, within any of the FDU's, a record containing site location and plant species will be documented and reported using an accepted format (to the Invasive Alien Plant Program) such as the application "report a weed".
- (f) within the sites noted in subparagraph (c), areas disturbed by the Agreement holder will be seeded within one year of completion of the harvest/construction to minimize seedbed available for colonization by invasive plants.

# 6.2 Natural Range Barriers

As per section 48 of the **FRPA** and section 18 of the **FPPR** the following measures will be undertaken in all **FDUs** that contain or are adjacent to **Range tenures**, to mitigate the effect of removing or rendering ineffective Natural range barriers by the **Agreement holder**:

- 1. On an annual basis, provide to Range tenure holders cutblock plans for comment.
- 2. Where the **Range tenure** holder or other qualified person indicates the planned development will remove or render ineffective a natural range barrier the **Agreement holder** will:
  - a) reach an agreement with the **Range tenure** holder on mitigation measures prior to harvesting; and,
  - b) implement the agreed upon mitigation measure within one snow free season following harvesting, unless an
  - c) alternative timeframe is agreed upon by the **agreement holder** and the **Range tenure** holder;
  - d) if the Agreement holder and Range tenure holder cannot agree on mitigation measures, the Agreement holder will consult with district range staff to determine a course of action. Examples of mitigation measures include, but are not limited to, cattle guards, debris fences, windrows, debris log placement, wing fencing and fence line establishment.
- 3. Where identified within one year after harvesting or road construction that a natural range barrier has been removed or rendered ineffective by the agreement holder, the agreement holder will follow the same process as per 2 above except the timeline will be within one snow free season following knowledge of that natural range barrier break.

## 7 STOCKING REQUIREMENTS

# 7.1 General Standards

For the purposes of section 16(1) of the Forest Planning and Practices Regulation, section 44(1) of that regulation will apply to every area where the **Agreement holder** of this **FSP** is required to establish a free growing stand. The standards apply to all **FDU**'s unless otherwise specified.

For the purposes of section 16(3) of the Forest Planning and Practices Regulation, for each area where a **Agreement holder** of this **FSP** is required to establish a free growing stand

- (a) The applicable stocking standards and applicable regeneration date referred to in section 44(1)(a) of the Forest Planning and Practices Regulation, and
- (b) The applicable stocking standards and applicable free growing height referred to in section 44(1)(b) of the Forest Planning and Practices Regulation

Are subject to the Variations from General Standards in paragraph 7.2, as set out in Appendix B opposite the Biogeoclimatic Site Series that applies to the Standard Unit.

Where an agreement holder of this FSP is exempted by the Act and regulations from establishing a free growing stand in respect of timber harvesting, as per section 44 (3) of the FPPR, the agreement holder will, on all cutblocks, as per section 44(4), subject to Paragraph 7.2, do so in accordance with the stocking standards in Appendix C.

#### 7.1.1 Free Growing Date

The late free growing date for all Standard Units will be 20 years after the commencement date of the cutblock.

#### 7.1.2 Minimum Preferred Well Spaced Density at Free Growing

The minimum preferred well-spaced density at free growing is equal to the minimum preferred and acceptable well-spaced density at regeneration delay as described in Appendix A.

#### 7.1.3 Preferred Species at Free Growing

The preferred and acceptable species at regeneration are the preferred free growing species.

#### 7.1.4 Target Density at Free Growing

The target density at free growing is equal to the target density at regeneration delay as described in Appendix A.

#### 7.1.5 Maximum Coniferous Density

The maximum density for Lodgepole Pine leading stands in all site series is 20,000 countable coniferous stems per hectare in the Northern Interior Forest Region. All other species and mixed pine stands in all site series are limited to a maximum of 10,000 countable coniferous stems per hectare.

#### 7.1.6 Clarification

Engelmann Spruce (Se) can be replaced with Interior Spruce (Sx) if the use of the Interior Spruce is consistent with the provincial seed transfer guidelines or the "Chief Forester's Standards for Seed Use" when they are established;

#### 7.1.7 Deciduous Stems Retained at Harvest

For any opening that is being managed as an even aged stand, any overstory deciduous stems that were retained at the time of harvest will be considered non-deleterious competition for the purpose of free growing assessment.

