Coast Mountains Natural Resource District Forest Stewardship Plan 2023 - 2028

For Operations within the Coast Mountains Natural Resource District:

Cascadia TSA (including TFL 1), GBR North TSA, Kalum TSA, Nass TSA, and Pacific TSA (including TFL 41)

Administered by
BC Timber Sales
Skeena Business Area
Ministry of Forests

BRITISH COLUMBIA

BCTS
BC Timber Sales

BC Timber Sales
Skeena Business Area
#200 - 5220 Keith Avenue
Terrace, British Columbia
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Coast Mountains Natural Resource District

Forest Stewardship Plan 2023 – 2028 Amendment #1

BC Timber Sales – Skeena Business Area

Gitxaala Forest Products Ltd.

For Operations within the Coast Mountains Natural Resource District:

Cascadia TSA (including TFL 1), GBR North TSA, Kalum TSA, Nass TSA, and Pacific TSA (including TFL 41)

BC Timber Sales – Skeena Business Area

Ministry of Forests

200 – 5220 Keith Avenue

Terrace, BC

V8G 1L1

Tel. 250 638 5100

Timber Sales Manager Signature: _____

Name: Shasta Gillanders, RPF

Date: _____

Authorized RPF Signature: _____

Name: Kirstin Eyolfson, RPF

Date: _____

Authorized approval by Delegated Decision Maker: _____

Name: Barry Dobbin, RPF

Date: _____

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Table of Contents

List of Appendices

List of Tables (Within body of document)

List of Figures

1 APPLICATION OF THIS FSP

1.1 The Forest Stewardship Plan Holders

The Holders of this Forest Stewardship Plan (FSP) are:

1) BC Timber Sales. The BC Timber Sales Manager (TSM) for the Skeena Business Area, and where applicable, by extension, the holder of a Timber Sale License (TSL) or Road Permit (RP) granted by the TSM under the jurisdiction of this FSP. All references in the plan to BCTS harvesting, BCTS operations and BCTS activities refer to activities authorized by the TSM. The total annual apportionment administered by the Skeena Business Area is 796,478m3 and the annual apportionment within the area of this FSP is 542,245m3.
2) Gitxaala Forest Products Ltd. Gitxaala Forest Products Ltd. holds three tenures: Non-Replaceable Forest Licence (NRFL) A95623, Forest Licence (FL) A95624 and FL A16820.The volume for NRFL A95623 is 375,000m3, the annual allowable cut (AAC) for FL A95624 is 8,528 m3 /year and the AAC for FL A16820 is 66,472m3/year. All these tenures are located within the GBR North TSA and within this FSP's North Coast FDU.

1.2 Introduction

BC Timber Sales (BCTS) Skeena has prepared this FSP for the areas to be managed under the FSP Holders' operations within the Coast Mountains Natural Resource District.

The FSP describes

- the planned areas of interest (known as Forest Development Units or FDUs) that will contain harvesting and road activities, and
- the strategies and results 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 Delegated Decision Maker (DDM)[1] to evaluate whether consistency with the objectives is being achieved.

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 forest values:

- Soils
- Timber (including Forest Health)
- Wildlife
- Water
- Fish
- Biodiversity
- Cultural Heritage Resources
- Recreation Resources
- Resource Features
- Visual Quality
- Forage

1.3 Description of the Skeena Business Area of BC Timber Sales

BCTS was founded in April 2003 with a mandate to be the cost and price benchmark for timber harvested from public land in British Columbia. BCTS manages approximately 20% of the annual provincial Crown harvest through 12 Business Areas and has an operational presence in 33 locations. The Skeena Business Area has its main office in Terrace, BC, with a field office in Hazelton, BC. The Skeena

[1] For this FSP, the Delegated Decision Maker is the District Manager of the Coast Mountains Natural Resource District, Ministry of Forests

Business Area of BCTS encompasses the Coast Mountains Natural Resource District (CMNRD), and the Kispiox and Cassiar Timber Supply Areas. The bulk of these areas are within the Northwest Mountain Pricing Unit with the exception of the Great Bear Rainforest (GBR) North TSA, which is in the Coastal Pricing Unit.

