

KALUM VENTURES LTD

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PARTNERSHIP & KITSELAS FIRST NATION

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AMENDMENT # 1

Minor Amendment, no signatures or approval required – Submitted September 4, 2020

Amendment Prepared by:

Brittany Dewar, FIT



Kalum Ventures Ltd, Kitselas Forestry LP & Kitselas First Nation	Forest Stewardship Plan
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FOREST STEWARDSHIP PLAN

For operations within the Coast Mountains Natural Resource District under:

Forest Licence A73726, A90734 and Forestry Licence To Cut A77424, A91358



KALUM VENTURES LTD

PO Box 922 Terrace, BC, V8G 4R2 Phone: 250 635 8060 Fax: 250 635 8062

Forest Licences A73377, A90733 and Forestry Licences To Cut A77426, A91360



PARTNERSHIP & KITSELAS FIRST NATION

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<u>Term:</u> Five years, commencing on the following date, as specified in the approval by the Delegated Decision Maker:

Licensee Signatures:	the pealing
Name:	Lyle Bolton, General Manager Kalum Ventures Limited
Date:	Sept 7/2017
Authorized RPF Signature:	A Browner
Name:	R. Brouwer, RPF
Date:	Westland Resources Limited

Greg Grayson, CAO
Kitselas First Nation

Location for RPF
Stamp or Seal

Plan prepared by: R. Brouwer, RPF
and B. Dewar, FIT
Westland Resources

Westland Resources

Kalum Ventures Ltd, Kitselas Forestry LP & Kitselas First Nation	Forest Stewardship Plan
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1 Introduction

This joint Forest Stewardship Plan (FSP) has been prepared for the operations of Kalum Ventures Limited (KVL), Kitselas First Nation and Kitselas Forestry Limited Partnership (Kitselas) for the areas to be managed under their tenures within the Coast Mountains Natural Resource District (CMNRD). KVL and Kitselas are collectively referred to as the FSP Holders. The FSP describes:

- 1. the planned areas of interest (known as Forest Development Units or FDUs) that will contain harvesting and road activities, and
- 2. results and strategies for each FDU that are consistent with applicable legislation and objectives set by government.

The results and strategies must be measurable or verifiable: this will allow the Designated Decision Maker¹ to evaluate whether consistency with the objectives is being achieved. Within the FSP document, the description of each result or strategy will indicate whether it applies to all, some, or just one of the FDUs identified in the FSP.

Preparation of an FSP is a requirement of the *Forest and Range Practices Act* (FRPA), which was enacted on January 31, 2004. The FRPA and its associated regulations identify objectives and/or prescribe requirements for the following resource values:

- Soils
- Timber (including Forest Health)
- Wildlife
- Water
- Fish
- Biodiversity

- Cultural Heritage Resources
- Recreation Resources
- Resource Features
- Visual Quality
- Forage

A supporting document has been prepared which includes rationales for the results and strategies described in the FSP, as well as providing descriptions of how the FSP relates to certain resource values. While the Supporting Document is not part of this FSP, it is expected that the reader will refer to it while reviewing this FSP.

1.1 Description of the Forest Tenures and the FSP Area

Kalum Ventures Limited

Kalum Ventures Limited is based in Terrace, BC, and was formed in 2004 to act as the forest management arm of the Kitsumkalum First Nation. Kitsumkalum signed an agreement with the BC government to access undercut volume from Tree Farm Licence (TFL) 1 and from the Kalum Timber Supply Area (TSA) within the CMNRD. As a result of this agreement, KVL was issued a Forest Licence (FL) A73726 for harvest with the Kalum TSA and Forestry Licence to Cut (FLTC) A77424 for harvest within TFL 1 in 2005. FL A73726 had a total cut of 160,000 cubic metres; FLTC A77424 had a total cut of 240,000 cubic metres. Both licences were renewed for 5 years to 2015.

On May 1, 2014, FL A90734 and FLTC A91358 were issued as replacements for FL A73726 and FLTC A77424. FL A90734 has a total cut of 291,080 cubic metres with a term of 20 years. KVL can apply to transfer a volume under FL A90734 to the Cascadia TSA (up to 3,500 cubic metres per year). FLTC A91358 has a total cut of 144,455 cubic metres with a term of 5 years. The combined annual allowable cut for the two licences is 43,445 cubic metres.

¹ For this FSP, the Designated Decision Maker is the District Manager of the CMNRD, BC Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (MFLNRORD).

Kitselas First Nation and Kitselas Forestry Limited Partnership

In early 2004, the Kitselas First Nation signed an agreement with the BC government to access undercut volume from TFL 1 and from the Kalum TSA within the CMNRD. As a result of this agreement, Kitselas was issued FL A73377 for harvest within the Kalum TSA and FLTC A77426 for harvest within TFL 1 in 2005. Both licences were renewed for 5 years to 2015.

On May 1, 2014, FL A90733 and FLTC A91360 were issued as replacements for FL A73377 and FLTC A77426. FL A90733 has a total cut of 291,080 cubic metres, with a term of 20 years. Kitselas can apply to transfer a volume under FL A90733 to the Cascadia TSA (up to 4,650 cubic metres per year). FLTC A91360 has a total cut of 161,481 cubic metres with a term of 5 years (this includes the transfer of 17,076 cubic metres of unused volume from FLTC A77426). The combined annual cut over the first five years of the two licences is 46,860 cubic metres. The Kitselas First Nation holds the licences but may choose to assign management responsibility for the licences to an operator.

Forest Development Units

This operating area for this FSP is divided into three FDUs:

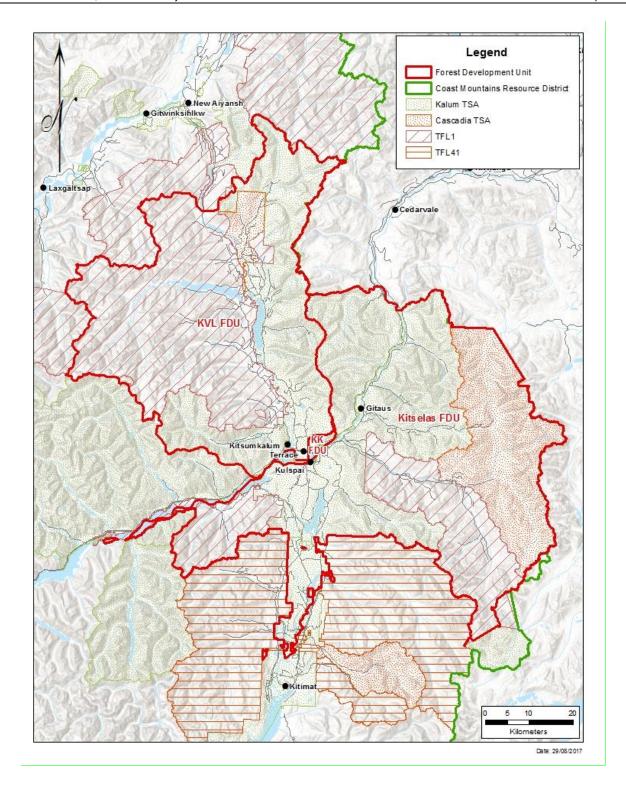
- KVL FDU
- Kitselas FDU
- KK FDU

The KVL FDU encompasses the Kitsumkalum River watershed, the May Creek and Zymagotitz (Zymacord) River valleys and encompasses the majority of KVL's operating area, including a portion of the Cascadia TSA. KVL has unfulfilled silviculture obligations associated with FL A73726 and FLTC A77424; therefore, this FSP applies to these expired licences.

The Kitselas FDU encompasses tributary watersheds of the Skeena River, to the west and east of Terrace and portions of the Kitimat River watershed south of Terrace and encompasses the majority of Kitselas' operating area. Kitselas has unfulfilled silviculture obligations associated with FL A73377 and FLTC A77426; therefore, this FSP applies to these expired licences.

The KK FDU encompasses the area where the KVL and Kitselas licences overlap and includes forested lands around Terrace, including Hell's Gate, Terrace Mountain and lands between Steinhoe and Newton creeks.

The KVL FDU and the Kitselas FDU include Settlement Lands as defined under the respective Kitsumkalum and Kitselas Agreements in Principle (signed August 4, 2015). If a treaty is signed, it will supersede this FSP for any associated lands. Prior to a treaty being signed, conditions regarding activities in Settlement Lands may be imposed through regulatory means or other agreements: should this occur, the FSP Holders will be expected to conform to those conditions. KVL has signed an agreement with Kitsumkalum First Nation regarding operations on proposed Kitsumkalum Settlement Lands, and Kitselas is working on a draft agreement with Kitselas First Nation on their proposed Settlement Lands: the terms of these agreements are not expected to add any additional results or strategies to this FSP.



1.2 Term of the Forest Stewardship Plan

The term of this plan is for five years starting from the date specified in the approval by the Delegated Decision Maker.

1.3 Interpretation

All references to the Forest Act mean the Forest Act (RSBC 1996, Chapter 157) current to April 26, 2017.

All references to the *Forest and Range Practices Act*, or to FRPA, mean the *Forest and Range Practices Act* (SBC 2002, Chapter 69) current to April 26, 2017.

All references to the Forest Planning and Practices Regulation, or to FPPR, mean the Forest Planning and Practices Regulation (BC Reg 41/2016) consolidated to May 2, 2017.

All references to the *Government Actions Regulation*, or to GAR, mean the *Government Actions Regulation* (BC Reg 582/2004) consolidated to May 2, 2017.

All references to the *Invasive Plant Regulation* mean the *Invasive Plant Regulation* (BC Reg 18/2004) consolidated to May 2, 2017.

All references to the Land Act mean the Land Act (RSBC 1996, Chapter 245) current to April 26, 2017.

All references to the Wildlife Act mean the Wildlife Act (RSBC 1996, Chapter 488) current to April 26, 2017.

All references to the *Kalum Sustainable Resource Management Plan*, or Kalum SRMP, mean the *Kalum Sustainable Resource Management Plan (April 2006)* and as amended by Order to May 5, 2017.

All references to the Kalum Land and Resource Management Plan, or Kalum LRMP, mean the Kalum Land and Resource Management Plan (May 2002).

Unless otherwise noted, statements and information provided are current to May 2017. Every effort has been made to ensure that current data have been used in map generation and analyses: i.e. current to May 2017. While this does not mean that the data is up-to-date or completely accurate, it is the best available information.

1.4 Content Requirements

The required content in a FSP is described in the FRPA and the FPPR.

The basic requirements are:

- A map that shows the boundary of proposed and approved FDUs (FRPA s. 5(1)(a)). There are 3 FDUs in this FSP: KVL FDU, Kitselas FDU, and KK FDU.
- A description of the results and/or strategies necessary to be consistent with applicable legislation
 and with objectives that have been set by government (FRPA s. 5(1)(b)). The results and strategies
 are described in <u>Section 2</u>.
- A description or a map showing the following where it exists on the FDUs (FPPR s. 14(2)&(3)):
 - Ungulate Winter Range
 - Wildlife Habitat Areas
 - Fisheries Sensitive Watersheds
 - Lakeshore Management Zones
 - Scenic Areas
 - L1 Lakes
 This information is provided on the FSP maps as described in Section 4.
- Community Watersheds
- Old Growth Management Areas
- Areas where harvest is prohibited
- Cutting Permit and Road Permits held by the licensee

L1 Lakes

- Description of the Stocking Standards that will apply on the FDUs (FPPR s. 16). Described in Section 3.2.
- Where applicable, address:

Invasive plants (FPPR s. 17). Section 3.3
Natural range barriers (FPPR s. 18). Section 3.4

The cumulative effect of multiple FSPs in an area (FPPR s. 19). Section 3.5

- Information on public review and advertisement as well as efforts to share information with First Nations, must also be provided (FRPA s. 18 and FPPR s. 21 & 22). Section 3.6
- Signature by an authorized representative of the licensee (FRPA s. 5(3)). Title page

1.5 Parts of this document that comprise the Forest Stewardship Plan

In accordance with the FRPA, the only parts of this document that are considered to be the Forest Stewardship Plan are:

- the title/signature page;
- the results and strategies, as described in <u>Section 2</u>;
- the additional information provided, discussed, or referenced in Section 3; and
- the 1:50,000 scale maps indicating the FDUs as attached as part of Section 4.

A separate document has been prepared which provides supporting information for this plan. This Supporting Document is not considered part of the FSP; however, it is important to have the Supporting Document in hand as it will provide context and help in understanding this FSP.

1.6 Explanation of Objectives, Results and Strategies

Objectives are descriptions of how overall goals are to be achieved. In this case, the goals are increased flexibility in forest management, decreased administrative complexity and environmental protection. Objectives can vary from place to place depending on the circumstances of the area. The FRPA established three types of objectives:

Objectives set in regulation: These objectives are explicitly stated in the FPPR and apply provincially.

Objectives enabled by regulation: The Government Action Regulation (GAR) provides authority to the Ministers responsible for the Forest Act, Land Act and Wildlife Act to establish objectives for certain items described in the regulation. These objectives can apply at many different scales.

Notices providing information on habitat amount, distribution and attributes have been provided for several wildlife species under FPPR s. 7(2) ("Section 7" notices).

Under GAR, Wildlife Habitat Areas and Ungulate Winter Range have been established for areas that overlap with the FDUs.

See the Supporting Document to this FSP for further discussion of these items.

Land-use objectives: These are objectives specific to a certain area that have been established through a Landscape Unit Plan or some sort of higher-level plan such as a Land and Resource Management Plan or Sustainable Resource Management Plan. The Minister responsible for the Land Act sets these objectives.

The Kalum Sustainable Resource Management Plan (SRMP) was approved in April 2006, using the cabinet-approved Kalum Land and Resource Management Plan (LRMP) as its basis. The objectives within the SRMP are considered land-use objectives under the FRPA.

Strategies and Results

For each objective set by government, there must be at least one strategy or result specified that is consistent with that objective. Having a strategy and a result, or multiple strategies and/or results, is

acceptable, but is not required. In certain cases specified in the FPPR, a strategy or result is not required if practice requirements in the legislation will be followed.

Strategies are measurable or verifiable steps or practices that will be carried out in order to achieve consistency with a particular established objective, and the situations or circumstances that determine where in a FDU the steps or practices will be applied.

Results are measurable or verifiable outcomes in respect of a particular established objective, and the situations or circumstances that determine where in a FDU the outcomes will be applied.

Practice Requirements

Some Practice Requirements can be affected by strategies or results. Under the FPPR, there are practices requirements described that must be followed. However, some of these practice requirements are optional if in the FSP there are strategies or results provided for objectives that also meet the intent of the practice. Conversely, some of these optional practice requirements, if committed to in the FSP, relieve the FSP Holders from having to provide strategies or results for certain objectives. These practice requirements are considered to achieve some of the objectives set by government. It is up to the FSP Holders to indicate whether the strategies and results in the FSP allows the FSP to be exempted from following these optional practice requirements, or whether, by following certain practice requirements, the FSP does not require strategies or results for certain objectives.