#### 7.1.8 Standard unit with site series complex

 The Target Stocking Standards, Minimum Preferred and Acceptable, Minimum Preferred, Minimum Inter-tree distance and Minimum Height will be those of the dominant site series, and (ii) The preferred species for the Standard Unit will include all of the preferred species for all the site series comprising that unit, however potential crop trees will only be preferred or acceptable where they are ecologically suitable within the Standard Unit.

# 7.2 Variations from General Standards

Despite section 7.1, an **Agreement holder** of this **FSP** will apply the following rules or stocking standards in the following circumstances:

## 7.2.1 Riparian Management Zones

Where brush and deciduous has been retained as part of retention requirements in **FSP** sections 5.4 it will be considered non deleterious.

## 7.2.2 Pine Stem Rust Spacing Exemption

In pine-leading strata with greater than 20% incidence of stem rusts and exceeding the Maximum Coniferous Density stated in 7.1.5, the stratum will be exempt from the requirements of Maximum Coniferous Density stated in 7.1.5.

#### 7.2.3 Mule Deer UWR units

Within all mule deer UWR Units, Douglas fir is a preferred species for the purposes of the regeneration delay standards, and an approved species for the purposes of the free growing standards, despite the species listed in the applicable regeneration delay and free growing standards.

7.2.4 Alternative harvesting and Ecological suitability

Where harvesting for the purposes listed in FPPR Section 44(3) occurs within an artificially regenerated stand, all coniferous species demonstrating good form and vigour are to be considered as ecologically appropriate.

#### 7.2.5 Minimum inter-tree distance

Will be reduced from 2.0 meters to 1.6 meters for a standard unit, where due to;

- non timber values:
  - active range tenures for obstacle planting in areas with a high potential for cattle congregation
  - sites with a significant number of dispersed wildlife trees (e.g., greater than 50 trees/ha)
  - prescribed riparian management as per FSP section 4.3
  - sites where a stump avoidance strategy is employed to manage root rot
  - cluster planting (if required) to achieve established wildlife legal objectives,
- site moisture limitations (recurring in sections less than stratification size),
- plantation failure (fill plants or under planting),
- site preparation (mounding only) for regeneration,
- to facilitate increased planting density (20%) for rust management;

there is a lack of suitable plantable microsites that prevents the achievement of planting density (or increased density in the case of rust management) which can be demonstrated through standard survey methodologies.

#### 7.2.6 Moose browse management

In moose management areas birch, willow, alder and dogwood will not be considered competition to conifers during free growing assessments. For the purposes of this variance, moose management areas will be identified by the **Agreement holder** based on the best available information. The hierarchy for best available information will first use any wildlife orders establishing moose management areas and then any official moose habitat map made known to the **agreement holder**. This variance will not apply in areas identified by the BC government and First Nations as areas

important for the recovery of caribou. As a starting point this only applies to **FDU** - Vanderhoof North.

## 7.2.7 Buffering and screening management

Aspen, cottonwood, and birch as well as alder, willow, and red osier dogwood within 10 metres from the boundary between natural ground and the ditchline and/or within 10 metres from the outside boundary of the Net Area to Reforest are not considered deleterious brush competition when conducting a free growing survey.

## 7.2.8 Caribou management

In Caribou management areas where understory retention has been prescribed, for screening and brush reduction, the retention will be considered preferred species. All the standard survey quality specifications still apply. This only applies to **FDU** Vanderhoof South.

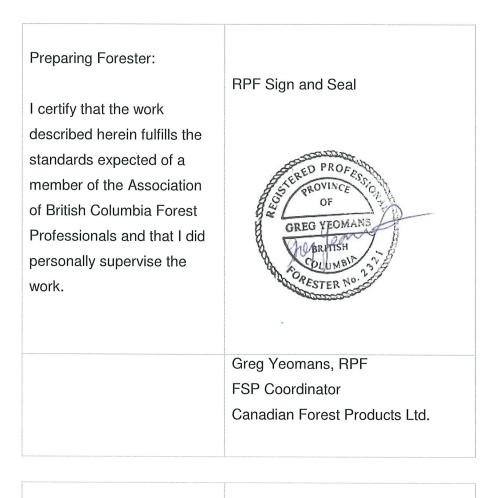
#### 7.2.9 Fuel Hazard Mitigation

Fire management stocking standards will be applied in the following circumstances:

- a. Within 2 km (±200 m) of a Wildland Urban Interface as identified within the Provincial strategic threat analysis map(s) or a more detailed plan approved by government.
- b. Within 2 km (±200 m) of other high value infrastructure or other high resource value on the land base as identified on approved Fire management plan values maps.
- c. Those areas identified as appropriate for a fire management stocking standard within the District fire management plan.
- d. Fire management stocking standards will be adjusted in these areas in the following manner:
  - i. Deciduous shall be considered non-deleterious.
  - ii. Coniferous densities shall be half of the required stocking for the site series.
- e. Within approximately 2 km of other high value infrastructure or other high resource value on the land base as identified on approved Fire management plan values maps.
- f. Those areas identified as appropriate for a fire management stocking standard within the District fire management plan.

When applying fire management stocking standards deciduous shall be considered non-deleterious and coniferous densities shall be half of the required stocking for the moisture regime.

# SIGNATURES OF PERSONS REQUIRED TO PREPARE PLAN



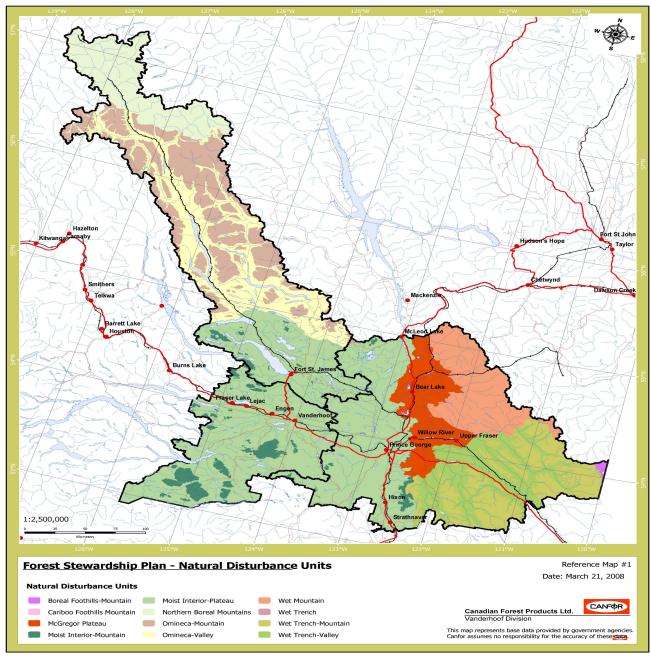
Authorized Licensee Signature:

lan Stephen Woodlands Manager

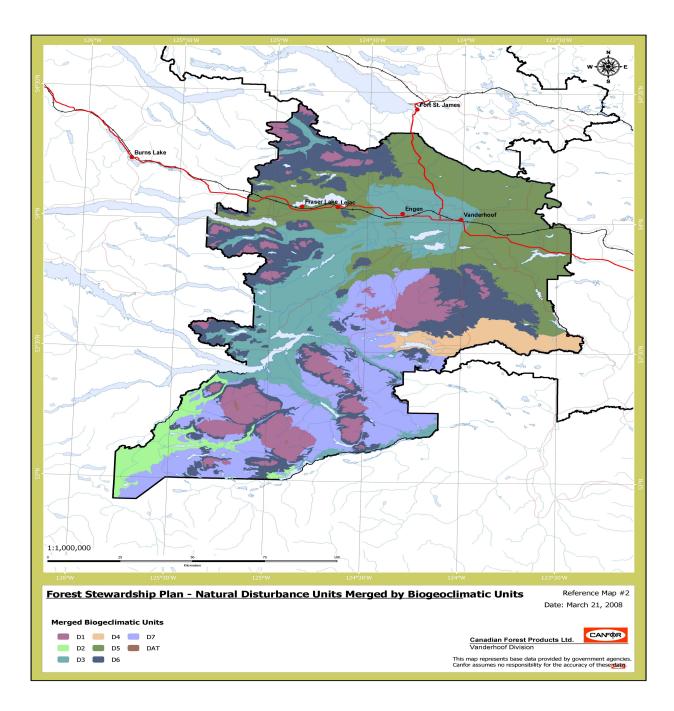
# **APPENDIX A: FOREST STEWARDSHIP PLAN MAPS**

