

# Forest Stewardship Plan

*For*

BC Timber Sales  
Canadian Forest Products Ltd  
Fort Nelson Resource District



**BCTS**  
BC Timber Sales



DRAFT Document

June 14<sup>th</sup>, 2019

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## Introduction

This Forest Stewardship Plan (FSP) is being developed as a joint effort from the listed forest tenure holders operating in the Fort Nelson Resource District. The multi-signatory FSP will foster consistency of application of management practices outlined by results and strategies, measures and stocking standards.

### 1.0 Interpretations

1. In this FSP, the singular includes the plural and the plural includes the singular, unless the context indicates otherwise.
2. 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

The following definitions apply to this FSP and its results, strategies, measures and stocking standards.

“**Agreements**” means the replaceable and non-replaceable Forest Licenses (FL), Pulpwood Agreements (PA) and Community Forest Agreements (CFA) 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).

“**FDU**” means a Forest Development Unit proposed by agreement holders.

“**FPPR**” means the Forest Planning and Practices Regulation.

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

“**FSP**” means this Forest Stewardship Plan.

“**GAR**” means the Government Actions Regulation.

“**LRMP**” means Land and Resource Management Plan.

“**Minister**” means the person who has, on behalf of government, approved this FSP, or such other person as that person may delegate.

“**Term**” means the period specified in [Section 2.0](#).

“**BWBS**” means the Boreal White and Black Spruce, its subzones and variants.

“**SBS**” means the Sub-Boreal Spruce, its subzones and variants.

“**ESSF**” means Engelmann Spruce Subalpine Fir, its subzones and variants.

**Cutting Permits** – any reference to cutting permits will also refer to a timber sale that has been issued by the Timber Sale Manager.

**Road Permits** – Any reference to road permits will also refer to Forest Service Road approved by a Timber Sale Manager.

**"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  
 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

## 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
Canadian Forest Products Ltd.	FL A17007
Canadian Forest Products Ltd.	PA #14
British Columbia Timber Sales, Peace-Liard Business Area	

## 2.0 Term of the Forest Stewardship Plan

1. The date of submission of this FSP is June 14<sup>th</sup>, 2019
2. The **Term** of this FSP is five years beginning on the date specified by the Minister.