More information on the objectives, results, and strategies and how they relate to the resource values can be found in the Supporting Document to this FSP.

1.7 Acronyms

Acronyms used in the FSP or Supporting Document are:

AIA: Archaeological Impact Assessment
AOA: Archaeological Overview Assessment

ATV: All-Terrain Vehicles

BA: Basal Area

BCTS: British Columbia Timber Sales

BEC: Biological, Ecological, and Climatic; or Biogeoclimatic Ecosystem Classification

C&E: Compliance and Enforcement CDC: Conservation Data Center CHR: Cultural Heritage Resource

CHRR: Cultural Heritage Resource Review

CMNRD: Coast Mountains Natural Resource District

CMT: Culturally Modified Tree

CP: Cutting Permit

CWD: Coarse Woody Debris
CWH: Coastal Western Hemlock
DDM: Delegated Decision Maker
DFO: Fisheries and Oceans Canada

ECA: Equivalent Clearcut Area

EMS: Environmental Management System ESSF: Engelmann Spruce Sub-alpine Fir

FDP: Forest Development Plan FDU: Forest Development Unit

FL: Forest Licence

FLTC: Forestry Licence To Cut

FMSS: Fire Management Stocking Standard FPPR: Forest Planning and Practices Regulation

FRPA: Forest and Range Practices Act

FSP: Forest Stewardship Plan

GAR: Government Actions Regulation

GWM: General Wildlife Measure ICH: Interior Cedar-Hemlock

ILMB: Integrated Land Management BureauIWMS: Identified Wildlife Management StrategyLRMP: Land and Resource Management Plan

LU: Landscape Unit

MAg: Ministry (or Minister) of Agriculture

MFLNRO: Ministry (or Minister) of Forests, Lands and Natural Resource Operations

MFLNRORD: Ministry (or Minister) of Forests, Lands, Natural Resource Operations and

Rural Development

MH: Mountain Hemlock

MOE: Ministry (or Minister) of Environment MOF: Ministry (or Minister) of Forests

MOFR: Ministry (or Minister) of Forests and Range

MOTSA: Ministry (or Minister) of Tourism, Sports, and the Arts

MSRM: Ministry (or Minister) of Sustainable Resource Management MWLAP: Ministry (or Minister) of Water, Land and Air Protection

NA: Nass Area

NAR: Net Area to be Reforested
NDT: Natural Disturbance Type
NLG: Nisga'a Lisims Government
NRFL: Non-Renewable Forest Licence

NSR: Not sufficiently restocked

NWA: Nass Wildlife Area

NWC: Nass Wildlife Committee
OGMA: Old Growth Management Area
OSBG: Objectives Set by Government

QP: Qualified Professional

RESULTS: Reporting Silviculture Updates and Land Status Tracking System

RIC: Resource Inventory Committee RMA: Riparian Management Area RMZ: Riparian Management Zone

RP: Road Permit

RPBio: Registered Professional Biologist RPF: Registered Professional Forester

RRZ: Riparian Reserve Zone
RUP: Road Use Permit

SP: Site Plan

SPAR: Seed Planning and Registry System
SRMP: Sustainable Resource Management Plan
SRMZ: Special Resource Management Zone

SU: Standards Unit
TFL: Tree Farm Licence

TIRMP: Thunderbird Integrated Resource Management Plan

TRP: Total Resource Plan
TSA: Timber Supply Area

TSFA: Terrain Stability Field Assessment

TSL: Timber Sale Licence
UWR: Ungulate Winter Range
VIA: Visual Impact Assessment
VQO: Visual Quality Objective
VSC: Visual Sensitivity Class

WAP: Watershed Assessment Procedure

WHA: Wildlife Habitat Area

WTA: Wildfire Threat Assessment WTRA: Wildlife Tree Retention Area

2 OBJECTIVES, RESULTS AND STRATEGIES

This section describes the objectives, the strategies to be carried out by the FSP Holders, and the results to be achieved by the FSP Holders. This will ensure that activities within the FDUs that are directed by this FSP are consistent with applicable legislation and with objectives. In addition, practice requirements that are subject to exemption are also described.

This information is organized by FRPA resource values:

- Soils
- Timber
- Wildlife
- Fish
- Water

- Biodiversity
- Visual Quality
- Cultural Heritage Resources
- Recreation Resources

For each resource value above, the objectives set in regulation as described in FPPR are given followed by the land-use objectives as described in the Kalum SRMP. While some objectives may address more than one resource value, they have been organized by the value that is most applicable. After each objective described in FPPR and where applicable, a statement is provided identifying which of the FPPR practice requirements that relate to the objective are optional and eligible for exemption and which of these are being "exempted" (i.e., will no longer apply to activities under this FSP) or "not exempted" (i.e., the practice requirements continue to apply). Unless otherwise noted, the eligible practice requirements that are not exempted will apply on all FDUs. For clarity, when it is indicated below that an "eligible practice requirement is not exempted", this is an undertaking that the FSP Holders will comply with that practice requirement.

Results or strategies are then specified that are consistent with the objective. These results and strategies apply in addition to practice requirements that are not exempted. Where a reference number is **bolded**, the strategy or result was created specifically for that objective. Where a reference number is not bolded, it was created for another objective but is noted with a comment as also being consistent with the current objective. This acknowledges that results and strategies may address more than one resource value and associated objective. For additional clarity regarding the application of results or strategies to wildlife management, the appropriate wildlife order or notice is noted under the result or strategy reference number.

2.1 Soil

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description	
Objective: FPPR s. 5: "The objective set by government for so Columbia's forests, to conserve the productivity an				ils is, without unduly reducing the supply of timber from British d the hydrologic function of soils. "
	Practice Red	quirement(s) eligi	ible for exemption:	FPPR s. 35,36
	Eligible F	Practice Requirer	ment(s) exempted:	None
	Eligible Prac	tice Requiremen	t(s) not exempted:	FPPR s. 35,36
KK17-01	Kitselas FDU	Result	1. No new road amount of ex 2. The equivale FSP Holder(sharvesting contimes). 3. Before block: Alwyn Creek describes the watershed. 4. When the FS they are carr. This result will not his/her delegate) adue to fire, wind o	It this FSP, within the Alwyn Creek watershed*: It is are constructed by the FSP Holder(s) before an equivalent isiting roads are deactivated. Int clearcut area (ECA) amount five years after harvesting by the solonomence is to be the same or less than before that commenced (using the same method of ECA calculation both as are submitted by the FSP Holder(s) for CP issuance within a detailed road and channel assessment is in place that a nature and extent of sediment sources and mobility within the sep Holder(s) commence operations on blocks submitted in (3), apply where the FSP Holder(s) and the District Manager (or agree that action is required to prevent or address potential losses in forest health factors.
KK17-02	Kitselas FDU KVL FDU KK FDU	Strategy	Holder(s)' response requirements, or Conductinspection in Perform a rise these minimula. For road for more every the or after b. For road inspection conditions. Set priorities inspection in Performance	it this FSP, for roads within the FDU(s) that fall under the FSP sibility (i.e., covered by FSR, RP, RUP with maintenance CP), the FSP Holder(s) will: k assessment to determine an inspection frequency, or follow um inspection frequencies: ds that are subject to active log hauling or that will not be inactive than nine months, the minimum inspection frequency is once are months. The initial inspection will occur within 30 days before the start of hauling. ds that will be inactive for more than nine months, the minimum on frequency is once per calendar year, under snow-free ns. sections in accordance with (1). and schedules for acting on items that are identified through the

2.2 Timber

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description		
Objective:	bjective: FPPR s. 6: "The objectives set by government for timber are to (a) maintain or enhance an economically valuable supply of commercial timber from British Columbia's forests, and (b) ensure that delivered wood costs, generally, after taking into account the effect on them of the relevant provisions of this regulation and of the Act, are competitive in relation to equivalent costs in relation to regulated primary forest activities in other jurisdictions, and (c) ensure that the provisions of this regulation and of the Act that pertain to primary forest activities do not unduly constrain the ability of a holder of an agreement under the Forest Act to exercise the holder's rights under the agreement."				
KK17-03	Kitselas FDU KVL FDU KK FDU	Result	Within the FDU(s), the FSP Holder(s) will ensure blocks harvested by the FSP Holder(s) and included in an SP written or amended during the term of this FSP are reforested to: 1. at least the minimum stocking with the species identified in the stocking standards that apply to this FSP; and 2. meet the free growing heights and free growing dates as described in the stocking standards that apply to this FSP.		
KK17-04	Kitselas FDU KVL FDU KK FDU	Strategy	stocking standards that apply to this FSP. Within the FDU(s), for standard units (SU) harvested by the FSP Holder(s) and included in a SP written or amended during the term of this FSP, the FSP Holder(s) will ensure that: 1. Where 50% of the SU is located within 500 m of three or more known instances of structures or infrastructure*, a Wildfire Threat Assessment (WTA)** will be conducted. 2. Where 50% of the SU is located within 500 m of one or two known instances of structures or infrastructure*, a WTA** may be conducted at the discretion of the prescribing forester. 3. If the WTA in (1) or (2) determines that the Wildland Urban Interface Threat Class is high or extreme, Fire Management Stocking Standards (FMSS) (as described in the stocking standards that apply to this FSP) will be used. * Structures or infrastructure are those that are known, legally established, in usable condition, vulnerable to fire and known to have been actively used within the year previous to SP field data gathering or SP amendment. ** A WTA means that a Wildland Urban Interface Wildfire Threat Assessment Worksheet (January 24, 2013) will be completed.		

Objective:	Kalum SRMP - Objective 6: Maintain the natural composition of dominant tree species across each landscape unit and throughout the rotation.
KK17-03	Comment: This Result, as described above in relation to the objective described in FPPR s. 6, is also consistent with this Kalum SRMP Objective 6.

2.3 Wildlife

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description	
Objective:	FPPR s. 7(1): "The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for (a) the survival of species at risk; (b) the survival of regionally important wildlife; and (c) the winter survival of specified ungulate species."			
	The FSP Holders are required to prepare results and strategies for FPPR s. 7(1) if: 1. A notice is issues by the Minister responsible for the <i>Wildlife Act</i> providing descriptions of the habitat area, distribution, and attributes for a species (as per FPPR s. 7(2)). AND 2. The objective is NOT already addressed by an objective in relation to a WHA, UWR, GWM or wildlife habitat feature (as per FPPR s. 7(3)). As of May 2017, Section 7 notices providing descriptions of habitat area, distribution, and attributes have been released by the Minister responsible for the <i>Wildlife Act</i> for coastal tailed frog, grizzly bear, Marbled Murrelet, mountain goat, and moose. The following have been established over the area covered by the FDU(s) as of May 2016: Moose UWR; Moose UWR; and Coastal Tailed Frog WHA. Therefore, the FSP Holders are exempt from preparing results and strategies for mountain goat, coastal tailed frog, and moose. Nonetheless, some of the results and strategies provided in this FSP for other wildlife species may also			
		these species. quirement(s) elig	ible for exemption:	None
KK17-05 Note: Applies to the FPPR s. 7 Notice for Grizzly Bear	Kitselas FDU KVL FDU KK FDU	Result	amended during t 1. within Grizzly 2. outside of Gi SP identifies Winter Rang the stocking and i in the stocking sta free-growing is de * As shown on the (April 2006).	nter-tree spacing requirements for the site associations described andards for wildlife forage that apply to this FSP are met when

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-06 Note: Applies to the FPPR s. 7 Notice for Grizzly Bear	Kitselas FDU KVL FDU KK FDU	Strategy	 During the term of this FSP: If an Order established through the Government Actions Regulation is in place for Grizzly Bear Wildlife Habitat Area (WHA) within the FDU(s), the FSP Holder(s) will follow the Order. If no Order is in place for Grizzly Bear WHA within the FDU(s), harvesting operations by the FSP Holder(s) within a Proposed Grizzly Bear WHA* may occur if: timber harvesting is required to prevent or address potential losses due to fire, wind, or forest health factors, as mutually agreed between representatives of the FSP Holder(s) and the Ministry responsible for the Proposed Grizzly Bear WHA; road construction to access timber beyond the Proposed Grizzly Bear WHA is required; or a qualified professional (QP) evaluates the area identified for harvesting within the Proposed Grizzly Bear WHA and determines that the harvesting area is not suitable grizzly bear habitat.
KK17-11 Note: Applies to the FPPR s. 7 Notice for Grizzly Bear and Marbled Murrelet			escribed below in relation to the Kalum SRMP Objective 1, is also consistent with with respect to the Section 7 Notices for Grizzly Bear and Marbled Murrelet.
KK17-12 Note: Applies to the FPPR s. 7 Notice for Grizzly Bear and Marbled Murrelet			cribed below in relation to the Kalum SRMP Objective 1, is also consistent with FPPR pect to the Section 7 Notices for Grizzly Bear and Marbled Murrelet.
KK17-13 Note: Applies to the FPPR s. 7 Notice for Grizzly Bear and Marbled Murrelet			cribed below in relation to the Kalum SRMP Objective 3, is also consistent with FPPR pect to the Section 7 Notices for Grizzly Bear and Marbled Murrelet.

Objective:	 Maintain natural level of forage supply for grizzly bears in the watersheds identified on Map 7 by: a. providing an adequate supply of berry feeding; b. maintaining natural levels of forage supply as present in old growth forests; c. on the rich and wetter sites implement regeneration and free to grow standards consistent with Table 8. Vary from these standards based on site specific factor, provided parts a) and b) in this objective will be achieved; and, 			
			and Copper watersheds, no more than 30% of the forested land base, excluding ween 25 and 100 years old.	
KK17-07	Kitselas FDU	Result	During the term of this FSP, harvesting operations by the FSP Holder(s) are carrie out within the portion of the McKay-Davies and Copper Grizzly Bear watersheds* that fall within the FDU(s) only if: 1. Less than 30% of the forested land base, excluding hardwoods, is between 2 and 100 years old within the portion of the Grizzly Bear watershed that falls within the FDU(s); or 2. An analysis of the Grizzly Bear watershed indicates that having more than 30% of the area within the portion of the Grizzly Bear watershed that falls within the FDU(s) will not result in the 30% threshold being exceeded for the entire Grizzly Bear watershed. * As shown on the FSP maps. This information corresponds to the map provided with the Kalum SRMP (April 2006)	
<u>KK17-05</u>	<u>Comment</u> : This Result, as described above in relation to the objective described in FPPR s. 7(1), is also consistent with this Kalum SRMP Objective 11.			