BCTS' operating areas are spread throughout the district, from Kotsinta Creek in the north to Aristazaba Island in the south. The area of the plan covered by this FSP is restricted to the CMNRD and has been split into three (3) Forest Development Units (FDUs): the Kalum South FDU; the Nass FDU and the North Coast FDU. The FDU boundaries are shown on the following overview map.

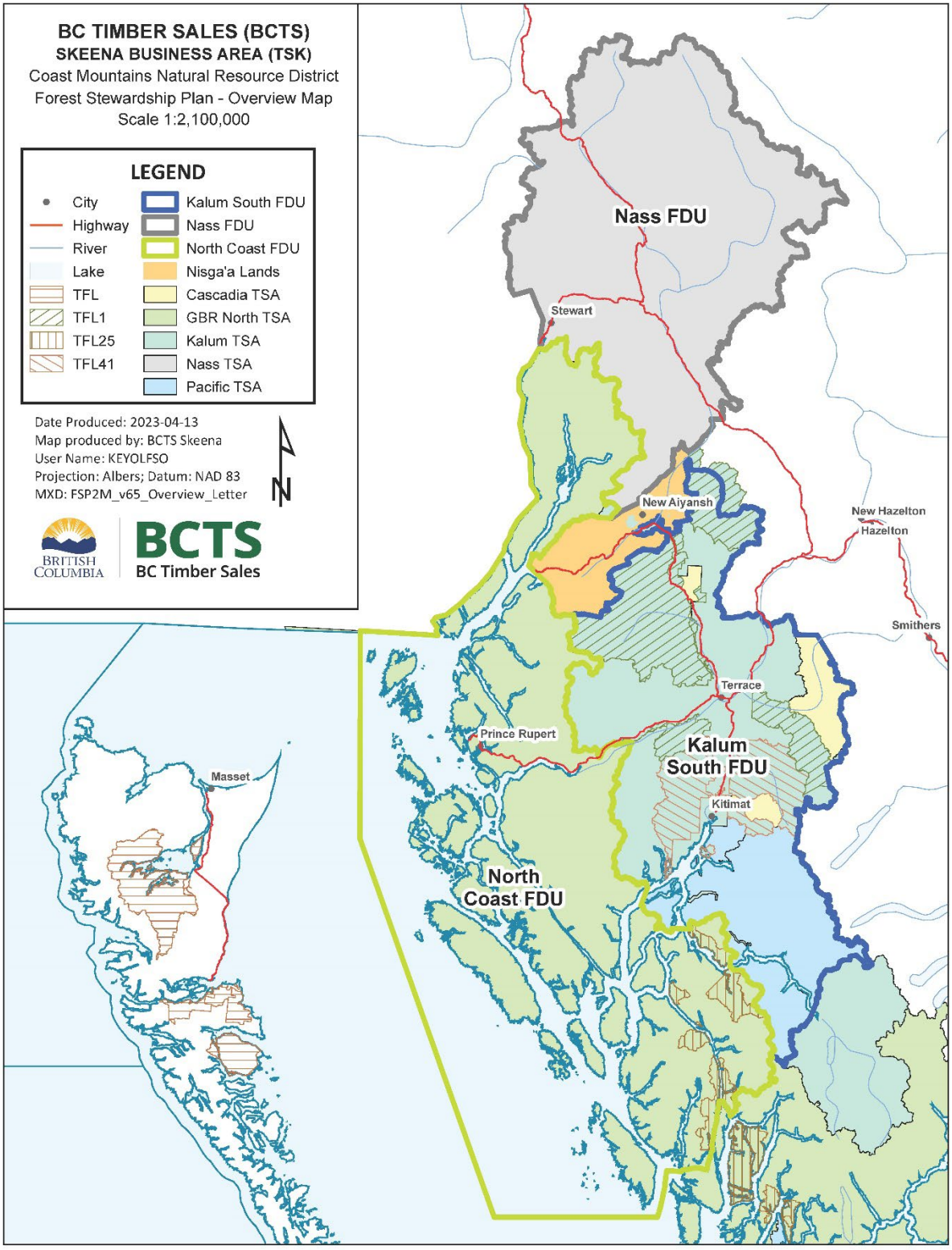

Figure 1: Overview Map

1.4 Description of Gitxaala Forest Products Ltd. (GFP) Tenure Areas

The license areas for two of GFP's tenures (NRFL A95623 and FL A95624) fall within the North Coast (NC) FDU. The area of GFP's third tenure (FL A16820) is the GBR North TSA. The NC FDU, which represents the historic North Coast TSA, does not cover the full extent of this license.