## 3.0 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.

## 4.0 Forest Development Units (FDU)

### 4.1 New Forest Development Units

Table 2: List of Forest Development Units

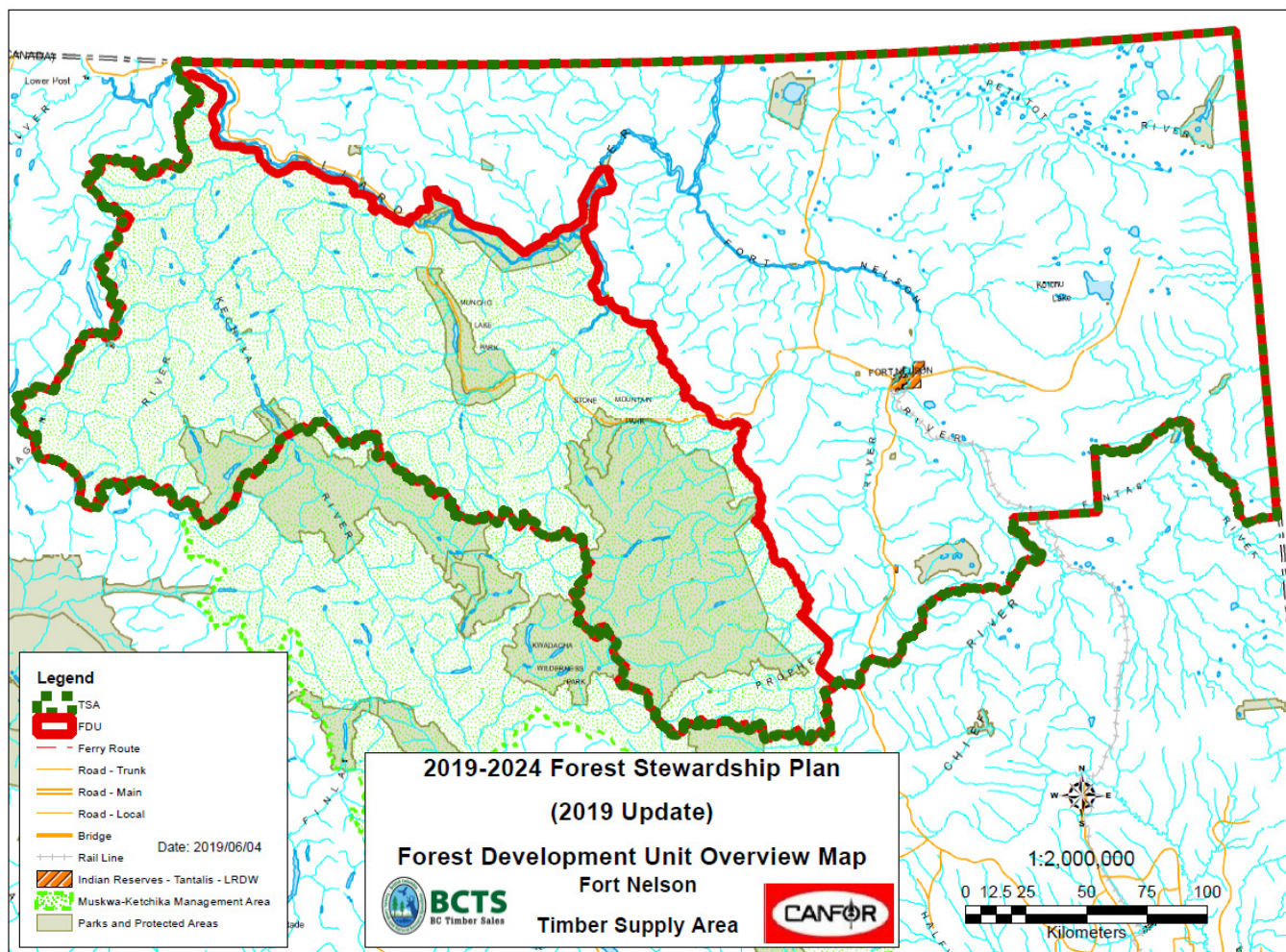
FDU	FDU Name
1	Fort Nelson

For FDU #2, Muskwa Kechika activities are legislated by the Muskwa-Kechicka Mangement Area Act and the Muskwa-Kechicka Mangement Plan Regulation. As per section 8 (1) of the act “a landscape unit objective is a prerequisite to a forest development plan or a forest stewardship plan under the *Forest and Range Practices Act*”. Despite this section as per section 8 (5) “a minister or other agent of the government may issue, approve, permit or authorize an operational instrument in respect of a wildfire or a pest or disease infestation to forests or wildlife without a local strategic plan or landscape unit objective being in place”. As per section 5 (3) or the Act the Landscape unit objective must be consistent with the management plan.

The regulations (section 8.1 and 8.2) provide area-specific objectives for the Special management zone by linking to the Fort Nelson Land and Resource Management Plan sections 2.2.4.

An overview of the FDU’s is provided in Figure 1.

Figure 1: Overview of Fort Nelson FSP Forest Development Units



#### 4.2 Items Identified in FDU's

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 3 also addresses the identified content related to the FDU's identified in table 2.

**Table 3: Identified FSP content**

Type	Species/Item	FSP maps	FSP section	Related Order
Section 7 Notice	Rocky mountain Elk	Yes	4.2.1	
Ungulate Winter Range	Boreal Caribou	Yes	NA	U-9-010
Wildlife Habitat Areas	Boreal Caribou	Yes	NA	9-074,075, 076, 077, 078, 079, 080, 081, 082, 083, 084, 085, 086, 087, 088
Wildlife Habitat Areas	Boreal Caribou	Yes	NA	9-101
Wildlife Habitat Areas	Caribou	Yes	NA	9-147, 9-148, 9-149, 9-150, 9-155, 9-158, 9-159
Wildlife Habitat Areas	Data sensitive	Data sensitive	NA	9-162, 9-165, 9-172, 9-180
Land Use Order	Old seral	No	4.4.10	Non spatial Landscape Biodiversity Objectives for the Fort Nelson District
Recreation	Established sites	Yes	NA	NA
Visuals	Scenic Areas	Yes	4.6	
Lakeshore management zones	No government objectives at this time	NA	NA	NA
Community Watersheds	No government objectives at this time	NA	NA	NA
Fisheries sensitive watersheds	No government objectives at this time	NA	NA	NA
Permits	Road and Cutting Permits and TSL's	NA	Appendix C, D	NA
Declared areas	blocks	?	Appendix E - ?	NA