## Summary of FSP Maps

Map Number	Map Reference
1	Natural Disturbance Unit for the Prince George TSA
2	Merged BEC Units for the Vanderhoof District
3	FSP Content Map Vanderhoof North –attachment in FSP tracker
4	FSP Content Map Vanderhoof South attachment in FSP tracker







# **APPENDIX B: REGENERATION AND FREE GROWING STOCKING STANDARDS**

## Even aged stocking standards

														Even	Ageo	d Fre	e G	rowi	ng S	Stand	dard	s		
_			MITD			Max	Min	Min	Pre	ferred	Spp	Acce	otable Spp	Tarrat	Mire									
Zone	Var	Site Series	(m)	SSID #	Approved PG #	Regen Delay (yrs)	Min WS P&A	Min WS P	P1	P2	P3	A1	A2 A3	Target WS (sph)	WS (sph)	Sp1	Ht1 (m)	Sp2	Ht2 (m)	Sp3	Ht3 (m)	Sp4 (	Ht4 (m) Sp	5 Ht5 (m)
ESSF	mc	01/05/06/07																						
ESSF	mv3	01/04/05/06	1.6	1064279	1056914	4	700	600	sx	BL		PLI			1 1 1									
ESSF	wk1	01/03/04/05	1.0	1004273	1030314	-	700	000	57	DL		1 -												
ESSF	wk2	03												1,200	700	SX	0.8	PLI	1.6	BL	0.8			
ESSF	wk2	01/02/04/05	1.6	1064304	1057525	4	700	600	SX	BL														
ESSF	mc	04	1.6	1064306	1057542	4	700	600	SX	PLI	BL									1				
ESSF	mv1	01	1.0	100-000	1007042	-	700	000	OA		DL													
ESSF	mv3	03/07	1.0	1064307	1057546	4	500	400	SX	BL		PLI												
ESSF	wk1	02	1.0	100-1007	1007040	-	000	+00	OA	DL										1				
ESSF	mc	08/09/10													     									
ESSF	wk1	06/07	1.0	1064308	1057549	4	500	500	SX	BL						1				1				
ESSF	wk2	06												1,000	500	SX	0.6	PLI	1.2	BL	0.6			
ESSF	mc	02/03												1,000	000		0.0		1.2		0.0			
ESSF	mv1	03	1.0	1064309	1057550	4	500	400	SX	PLI		BL												
ESSF	mv1	04/05	1.0	100-1000	1007000	-	000	+00	U/			DL			1 1 1									
ESSF	mv3	02/08				-														:				
ESSF	mv1	02	1.0	1064305	1057528	4	500	400	PLI			BL												
SBPS	dc	01			1057567	4	700	600	PLI	SX		SB												
SBPS	dc	04	2.0	1064310	1007007			000		0/1		02		1,200	700	PLI	1.4	SX	0.8	SB	0.8			
SBPS	mc	01/03												1,200	100				0.0		0.0			
SBPS	dc	03	2.0	1064311	1057570	4	700	600	PLI			SX	SB							1 1 1				
SBPS	dc	05																		ļ				
SBPS	mc	05/06	1.0	1064312	1057571	4	500	400	PLI	SX		SB		1,000	500	PLI	1.0	SX	0.6	SB	0.6			
SBPS	dc	06												.,					0.0		0.0			
SBPS	dc	08	1.0	1064313	1057574	4	500	400	SX			PL	SB		1 1 1			1 1 1		1 1 1				