1.5 Areas within the North Coast FDU Subject to a Cutting Permit or Road Permit

PLAN CO-HOLDER	TENURE	APPROVED CUTTING PERMIT	APPROVED ROAD PERMIT
GITXAALA FOREST PRODUCTS LTD.	FL A16820	CP 108	R15788

1.6 Term of the Plan

The term of this plan is for five years commencing on the date of approval by the Delegated Decision Maker (DDM).

1.7 Forest Development Units

The FSP includes three distinct planning areas, which are identified as Forest Development Units (FDUs) and shown on the overview map above (Figure 1).

The FSP includes a separate chapter (section) for each Forest Development Unit. The FDUs (with the exception of the Nass FDU) have been established to be consistent with existing land use order boundaries:

The Kalum South FDU includes the geographic area subject to the Land Use Objectives from the Kalum Sustainable Resource Management Plan (April 28, 2006).

The Nass FDU includes the geographic area of the Nass TSA and is, in part, subject to the Nass South SRMP LUOR Order (February 25, 2016).

The North Coast FDU reflects the boundaries of the historic North Coast TSA (which has now been superseded by the GBR North TSA) and is subject to the Great Bear Rainforest Order (June 9th, 2023).

A complete set of maps, showing FDUs, Landscape Units (LUs), Special Management Zones, and other elements relevant to the application of this FSP are included with this plan in Appendix XII.

1.8 First Nation Engagement and Information Sharing

The FSP Holders will engage in consultation and/or information sharing in accordance with the Treaties, First Nations consultation protocols or agreements that are in effect at the time of engagement. In the absence of such agreements, the FSP Holders will be consistent with current FN engagement procedures.

1.9 Interpretation

All references to the Forest and Range Practices Act, or to FRPA, mean the Forest and Range Practices Act (SBC 2002, Chapter.69, effective March 29, 2023) as it was on March 27, 2024

All references to the Forest Planning and Practices Regulation, or to "FPPR", mean the Forest Planning and Practices Regulation (BC Reg 14/2004, effective July 11, 2023) as it was on March 27, 2024

All references to the Government Actions Regulation, or to GAR, mean the Government Actions Regulation (BC Reg 582/2004, effective June 20, 2023) as it was on March 27, 2024

All references to the Land Act mean the Land Act (Chapter 245[RSBC 1996], effective November 29, 2023) as it was on March 27th 2024

All references to the Central and North Coast Order, or CNCO, mean the Central and North Coast Ministerial Land Use Order (December 2007, as amended March 27, 2009).

All references to the Central Coast Land and Resource Management Plan, or CCLRMP, mean the Central Coast Land and Resource Management Plan (May 2004).

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

All references to the Kalum Sustainable Resource Management Plan, or Kalum SRMP, mean the Kalum Sustainable Resource Management Plan (April 28, 2006).

All references to the Nass South SRMP LUOR Order mean the Nass South Land Use Objectives Regulation Order Sustainable Resource Management Plan (February 25, 2016).

All references to the Great Bear Rainforest Order, or GBRO, mean the Great Bear Rainforest Order (June 9, 2023).

Unless otherwise noted, statements and information provided are current to March 27th, 2024. Every effort has been made to ensure that current data have been used in map generation and analyses: i.e. current to March 27th, 2024.

1.10 Content Requirements

The required content in a FSP is described in the *Forest and Range Practices Act* (FRPA) and the *Forest Planning and Practices Regulation* (FPPR).