2.4 Fish

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description		
Objective:	Objective: FPPR s. 8: "The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas." FPPR 12(3): Despite section 12.1 (2), a person who prepares a forest stewardship plan must specify in it, for the objective set out in section 8, a result or strategy that addresses retention of trees in a riparian management zone.				
	Practice Red	quirement(s) eligi	ible for exemption:	FPPR s. 47, 48, 49, 50, 51, 52(2), 53	
	Eligible F	Practice Requirer	ment(s) exempted:	None	
	Eligible Prac	tice Requiremen	t(s) not exempted:	FPPR s. 47, 48, 49, 50, 51, 52(2), 53	
KK17-08	Kitselas FDU KVL FDU KK FDU	Result	FDU(s): 1. Retain an an follows: a. on S1, service RMZ; b. on S4 are directly of the Bc. c. on all order of the Bc. d. on all Will be received. 2. BA retention stream; clume have no retectly are that of the service are the s	If this FSP, for all blocks harvested by the FSP Holder(s) within the mount of BA within the RMZ of a stream, wetland or lake as S2, and S3 Streams*, retain a minimum of 20% of the BA of the and S5 Streams*, and on the lower 100 m** of S6 Streams* that ct tributaries of S1, S2, or S3 Streams*, retain a minimum of 10% the RMZ; ther S6 Streams*, no BA retention is necessary; Vetlands* and Lakes*, a minimum of 10% of the BA of the RMZ retained. In RMZs may be distributed in a non-uniform manner along the aps of retention may be interspersed with portions of RMZ that intion. The aretention will be considered a reasonable estimate of BA along as the forest type of the retained portion of the RMZ is similar original portion. The aretention will be considered and S1, S2 or S3 streams to 100 m astream on the S6 steam.	

Objective:	prevent to the extent described in subsection (3) the fisheries sensitive watershed from resulting in a mathe fisheries sensitive watershed was established.	overnment for fish habitat in fisheries sensitive watersheds is to e cumulative hydrological effects of primary forest activities in the sterial adverse impact on the habitat of the fish species for which ion (2) applies only to the extent that it does not unduly reduce."					
	Practice Requirement(s) eligible for exemption: FPPR s. 55, 56, 57						
	Eligible Practice Requirement(s) exempted: None						
	Eligible Practice Requirement(s) not exempted: FPPR s. 55, 56, 57						
Not applicable	<u>Comment</u> : No strategy or result is necessary as there are no fisheries sensitive watersheds within the FDUs, and the December 15, 2005 time frame has passed.						

2.5 Water

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description	
Objective:	FPPR s. 8.2: "(2) The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in (a) a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or (b) the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under (i) an enactment, or (ii) the license pertaining to the waterworks. (3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests."			
	Practice Red	quirement(s) eligi	ble for exemption:	FPPR s. 59, 60, 61
	Eligible F	Practice Requirer	ment(s) exempted:	None
	Eligible Prac	tice Requiremen	t(s) not exempted:	FPPR s. 59, 60, 61
KK17-09	Kitselas FDU KVL FDU	Result	harvesting comme 1. Equivalent of Watershed a 2. An assessme (and associa natural flow range) a. the three 4 below b. a thresh parame then 3. Subject to (4 and ECA for ECA for the case) 4. If there is a parame (2b) above, the Community was a parame of the first parame (Clear Cr), Sprii on the FSP mage)	nold for a parameter other than ECA is more appropriate, then that ter and threshold is used in (4) below) below, ECA for sub-basins larger than 250 ha is less than 20%; sub-basins smaller than 250 ha exceeds 20% only if the overall community watershed basin is less than 20%. parameter and/or threshold that qualifies as described in (2a) or then that parameter and/or threshold is not exceeded for the Watershed. It is parameter and/or threshold is not exceeded for the Watershed. It is parameter and/or threshold is not exceeded for the Watershed. It is parameter and/or threshold is not exceeded for the Watershed.
KK17-10	Kitselas FDU	Result	Watersheds*: 1. Timber harve prevent or ac as mutually a Ministry resp 2. Road constru	esting by the FSP Holder(s) is limited to actions required to ddress potential losses due to fire, wind, or forest health factors, agreed between representatives of the FSP Holder(s) and the onsible for Community Watersheds. Justion by the FSP Holder(s) to access timber beyond the Watersheds is acceptable.

Objective:	Kalum SRMP - Objective 17: Maintain the quality, quantity, and natural flow regimes of water in watersheds identified on Map 9 as newly established Community Watersheds. Ensure a clearcut equivalency of less than 20% of the watershed area in subbasins larger than 250 hectares, unless a different threshold is determined as being more appropriate as a measure of maintenance of natural flow regimes.
KK17-09	<u>Comment</u> : This Result, as described above in relation to the objective described in FPPR s. 8.2, is also consistent with this Kalum SRMP Objective 17.
KK17-10	<u>Comment:</u> This Result, as described above in relation to the objective described in FPPR s. 8.2, is also consistent with this Kalum SRMP Objective 17.

2.6 Biodiversity

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description		
Objective:	FPPR s. 9: "The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape."				
	Practice Requirement(s) eligible for exemption: FPPR s. 64, 65				
	Eligible Practice Requirement(s) exempted: None				
	Eligible Practice Requirement(s) not exempted: FPPR s. 64, 65				
KK17-11	Comment: This Strategy, as described below in relation to the Kalum SRMP Objective 1, is also consistent with FPPR s. 9.				
KK17-12	Comment: This Result, as described below in relation to the Kalum SRMP Objective 1, is also consistent with FPPR s. 9.				

Objective:	FPPR s. 9.1: "The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees."					
Practice Requirement(s) eligible for exemption: FPPR s. 66, 67						
	Eligible Practice Requirement(s) exempted: FPPR s. 66, 67					
Eligible Practice Requirement(s) not exempted: None						
KK17-15	Comment: This Result, as described below in relation to Kalum SRMP Objective 5, is also consistent with FPPR s. 9.1.					
KK17-16	<u>Comment:</u> This Strategy, as described below in relation to Kalum SRMP Objective 5, is also consistent with FPPR s. 9.1.					

Objective:	OLD GROWTH ORDER (Higher Level Plan Objectives):			
	The Minister of Sustainable Resource Management made an <i>Order Establishing Provincial Non-spatial Old Growth Objectives</i> , effective June 30, 2004. This Order establishes landscape units (LU) and biodiversity emphasis for each LU, and retention levels for old growth by natural disturbance type. This "Old Growth Order" requires an analysis of each LU with respect to the amount of old-growth remaining by biogeoclimatic ecological classification.			
Practice Requirement(s) eligible for exemption: None				
Not applicable	Comment: No strategy or result is necessary as the Old Growth Order was supersede by the Kalum SRMP.			

Objective:		SRMP - Objective 1: ain a range of forest seral stages by biogeoclimatic variant, within each landscape unit, consistent with Tables and 3.	
KK17-11	Kitselas FDU KVL FDU KK FDU	Strategy	Within the FDU(s), during the term of this FSP: 1. The FSP Holder(s) will ensure that areas harvested by the FSP Holder(s) will have been reviewed prior to harvesting with respect to a. whether they are of a size and distribution that emulates the historical temporal and spatial distribution of the Natural Disturbance Types (NDTs) for the forests within the FSP area; and b. whether they are moving towards the patch size and seral stage distribution targets that are in place for NDTs, calculated separately for each LU that overlaps the FDU(s). 2. Subject to (3), the reviews in (1) above will be considered complete if they include process steps in (4) and (5) below that have occurred at least once within five years of the approval of this FSP, and then at least once within five years of the approval of this FSP, and then at least once within every five year period thereafter. 3. The reviews in (1) above will be considered complete if the FSP Holder(s)' development is included in the most recent seral/patch analysis for the Coast Mountains Natural Resource District that applies to the FDU(s) and that analysis is not more than five years old. 4. Temporal: Conduct seral stage analysis by LU and NDT. a. Determine the proportional representation of the LUs within the FSP Holder(s)' FDU(s). b. Determine the proportional representation with respect to sensitive areas* within the FSP Holder(s)' FDU(s). c. Determine the need for actions to address seral stage imbalances, based on the Kalum SRMP (April 2006). d. If necessary, prepare action plan(s) to address seral stage imbalances and implement them. e. Prepare a summary of the allowable seral stages 5. Spatial: Analyze patch size distribution by LU and NDT. a. Determine the proportional representation of existing patch sizes within the FSP Holder(s)' FDU(s). b. Determine the proportional representation for the FDU(s). c. Determine the proportional perpresentation for the FDU(s). c. Determine the proportional perpresentation of existing patch sizes within
KK17.10	Kitaalaa EDI I	Dogult	Management Zones in the Kalum SRMP, Ungulate Winter Range seral requirements, or other items similar in nature if identified in the review in (1) above.
KK17-12	Kitselas FDU KVL FDU KK FDU	Result	 Within the FDU, the FSP Holder will ensure that The sizes and distribution of harvest openings under this FSP are within the targets* described in an allowable patch size and seral stage distribution. If there are areas that are outside of target* levels for patch size and seral stage distribution, within five (5) years of the most recent patch/seral analysis for the Coast Mountains Natural Resource District, harvest activities under this FSP are shown to be static or moving toward the target* levels for these areas. * Target levels for LUs and Special Resource Management Zones are from the Kalum SRMP; target levels for FDU(s) are as determined through Strategy KK17-

Objective:	Kalum SRMP - Objective 2: Maintain old seral stage forest within each undeveloped watershed listed in Table 4 and shown on Map 3 consistent with Table 5.
Not applicable	<u>Comment</u> : No strategy or result is necessary as the FDU(s) do not overlap with the undeveloped watershed on Map 3 of the Kalum SRMP.

	tattibates	in the OGMAs, or other resource values in the landscape.
elas FDU Resu L FDU K FDU		During the term of this FSP, within the FDU(s), no harvesting by the FSP Holder(s) of old seral stage forest within the OGMAs* other than for insect or disease control measures that are necessary to mitigate severe damage to the habitat attributes in the OGMAs, or other resource values in the landscape, or in accordance with strategy KK17-14. *As shown on the FSP maps, which correspond to the OGMAs shown on Map 4 of
ela L	as FDU Resu . FDU	as FDU Result FDU

Objective:

Kalum SRMP - Objective 4:

Provide operational flexibility in managing OGMAs by allowing up to 10 hectares or 10% of the individual OGMA area, whichever is less, to be disturbed for one or more of the following purposes:

- allowing road development where no practicable alternative exist;
- to better reflect physical features that were intended to form the actual boundaries of the OGMA;
- to improve harvest boundary alignment in a way that will contribute to the maintenance of the OGMA;
- to address a compelling forest health issue; or,
- to shift the location of the contiguous area of the OGMA to improve the retention of old forest attributes as identified through field assessment.

The allowable disturbance described above is conditional upon a forest agreement holder identifying and reserving from harvesting an alternative area(s) within the same BEC variant within a landscape unit, provided the alternative area:

- is of equal or greater extent in total than the area to be disturbed; and,
- will result in equal or greater retention of key old forest attributes that are understood to be important for biodiversity conservation.

KK17-14

Kitselas FDU KVL FDU KK FDU

Strategy

During the term of the this FSP:

- 1. Within the FDU(s), the FSP Holder(s) may disturb an OGMA* for one or more of the following purposes, subject to (2) and (3) below:
 - a. to allow road development where no practicable alternative exists;
 - to better reflect physical features that were intended to form the actual boundaries of the OGMA;
 - to improve harvest boundary alignment in a way that will contribute to the maintenance of the OGMA;
 - d. to address a compelling forest health issue;
 - to shift the location of the contiguous area of the OGMA to improve the retention of old forest attributes as identified through field assessment;
 - f. to preserve First Nations traditional and cultural use; and
 - g. to reflect or address operational considerations.
- 2. Replacement OGMA(s) is selected by the FSP Holder(s) within the same BEC variant within a landscape unit, provided the replacement OGMA:
 - a. is of equal or greater extent in total than the area to be disturbed; and,
 - b. will result in equal or greater retention of key old forest attributes that are understood to be important for biodiversity conservation;

and

- An amendment request to disturb and replace the OGMA is referred to the District Manager (or his/her delegate) by the FSP Holder(s), and the District Manager approves the request:
 - a. a request for a minor amendment** is submitted in advance of, or in conjunction with, the submission of a CP and/or RP application;
 - a request for a significant amendment*** is submitted in advance of the submission of a CP and/or RP application.

* As shown on the FSP maps, which correspond to the OGMAs shown on Map 4 of the Kalum SRMP (April 2006, and as updated from time to time by Government).

- ** A minor amendment disturbs 10 hectares or 10% of an individual OGMA*, whichever is less, and is further defined in the Skeena Old Growth Management Policy (August 2010).
- ***A significant amendment is as defined in the Skeena Old Growth Management Policy (August 2010).

Objective:	Kalum SRMP - Objective 5: Maintain structural diversity in managed stands by retaining wildlife tree patches in each cut block, over the rotation, consistent with the targets in Table 6. Shift or vary targets shown in Table 6 among cut blocks within a cut block aggregate based on risks to biodiversity.				
KK17-15	Kitselas FDU KVL FDU KK FDU	Result	During the term of this FSP, within the FDU(s), wildlife tree retention for a cut-block or cut-block aggregate* harvested by the FSP Holder(s) is consistent with Table 6 of the Kalum SRMP (April 2006). * A Cut-block aggregate is a group of cut blocks which are within 10 kilometers radius of each other and where the SP or CP for these blocks refers to the fact that they are a cut block aggregate (as defined in the Kalum SRMP, April 2006).		
KK17-16	Kitselas FDU KVL FDU KK FDU	Strategy	During the term of this FSP, within the FDU(s), the FSP Holder(s) will carry out timber harvesting within a WTRA designated by a licencee other than the FSP Holder(s), only if: 1. the trees on the net area to be reforested of the cut block to which the WTRA relates have developed attributes that are consistent with a mature seral condition; or 2. the other licencee is subject to FPPR s. 67, and the Minister responsible for WTRAs provides an exemption under FPPR s. 91 (2); or 3. the other licencee is not subject to FPPR s. 67 and one, or more, WTRA replacement areas have been established that provide an area that is consistent with Table 6 of the Kalum SRMP for the cut-block to which the WTRA relates.		

Objective:	Kalum SRMP - Objective 7: Attain a landscape pattern of patchiness that, over a long term, reflects the natural disturbance patterns as per Table 7 (of the Kalum SRMP).
<u>KK17-11</u>	<u>Comment</u> : This Strategy, as described above in relation to the Kalum SRMP Objective 1, is also consistent with the Kalum SRMP Objective 7.
KK17-12	<u>Comment</u> : This Result, as described above in relation to the Kalum SRMP Objective 1, is also consistent with the Kalum SRMP Objective 7.