CDDC		04	0.0		NIA	4	500	400	PLI	<u> </u>				1											
SBPS SBPS	mc	04	2.0	1064316	NA	4	500	400 500	PLI	SX	2B														
	dc	02	1.0	1064314	1057576	4	500			SX	SB			400	000	PLI	1.0	οv	0.0	00	0.0				
SBPS SBPS	mc dc	07 07	2.0 1.0	1064317 1064315	NA 1057577	4	200 200	100 100	PLI PLI	SX SX	<u> 28</u>	SB		400 400	200 200	PLI	1.0 1.0		0.6	SB SB	0.6				
						4							1.1.4./	400	200	PLI	1.0	57	0.6	30	0.6				
SBS	mh	04/07/08	2.0	1064303	1057145	4	700	600	FDI	SX		BL	LVV	-											
SBS	mk1	04																							
SBS	wk1	03	0.0	1004000	1057146	4	700	<u> </u>		FDI		οv	1.1.47												
SBS SBS	dw3	04	2.0	1064282	1057146	4	700	600	PLI	гIJ		SX	LVV												
	mw	03																							
SBS	wk3	03	0.0	1064283	1057147	4	700	700		FDI		1.1.4.7		-											
SBS	dw2	03/04	2.0	1064283	1057147	4	700	700	PLI	FDI		LW			, , ,										
SBS	mh	01/05/06												1,200	700	PLI	2.0	SX	1.0	FDI	1.4	BL	1.0	LW	2.0
SBS	dw3	08																							
SBS	mk1	01/05/07																							
SBS SBS	mw	01/04/06/08	2.0	1064284	1057148	4	700	700	PLI	SX	FDI	LW													
SBS	wk1	01/04/05																							
	dw2	01/05/06 01/06																							
SBS SBS	dw3 dk	01/04/05/06																							
SBS	1	08/09	2.0	1064285	1057149	4	700	600	PLI	SX	FDI	BL	LW												
SBS	dw2 dw3	08/09	2.0	1004200	1037149	4	700	600	FLI	37	FDI	DL	LVV		1 1 1										
SBS		07																							
SBS	mk1	05/07	2.0	1064286	1057151	4	700	600	PLI	SX		BL													
SBS	mw wk1	06/07/08	2.0	1004200	1057151	4	700	600	FLI	37		DL													
SBS	wk3	01/04/06/07																							
SBS	dk	03																							
SBS	dw2	07	2.0	1064287	1057152	4	700	600	PLI			SX	SB												
SBS	wk1	12	2.0	1004207	1037132	4	700	000	1 -			57	50	1,200	700	PLI	2.0	SX	1.0	BL	1.0	SB	1.0		
SBS	dk	08	2.0	1064288	1057153	4	700	700	PLI	SX															
SBS	dw3	03	2.0	1004200	1037133	4	700	700	1 61	57															
SBS	mk1	02/03	2.0	1064289	1057154	4	700	600	PLI			SX			1 1 1								-		
SBS	vk	02/03	2.0	1004203	1037134	-+	100	000				57			1 1 1										
SBS	dw3	05													1 1 1										
SBS	mk1	06	2.0	1064290	1057155	4	700	600	PLI	SB		SX													
303		00		<u>                                     </u>											1										