As per section 69 of the FPPR it is a requirement to follow the wildlife orders or more specifically the general wildlife measures identified in these orders. Although there is no requirement for a result and strategy to be identified in an FSP, there is a requirement to address the order as identified content.

### 4.3 Agreement Holders

New Forest Development Units in this FSP and where the applicable **Agreement holders** harvesting rights apply, are listed in Table 4.

Results, Strategies, Measures and Stocking Standards for one or more FDU's apply to the **Agreement holders** identified in Table 4.

Woodlots, private land, Indian Reserves, Provincial Parks and Protected Areas and any other lands with legal encumbrances which preclude harvesting by the applicable **Agreement holders** of this FSP that fall within the FDU area are not considered to be part of the FDU area and may or may not be shown on the FSP maps.

Table 4: **Agreement holders**

FDU Name	Applicable Agreement Holders	Agreement Type & Number	Area of Harvesting Rights
Fort Nelson	Canadian Forest Products Ltd	FL A17007, PA 14	That area of Fort Nelson FDU within TSA 08
Muskwa Kechika	Canadian Forest Products Ltd	FL A17007, PA 14	That area of Fort Nelson FDU within TSA 08
Fort Nelson	British Columbia Timber Sales, Peace-Liard Business Area		That area of Fort Nelson FDU within TSA 08
Muskwa Kechika	British Columbia Timber Sales, Peace-Liard Business Area		That area of Fort Nelson FDU within TSA 08

## 5.0 Results and Strategies

### 5.1 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 undertake to comply with, sections 35 and 36 of the FPPR as those sections were on the date this FSP was submitted for approval for all FDU's.

### 5.2 Objectives Set By Government for Wildlife

Refer to identified content section 4.1 of this **FSP** for orders that apply. FPPR Section 7 notices have also been covered by these orders.

#### 5.2.1 Rocky Mountain Elk

With respect to the government Notice: "Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the Fort Nelson Timber Supply Area" issued March 2, 2006 in accordance with Section 7 of the FPPR: unless directed otherwise by the Fort Nelson District Manager, the **Agreement holders** of this FSP will ensure that no harvesting or road construction will occur within,

- A. 58,380 hectares distributed for Elk within the Muskwa River Corridor 28, Tenaka 9 and Dunedin 6 Resource Management Zones (RMZ), the latter described in the Fort Nelson Land and Resource Management Plan (FNLRMP), that meets the attributes described in the Notice for Rocky Mountain Elk habitat, and
- B. resulting in an impact to the timber harvesting landbase not exceeding 1017 hectares.

### 5.3 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 as those sections were on the date of submission.

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:

- (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.

within 5m of a S4, S5, S6 stream, retain over the length of the stream reach naturally occurring ground vegetation, shrubs, advanced regeneration, non-merchantable conifers and deciduous, and non-merchantable stems, to the extent practicable considering access, safety and partial cutting activities.

- (d) The minimum targets set out in Table 5 for stream classes S1A, S1B, S2 and S3, W1 and W5 wetlands and L1A and L1B lake classes.