Objective:	Kalum SRMP - Objective 8: Maintain forest stand structure and function for continued wildlife movement through the level pass between the Kiteen (Ksi Gahlt'in) and Cedar drainages identified on Map 5. • Within polygon "A", retain 100 % of forested area. • Within polygon "B", timber harvesting will be limited to partial cutting systems.		
KK17-17	KVL FDU	Result	 During the term of this FSP, within the identified area through the level pass between the Kiteen and Cedar drainages that is within the FDU(s), identified as the "Kiteen and Cedar SRM"* wildlife connectivity corridor: 1. 100% of the forested area located in the polygon "Full Retention"* is retained by the FSP Holder(s). 2. Within the polygon "Partial Retention"*, harvesting by the FSP Holder(s) is limited to partial cutting systems (i.e. seed tree; shelterwood; single-tree or group selection). * As shown on the FSP maps, which correspond to the area shown on Map 5 of the Kalum SRMP (April 2006).

Objective:	Maintain forest	Kalum SRMP - Objective 9: Maintain forest stand structure and function to facilitate wildlife movement, in the level pass between the Williams and Thomas/Clore watersheds identified on Map 5.		
KK17-18	Kitselas FDU	Result	During the term of this FSP, within the FDU(s), activities by the FSP Holder(s) within the "Williams and Thomas/Clore SRM" wildlife connectivity corridor* identified for the maintenance of wildlife movement options in the low level pass between the Williams and Thomas/Clore are limited to: 1. providing or maintaining access to timber that would be otherwise isolated; or 2. removal of trees threatened or infested by insects, disease or fire where there is a risk to forests or forested land outside of the corridor, as agreed by the District Manager (or his/her delegate); or 3. fire control. * As shown on the FSP maps, which correspond to the area shown on Map 5 of the Kalum SRMP (April 2006).	

Objective:	the Skeena Isla Conserve rare a. Within the b. Outside th c. Outside th logs, and at breast I d. Only when achieved, areas.	ands Area, effect plant community High Conservat he High Conservat he High Conservat snags greater the height. The it is otherwise may new roads	ive December 7, 2017): complexes on the Skeena Islands identified on Map 6, according to a), b), c) and d): ion Areas¹, retain 100% of the Crown forested land. ation Areas, retain a forested, harvest-free 50-metre buffer around all back channels. ation Areas, retain a forested, harvest-free 50-metre buffer around coniferous stumps, an 50 cm in diameter and around live coniferous trees greater than 50 cm in diameter not practicable and the objective to conserve rare plant community complexes can be be constructed within the High Conservation Areas to access timber outside those vus", government-led research activities, including harvesting for research purposes,
KK17-19	Kitselas FDU KVL FDU KK FDU	Result	During the term of this FSP, within the FDU(s), for each CP issued to the FSP Holder(s) within the "Skeena Islands Area*": 1. Except as per (3), for "High Conservation Areas*", retain Crown forested land. 2. Outside the "High Conservation Areas*": a. retain a harvest-free 50-metre buffer around all back channels; and b. retain a harvest-free 50-metre buffer around coniferous stumps, logs, and snags greater than 50 cm in diameter and around live coniferous trees greater than 50 cm in diameter at breast height. 3. Construct roads within "High Conservation Areas*" necessary to access timber beyond those areas only if: a. no practicable alternative exists; and b. a qualified professional evaluates the proposed road and determines that rare plant community complexes** can be conserved. * As shown on the FSP maps. ** Rare plant community complex - means an area supporting a rare plant community and the nearby representation of the range of successional stages and vegetation. A rare plant community is a high bench Sitka Spruce-Salmonberry (CWHws1/07, CWHvm1/09) and middle bench Black Cottonwood-Red-osier Dogwood (CWHws1/08, CWHvm1/10).

Objective:	Kalum SRMP - Objective 12: Maintain wildlife habitat and biodiversity within the Lakelse River Special Resource Management Zone (Map 8). In Subzone 1 - no harvesting of timber or blowdown salvage will occur. In Subzone 2 - early seral stage target is a maximum of 27%; the maximum opening size is 15 hectares; a		
	minimum	15 % retention w	ithin the cut blocks is required to add structural diversity; and in any five year 6 of the volume harvested is to be harvested by using a selection silviculture system.
KK17-20	Kitselas FDU	Result	During the term of this FSP, for each CP issued to the FSP Holder(s) within the areas identified in the FDU(s) as "Lakelse River SRMZ" subzones*: 1. In Subzone 1; a. no harvesting or road construction unless the District Manager (or his/her delegate) agrees that harvesting or road construction is necessary for control of insects, disease or fire. 2. In Subzone 2: a. early seral stage (i.e. less than 40 years) is less than 27% of the subzone area; b. the maximum opening size will be less than 15 hectares (net) and retention (WTRA and other reserves) shall be at least 15% of gross block area; c. at the end of the term of this FSP, at least 50% of the timber volume scaled under this FSP shall be by selection silviculture systems (i.e. seed tree; shelterwood; single-tree or group selection).
			* As shown on the FSP maps. This information corresponds to the map provided with the Kalum SRMP (April 2006)

Objective:	Kalum SRMP - Objective 13: Maintain biological diversity and ecosystem representation within the Upper Kitsumkalum Valley by not harvesting timber within the Upper Kitsumkalum SRMZ (Map 8). Road construction is acceptable to access the timber outside of SRMZ where there is no other practicable route alternative.		
KK17-21	KVL FDU	Strategy	 During the term of this FSP, the FSP Holder(s) will not harvest timber within the areas identified in the FDU(s) as "Upper Kitsumkalum SRMZ*", other than: Where access is required to the timber harvesting land base beyond areas identified in the FDU(s) as "Upper Kitsumkalum SRMZ" and where there is no other practical way to provide for this access, other than by building road in or through the SRMZ, a rationale must be prepared and provided by the FSP Holder(s) to the appropriate agency responsible for the Kalum SRMP ahead of a CP or RP application. This rationale must detail why the road is required in or through the "Upper Kitsumkalum SRMZ" and include an evaluation of alternate options. Any response from the agency responsible for the Kalum SRMP will be provided with the CP or RP application. Where timber harvesting is required to prevent or address potential losses due to fire, wind, or forest health factors to forests or forested land outside of the "Upper Kitsumkalum SRMZ", as mutually agreed between representatives of the FSP Holder(s) and the appropriate agency responsible for the Kalum SRMP. * As shown on the FSP maps. This information corresponds to the map provided with the Kalum SRMP (April 2006).

Objectiv		Kalum SRMP - Objective 14: Conserve uncommon reticulated fens (Map 8) within the Miligit Valley area.		
KK17-2	2 Kitselas FDU	Result	During the term of this FSP, no harvesting or road construction by the FSP Holder(s) within the uncommon reticulated fens in the areas identified in the FDU(s) as the "Miligit Creek SRMZ*". * As shown on the FSP maps. This information corresponds to the map provided	
KK17-2	2 Kitselas FDU	Result	Holder(s) within the uncommon reticulated fens in the areas identified in the F as the "Miligit Creek SRMZ*".	

2.7 Visual Quality

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description			
Objective:			respect of areas continued under section 180 that were in effect immediately before I as objectives under this <i>Act.</i> "			
	GAR s. 17: "A visual quality class for a scenic area is continued under this regulation as visual quality objective if (a) the visual quality class has been (i) set out before October 24, 2002 in a letter from the district manager to the holder of an agreement under the <i>Forest Act</i> , or (ii) included in the most recent tree farm license visual landscape inventory prepared by the holder of a tree farm license and approved by the regional manager, and (b) in existence on the coming into force of this section."					
	(a) was estable (b) for which is to ensure the (c) in visual set (d) in visual set (e) in visual set (f) in visual set (f)	olished on or before there is no visual that the altered for tensitivity class 1 tensitivity class 2 tensitivity class 3 tensitivity class 4	set by government in relation to visual quality for a scenic area, that one October 24, 2002, and I quality objective rest landscape for the scenic area is in either the preservation or retention category, is in either the retention or partial retention category, is in either the partial retention or modification category, is in either the partial retention or modification category, and is in either the modification or maximum modification category."			
	Practice Red	quirement(s) elig	ible for exemption: None			
KK17-23	Kitselas FDU KVL FDU KK FDU	Strategy	 Within the FDU(s), during the term of this FSP, the FSP Holder(s) will ensure that: A visual impact assessment (VIA) will be carried out and attached or referred to in the SP for blocks that are located within known scenic areas and that are identified with a Visual Quality Objective (VQO) of Preservation (P), Retention (R), Partial Retention (PR), or Modification (M), or with a Visual Sensitivity Class (VSC) of 1, 2, 3, or 4.			
			 a. by meeting the viewpoint criteria*; or b. if no viewpoints meet the viewpoint criteria*, the VIA will use an alternate point that is closest, in the opinion of the FSP Holder(s), to meeting the viewpoint criteria. * Viewpoint criteria: for a visual landscape, a viewpoint must be: at a point along a travel corridor** that allows for an extended viewing experience***, or at a public place of congregation that persons can stop for an extended viewing experience***. ** A travel corridor is defined as a route, highway or waterway regularly used by the public to travel from one geographic area to another. *** Extended viewing experience = greater than 60 seconds uninterrupted view when stopped at a public place of congregation, or while travelling at the posted/normal speed on a travel corridor. 			

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-24	Kitselas FDU KVL FDU KK FDU	Result	Within the portion of the FDU(s) that overlap known scenic areas, the block configuration in a SP and CP prepared by the FSP Holder(s) and signed during the term of this FSP will be consistent with the visual design as described in a VIA prepared in accordance with Strategy KK17-23.

Objective:	Kalum SRMP - Objective 15: Maintain a feeling of remoteness and pristine viewscape on the Upper Copper River (Zymoetz River) above the Limonite Creek (within the Kalum SRMP area). The following are practice requirements: a. permit only one bridge crossing at any time; and, b. retain a minimum of 100 meters no harvest reserve on both sides of the river. Less than 100 meters reserve is acceptable where this makes "best" operational/environmental practice, or for other site specific-reasons, provided the objective is met.		
KK17-25	Kitselas FDU	Result	During the term of this FSP, within the Coast Mountains Natural Resource District and on the Upper Zymoetz (Copper) River, upstream of the confluence with Limonite Creek: 1. there will not be more than one active bridge crossing at any given time; 2. a 100 m* reserve is established along either side of the river, or less if "Preservation" visual quality can be achieved for the first 100 m* from the banks of the river, as described/ determined in a SP prepared by the FSP Holder(s) for the area where the reserve is less than 100 m*. *All distances are measured in slope distance.

Objective	Kalum SRMP - Objective 16:			
	Maintain the visual quality of the area visible from the Sue Channel/Hawkesbury Island protected area (Map 8) by:			
	applying single tree or group selection silviculture system; and,			
	Iimiting the maximum opening size to 1-2 tree lengths.			
Not applicabl	Comment: No strategy or result is necessary as the FDU(s) do not overlap with the area visible from the Sue Channel/Hawkesbury Island protected Map 8 of the Kalum SRMP.			

2.8 Cultural Heritage Resources

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
Objective:	cultural heritage (a) the focus of	e resources that a traditional us	et by government for cultural heritage resources is to conserve, or, if necessary, protect at are se by an aboriginal people that is of continuing importance to that people, and eritage Conservation Act."
	Practice Re	quirement(s) e	eligible for exemption: None
KK17-26	Kitselas FDU KVL FDU KK FDU	Strategy	During the term of this FSP: 1. The FSP Holder(s) will information share' regularly with local First Nation groups that have asserted claim area within the FSP Holder(s)' FDU(s). As a minimum, information sharing' must occur annually when forest development operations (i.e., layout, road construction, or harvesting) will be occurring within the First Nation's traditional territory. When there are no operations planned in the next calendar year in the First Nation's traditional territory, a telephone, email or letter exchange will be considered adequate. a. The FSP Holder(s) will i Share, review and discuss any previously unknown cultural heritage resource information**. ii Request from the First Nation any information** on cultural heritage resources of continuing importance to the First Nation that has not been previously shared with the FSP Holder(s). b. Where traditional use information is made available, the FSP Holder(s) will hold any information received in confidence. It is only with the express written consent or direction of the holder of the Traditional Use information that the FSP Holder(s) will release any traditional use information to any other party (including other First Nation groups, the Government of BC or its Ministries, or BC Timber Sales). c. The FSP Holder(s) will review with respective First Nations the areas where forest development operations are planned with the intent of describing and addressing the concerns of both parties. Specifically: i Determine areas or items of concern related to cultural heritage resources that may be impacted by the planned operations. ii Describe forest management activities that will conserve or protect the cultural heritage resources defined in (i) above. ii Modify planned operations where and as necessary to conserve or protect the cultural heritage resources defined in (i) above. ii Modify planned operations where and as necessary to conserve or protect the cultural heritage resources defined in (i) above. ii Modify planned operations where and as ne

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-27	KVL FDU	Strategy	During the term of this FSP: 1. The FSP Holder(s) will information share* regularly with the Nisga'a Lisims Government (NLG) on planned forest development activities that will be occurring within lands subject to Nisga'a Treaty rights. At a minimum, information sharing* must occur annually when activities will be occurring within those lands within the next year. When there are no activities planned within those lands, a telephone, email or letter exchange will be considered adequate. 2. Jointly review the areas where forest development operations are planned to identify management activities that require comment from NLG. a. Determine areas of concern that may result from forest development when compared with NLG interests or activities, or different forest management
			 approaches. b. Attempt to resolve any conflicts through consensus. The FSP Holder(s) will prepare a short summary indicating whether there were any issues and how they were resolved. c. If conflicts cannot be resolved, the FSP Holder(s) will prepare a summary of the concerns and how the parties have attempted to address the concerns.
			3. Prepare a summary** of the process, indicating the efforts made to review information with NLG, whether there were any issues and how they were resolved. If issues were not resolved, the summary** will describe how the parties have attempted to address the issues. The summary will be provided to, a. The NLG representative, and b. The District Manager (or his/her delegate). * information sharing may take the form of telephone, email, letter communication and
			discussion, or meetings **summaries will respect confidentiality