SBS	wk3	05												1				-							1
SBS	mc2	01/03/04/05/06/08/09	0.0	1004001	1057157	4	700	000	БШ	0.		ы								1					
SBS	mc3	01/07	2.0	1064291	1057157	4	700	600	PLI	SX		BL		1 000	700		10	0.7	0.0		~ ~		<u> </u>		
SBS	mc3	04	2.0	1064292	1057158	4	700	600	PLI	SX		SB		1,200	700	PLI	1.6	SX	0.8	BL	0.8	SB	0.8		
SBS	mc3	02/03/05/06	2.0	1064293	1057159	4	700	600	PLI			SX				!				1					
SBS	mh	03	1.0	1064294	1057162	4	500	400	PLI	FDI	SX	BL	LW			-									
SBS	dw3	02	1.0	1064295	1057163	4	500	400	PLI	FDI		SX	1.1.47			:									
SBS	mw	02	1.0	1064295	1057163	4	500	400	PLI	FDI		27	LVV	1,000	500	PLI	1.4	FDI	1.0	SX	0.8	BL	0.8	LW	1.4
SBS	dw2	02	1.0	1064296	1057165	4	500	500	PLI	EDI			LW												
SBS	mh	02	1.0	1004290	1057165	4	500	500	FLI	FDI			LVV					1		1 1 1					
SBS	dw2	10																							
SBS	dw3	09																							
SBS	mk1	09	1.0	1064280	1057137	4	500	400	PLI	SX		BL				-				!					
SBS	mw	09	1.0	1004200	1037137	4	500	400	1 -	57		DL		1,000	500	PLI	1.4	SX	0.8	BL	0.8				
SBS	wk1	09/10												1,000	500		1.4	37	0.0	DL	0.0				
SBS	wk3	08													1	ļ									
SBS	dk	02	1.0	1064281	1057141	4	500	500	PLI	SX															
SBS	dk	07	1.0	1004201	1037141	-	500	500	1 -	57					-	:		-							
SBS	mc2	10/11	1.0	1064297	1057186	4	500	400	PLI	SX		BL				i									
SBS	mc3	08	1.0			-		400						1,000	500	PLI	1.2	SX	0.6	BL	0.6	SB	0.6		
SBS	mc2	07	1.0	1064298	1057187	4	500	400		SX		SB		1,000	500		1.2	U/	0.0	DL	0.0	00	0.0		
SBS	mc2	02	1.0	1064299	1057188	4	500	400	PLI			SX	BL												
SBS	dk	09	1.0	1064300	1057189	4	200	100	PLI			SB													
SBS	dw2	11														i i									
SBS	mw	10														-				1 1 1					
SBS	dk	10	1.0	1064301	1057190	4	200	100	PLI	SX		SB		400	200	PLI	1.4	SX	0.8	SB	0.8				
SBS	dw3	10	1.0	1004001	1007100	т	200	100		U.		55				1									
SBS	mk1	10														1									
SBS	wk1	11													-	<u>.</u>									
SBS	mc3	09	1.0	1064302	1057192	4	200	100	PLI	SX		SB		400	200	PLI	1.2	SX	0.6	SB	0.6				
SBS	mc2	12	1.0	1004002	1007102	т	200	100		0A		55		-00	200			0/	0.0	00	0.0				

# Uneven aged stocking standards.

												Crop Tree	Height
Stand.	BEC				Layer		Min	Min	MITD	RGD	FG		
ID	Zone/SZ	Site Series	Pref (p)	Acc (a)		Target	(pa)	(p)	m	yrs	yrs	Species	(m)
			Sx Pl	Sb	1	600	300	250	N/A			All	N/A
1064318		SBPS-All site series (even age target	Sx Pl	Sb	2	800	400	300	1.6	4	20	All	N/A
100 1010		= 1200)	Sx Pl	Sb	3	1000	500	400	1.6	•	20	All	N/A
			Sx Pl	Sb	4	1200	700	600	1.6			All	0.80
			Sx Pl	Sb	1	400	200	200	N/A			All	N/A
1064319		SBPS-All site series (even age target	Sx Pl	Sb	2	600	300	250	1.6	4	20	All	N/A
1004313	SBPS dc,	= 1000)	Sx Pl	Sb	3	800	400	300	1.6	-	20	All	N/A
	mc SU's		Sx Pl	Sb	4	1000	500	400	1.6			All	0.80
			Sx Pl	Sb	1	200	100	100	N/A			All	N/A
			Sx Pl	Sb	2	300	125	125	1.6			All	N/A
1064320		SBPS-All site series (even age target	Sx Pl	Sb	3	300	150	150	1.6	4	20	All	N/A
		= 400)	Sx Pl	Sb	4	400	200	200	1.6			All	0.80

			Sx Pl Fd	Bl, Lw	1	600	300	250	N/A			All	N/A
1064321		SBS -All site series (even age target	Sx Pl Fd	Bl, Lw	2	800	400	300	1.6	4	20	All	N/A
1004521		= 1200)	Sx Pl Fd	Bl, Lw	3	1000	500	400	1.6	-	20	All	N/A
			Sx Pl Fd	Bl, Lw	4	1200	700	600	1.6			All	0.80
			Sx Pl Fd	BI Lw	1	400	200	200	N/A			All	N/A
1064322		SBS -All site series (even age target	Sx Pl Fd	BI Lw	2	600	300	250	1.6	4	20	All	N/A
100 1022	All SBS	= 1000)	Sx Pl Fd	BI Lw	3	800	400	300	1.6	•	20	All	N/A
			Sx Pl Fd	BI Lw	4	1000	500	400	1.6			All	0.80
			Sx Pl Fd	Bl, Lw	1	200	100	100	N/A			All	N/A
		CDC All site series (over age target	Sx Pl Fd	Bl, Lw	2	300	125	125	1.6			All	N/A
1064323		SBS -All site series (even age target = 400)	Sx Pl Fd	Bl, Lw	3	300	150	150	1.6	4	20	All	N/A
		- 400)	Sx Pl Fd	Bl, Lw	4	400	200	200	1.6			All	0.80