The basic requirements are:

- A map that shows the boundary of proposed and approved Forest Development Units (FDUs). FRPA section 5(1) (a). There are three FDUs:
    - Kalum South FDU
    - Nass FDU
    - North Coast FDU
- Details of the lands within these FDUs are shown in the formal FSP maps, as described in **Section 5.28**
- A description of the strategies and/ or results necessary to be consistent with applicable legislation, and with Objectives that have been set by government. FRPA s. 5(1) (b). The strategies and results are described in **Sections 2, 3 and 4**. In this FSP, within each chapter and for the applicable FDU, the reference table that precedes each objective identifies the practice requirements that the FSP Holders will adopt within the period of the FSP.
- A description or a map showing the following where it exists on the FSP area. This information is provided on the FSP maps as described in **Section 5.28** and as described in **Appendices II, III, IV, and XII.** FPPR s. 14(2) & (3):
    - Ungulate Winter Range
    - Wildlife Habitat Areas
    - Fisheries Sensitive Watersheds
    - Lakeshore Management Zones
    - Scenic Areas
    - L1 Lakes
    - Community Watersheds
    - Old Growth Management Areas

  - Areas where timber harvest is prohibited
  - Timber Sale Licenses and Road Permits granted by the Timber Sales Manager
  - Approved Cutting Permits and Road Permits
- Description of the Stocking Standards that will apply on the FDUs (FPPR s. 16). Described in **Section 5.2 to 5.22**
- Effect of Approval of the FSP **Section 5.23**
- Where applicable, address:
  - Invasive plants (FPPR s. 17) **Section 5.24**
  - Natural range barriers (FPPR s. 18) **Section 5.25**
- The cumulative effect of multiple FSPs in an area (FPPR s. 19) **Section 5.26**
- Information on public review and advertisement, as well as efforts to meet with First Nations, must also be provided (FRPA s. 18 and FPPR s. 21, s. 22) **Tabs 1, 2, 3 and 4**
- Signature by an authorized representative of the licensee (FRPA s. 5(3)). **Title page**

1.11 Explanation of Objectives, Strategies, and Results

Objectives are descriptions of overall goals to be achieved. Objectives can vary from place to place, depending on the circumstances of the area. The FRPA defines three types of objectives:

Objectives set in regulation: Objectives set in regulation (enabled under section 149 of the FRPA and set under sections 5 to 10 of the FPPR), are intended to provide goalposts for managing and protecting FRPA values. Results and/or strategies in operational plans must address and be consistent with these objectives.

Objectives enabled by regulation: Objectives enabled by regulation (sections 56, 149.1 to 150.3, and 181 of the FRPA, and Part 1, Division 2 of the G*overnment Actions Regulation*) are the second type of objective set by government. The appropriate minister (as authorized in the legislation) may designate areas, establish objectives for these areas, and establish other things, such as measures or features. In some cases, different ministers are responsible for designating an area and setting objectives within that area. These objectives guide effective forest management for specific resource values at the local level. Objectives enabled by regulation come into effect through government actions outlined in sections 2 to 4 of the *Government Actions Regulation*. Objectives enabled by regulation by a minister must be consistent with any applicable established objectives. When establishing these objectives, the minister must consider the impact of the proposed objective on the provincial timber supply as well as the cumulative impact on rights granted to timber, woodlot, or range agreement holders. Once a new objective has been in place for at least four months, new operational plans (including forest stewardship plans) must contain results and/or strategies to address the new objective, if the objective is applicable to the area under the plan. Existing operational plans must be amended within two years, unless a different time frame is specified in the order under section 8 of the FRPA, to address the new objective if it is applicable to the area under the plan.

For example, in the Coast Mountains Natural Resource District, Orders have established Landscape Units and Old Growth targets, Identified Species at Risk and ungulate Species, and established Wildlife Habitat Areas. The *Supporting Document* to this FSP provides a more detailed discussion of these items.

Land-use objectives: Land-use objectives (established or carried forward (grand-parented) under the Land Act and sections 3 to 5 of the FPC), guide agreement-holders in preparing results and/or strategies in operational plans and are key to maintaining environmental and economic values. They are also a mechanism for bringing forward existing and new objectives, which are developed under regional and sub-regional planning processes, into the FRPA. Land-Use objectives are objectives specific to a certain area that have been established through a Landscape Unit Plan or Sustainable Resource Management Plan. The Minister of Land, Water and Resource Stewardship (LWRS) sets these objectives.