#### **Table 5 - Riparian Management Area, Reserve Zone and Riparian Management Zone Specifications and Retention Table**



Riparian Class	Riparian Reserve Zone (RRZ) Minimum Width (m)	Riparian Management Zone (RMZ) Minimum Width (m)	Riparian Management Area (RMA) Minimum Width (m)	Minimum Tree Retention within the RMZ
<b>Streams</b>				
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 5.3 a,
S5	0	30	30	As per 5.3 b,
S6	0	20	20	As per 5.3 c,
<b>Wetlands</b>				
W1	10	40	50	Minimum 20% of the RMZ area.
W3	0	30	30	As per 5.3 b
W5	10	40	50	Minimum 20% of the RMZ area.
<b>Lakes</b>				
L1A	0	0	0	Minimum 10% of the RMZ area
L1B	10	0	10	Minimum 10% of the RMZ area
L3	0	30	30	As per 5.3 b

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

##### 5.4.1 Patch Management

As per section FPPR 12.1 (3) the **Agreement holders** will undertake to comply with FPPR sections 64 (maximum cutblock size) and 65 (harvesting adjacency) as those sections were at the time of submission, during the term of this plan, for all **FDU's**.

##### 5.4.2 Fort Nelson FDU Strategy – Provincial Non-spatial Old Growth Objective

In this result and strategy:

The following results/strategies relate to the Non-Spatial Landscape Old Growth Objective of the Fort Nelson Forest District effective January 27, 2011 and apply to all FDU's:

As a result the submission of a cutting permit request will not prevent harvesting conducted by the **Agreement holder**:

- a) From maintaining the percentage of forest area in old seral at or above the target levels indicated in Table 6

In addition, as a strategy the **Agreement holders** will:

- b) Where a natural disturbance unit is shared, have an agreement in place confirming any shared responsibilities for maintaining targets. This agreement will be updated on an annual basis where multiple **Agreement holders** have active operations planned.
- c) For any Natural Disturbance Unit that is in deficit develop a recruitment strategy and spatially define it. These recruitment areas will be treated as old for the purpose of result a). This strategy provides for the harvesting of non-old stands until there is a surplus of old for harvest.

Table 6: Old forest retention by Natural Disturbance Unit

Natural Disturbance Unit	Landscape Units	Age of old	Minimum % of CFLB retained as Old Forest
Alluvial	1 to 3	Conifer 140 yrs Deciduous 100 yrs	44
Northern Boreal Mountains	4 to 21	140	37
Boreal Plains Uplands	22 to 30	Conifer 140 yrs Deciduous 100 yrs	17

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

### 5.5.1 Wildlife Tree Retention

For the purpose of section 12.5(1) of the FPPR, in relation to the objectives set by government for wildlife and biodiversity at the stand level set out in section 9.1 of the FPPR, the results or strategies that apply to areas of primary forest activity in all **FDU's** are:

- (a) If an **Agreement holder** completes harvesting in one or more cutblocks during the 12 month period beginning on April 1 of any calendar year, the **Agreement holder** will ensure that, at the end of that 12 month period, the total area covered by wildlife tree retention areas at the completion of harvesting that relate to the cutblocks is a minimum of 7% of the total area of the cutblocks, and;
- (b) If an **Agreement holder** harvests timber in a cutblock that is greater than 15 hectares in size, the **agreement holder** must ensure that, at the completion of harvesting, the total amount of wildlife tree retention areas that relates to the cutblock is a minimum of 3.5% of the area of the cutblock.

### 5.5.2 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.

### 5.6 *FRPA 181 Grandfathered Objectives Muskwa-Kechika Resource Management Zones*

As per the Muskwa-Kechika Management Plan Regulation section 8.2 provides for LRMP section 2.2.4 objectives. For an activities within the Muskwa-Kechika FDU the **Agreement Holders** will be consistent with objectives specified by Resource Management Areas as per the FNL RMP in section 2.2.4.

### 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 Scenic areas with no visual quality objectives

The objective set by government for visual quality, as per FPPR section 9.2, is: *for a scenic area that was established on or before October 24, 2002, and for which there is no visual quality objective is to ensure that the altered forest landscape for that scenic area, will conform to the following result:*

In this Result:

When evaluated from a **SPV**, the **Alteration** resulting from harvesting conducted by the **Agreement holder** will achieve the following results on all **FDU**'s:

In a visual sensitivity class of 1 a result of retention or preservation will be achieved;  
 In a visual sensitivity class of 2 a result of partial retention or retention will be achieved;  
 In a visual sensitivity class of 3 a result of modification or partial retention will be achieved  
 In a visual sensitivity class of 4 a result of modification or partial retention will be achieved  
 In a visual sensitivity class of 5 a result of maximum modification or modification will be achieved

#### 5.7.2 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 FRPA 181 (Grandfathered). The established areas are per District Manager letter date August 28, 1997.