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-28	Kitselas FDU KVL FDU	Strategy	During the term of this FSP: 1. Before harvesting commences on any block where site specific cultural heritage
	KK FDU		resource information for an area in a FDU is not available, the FSP Holder(s) will conduct a cultural heritage resource review (CHRR), which will consist of: a. A review of known information for the area covered by the block, including but not limited to archaeological overview assessments, archaeological impact assessments, traditional use studies, information gathered for nearby blocks, and information received through KK17-26 and KK17-27; b. A review of the block by a person with knowledge and experience in recognition of cultural heritage resources to identify the location, nature, and extent of cultural heritage resources of ongoing importance to a First Nation/NLG. c. If, in the opinion of the person conducting the review there is potential for impact to a cultural heritage resource of ongoing importance to a First Nation/NLG, the CHRR will include recommendations for the conservation, mitigation or protection of the cultural heritage resource, and will be shared with the appropriate First Nation(s)/NLG.
			d. If, in the opinion of the person conducting the field review there is potential for resources covered by the <i>Heritage Conservation Act</i> (HCA), the block will be adjusted to protect the potential HCA resource or an archaeological impact assessment will be done.
			 For any potential cultural heritage resource sites identified by operational personnel (i.e., layout, road construction, or harvesting crews), which were not previously identified through cultural heritage resource information sharing as described in KK17-26 and KK17-27, a CHRR as described in (1) above, or for which a process, policy, strategy, or result that describes how to deal with that cultural heritage resource is not in place or has not been shared with the appropriate First Nation(s) or NLG: a. the FSP Holder(s) will be notified; and
			b. a site visit will be conducted to determine the need for mitigative measures.
			3. Any new cultural heritage resource information resulting from items (1) or (2) above and a description of any mitigative measures will be shared/provided to the appropriate First Nation(s)/NLG and District Manager by the FSP Holder(s) in accordance with item (4) below.
			 Information noted in (3) above will be shared/provided by the FSP Holder(s) as follows:
			 a. Where a cultural heritage resource feature is discovered before a cutting authority is issued, at or before application for the cutting authority. b. Where a cultural heritage resource feature is discovered after a cutting authority is issued, the information will be shared/provided within two weeks of the FSP Holder(s) being notified of the cultural heritage resource features' discovery.
KK17-29	Kitselas FDU KVL FDU KK FDU	Result	Within the FDU(s), during the term of this FSP, for any block with cedar in retention zones (including WTRAs or RMZs*), removal of cedar by the FSP Holder(s) on behalf of a First Nation or NLG from these retention areas for cultural purposes occurs as follows: 1. no more than 5% of the co-dominant/ dominant stems within a WTRA are removed, with no more than 10% of the stems within a given hectare, unless the
			SP describes how the WTRA is able to retain its function; and removal of co-dominant/dominant stems from within an RMZ area must be consistent with the RMZ retention described in result KK17-08 , unless the SP describes how the RMZ is able to retain its function; and
			 removal from within an active cutting authority held by the FSP Holder(s) is authorized through a letter of agreement between the FSP Holder(s) and a First Nation Council, appropriate House Chief or designate, or NLG. Alternatively, removal can be authorized by a permit issued by the responsible Ministry.
			* Removal of trees from within RRZs will be as per the FPPR – currently, removal for cultural purposes is not an allowed activity within RRZs.

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-30	KVL FDU	Result	Within that portion of the KVL FDU that overlaps with the Nass Area or Nass Wildlife Area, the FSP Holder will ensure that prior to a cutblock being included in a submission for issuance of a cutting permit:
			 A windthrow assessment field card (FS712-2) will be completed to determine the windthrow risk for that cutblock, and
			 Where the windthrow risk is determined to be moderate, high or very high, windthrow management actions necessary to limit the hazard will be prescribed by a qualified professional and attached or referenced in the Site Plan for the cutblock.

2.9 Recreation Resources

Objective:	RECREATIO	N TRAILS & SITES (H	ligher Level Plan Objectives):	
		s. 56(1) and (3), gover e or recreation trail.	nment can establish, and set an objective for, an inte	erpretive forest site,
			tion sites and recreation trails and their objectives es e continued under FRPA.	stablished or continued
		17, the following are R FDU under this FSP:	ecreation Sites/Trails that have established Higher L	evel Plan Objectives and
Applicable FDU(s)	Site/ Trail	Recreation Experience Objective	Site/ Trail Management Objective	Access objectives
KVL FDU	Big Cedar Recreation Trail	Appropriate semi- primitive motorized winter recreational activities	Active trail and natural vegetation will be retained within ten meters either side of the trail centerline	Winter motorized access from November 1 to June 30; all motorized activities restricted from July 1 to October 31
Kitselas FDU	Bornite Mountain Recreation Trail	Semi-primitive non-motorized	Active trail and natural vegetation will be retained within ten meters either side of the trail centerline	n/a
Kitselas FDU	Clearwater Lakes Recreation Site	Semi-primitive non-motorized	Campsite and trail will be retained.	n/a
Kitselas FDU	Gunsight Peak Recreation Trail	Semi-primitive non-motorized	Active trail and natural vegetation will be retained within ten meters either side of the trail centerline	n/a
KVL FDU	Maroon Mountain Recreation Trail	Semi-primitive non-motorized	Active trail and natural vegetation will be retained within ten meters either side of the trail centerline	n/a
KVL FDU	Pine Lake Recreation Site	Roaded	Shoreline, and natural vegetation will be retained within site boundaries	n/a
KVL FDU	Pine Lake Recreation Trail	Semi-primitive non-motorized	Active trail, lake shoreline and natural vegetation will be retained within ten meters either side of the trail centerline	n/a
KVL FDU	Red Sand Lake	Roaded	Shoreline and natural vegetation will be conserved within the site boundaries	n/a
	Interpretive Forest Site		Small scale timber harvesting and silviculture practices will exist on the site as part of forest interpretation and education	
			Forest interpretation activities and education on local ecosystems and forest practices will be provided through brochures, self-guided interpretive trails and signage.	
KVL FDU	Sterling Mountain Recreation Trail	Appropriate semi- primitive motorized winter recreational activities	Active trail and natural vegetation will be managed within ten meters either side of the trail centerline	Winter motorized access from November 1 to June 30; all motorized activities restricted from July 1 to October 31

Kitselas FDU	Thornhill Mountain Recreation Trail	Semi-primitive non-motorized	Active trail and natural vegetation will be retained within ten meters either side of the trail centerline
Kitselas FDU	West Lake Recreation Site	Roaded	River and creek shoreline and natural vegetation will be retained within site boundaries.
Kitselas FDU	Onion Lake Recreation Ski Trails and Stadium	Maintain opportunitie Maintain opportunitie recreation use along	on will be managed within boundaries of the established trail system. ses for cross country skiing and snowshoeing along the trail system in winter. ses for hiking, mountain biking, horseback riding and appropriate motorized the trail system in summer. access for forest tenure holders to timber resources along the trail system and
Practice Re	equirement(s) e	ligible for exemption:	None
FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-31	Kitselas FDU KVL FDU	Result	During the term of this FSP, on these established Recreation Trails or Sites with established objectives within the FDU(s): Big Cedar Recreation Trail; Bornite Mountain Recreation Trail; Clearwater Lakes Recreation Site; Gunsight Peak Recreation Trail; Maroon Mountain Recreation Trail; Maroon Mountain Recreation Trail; Onion Lake Ski Trails and Stadium; Pine Lake Recreation Trail; Red Sand Lake Interpretive Forest Site; Sterling Mountain Recreation Trail. No disturbance by the FSP Holder(s) for harvesting, road construction or silviculture activities to natural vegetation within 10 m of trail centerline other than for a required crossing as per (3), or for another purpose if authority is provided by a representative of the Ministry responsible for the trail. Development activities by the FSP Holder(s) that occur within 50 m either side of trail centerline: a. will only occur after the planned activity has been referred to the Minister responsible for the trail; b. a CP, RP, or FSR submission indicates that development is within 50m of the trail and describes the results of the referral to the Minister responsible for the trail. Trail crossings by the FSP Holder(s) are permitted if required to access productive forest land that would otherwise be isolated contingent upon the following conditions: a. The trail location is re-established if the crossing disturbs it. Alternatively, the trail may be relocated away from the crossing. The timing of the trail crossing, re-establishment, or trail relocation will require authorization from the Ministry responsible for the trail. b. A trail crossing is deactivated once it is no longer required. For trails with a "non-motorized" recreation objective: a. only the existing access to the trail is maintained (as per KK17-35), unless otherwise authorized by the FSP Holder(s) comes within 50 m of a trail, a barrier is in place to prevent access to the trail by two- or four-wheel drive vehicles (not including ATVs*) or an alternative is identified in consultation with t

FSP Ref #	Applicable FDU(s)	Result or Strategy?	Description
KK17-32	Kitselas FDU KVL FDU	Result	During the term of this FSP, on these established Recreation Sites with established objectives within the FDU(s): Clearwater Lakes Recreation Site; Pine Lake Recreation Site; Red Sand Lake Interpretive Forest Site West Lake Recreation Site. No disturbance* by the FSP Holder(s) to areas within 10 m of lake shorelines; river, stream or creek-banks or marine foreshore (this only applies to sites where an RRZ is not in existence). The remainder of the area within the recreation sites will be reserved from disturbance by the FSP Holder(s) other than where authorized by the Ministry responsible for the Recreation Site, or where action or access is required to prevent or address potential losses due to fire, wind, or forest health factors, or in accordance with another result or strategy provided in this FSP. * from activities related to the FSP Holder(s)' road construction, harvesting or silviculture activities
KK17-33	KVL FDU	Strategy	 During the term of this FSP, on the Red Sand Lake Interpretive Forest Site: Small scale timber harvesting and silviculture practices by the FSP Holder(s) are acceptable on the site as part of forest interpretation and education. Any forestry activity by the FSP Holder(s) within this Interpretive Forest Site: Will only occur after the planned activity has been referred to the Ministry responsible for the Site. Will be planned to meet the objective of forest interpretation and education; a description of the activity, how it meets the objective and its proposed outcomes will be provided with the first permit associated with the activity, whether it be a RP, RUP or a CP application.
KK17-34	Kitselas FDU KVL FDU	Result	 During the term of this FSP, on these established Recreation Trails with established objectives within the FDU(s): Big Cedar Recreation Trail; Sterling Mountain Recreation Trail. No motorized activity by the FSP Holder(s) as per access objective identified for the trail, except as follows: a. motorized activity for silviculture or planning activities (or for access to silviculture or planning activities) is acceptable if written or email notice is given to the Ministry responsible for the trail, and the Ministry's representative provides an exemption.
KK17-35	Kitselas FDU KVL FDU	Result	During the term of this FSP, on all established recreation sites or trails with established objectives within the FDU(s), at least four-wheel drive status is maintained for roads under the control of the FSP Holder(s) when those roads are the only access to the trail or site.

3 Additional FSP Information

In addition to the objectives, results and strategies, there are several other items to be shown or addressed in the FSP.

3.1 Areas under Cutting Authority

The FSP maps show blocks and roads that are currently under Cutting Permit (CP) and Road Permit (RP) that are under the control of the FSP Holders.

In addition, cutblocks or roads that are currently under CP, RP, Timber Sale Licence (TSL), or Forest Service Road (FSR) and are held by others are shown on the FSP maps.

3.2 Stocking Standards

The FSP must describe the Stocking Standards that will apply on the FDUs (FPPR s. 16). The following information is provided to describe the stocking standards that apply on the FDUs in this FSP.

Tables describing the stocking standards that apply on the FDUs in this FSP are provided in Appendix A. The stocking standards in Appendix A include:

- <u>Table A1</u>: species, regeneration dates, stocking required at regeneration, free-growing heights and required stocking at free-growing for the site series that occur within the FSP area;
- Table A2: standards for plant associations identified for wildlife forage areas;
- <u>Table A3</u>: standards for stands heavily infected with Annosus root disease;
- Table A4: standards for multi-layer management, including activities under FPPR s. 44(4);
- <u>Table A5 and A6</u>: provide hazard ratings for spruce leader weevil and maximum percent of spruce by hazard rating;
- <u>Footnotes</u> that apply to Tables A1, A2 and A3: "Standards" footnotes are part of the stocking standards. "Advisory" footnotes are provided to guide the prescribing forester but are not part of the stocking standards.

3.2.1 Application of stocking standards

Subject to the following sections (3.2.2 through 3.2.10), the stocking standards may be applied across one cutblock (as per FPPR s. 44) or across several cutblocks (FPPR s. 45) as long as the area within the cutblock(s) has been mapped to identify the BEC (zone, subzone, variant, site series, and, where applicable, annosus infection level) as described for each stocking standard and only if the appropriate stocking standard identified in Appendix A for the BEC (zone, subzone, variant, site series, and, where applicable, annosus infection level) is used.

3.2.2 Even-aged management

Even-aged management stocking standards apply to any silviculture system where:

- The silviculture management objective is to develop a harvest crop consisting of a single age class or layer, generally the youngest age class following harvest or silviculture layers 3 and 4. Trees from other age classes or layers may be retained on the site for seed trees and/or management of other values; and
- 2. Retention of trees within age classes or layers other than the intended harvest crop is limited to a basal area less than or equal to 10 m² per hectare. Basal area is to be measured on any live retention tree equal to or greater than 12.5 cm dbh (diameter at breast height); and
- 3. The management system creates openings larger than 0.6 hectares unless that opening is less than 70 m wide (i.e. two tree-lengths) along its narrowest axis.

For the purposes of (1) above, if a single subsequent harvest entry on the stand is planned within 20 years, even-aged management will apply. This option would be utilized when implementing seed tree systems or similar management regimes.

Even-aged management silviculture systems include clearcut, clearcut with reserves, seed tree, shelterwood, and patch cut (where the openings created meet the above definitions).

3.2.3 Management for Wildlife Forage

Wildlife forage stocking standards set out in Appendix A <u>Table A2</u> apply when ecosystem classification identifies a complex that contains a treatable unit. A treatable unit is at least one hectare for pure subhygric to sub-hydric sites or two hectares of non-contiguous sub-hygric to sub-hydric sites with ecosystem complexes where the individual sites are greater than 0.25 hectares and such sites comprise more than 20% of the ecosystem complex area.

3.2.4 Uneven-aged Management

Uneven-aged management stocking standards apply to any silviculture system where:

- 1. The silviculture management objective is to develop a stand that supports economically viable harvest entries at 20 to 50 year intervals; and
- 2. Retention of trees exceeds a basal area of 10 m² per hectare; or
- 3. Openings are less than 0.6 hectares in size with a target average in any harvest unit of 0.3 to 0.4 hectares, and less than 70 m wide (i.e. two tree-lengths) along its narrowest axis. Variance outside of these targets is allowed if supported by the proper rationale from a Qualified Professional.

Applicable silviculture systems are retention, single tree selection, and group selection.

3.2.5 Selection of Well-Spaced Stems

Criteria for Evaluating Health, Form and Vigour

Trees that are selected as well-spaced are being chosen to form part of a future crop, so they must be of sufficient good health, form and vigour that they can be utilized as crop trees at the time of harvest. Crop trees may be utilized in the future as sources of lumber, veneer, or fibre.