This plan includes land use objectives from the following sources (Section **SD1.1** of the *Supporting Document* to this FSP provides further discussion of these plans):

- **The Kalum Sustainable Resource Management Plan (SRMP**) was approved April 28, 2006 and uses the cabinet-approved Kalum Land and Resource Management Plan (LRMP) as its basis. The SRMP objectives are considered land-use objectives under the FRPA.
- The **Nass South Sustainable Resource Management Plan (SRMP) LUOR Order** (February 25, 2016) legally establishes a portion of the land use objectives in the Nass South SRMP that was approved in 2012. The Nass South SRMP is a landscape level plan developed to address sustainable management of land, water and resources in the southern portion of the Nass Timber Supply Area (TSA) through collaboration with the Gitanyow and Nisga'a Lisims Government (NLG). The plan area is approximately 600,000 hectares in size and covers the southern portion of the Nass Timber Supply Area.
- The **Great Bear Rainforest Order (GBRO) (June 9, 2023) replaces the previous GBRO enforced January 28, 2016.** The intent of the Order is to improve maintenance and protection of First Nation forest and cultural values, increase long term protection of aquatic ecosystems, biodiversity and wildlife and to provide for stable social and economic benefits for First Nations and others living and dependent upon the plan area.

As per FPPR section 1:

Strategy means a description of:

(a) measurable or verifiable steps or practices that will be carried out in respect of a particular established objective, and

(b) the situations or circumstances that determine where in a forest development unit the steps or practices will be applied.

Result means a description of:

(a) measurable or verifiable outcomes in respect of a particular established objective, and

(b) the situations or circumstances that determine where in a forest development unit the outcomes under paragraph (a) will be applied.

Note: As per section 7(3) of the *Forest Planning and Practices Regulation*, the minister must exempt forest tenure holders from the obligation to specify a result or strategy in relation to the objective set out in section 7(1) of the *Forest Planning and Practices Regulation*. Notices revisions and exceptions are tracked through the Species at Risk Notices FPPR section 7 and WLPPR section 9 website.

Under the FPPR for some objectives, the FPPR enables the holder of an FSP to elect to either:

- Comply with the related practice requirements specified in the FPPR (in which case the holder is except from specifying a result or strategy for that objective) or
- Specify a result or strategy for that objective (in which case the holder is exempt from the related practice requirement),

The FSP holder must specify which related practice requirements they will undertake to comply with and which related practice requirements they will be exempt from.

Within the FSP, each Objective, Result and Strategy has been numbered for reference purposes. Each Result or Strategy applies to a specific objective and this relationship has been indicated by the numbering system, for example Strategy 2.2.2.1 relates to Objective 2.2.2. Results and Strategies may apply to multiple Objectives.

1.12 Parts of this Document that Comprise the Forest Stewardship Plan

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

- The title/signature page
- The results, strategies, and identification of which eligible forest practice requirements have been exempted, as described in **Sections 2, 3 and 4**;
- The additional information provided, discussed, or referenced in **Section 5**; and
- The attached Appendices (**Appendix I- Appendix XII)**.

A separate document has been prepared which provides supporting information for this plan. This "Supporting Document" is not considered part of the Forest Stewardship Plan.

1.13 Acronyms or Terms

Acronyms used in the FSP or Supporting Document are as follows:

AFR:	Aboriginal Forest Resources
AHF:	Aboriginal Heritage Features
AIA:	Archaeological Impact Assessment
ATV:	All Terrain Vehicles
BA:	Basal Area
BCTS:	BC Timber Sales
BEC:	Biological, Ecological, and Climatic; or Biogeoclimatic Ecosystem Classification
C&E:	Compliance and Enforcement
CDC:	Conservation Data Center
CEF:	Cumulative Effects Framework
CHRE:	Cultural Heritage Resource Evaluation
CHR:	Cultural Heritage Resource
CMNRD:	Coast Mountains Natural Resource District
CMT:	Culturally Modified Tree
CNCO:	Central North Coast Order
CT:	Commercial Thinning
CWD:	Coarse Woody Debris
CWH:	Coastal Western Hemlock
DDM:	Delegated Decision Maker
DFO:	Fisheries and Oceans Canada
EBM:	Ecosystem Based Management
ECA:	Equivalent Clearcut Area
EMS:	Environmental Management System
ERP:	Emergency Response Plan
FDP:	Forest Development Plan
FDU:	Forest Development Unit
FL:	Forest Licence
FLTC:	Forestry Licence to Cut