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 subject 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.

### 5.7.3 Other circumstances

Despite 5.7.1 and 5.7.2 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) With a cutting permit submission provide a 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.
2. In the situation where the **QRP** determines that the alteration cannot be consistent with visual quality objectives as per FPPR 12(7) the **Agreement holder** will:
  - a) Submit to the ministry responsible a request for an exemption from specifying a result consistent with the VQO, and;
  - b) Describe the situation that prevents the result from being consistent, and;
  - c) Propose an alternative result for consideration, and;
  - d) If approved, achieve the result specified by the ministry under FRPA s 112 or 2c above if that result is approved.

## 5.8 Objectives Set By Government for Cultural Heritage Resources

The objective set by government for cultural heritage resources is to conserve, or if necessary, protect cultural heritage resources that are:

- (a) the focus of a traditional use by aboriginal people that is of continuing importance to that people, and
- (b) not regulated under the Heritage Conservation Act.

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** submits an application for cutting authority, 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.

## 6.0 Measures

### 6.1 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 implement alternative mitigation measures. 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.

## 6.2 *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.

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;

- (ii) 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. If the **areas disturbed** are not successfully re-vegetated within two years of being disturbed, the seeding will be repeated, but limited to areas of productive soil being available for the seed to establish.

## 7.0 Stocking Requirements

### 7.1 General Standards for all FDU's

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.

For the purposes of section 16(3) of the Forest Planning and Practices Regulation, for each area where a 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 A opposite the Biogeoclimatic Site Series that applies to the Standard Unit.

#### 7.1.1 Regeneration Date

The Regeneration Date is 4 years after the commencement date of the cutblock. The Regeneration Date of 4 years may be extended to 7 years where natural ingress is used to achieve regeneration stocking standards.

#### 7.1.2 Free Growing Date

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

#### 7.1.3 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.

#### 7.1.4 Preferred Species at Free Growing

All preferred and acceptable species at the time of the free growing assessment will be considered preferred.

#### 7.1.5 Application of Regeneration Standard

For the implementation of the regeneration standard in Appendix A the **Agreement holders** will use the standards to manage for the purposes of all reforestation efforts up to but not including Free Growing assessments. This includes, but not limited to surveys, assessments and replanting or fill planting as required to maintain the standard.

#### 7.1.6 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.

#### 7.1.7 Maximum Coniferous Density

The maximum density for Lodgepole Pine or sub-alpine fir leading stands (defined as those stands where the leading species comprises 80% or greater of the total tree species composition) is 25,000 countable coniferous stems per hectare. All other species and mixed pine stands in all site series are limited to a maximum of 15,000 countable coniferous stems per hectare.

#### 7.1.8 Maximum Deciduous Density

No maximum density applies to deciduous stocking standards.

#### 7.1.9 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;

#### 7.1.10 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.

#### 7.1.11 Crop tree versus brush height ratios

For all BWBS and SBS standard units the relative brush height requirement is 150%. For all ESSF standard units the relative brush height requirement is 125%.

### 7.2 Variations from General Standards – All FDU’s

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



## Fuel Hazard Mitigation

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

- a. Within 2 km ( $\pm 200$  m) of a Wildland Urban Interface as identified within the Provincial strategic threat analysis map(s).
- b. Within 2 km ( $\pm 200$  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.

## Riparian Management Zones

Where brush and deciduous has been retained as part of retention requirements in FSP sections 5.3 it will be considered non deleterious.

## 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 boreal caribou.

## Enhanced Stocking Standards

For any Stocking Standard Id, for the purposes of "Enhanced Stocking Standards"; the target stocking standard can be raised by 400 and the minimum by 200. A minimum planting prescription targeting 1600sph is required in situations where the target and minimum stocking standards are enhanced (increased).

## 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 6.1.6, the stratum will be exempt from the requirements of Maximum Coniferous Density stated in 6.1.6.