			Sx Bl	PI	1	600	300	250	N/A			All	N/A
1064324	ESSF mc,	ESSF-All site series (even age target	Sx Bl	PI	2	800	400	300	1.6	4	20	All	N/A
1001021	mv3, wk1,	= 1200)	Sx Bl	PI	3	1000	500	400	1.6		20	All	N/A
	wk2		Sx Bl	PI	4	1200	700	600	1.6			All	0.80
	Multistory		Sx Bl	PI	1	400	200	200	N/A			All	N/A
1064325	SU's	ESSF-All site series (even age target	Sx Bl	PI	2	600	300	250	1.6	4	20	All	N/A
1004323		= 1000)	Sx Bl	PI	3	800	400	300	1.6	-	20	All	N/A
			Sx Bl	Pl	4	1000	500	400	1.6			All	0.80

## **APPENDIX C: COMMERCIAL THINNING STOCKING STANDARDS**

For timber harvesting referred to in Section 16(4) and 44(4) of the FPPR, stands must meet a minimum a post -harvest stand density as as per the tables below. In addition to the density that must be maintained and declared one year after harvest completion, 2 of 3 of the following post harvest conditions must be met:

- i. An increase in diameter from pre harvest to post harvest.
- ii. A decrease in less desirable species based on the most current chief foresters guidelines for primary, secondary and tertiary species.
- iii. A decrease in stem quality defects from pre harvest to post harvest surveys.

The prescribed post stand conditions above will be a part of the site plan and the post harvest one year declaration.

	Spruce top	Minimum Residual Density
Stocking ID	Top Height	Stems per hectare
1064385	Equal or less than 14m	1400
1064386	Equal or less than 15m	1200
1064387	Equal or less than 16m	1070
1064388	Equal or less than 17m	940
1064389	Equal or less than 18m	830
1064390	Equal or less than 19m	760
1064391	Equal or less than 20 m	715
1064392	Equal or less than 21 m	670
1064393	Equal or less than 22m	625
1064394	Equal or less than 23m	580
1064395	Equal or less than 24m	540
1064396	Equal or less than 25m	500
1064397	Equal or less than 26m	470

Stocking standard and density tables for commercial thinning.

Lodgepole pine	Minimum Residual Density
top Height	Stems per hectare
Equal or less than 14m	1820
Equal or less than 15m	1650
Equal or less than 16m	1400
Equal or less than 17m	1270
Equal or less than 18m	1140
Equal or less than 19m	1030
Equal or less than 20 m	920
Equal or less than 21 m	870
Equal or less than 22m	830
Equal or less than 23m	750
	top Height Equal or less than 14m Equal or less than 15m Equal or less than 15m Equal or less than 16m Equal or less than 17m Equal or less than 18m Equal or less than 19m Equal or less than 20 m Equal or less than 21 m Equal or less than 22m

1064408	Equal or less than 24m	690
1064409	Equal or less than 25m	650
1064410	Equal or less than 26m	600

		Minimum Residual Density
	Douglas-fir top height	Stems per hectare
1064411	Equal or less than 14m	2335
1064412	Equal or less than 15m	2000
1064413	Equal or less than 16m	1750
1064414	Equal or less than 17m	1450
1064415	Equal or less than 18m	1250
1064416	Equal or less than 19m	1080
1064417	Equal or less than 20 m	940
1064418	Equal or less than 21 m	850
1064419	Equal or less than 22m	770
1064420	Equal or less than 23m	690
1064421	Equal or less than 24m	610
1064422	Equal or less than 25m	540
1064423	Equal or less than 26m	490

In the case of a mixed balsam spruce stand the spruce standard will be used provided spruce is the preferred retention species.

# **APPENDIX D: ROAD PERMIT LIST**

R07936
R07937
R07939
R07940
R07941
R09185
R09198
R09199
Rp11818