The criteria for good health, good form and good vigour are as follows.

- Table A5-1 and Figures A5-1 to A5-4 in the Establishment to Free Growing Guidebook Prince Rupert Forest Region (version 2.3, October 2007), with the following exception:
 - For pine that is infected by Dothistroma: the Defoliation Free Growing Damage Standard for Determinate Growth Conifers (March 2, 2005).
- The acceptability standards for advanced regeneration and residual mature and pole layer crop trees in Appendix 10 of the Establishment to Free Growing Guidebook Prince Rupert Forest Region (version 2.3, October 2007).

The following qualifiers apply to the criteria for good health, good form and good vigour:

- · the assessment of health, form and vigour applies only at the time of Free Growing;
- the criteria are specific to even-aged managed stands, and to layers 3 and 4 in uneven-aged managed stands; and
- the criteria do not apply to broadleaf species.

For layers 1 and 2 in uneven-aged management stands the criteria for good health, form, and vigour are:

 trees must not exceed the damage criteria of Table A of the Free Growing Damage Criteria for Multilayered Stands in British Columbia (February 2007);

- western hemlock trees must not be subject to a dwarf mistletoe infection rating of 4 or more as described in Figure 5 of the Dwarf Mistletoe Management Guidebook (July 1995); and
- trees must have at least 20% continuous live crown.

Minimum Horizontal Inter-Tree Distance

Unless otherwise stated within Appendix A, the following minimum inter-tree distances will apply for trees to be counted as well-spaced:

- 0.0 metres in Layer 1 of multi-layered stands;
- 1.0 metres between layers 1, 2, 3 and 4 for multi-layered stands;
- 1.0 metres for the wildlife forage stocking standards (Appendix A, <u>Table A2</u>) to allow for cluster management. This minimum inter tree spacing also applies within clusters when cluster management is identified as a stand level strategy in the site plan;
- 1.6 metres on hygric, sub-hydric, colluvial or mechanically site prepared areas; and
- 2.0 metres for all other areas (except those areas where site factors or objectives require a different minimum inter-tree distance as identified in the Site Plan).

3.2.6 Brush and Broadleaf Competition Criteria

In addition to criteria for selection of Well-Spaced Stems, to be considered Free Growing a crop tree must:

- 1. Be free from unacceptable levels of herb, shrub, or broadleaf tree competition, in accordance with the criteria set out in Appendix 9 of the Establishment to Free Growing Guidebook Prince Rupert Forest Region (version 2.3, October 2007), with the following exceptions:
 - where stocking standards include broadleaf tree species as preferred or acceptable species, these broadleaf species shall be deemed to not be in competition;
 - Layer 1 (> 12.5 cm dbh) broadleaf species retained within the SP for non-timber purposes will be considered non-competitive when assessing for Free Growing, if the total Layer 1 broadleaf species in the plot are either:
 - less than 6% crown closure
 - less than 8 m² basal area
 - in order to increase riparian and biodiversity values, alder, aspen, birch, and cottonwood are not considered competing vegetation within the first 10 metres of the riparian management zones of S1 to S5 streams, L1 and L3 lakes or W1 and W3 wetlands;
 - herbaceous vegetation less than 100% of the height of crop trees within 5 m of a S4, S5 or S6 stream is not considered competing vegetation.
- 2. Have experienced a minimum of 2 full growing seasons between any brushing treatment and the Free Growing assessment.
- 3. Meet the following minimum percentage height above competing brush² in order to be Free Growing:

BEC Zone	% Height above brush						
ICH	As per quadrant methodology, i.e. "North Vegetation Competition Decision Key for a Free Growing Crop Tree" as shown on page 291 of the Silviculture Survey Procedures Manual (2016).						
ESSF, MH	125%						
CWH and all other BEC zones	150%						

² Competing brush is defined as herbaceous or woody species that are over-topping crop trees or have the potential to overtop crop trees, and are adversely affecting the crop tree through above or below ground competition. Non-competing brush is defined as herbaceous or woody species that have reached their maximum height, are less than the height of the crop tree, and are not adversely affecting crop trees through above or below ground competition.

3.2.7 Complexes

Where a complex has been noted in a Silviculture Prescription or SP, the standards unit(s) will be managed according to the dominant site series as identified in the Silviculture Prescription or SP.

3.2.8 Hardwoods

Hardwood (deciduous or "broadleaf") species are noted in the Stocking Standards and will be used as follows:

- Black cottonwood (Act) is a commercial species and will be considered a preferred or acceptable species as noted in the stocking standards in Appendix A.
- Red alder (Dr) is a commercial species and, when harvested from a stand where it was a leading species (i.e., ≥ 30% of original stand composition as per Forest Cover or Vegetative Resources Inventory label), can contribute to minimum stocking. Alder is not a known host of the strain of Annosus root disease found in British Columbia. On sites identified as having high incidence of Annosus root disease, alder can contribute to minimum stocking regardless of whether or not it was a leading species prior to harvest.
- Birch (Ep) is not currently considered a commercial species in the Kalum TSA but is considered a
 commercial species in some portions of the Province. There are periodic markets for birch within the
 Kalum TSA. Birch has been shown to be ecologically viable within certain site series of the CWHws1
 and is not a known host of Annosus root disease. On sites identified as having high incidence of
 Annosus root disease birch can contribute to minimum stocking.
- Where Fire Management Stocking Standards (FMSS) have been prescribed, black cottonwood (Act), alder (Dr), birch (Ep) and aspen (At) will be considered preferred and contributing to minimum stocking as per footnote 'c' in Table A1 and A3.
- Where an SP has identified management for a component of hardwood, hardwoods (other than cottonwood, alder or birch as noted above) identified in the Stocking Standards may be used in calculating stocking above the minimum stocking (preferred and acceptable).
- For hardwood species (other than cottonwood, alder, birch or aspen as noted in the bullets above), any desire to establish a hardwood management regime on an area (i.e., management where hardwoods make up any portion of the minimum stocking) will require consultation with the District Manager.

3.2.9 Standard Units and Silviculture Surveys Stratification

Within each site plan a block may be subdivided into a series of standards units (SU). BEC zones and site series often form the basic unit of stratification. Within each SU, standards such as maximum site disturbance, silviculture system and stocking standards are the same. During silviculture surveys these SU may be further subdivided by stratums. The minimum stratum size for milestone surveys in an SU that is <=20 hectares is 1.0 ha. For an SU that is > 20 ha, the minimum stratum size is 2 ha or 5% of the standards unit, whichever is less. For the purposes of FPPR s. 46.11(2), for an area to be considered mappable, its minimum dimension must be at least 35 m and its mappable area must be at least 0.25 ha.

3.2.10 Effect of approval of the FSP

In accordance with FRPA section 197(5), the FSP Holders specifies that they may choose to amend the stocking standards for silviculture prescriptions or site plans that are already in existence to conform to this FSP.

3.3 Invasive Plants

The FSP must address the introduction or spread of invasive plants (FPPR s. 17) and the following are measures to be used for control of invasive plant species identified in the *Invasive Plants Regulation*:

- 1. use certified seed only in erosion control and grass-seeding activities;
- 2. road construction, harvesting and silviculture machinery³ that is to be transported from more than 200 km away from the Coast Mountains Natural Resource District, and that is to do work under the authority of this FSP must be washed before entering an FDU described in this FSP.

3.4 Natural Range Barriers

Where applicable (FRPA s. 48), the FSP must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers (FPPR s. 18).

The following steps will be taken by the FSP Holder in the FDU(s) in regards to natural range barriers:

- 1. Each year under the term of this FSP, the FSP Holder will determine if the FDU(s) overlaps with or is immediately adjacent to range tenures.
- 2. If the FSP Holder determines that its activities will remove or render ineffective a natural range barrier for a range tenure identified in (1), the FSP Holder will identify appropriate measures to mitigate these effects (e.g., access control at bridges).
- 3. The FSP Holder will inform the range tenure holder of measures identified in (2) and will consider additional or alternative measures if identified through discussions with the range tenure holder.
- 4. The FSP Holder will implement the measures identified in (2) or alternative measures identified through discussion with the range tenure holder in (3).

3.5 Cumulative Effect of Multiple FSPs

Where applicable, the FSP must address the cumulative effect of multiple FSPs in an area (FPPR s. 19).

There are three effective FSPs that overlap with this FSP for TFL 1 and FL A16835:

- A&A Trading Ltd and Terrace Community Forest have an effective FSP for operations in the Kalum TSA, overlapping with this FSP along the Kalum River valley and Skeena River.
- BCTS has an effective FSP for its operations within the Coast Mountains Natural Resource District that overlaps this FSP in all areas within the Cascadia and Kalum TSAs.
- Coast Tsimshian Resources LP's approved FSP for Tree Farm Licence (TFL) 1 and FL A16835 overlaps with all of this FSP except for the portion south of Lakelse Lake.

The results and strategies from all of these FSPs have been compared and activities under the FSPs are not inconsistent with each other. The FSPs also share similar approaches to landscape level issues, including proportionality for old growth and seral stage analyses, so are consistent with each other in this respect as well.

3.6 Referral and Public Review Summary

Details regarding referral of this Forest Stewardship Plan to agencies and First Nations, the public review process of the FSP, and any subsequent revisions to the FSP, are described in detail in the Supporting Document to this FSP.

September 6, 2017 (Amendment 1: September 4, 2020)

³ Road construction, logging, and silviculture machinery includes skidders, brushers, excavators, drills, loaders, and other heavy machinery. Also includes pickup trucks and ATVs if the vehicle has been off pavement.

4 MAPS

The FSP maps are provided separately from the FSP text.

The FSP maps are provided at a scale of 1:50,000. They show the critical content requirements as described in section 5(1)(a) of the *FRPA* and section 14 of the *FPPR*.

There are three FDUs designated under this FSP. They are shown on the FSP maps and are identified as:

Kitselas FDU KVL FDU KK FDU

Kalum Ventures Ltd, Kitselas Forestry LP & Kitselas First Nation	Forest Stewardship Plan
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The page manual, and all	

5 Supporting Documentation

Information that supports or was used in the development of this FSP is contained in a separate document, including:

- information directly related to the results and strategies;
- general descriptions and discussion of issues that should add clarity and context to the enforceable results and strategies noted in this FSP with respect to the eleven resource values that have been identified in the FRPA;
- a description of the sources of information used in preparing this FSP; and
- Public, Agency and First Nation referral, comment, review and response information.

Kalum Ventures Ltd, Kitselas Forestry LP & Kitselas First Nation	Forest Stewardship Plan
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APPENDIX A STOCKING STANDARDS TABLES

In the following tables:

- "Biogeoclimatic unit" or "BEC classification" means the zone, subzone, variant and site series
 described in the most recent field guide published by the Ministry of Forests, Lands and Natural
 Resource Operations for the identification and interpretation of ecosystems, as applicable to a
 harvested area.
- "MIN" or "Min" means minimum, "Max" means maximum.
- "p" means preferred, "a" means acceptable.

Table A1: Regeneration and Free Growing Guide

				F	Regeneratio	n Guide				Free Growing Guide			
	BEC Classification							l /ha)	Regen Delay Guide	Latest assessment	Min. Height		
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Suggest Max yrs)	(yrs)	Species	Ht (m)	
1054812	CWHvm1	01	Hw ³⁰ Ba ¹⁸ Cw Ss ^{7,18,30,35, 56}		Dr ^{a,c}	900	500	400	6	20	Hw, Ss Cw Others	2.00 1.50 1.40	
1054813	CWHvm1	02*	PI Cw Hw	Fd ²²		400	200	200	3	20	Hw, Pl Others	1.40 1.00	
1054814	CWHvm1	03	Cw Hw	PI Fd ²²	Dr ^{a,c}	800	400	400	6	20	Hw, Pl Others	1.40 1.00	
1054815	CWHvm1	04	Hw ³⁰ Ba Cw Ss ^{30,35,56}		Dr ^{a,c}	900	500	400	3	20	Hw, Ss Cw Others	2.00 1.50 1.40	
1054816	CWHvm1	05	Hw ³⁰ Ba Cw Ss ^{30,35,56}		Act ^{b,c} Dr ^{b,c}	900	500	400	3	20	Hw, Ss, Act Cw Others	2.00 1.50 1.40	
1054817	CWHvm1	06	Hw ³⁰ Ba ¹⁸ Cw Ss ^{7,18,30,35, 56}		Dr ^{b,c}	900	500	400	6	20	Hw, Ss Cw Others	2.00 1.50 1.40	
n/a	CWHvm1	07	Not in	this area									
1054818	CWHvm1	08	Hw ^{2,30} Ba Cw Ss ^{30,35,56}		Act ^{b,c} Dr ^{b,c}	900	500	400	3	20	Hw, Ss, Act Cw Others	2.00 1.50 1.40	
1054819	CWHvm1	09	Ba Cw Ss ^{1,30,35,56}		Act ^{b,c} Dr ^{b,c}	900	500	400	3	20	Ss, Act Cw Others	2.00 1.50 1.40	
1054820	CWHvm1	10	Cw ¹ Ss ^{1,30,35,56}	Ba ¹	Act ^{b,c} Dr ^{b,c}	900	500	400	3	20	Ss, Act Cw Others	2.00 1.50 1.40	
n/a	CWHvm1	11	no	conifers	Act ^{b,c} Dr ^{b,c}	-	-	-	-	-	All	1.40	
1054821	CWHvm1	12	Cw ¹ Hw ^{1,30} Yc ¹	Pl ¹		800	400	400	3	20	Hw, Pl Others	1.40 1.00	
1054822	CWHvm1	13*	Cw ¹ Pl ¹ Yc ¹	Hw ^{1,30}		400	200	200	3	20	PI Others	1.40 1.00	
1054823	CWHvm1	14	Cw ¹	Hw ^{1,30} Ss ^{1,30,56} Yc ¹	Act ^{a,c} Dr ^{a,c}	800	400	400	3	20	Act Hw, Ss Others	2.00 1.40 1.00	
n/a	CWHvm1	31	non-	forested		-	-	-	-	-	-	-	
n/a	CWHvm1	32	non-	forested		-	-	-	-	-	-	-	