## Minimum inter-tree distance (MITD)

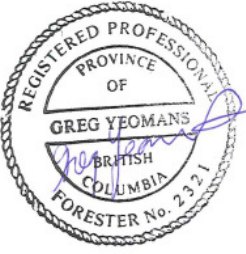

Will be reduced from 2.0 meters to 1.6 meters for a standard unit, where due to;

- 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;

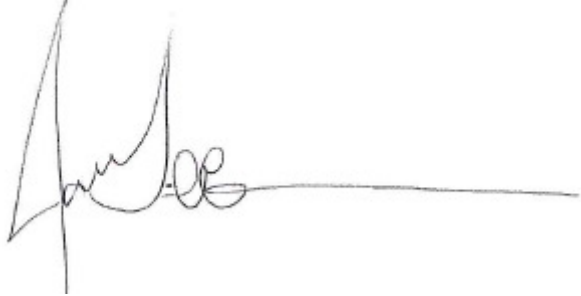
there is a lack of suitable plantable microsites that prevents the achievement of target regeneration density (or increased density in the case of rust management) which can be demonstrated through standard survey methodologies.

**8.0 RPF Seal and Company Endorsement**

**RPF Seal**

<p>Preparing Foresters:</p> <p><i>"I certify that I have determined that this work was performed to an acceptable standard"</i></p>		
	<p><b>Greg Yeomans, RPF</b> FSP Coordinator Canfor</p>	<p><b>Tony Wipfli, RPF</b> Planning officer BC Timber Sales Peace Liard</p>

**Company Endorsement**

<p>Shawn Sullivan, RPF Timber Sales Manager BC Timber Sales.</p>
 <p>Jonathan Gibbons Woodlands Manager Canadian Forest Products Ltd.</p>

## 9.0 Appendices

### Appendix A – Stocking Standards Table

Conifer Stocking Standards – Even aged.

Stand. ID	BEC Zone/SZ	Site Series	Pref (p)	Acc (a)	Broad leaf <sup>c</sup>	Target	Min (pa)	Min (p)	MITD m	RGD yrs	FG yrs	Crop Tree Height	
												Species	(m)
1063124	BWBS mw2	01, 02	Pli, Sx	Acb, At, Bl, Sb, Lt	Ep	1400	700	600	2.0	5	20	Pli, Broadleaf	2.0
												Sx (others)	1.0
1063125	BWBS mw2	03, 04	Pli	Sx, At, Acb, Sb, Bl	Ep	1400	700	600	2.0	5	20	Pli, Broadleaf	1.4
												Sx (others)	1.0
1063126	BWBS mw2	05	Sx	Pli, Sb, Bl, Lt, Acb, At	Ep	1400	700	600	1.6	5	20	Pli, Broadleaf	1.4
												Sx (others)	0.8
1063127	BWBS mw2	06	Sx, Pli, Sb	Lt, Bl, Acb, At	Ep	1200	500	400	1.6	5	20	Pli, Broadleaf	2.0
												Sx (others)	1.0
1063128	BWBS mw2	07	Lt, Sx, Sb	Pli, Bl, Acb, At	Ep	1200	500	400	1.0	7	20	Pli, Broadleaf	1.4
												Sx (others)	0.8
1063129	BWBS mw2	08, 09, 10	Sx, Pli, Sb, Acb	At	Ep	600	200	200	1.0	7	20	Pli, Broadleaf	1.4
												Sx (others)	0.8
<b>Footnote C</b>	If the Site Plan or Cutting Permit document states that deciduous will be left on site to manage for other values such as biodiversity, broadleaf trees may be incorporated as an acceptable species and managed to minimum height of 2.0m..												

Conifer Stocking Standards – Even aged.