FOR:	Ministry of Forests
FPC	Forest Practice Code Act of BC
FPPR:	Forest Planning and Practices Regulation
FREP:	Forest and Range Evaluation Program
FRPA:	Forest and Range Practices Act
FSP:	Forest Stewardship Plan
FSR:	Forest Service Road
GAR:	Government Actions Regulation
GBR:	Great Bear Rainforest
GBRO:	Great Bear Rainforest Order
GWM:	General Wildlife Measure
HBS:	Harvest Billing System
HLP:	Higher Level Plan
ICH:	Interior Cedar-Hemlock
LRMP:	Land and Resource Management Plan
LWRS:	Ministry of Land, Water and Resource Stewardship
LUOR:	Land Use Order Regulation
LU:	Landscape Unit
MaPP:	Marine Plan Partnership
MAL:	Ministry of Agriculture and Lands
MSD:	Management Direction Statement
MH:	Mountain Hemlock
NAR:	Net Area to be Reforested
NCMP:	North Coast Marine Plan (2015)
NDT:	Natural Disturbance Type
NLG:	Nisga'a Lisims Government
NSR:	Not sufficiently restocked
OGMA:	Old Growth Management Area
OSBG:	Objectives set by Government
Period of the FSP:	The 5-year period commencing on the day of approval of the CMNRD BCTS Skeena Business Area Replacement FSP 2023-2028
QP:	Qualified Professional
RIC:	Resource Inventory Committee
RMA:	Riparian Management Area
RMZ:	Riparian Management Zone
RONV:	Range of Natural Variation
RPBio:	Registered Professional Biologist
RPF:	Registered Professional Forester
RRZ:	Riparian Reserve Zone
SAR:	Species At Risk
SOP:	Standard Operating Procedure
SP:	Site Plan

SRM:	Special Resource Management
SRMP:	Sustainable Resource Management Plan
SSAF:	Skeena Sustainability Assessment Forum
TFL:	Tree Farm Licence
TIRMP:	Thunderbird Integrated Resource Management Plan
TRP:	Total Resource Plan
TSA:	Timber Supply Area
TSM:	Timber Sales Manager Skeena Business Area
TSFA:	Terrain Stability Field Assessment
TSK:	BC Timber Sales – Skeena Business Area
TSL:	Timber Sale Licence
TSR:	Timber Supply Review
UWR:	Ungulate Winter Range
VIA:	Visual Impact Assessment
VQO:	Visual Quality Objective
VSC:	Visual Sensitivity Class
WAP:	Watershed Assessment Procedure
WHA:	Wildlife Habitat Area
WMU:	Water Management Unit
WQEE:	Water Quality Effectiveness Evaluation
WTRA:	Wildlife Tree Retention Area

1.14 Objectives, Results, and Strategies

This section describes the objectives set by government (OSBG), the strategies to carry out, and the results to be achieved to ensure that the FSP Holders' activities within the FDUs are consistent with applicable legislation and with the OSBG. The FSP is generally organized to follow the order of objectives as described in the FPPR: soils, timber, wildlife, riparian areas, fisheries sensitive watersheds, community watersheds, biodiversity, visual quality, and cultural heritage resources. After each objective, a reference table is provided that identifies which of the FPPR practice requirements are eligible for exemption (and that relate to the objective), and which 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).

2 KALUM SOUTH FDU

The Kalum South Forest Development Unit (FDU) is a single unit that encompasses the Cascadia TSA, the Kalum TSA, the Pacific TSA, TFL 1 and TFL 41. BC Timber Sales' annual allowable cut apportionment within this FDU is 251,123 m^3. The objectives, results and strategies in this chapter apply to the area within the Kalum South FDU (Figure 2).

Objectives for this FDU are derived from the FRPA, GAR, and the Kalum Sustainable Resource Management Plan (SRMP) (April 28, 2006).