				ı	Regeneratio	n Guide				Free	Growing Guide)
	BE(Classific			Species			ocking spaced		Regen Delay Guide	Latest assessment	Min. Heig	jht
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Suggest Max yrs)	(yrs)	Species	Ht (m)
1054824	CWHvm2	01	Hw ³⁰ Ba Cw ¹⁴ Yc Ss ^{7,30,56}	Hm ^{13,30}	Dr ^{a,c}	900	500	400	6	20	Hw, Ss Cw, Yc Ba Hm	2.00 1.50 1.40 1.00
1054825	CWHvm2	02*	PI Cw Yc	Hw ³⁰		400	200	200	3	20	Hw Pl Others	1.80 1.40 1.00
1054826	CWHvm2	03	Cw ¹⁴ Hw ³⁰	Hm ^{13,30} Pl Yc		800	400	400	6	20	Hw Pl Others	1.80 1.40 1.00
n/a	CWHvm2	04	Not in	this area				-				
1054827	CWHvm2	05	Hw ³⁰ Ba Cw ¹⁴ Yc ¹³ Ss ^{30, 56}	Hm ^{13,30}	Dr ^{a,c}	900	500	400	3	20	Hw, Ss Cw, Yc Ba Other	2.00 1.50 1.40 1.00
1054828	CWHvm2	06	Hw ³⁰ Ba Cw ¹⁴ Yc Ss ^{7,30,56}	Hm ^{13,30}	Dr ^{a,c}	900	500	400	6	20	Hw, Ss Cw, Yc Ba Other	2.00 1.50 1.40 1.00
n/a	CWHvm2	07	Not in	this area								
1054829	CWHvm2	08	Hw ^{2,30} Ba Cw ¹⁴ Yc Ss ^{30,35,56}	Hm ^{13,30}	Dr ^{a,c}	900	500	400	3	20	Hw, Ss Cw, Yc Ba Other	2.00 1.50 1.40 1.00
1054830	CWHvm2	09	Cw ¹ Hw ^{1,30} Yc ¹	Pl ¹ Hm ^{1,30}		800	400	400	3	20	Hw Pl Hm Others	1.80 1.40 0.80 1.00
1054831	CWHvm2	10*	Pl¹ Yc¹	Hm ³⁰		400	200	200	3	20	PI Yc Hm	1.40 1.00 0.80
1054832	CWHvm2	11	Cw ¹ Yc ¹	Hm ^{1,30} Hw ^{1,30} Ss ^{1,30,56}	Dr ^{a,c}	800	400	400	3	20	Hw Ss Others	1.80 1.40 1.00
n/a	CWHvm2	31	non-	forested		-	-	-	-	-	-	-
n/a	CWHvm2	32	non-	forested		-	-	-	-	-	-	-
n/a	CWHvm2	51	non-	forested		-	-	-	-	-	<u>-</u>	-
1054833	CWHws1	01	Hw ³⁰ Ba Cw	PI Sxs ^{30,35,56}	Ep ^c , Act ^c , At ^c , Dr ^{a,c}	900	500	400	6	20	Hw, PI, Act Sxs Others	2.00 2.00 1.40
1054834	CWHws1	02*	PI Hw ³⁰	Cw		600	400	400	6	20	Hw, Pl Others	1.40 1.00
1054835	CWHws1	03	Hw PI	Cw	Ep ^c , At ^c	900	500	400	6	20	Hw, Pl Others	2.00 1.40
1054836	CWHws1	04	Hw ^{2,30} Ba Cw	Sxs ^{30,35,56}	Ep ^c , At ^c Act ^{a,c} Dr ^{a,c}	900	500	400	3	20	Hw, Act Sxs Others	2.00 2.00 1.40
1054837	CWHws1	05	Hw ³⁰ Ba Cw	Sxs ^{7,30,35,56}	Ep ^c , At ^c , Dr ^{a,c}	900	500	400	6	20	Hw,Sxs Others	2.00 1.40
1054838	CWHws1	06	Hw ^{2,30} Ba Cw	Sxs ^{30,35,56}	Ep ^c , At ^c Act ^a Dr ^b	900	500	400	3	20	Hw,Sxs, Act Others	2.00 1.40
1054839	CWHws1	07	Hw ³⁰ Ba Cw	Sxs ^{30,35,56}	Act ^b	900	500	400	3	20	Hw,Sxs, Act Others	2.00 1.40

				ı	Regeneratio	n Guide				Free	Growing Guide	
	BE0 Classific	_		Species			ocking spaced		Regen Delay Guide	Latest assessment	Min. Heig	ht
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Suggest Max yrs)	(yrs)	Species	Ht (m)
1054840	CWHws1	08	Ba ¹ Cw ¹	Hw ³⁰ Sxs ^{1,30,35,56}	Act ^b Dr ^b	900	500	400	3	20	Sxs, Act Others	2.00 1.40
n/a	CWHws1	09*	no	conifers	Act ^b Dr ^b	-	-	-	-	-	All	1.40
1054841	CWHws1	10*	Pl ¹	Cw ¹ Hw ³⁰		400	200	200	3	20	Hw, Pl Cw	1.40 1.00
1054843	CWHws1	11	Cw ¹ Sxs ^{1,30,56}	Ba ¹ Hw ^{1,30}	Act ^{b,c} Dr ^{b,c}	800	400	400	3	20	Act Hw, Sxs Others	2.00 1.40 1.00
n/a	CWHws1	31	non-	forested		-	-	-	-	-	-	-
n/a	CWHws1	32	non-	forested		-	-	-	-	-	-	-
1054844	CWHws2	01	Sxs ^{30,56} Hw ³⁰ Ba Cw ¹⁴	BI ¹² PI Hm ^{13,30,50}	Ep ^c , Act ^c , At ^c , Dr ^a	900	500	400	6	20	PI, Act Hw Others	2.00 1.30 1.00
1054845	CWHws2	02*	PI Hw ³⁰	Cw Hm ^{13,30}		600	400	400	6	20	PI Others	1.40 0.80
1054846	CWHws2	03	Hw Pl	Hm ^{13,30} Cw	Ep ^c , At ^c Dr ^{a,c}	900	500	400	6	20	PI Hw Others	2.00 1.30 1.00
1054847	CWHws2	04	Sxs ^{30,56} Hw ³⁰ Ba Cw ¹⁴	Bl ¹² Hm ^{13,30}	Ep ^c , Act ^{a,c} , At ^c , Dr ^a	900	500	400	3	20	Act Hw Others	2.00 1.30 1.00
1054848	CWHws2	05	Sxs ^{7,30,56} Hw ³⁰ Ba Cw ¹⁴	Bl ¹²	Ep ^c , At ^c Dr ^{a,c}	900	500	400	6	20	Hw Others	1.30 1.00
1054849	CWHws2	06	Sxs ^{30,56} Hw ³⁰ Ba Cw ¹⁴	Bl ¹²	Ep ^c , Act ^{a,c} , At ^c , Dr ^a	900	500	400	3	20	Act Hw Others	2.00 1.30 1.00
1054850	CWHws2	07	Sxs ^{30,56} Hw ³⁰ Ba Cw	Bl ¹²	Act ^b Dr ^b	900	500	400	3	20	Act Hw Others	2.00 1.30 1.00
1054851	CWHws2	08	Sxs ^{30,56} Hw ³⁰ Ba ¹ Cw ¹	Bl ¹²	Act ^b Dr ^b	900	500	400	3	20	Act Other	2.00 1.00
n/a	CWHws2	09	no	conifers	Act ^b Dr ^b	-	-	-	-	-	All	1.40
1054852	CWHws2	10*	Pl ¹	Cw ¹ Hm ³⁰ Hw ³⁰		400	200	200	3	20	PI Others	1.40 0.80
1054853	CWHws2	11	Cw ¹ Sxs ^{1,30,56}	Hw ^{1,30} Ba ¹	Act ^{a,c} Dr ^{a,c}	800	400	400	3	20	Act Others	2.00 0.80
n/a	CWHws2	31	non-	forested		-	-	-	-	-	-	-
n/a	CWHws2	32	non-	forested		-	-	-	-	-	-	-
n/a	CWHws2	51	non-	forested		-	-	-	-	-	-	-
1004753	ESSFmk	01	BI Se	Ba ¹⁷ Hm Pl ³⁴		1200	700	600	7	20	PI Others	1.60 0.80
1004754	ESSFmk	02*	Pa Pl	BI Hm Se		1000	500	400	7	20	PI Others	1.20 0.60
1004755	ESSFmk	03*	Pa Pl	BI Hm Se Ba ¹⁷		1200	700	600	7	20	PI Others	1.60 0.80
1004756	ESSFmk	04	Bl Se	Ba ¹⁷ Hm Pl ³⁴		1200	700	600	4	20	PI Others	1.60 0.80
1004757	ESSFmk	05	Bl Se ³²	Hm Ba ¹⁷		1200	700	600	4	20	All	0.80

				F	Regeneratio	n Guide				Free Growing Guide			
	BE(Classific	_		Species			ocking spaced		Regen Delay Guide	Latest assessment	Min. Heig	Min. Height	
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Suggest Max yrs)	(yrs)	Species	Ht (m)	
1004758	ESSFmk	06	Bl ¹ Se ^{1,32}	Hm Ba		1000	500	400	4	20	All	0.80	
1004759	ESSFmk	07	Bl ¹ Se ^{1,32}	Ва		1000	500	400	4	20	All	0.80	
n/a	ESSFmk	31	non-	forested		-	-	-	-	-	-	-	
n/a	ESSFmk	51	non-	forested		-	-	-	-	-	-	-	
1054854	ICHmc1	01	Bl ²⁹ Ba ⁵⁰ Hw ³² Sx ⁵⁶	PI	At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI Others	2.00 1.00	
1054855	ICHmc1	02*	PI	BI Hw ³²	At ^{a,c}	1000	500	400	7	20	PI Others	1.40 0.80	
1054856	ICHmc1	03	Bl ²⁹ Ba ⁵⁰ Hw ³² Sx ^{35,56}	Pl	Act ^{a,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	
1054857	ICHmc1	04	Bl ²⁹ Ba ⁵⁰ Sx ^{35,56} Hw ³²	PI	Act ^{a,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	
1054858	ICHmc1	05	Ba ⁵⁰ Sx ^{1,35,56} Bl ^{1,29}		Act ^{b,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	Act Others	2.00 1.00	
1054859	ICHmc1	06	Ba ⁵⁰ Sx ^{1,56} Bl ^{1,29}	Hw ^{1,32}	Act ^{a,c}	1000	500	400	4	20	Act Others	2.00 0.80	
n/a	ICHmc1	31	non-	forested		-	-	-	-	-	-	-	
1054860	ICHmc1a	01	Ba ⁷ Hw ³² Sx ⁵⁶	BI ⁵⁰ PI	At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI Others	2.00 1.00	
1054861	ICHmc1a	02	Hw ³² Ba Sx ^{35,56}	Bl⁵0 Pl	Act ^{a,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	
1054862	ICHmc1a	03	Hw ³² Ba Sx ^{35,56}	Bl ⁵⁰ Pl		1200	700	600	4	20	PI Others	2.00 1.00	
1054863	ICHmc2	01	Hw ³² Sx ⁵⁶ Cw ³²	Ba ⁵⁰ PI Lw ^{7,32} Fd ³² Bl ²⁹	At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI Others	2.00 1.00	
1054865	ICHmc2	02*	PI	Bl Hw Ba ⁵⁰	At ^{a,c}	1000	500	400	7	20	PI Others	1.40 0.80	
1054866	ICHmc2	03	Cw ³² Hw ³² Sx ^{35,56}	Bl ²⁹ Pl Lw ^{7,32} Fd ³² Ba ⁵⁰	Act ^{b,c} At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	
1054867	ICHmc2	04	Cw ³² Sx ^{35,56} Hw ³²	Bl ²⁹ Lw ^{7,32} Fd ³² Pl Ba ⁵⁰	Act ^{b,c} At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	
1054868	ICHmc2	05	Cw ^{1,32} Sx ^{1,35,56}	Ba ⁵⁰ Bl ^{1,29} Hw ^{1,32} Pl ¹	Act ^{b,c} At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	
1054869	ICHmc2	06	Cw ^{1,32} Sx ^{1,35,56}	Ba ⁵⁰ Bl ^{1,29} Hw ^{1,32}	Act ^{a,c} At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	Act Others	2.00 1.00	
1054870	ICHmc2	07	Ba ⁵⁰ Bl ^{1,29} Sx ^{1,56} Cw ^{1,32}	Hw ^{1,32}	Act ^{b,c} At ^{b,c} Ep ^{b,c}	1000	500	400	4	20	Act Others	2.00 1.00	
1054871	ICHmc2	08*	Sb ¹ Sx ^{1,32,56}	Pl ¹		400	200	200	4	20	PI Others	1.40 0.80	
n/a	ICHmc2	31	non-	forested		-	-	-	-	-	-	-	
n/a	ICHmc2	32	non-	forested		-	-	-	-	-	-	-	
1054872	ICHmc2	51	PI Hw	Bl ^{28,29} Sx ^{28,56} Ba ⁵⁰	At ^{a,c} Ep ^{a,c}	1200	700	600	4	20	PI Others	2.00 1.00	
1054873	ICHmc2	52	Hw ³² Sx ⁵⁶ Cw ³²	PI Bl ²⁹ Ba ⁵⁰	Act ^{a,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00	

				F	Regeneratio	n Guide				Free (Growing Guide	
	BE(Classific	_	Species				ocking spaced		Regen Delay Guide	Latest assessment	Min. Height	
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Suggest Max yrs)	(yrs)	Species	Ht (m)
1054874	ICHmc2	53	Hw ³² Sx ⁵⁶ Cw ³²	PI Bl ²⁹ Ba ⁵⁰	Act ^{a,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00
1054875	ICHmc2	54	Cw ³² Sx ⁵⁶	Bl ²⁹ Hw ³² Pl Ba ⁵⁰	Act ^{a,c} At ^{b,c} Ep ^{b,c}	1200	700	600	4	20	PI, Act Others	2.00 1.00
1004815	MHmm1	01	Ba Hm Yc			900	500	400	7	20	All	1.00
1004816	MHmm1	02*	Hm Yc	Ва		800	400	400	4	20	All	0.80
1004817	MHmm1	03	Ba Hm Yc			900	500	400	4	20	All	1.00
1004818	MHmm1	04	Ba Hm Yc			900	500	400	7	20	All	1.00
1004819	MHmm1	05	Ba Yc Hm			900	500	400	4	20	All	1.00
1004820	MHmm1	06*	Hm ¹ Yc ¹			800	400	400	7	20	All	0.80
1004821	MHmm1	07*	Hm¹ Ba¹ Yc¹			900	500	400	4	20	All	1.00
1004822	MHmm1	08*	Hm ¹ Yc ¹	Hw ^{1,14} Ba ¹		400	200	200	4	20	All	0.80
1004823	MHmm1	09*	Yc1 Hm1	Ba ¹ Hw ^{1,14}		800	400	400	4	20	All	0.80
n/a	MHmm1	31	non-	forested		-	-	-	-	-	-	-
n/a	MHmm1	51	non-	forested		-	-	-	-	-	-	-
1054876	MHmm2	01	Ba Hm	Yc ^{17,50} Bl ⁵⁰ Hw ^{14,30,50}		900	500	400	7	20	All	1.00
1004825	MHmm2	02*	Hm	Yc ^{17,50} Ba Bl ⁵⁰		800	400	400	4	20	All	0.80
1054877	MHmm2	03	Ba Hm	Yc ^{17,50} Bl ⁵⁰ Hw ^{14,30,50}		900	500	400	4	20	All	1.00
1004827	MHmm2	04	Ba Hm	Yc ^{17,50} Bl ⁵⁰		900	500	400	7	20	All	1.00
1004828	MHmm2	05	Ba Hm	Yc ^{17,50} Bl ⁵⁰		900	500	400	4	20	All	1.00
1004829	MHmm2	06*	Hm ¹	Yc ^{17,50}		800	400	400	7	20	All	1.00
1004830	MHmm2	07*	Ba ¹	Yc ^{1,17,50} Hm ¹		900	500	400	4	20	All	1.00
1004831	MHmm2	08*	Hm¹	Ba Bl ^{1,50} Yc ^{1,17,50}		400	200	200	4	20	All	0.80
1004832	MHmm2	09*	Hm ¹	Ba ¹ Yc ^{1,17,50}		800	400	400	4	20	All	0.80
n/a	MHmm2	31	non-	forested		-	-	-	-	-	-	-
n/a	MHmm2	51	non-	forested		-	-	-	-	-	-	-