Stand. ID	BEC Zone/SZ	Site Series	Pref (p)	Acc (a)	Broad leaf <sup>c</sup>	Target	Min (pa)	Min (p)	MITD m	RGD yrs	FG yrs	Crop Tree Height	
												Species	(m)
1063130	BWBS mw2	Complex 1 (1400 target mixed with 1200 target)	Pli, Sx	Sb, Bl, Acb, At	Ep	1300	600	500	1.6	5	20	Pli, Broadleaf	2.0
		01, 02, 03, 04 or 05 mixed with 06, 07										Sx (others)	1.0
1063131	BWBS mw2	Complex 2 (1400 target mixed with 600 target))	Pli, Sx	Sb, Bl, Acb, At	EP	1000	350	300	1.4	5	20	Pli, Broadleaf	1.4
		01, 02, 03, 04 or 05 mixed with 08, 09, 10										Sx (others)	0.8
1063132	BWBS mw2	Complex 3 (1200 target mixed with 600 target)	Pli, Sx	Sb, Bl, Acb, At	Ep	600	200	200	1.4	7	20	Pli, Broadleaf	1.4
		06,07 mixed with 08, 09, 10										Sx (others)	0.8

Broadleaf Stocking Standards

Stand. ID	BEC Zone/SZ	Site Series	Pref (p)	Acc (a)	Broad leaf <sup>c</sup>	Target	Min (pa)	Min (p)	MITD m	RGD yrs	FG yrs	Crop Tree Height	
												Species	(m)
1063133	BWBS mw2	all	Acb, At	Sx, Pli, Sb, Bl, Lt	Ep	2500	2000	1700	1.4	5	20	Pli	2.0
												Sx (others)	1.0

Riparian/moose/high range use Stocking Standards

Stand. ID	BEC Zone/SZ	Site Series	Pref (p)	Acc (a)	Broad leaf <sup>c</sup>	Target	Min (pa)	Min (p)	MITD m	RGD yrs	FG yrs	Crop Tree Height	
												Species	(m)
1033134	BWBS mw2	all	Pli, Sx	Sb Bl, Acb, At		1200	500	400	1.0	5	20	Pli	1.4
												Sx (others)	0.8

Multistory Stocking standards

Stand. ID	BEC Zone/SZ	Site Series	Pref (p)	Acc (a)	Broad leaf <sup>c</sup>	Layer	Target	Min (pa)	Min (p)	MITD m	RGD yrs	FG yrs	Crop Tree Height	
													Species	(m)
1063137	BWBS mw2	01, 02, 03, 04 or 05 (even age target = 1400)	Bl Sx Pli	Sb	At, Acb, Ep	1	800	300	250	N/A	45	20	All	N/A
			Bl Sx Pli	Sb	At, Acb, Ep	2	1000	400	300	1.6			All	N/A
			Bl Sx Pli	Sb	At, Acb, Ep	3	1200	500	400	1.6			All	N/A
			Bl Sx Pli	Sb	At, Acb, Ep	4	1400	700	600	1.6			All	0.80
1063135		06,07 (even age target = 1000)	Bl Sx PLI	Sb	At, Acb, Ep	1	600	200	200	N/A	5	20	All	N/A
			Bl Sx PLI	Sb	At, Acb, Ep	2	800	300	250	1.6			All	N/A
			Bl Sx PLI	Sb	At, Acb, Ep	3	1000	400	300	1.6			All	N/A
			Bl Sx PLI	Sb	At, Acb, Ep	4	1200	500	400	1.6			All	0.80
1063136		08, 09, 10 (even age target = 400)	Bl Sx Pli	Sb	At, Acb, Ep	1	400	100	100	N/A	7	20	All	N/A
			Bl Sx Pli	Sb	At, Acb, Ep	2	500	125	125	1.6			All	N/A
			Bl Sx Pli	Sb	At, Acb, Ep	3	500	150	150	1.6			All	N/A
			Bl Sx Pli	Sb	At, Acb, Ep	4	600	200	200	1.6			All	0.80

*Appendix B – FSP maps*

*s*

*Please refer to maps attached in FSP tracker.*

## Appendix C – Cutting Permit list



*Appendix D – Road Permit list*

*Appendix E – BCTS declared areas*

<i>TSL#</i>	<i>Block#</i>	<i>Operating Area</i>	<i>Mgmt Unit</i>	<i>Associated Roads (km)</i>
<i>TA0426</i>	<i>RW32</i>	<i>Redwillow</i>	<i>TSA</i>	<i>Existing</i>