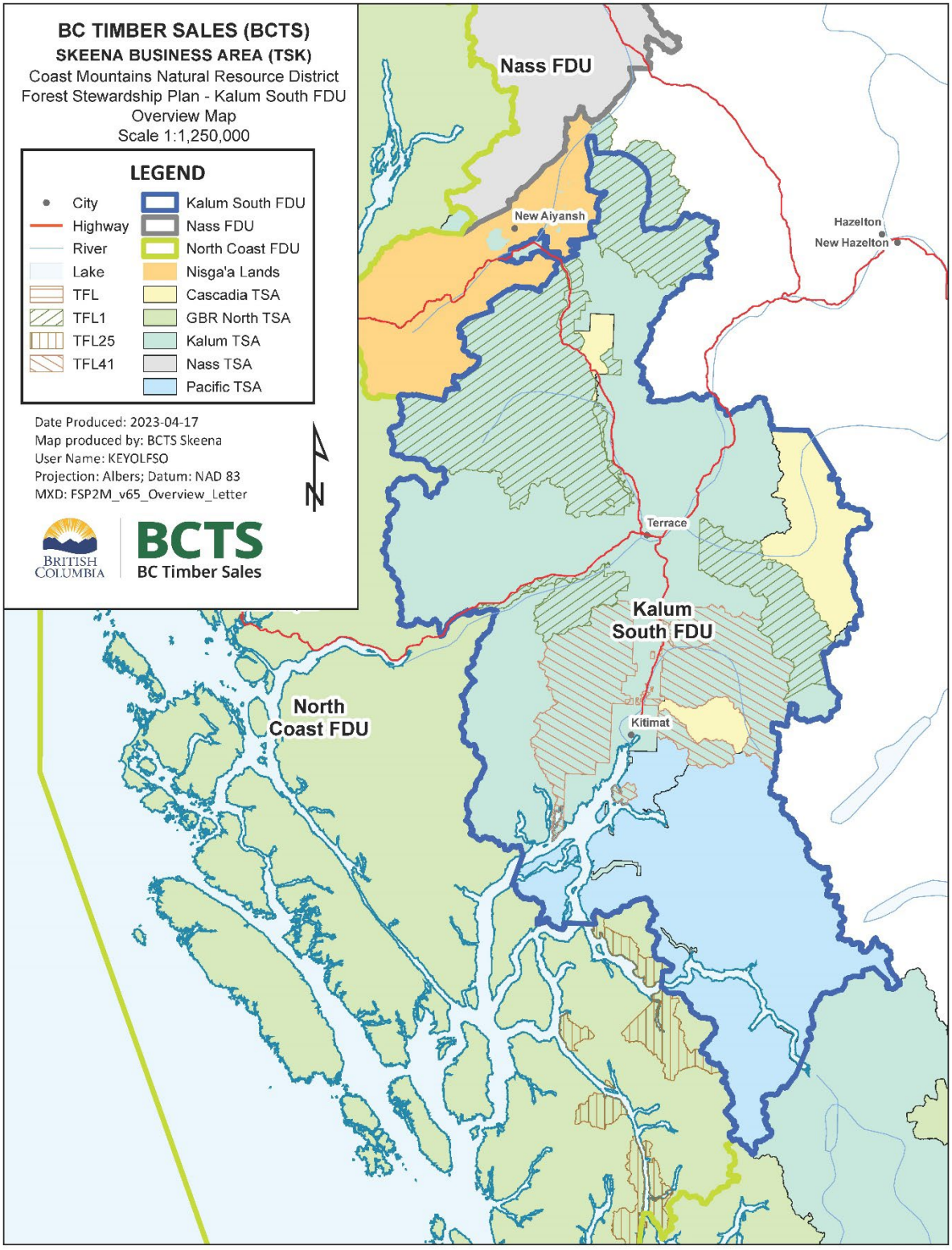

Figure 2: Kalum South FDU Overview Map

2.1 Soils

Reference Information	
Type of Objective	1. Objective set in regulation: FPPR s. 5 2. Objectives enabled by regulation: N/A 3. Land -Use Objectives: N/A
Effective Date	1. January 31, 2004 2. N/A 3. N/A
Mandatory Practice Requirements from the FPPR	FPPR s. 37, 38, 39, & 40
Practice Requirement(s) Eligible for Exemption	FPPR s. 35 & 36 Decision: Adopt FPPR s. 35 & 36

2.1.1 Objective: Soils

FPPR s. 5: The objective set by government for soils is to conserve the productivity and hydrologic function of soils.

2.1.1.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 35[2] and 36 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 35 and 36 apply to the holder's primary forest activities carried out during the term of the plan.