^{*} Advisory note: These site series are sensitive to harvesting – avoid targeting them for harvest

Table A2: Stocking Standards for Wildlife Forage Site Series

	BEC Classif	ication	Speci	es		Stocking II-spaced/h	na)	Regen Delay	Free Growing	Maxim	ium De	nsity
I.D. #	Zone/SZ	Series	Preferred	Accep t-able	Target	MIN	MIN	Guide (Suggest	Latest	Pre Space*		Spacing spaced)
			(p) (a)			ра	р	max yrs)	(yrs)	MAX	MIN	MAX
Wildlife F	orage - Devil's	s club						1			1	
1054878	CWHvm1	08		As per equivalent BEC classification in Table A1		400	400	3	20	660	400	660
1054879	CWHvm2	08	As per equival classification in		600	400	400	3	20	660	400	660
1054880	CWHws1	06	As per equival		600	400	400	3	20	660	400	660
1054881	CWHws2	06	As per equival classification in		600	400	400	3	20	660	400	660
1054882	ICHmc2	04	As per equival		600	400	400	3	20	660	400	660
1054883	ICHms2	05		As per equivalent BEC classification in Table A1		400	400	3	20	660	400	660
Wildlife F	orage - Skunk	cabbag	е									
1054884	CWHvm1	14		As per equivalent BEC classification in Table A1		200	200	3	20	440	200	440
1054885	CWHvm2	11		As per equivalent BEC classification in Table A1		200	200	3	20	440	200	440
1054886	CWHws1	11	As per equival classification in		400	200	200	3	20	440	200	440
1054887	CWHws2	11	As per equival classification in		400	200	200	3	20	440	200	440
1054888	ICHmc2	07	As per equival classification in		400	200	200	3	20	440	200	440
Wildlife F	orage – Salmo	onberry/r	red-osier do	gwood								
1054889	CWHvm1	09	As per equival classification in		500	200	200	3	20	550	200	550
1054890	CWHvm1	10	As per equival		500	200	200	3	20	550	200	550
1054891	CWHws1	07	As per equival		500	200	200	3	20	550	200	550
1054892	CWHws1	08		As per equivalent BEC classification in Table A1		200	200	3	20	550	200	550
1054893	CWHws2	07		As per equivalent BEC classification in Table A1		200	200	3	20	550	200	550
1054894	CWHws2	08	As per equival classification in		500	200	200	3	20	550	200	550
1054896	ICHms2	06	As per equival		500	200	200	3	20	550	200	550

^{*} If a stand exceeds the maximum density set in the prescription at free growing but does not exceed 4000 stems per hectare (sph), the stand will be assessed to ensure there are sufficient gaps to provide forage for grizzly bears or moose. Sufficient forage gaps will be considered to be greater than 20% gaps across the standards unit. To test if adequate gap creation exists, a minimum of 20% (per standards unit) of the randomly systematic established plots (50 m²) must contain less than or equal to one conifer (> 50 cm height), or the equivalent of 200 sph. If the results of the Free Growing survey show maximum density is exceeded without sufficient forage gaps or that total sph exceeds 4000 sph a spacing treatment to meet the forage objective will be implemented.

Notes:

Free-growing assessment, Tree Height: Same as the stocking standards for the ecosystem as described in <u>Table A1</u>.

Minimum Inter-tree Spacing: As per Section 3.2.5

Well-Spaced stems: "Well spaced" does not apply to forage gaps when cluster management is identified as a stand level strategy in the site plan.

Target post-spacing density: The target post spacing density is 100 stems/ha less than the post spacing maximum density.

Table A3: Stocking Standards for Sites Heavily Infected with Annosus

			Regeneration Guide			Free Growing Guide						
I.D. #	BEC Classification		Species		Stocking (well-spaced/ha)		Regen Delay Guide	Latest Assess ment	ssess Min. Height			
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf	Target	MIN pa	MIN p	(Suggest max yrs)	(yrs)	Species	Ht (m)
1054897	CWHws1	01	Cw Hw ^{30,57}	Ba Pl Sxs ^{30,35,56}	Ep ^{a,c} , Act ^c , At ^c , Dr ^{a,c}	900	500	400	6	20	Plc, Cw Others	2.00 3.00
1054898	CWHws1	02*	PI Cw Hw ^{30,57}			600	400	400	6	20	Plc, Cw Others	1.40 2.00
1054899	CWHws1	03	PI Cw Hw ^{30,57}		Ep ^{a,c} , At ^c	900	500	400	6	20	Plc, Cw Others	2.00 3.00
1054900	CWHws1	04	Cw Hw ^{30,57}	Ba Sxs ^{30,35,56}	Act ^{a,c} Dr ^{b,c,} Ep ^{b,c} , At ^c	900	500	400	3	20	Cw Others	2.00 3.00
1054901	CWHws1	05	Cw Hw ^{30,57}	Ba Pl Sxs ^{30,35,56}	Dr ^{a,c} , Ep ^{a,c} , At ^c	900	500	400	6	20	Cw Others	2.00 3.00
1054902	CWHws1	06	Cw Hw ^{2,30,57}	Ba Sxs ^{30,35,56}	Act ^b Dr ^b Ep ^{b,c} , At ^c	900	500	400	3	20	Cw Others	2.00 3.00
1054903	CWHws1	07	Cw Hw ^{30,57}	Ba Sxs ^{30,35,56}	Act ^b	900	500	400	3	20	Cw Others	2.00 3.00
1054904	CWHws1	08	Cw ¹	Ba ¹ Hw ^{1,30} Sxs ^{1,30,35,56}	Act ^b Dr ^a	900	500	400	3	20	Cw Others	2.00 3.00
n/a	CWHws1	09*	no	conifers	Act ^b Dr ^b	-	-	-	-	-	All	1.40
1054905	CWHws1	10*	Pl ¹	Cw ¹ Hw ^{1,30}		400	200	200	3	20	Plc, Cw Others	1.40 2.00
1054906	CWHws1	11	Cw ¹ Sxs ^{1,30,56}	Ba ¹ Hw ^{1,30}	Act ^{b,c} Dr ^{b,c}	800	400	400	3	20	Cw Others	1.40 2.00
n/a	CWHws1	31	non-	forested		-	-	-	-	-	-	-
n/a	CWHws1	32	non-	forested		-	-	-	-	-	-	-

^{*} These site series are sensitive to harvesting – avoid targeting them for harvest

Table A4: Multiple-layer Stocking Standards

	Target from	Layer**	Stocking (well-spaced/ha)			Regeneration delay Guide*
I.D. #	standards		Target	MIN	MIN	
	(stems/ha)		pa	ра	р	(Suggest max years)
1054907	1200	1	600	300	250	7
		2	800	400	300	7
		3	1000	500	400	7
		4	1200	700	600	7
1054908	1000	1	400	200	200	7
		2	600	300	250	7
		3	800	400	300	7
		4	1000	500	400	7
1054909	900	1	400	200	200	7
		2	500	300	250	7
		3	700	400	300	7
		4	900	500	400	7
1054910	800	1	300	150	150	7
		2	400	200	200	7
		3	600	300	300	7
		4	800	400	400	7
1054911	600	1	300	150	150	7
		2	400	200	200	7
		3	500	300	300	7
		4	600	400	400	7
1054912	400	1	200	100	100	7
		2	300	125	125	7
		3	300	150	150	7
		4	400	200	200	7

* Regeneration Delay Guidance:

Maximum regen delay for uneven-aged management is 7 years. Regen delay can be met immediately following harvesting if the residual stand has no significant damage or pest problems and meets minimum stocking standards. If regeneration is achieved immediately following harvest, earliest Free-Growing date is 12 months after completion of harvesting.

**Stand Layer Definition

Section 3.2.5 applies to multi-layer stands for minimum inter-tree distance

Table A5: Spruce Leader Weevil Hazard Ratings by BEC

Hazard Rating	BEC Classification Zone/SZ	Modifier	
	ICHmc1	>350 m elevation	
	ICHmc1a	n/a	
Low	ICHmc2	>350 m elevation	
	CWHvm1 South*	n/a	
	CWHvm2 South*	n/a	
	ICHmc1	0-350 m elevation	
	ICHmc2	0-350 m elevation	
Moderate	CWHws1	>400 m elevation	
Moderate	CWHws2	n/a	
	CWHvm1 North*	n/a	
	CWHvm2 North*	n/a	
High	CWHws1	0-400 m elevation	

^{*}The boundary between CWHvm1, CWHvm2 North and South is defined at Latitude 53°43'32" N (equivalent to the north end of Maitland Island).

Table A6: Maximum % of spruce by Hazard

lld	Natural or non-	Resistant stock type planted***			
Hazard Rating	resistant stock type planted	"A"* Class Stock	B+*, Sxs or identified provenances		
Low	50% 40%**	No restriction <600m	No restriction		
Moderate	30%	No restriction <600m	50%		
High	20%	50% <600m	30%		

^{* &}quot;A" is A class orchard seed and B+ is naturally genetic improved seed
**Ss
***Generally beyond current transfer guidelines but due to high performance in the IUFRO and EP 1072 Hybrid Transition Trials^{iv} it is anticipated the Seed Transfer Guidelines will be amended at a future date.

Standards* footnotes to "Preferred", "Acceptable" or "Broadleaf" species within Tables A1, A2 and A3

- a Species is limited in productivity, reliability and/or feasibility, and subject to Section 3.2.8 of this FSP, may only be considered as "acceptable"
- b Species constitutes a productive, reliable, and feasible regeneration option, and subject to Section 3.2.8 of this FSP, may be considered as "preferred"
- will be considered preferred and contributing to minimum stocking when Fire Management Stocking Standards (FMSS) are applied. FMSS remove minimum coniferous stocking and replace it with minimum deciduous stocking.
- 16 Restrict to maximum of 20% of preferred well-spaced stocking
- 19 Restrict to maximum of 50% of preferred well-spaced stocking
- 56 Spruce content restricted based on leader weevil hazard and stock susceptibility. Limits on the amount of well-spaced and free growing spruce (Ss, Sxs, Sx and Se) on a standards unit due to leader weevil are calculated in <u>Tables A5</u> Spruce Weevil Hazard Ratings by BEC and <u>Table A6</u> Maximum % Spruce by Hazard
- 57 Hemlock is considered preferred but is limited to a maximum of 30% of well-spaced and free growing trees

Advisory** footnotes to "Preferred" or "Acceptable" species within Tables A1, A2 and A3

- 1 Elevated microsites are preferred
- 2 Suitable on thick forest floors
- 7 Restricted to nutrient-medium sites
- 12 Suitable on cold air drainage sites
- 13 Restricted to upper elevations of biogeoclimatic unit
- 14 Restricted to lower elevations of biogeoclimatic unit
- 17 Restricted to western portion of biogeoclimatic unit in region
- 18 Suitable as a minor species (e.g. less than 30%) in salal-dominated sites
- 22 Restricted to southern Gardner Canal Kitlope area (i.e. where Fd could occur naturally)
- 28 Limited by moisture deficit
- 29 Risk of heavy browsing by moose
- 30 Risk of porcupine damage
- 32 Limited by growing-season frosts
- 34 Risk of snow damage
- 35 Risk of weevil damage
- 50 Restricted to sites where the species occurs as a major species in a pre-harvest, natural stand

Note: The following do not exist as footnotes in this FSP: 3-6, 8-11, 15-16, 19-21, 23-27, 31, 33, 36-49

^{**}These footnotes are provided as advice to a prescribing Forest Professional, and are not to be interpreted as a measurable, verifiable, or enforceable part of the Stocking Standards.

BEC - B	BEC - Biogeoclimatic Ecosystem Classification				
CWH	Coastal Western Hemlock zone	ICH	Interior Cedar-Hemlock zone		
vm1	very wet maritime subzone, submontane variant	mc1	moist cold subzone, Nass variant		
vm2	very wet maritime subzone, montane variant	m1a	moist cold subzone, Nass variant, Amabalis fir phase		
wm	wet maritime subzone	mc2	moist cold subzone, Hazelton variant		
ws1	wet submaritime subzone, submontane variant	МН	Mountain Hemlock zone		
ws2	wet submaritime subzone, montane variant	mm1	moist maritime subzone, windward variant		
ESSF	Engelmann Spruce Subalpine Fir zone	mm2	moist maritime subzone, leeward variant		
mk	moist cool subzone				
wv	wet very cold subzone				

Conifer Tree Species		Broadleaf Tree Species
"Ba" means amabalis fir	"PI" means Lodgepole pine;	"Act" means black cottonwood;
"BI" means subalpine fir;	"Sb" means black spruce;	"At" means trembling aspen;
"Cw" means western red cedar;	"Sw" means white spruce;	"Dr" means alder
"Fd" means Douglas-fir;	"Se" means Engelmann spruce;	"Ep" means common paper birch;
"Hm" means mountain hemlock;	"Sx" means hybrid or interior spruce;	
"Hw" means western hemlock;	"Yc" means yellow cedar.	
"Lw" means western larch;		

In all BEC zones except the ESSF, the terms Ss, Sx and Sxs are used interchangeably; in the ESSF BEC zone, the terms Se, Sx and Sxs are used interchangeably. The terms are a reflection of the seed registration and are not indicative of the genetic material.

^{*}These footnotes are to be interpreted as a measurable, verifiable, and enforceable part of the Stocking Standards.