2.1.1.2 STRATEGY

During the period of this FSP, for roads within the FDU that fall under the FSP Holder's responsibility, the FSP Holder will:

1) Perform a risk assessment to determine and document an inspection frequency. Road maintenance inspections will be completed in accordance with the results of the assessment, or where a risk assessment has yet to be completed the FSP Holder will follow these minimum inspection frequencies:
    a) For roads being used for active hauling by the FSP Holder, the minimum inspection frequency is once every three months. The initial inspection will occur within 30 days before or after the start of hauling.
    b) For roads that will be inactive for more than nine months, the minimum inspection frequency is once per calendar year, under snow-free conditions.
2) Conduct inspections in accordance with (1).

[2] As per the Administration Boundaries Regulation, regarding FPPR s 35, the Kalum South FDU is considered "coast" for "sensitive soils" as it falls within the Coast Mountains Forest District.

Action items that are identified through road inspections, based on priorities set by BCTS, will be undertaken that reflect the results of the inspections.

2.2 Timber

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s.6 2. Objectives enabled by regulation: GAR s.5(1)(c) 3. Land –Use Objectives: Kalum SRMP Objective 6
Effective Date	1. January 31, 2004 2. January 31, 2004 3. April 28, 2006
Mandatory Practice Requirements from the FPPR	FPPR s. 41,42,43,44,45,46
Practice Requirement(s) Eligible for Exemption	NA

2.2.1 Objective: Timber

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,
(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.

GAR s 5 (1) (c): *Resource Features*

2.2.1.1 RESULT

During the period of this FSP, the FSP Holder will ensure commercial thinning within the FSP Holders blocks is limited to even-aged stands with a site index ≥ 23 m and are within the CWH ws 1 BEC zone. Commercial thinning is limited to:

1) Improve the growth of residual trees,
2) Improve the quality of the stand, or
3) Address timber supply shortfalls caused by age-class imbalances.

2.2.1.2 STRATEGY

During the period of this FSP the FSP Holder will:

1) Refer to available spatial data of known and existing research installations with information from the BC Geographic Warehouse (BCGW), at web address: http://catalogue.data.gov.bc.ca/dataset/growth-and-yield-samples-all-status

2) Prior to harvesting, incorporate protective buffers (disturbance free zones) with a minimum radius of 50 meters around established permanent sample plots and research installations, unless alternative measures are determined to be necessary to adequately protect the sample from resource development;

3) Notify a cutting authority or road permit holder, through the site plan, of the location of known sample plots and research installations within the area covered by the site plan.

4) Make known to the appropriate Ministry of Forest (FOR) staff[3] whenever any unidentified permanent sample plots or research installations are found during operational planning and resource development, and

5) Incorporate buffered research installations and permanent sample plots into one or more of the following:

   c) Riparian Reserve Zones;

   d) Riparian Management Zones;

   e) Wildlife Tree Retention Areas;

   f) Old Growth Management Areas; and/or,

   g) Any other area constrained for non-timber values.

2.2.1.3 STRATEGY

To provide a long-term ecological, cultural and economic supply of Western Red Cedar (Cw) within the FSP Holders blocks developed during the term of this FSP, the FSP Holder will:

1) Plant Cw in all instances where it is a preferred species and ecologically appropriate for the Standards Unit. A rationale will be prepared by a QP for blocks where cedar is a preferred species but not ecologically appropriate for planting; and

2) Follow the Cw planting targets in Table 2-1 for blocks where Cw is preferred species and the pre-harvest inventory[4] shows at least 1% Cw. The Cw allocation for each block may be distributed within the TSL.

Table 2-1 Western Red Cedar Reforestation Targets

Pre-harvest Inventory Cw (%)	1-20	20.1-40[5]	40.1-100[6]
Cw Planted (%)	20	30.2-60	60.1-100

2.2.2 Objective: Timber

Kalum SRMP Objective 6: “Maintain the natural composition of dominant tree species across each landscape unit and throughout the rotation”.

2.2.2.1 RESULT

During the period of this FSP the FSP Holder will ensure that their blocks with a reforestation obligation are reforested to:

1) At least the minimum stocking with species identified in the stocking standards as per the BEC classification referenced in Appendix I that apply to this FSP; and

[3] VRI Specialist for sample plots for growth and yield mensuration and the Natural Resources Researcher for research installations.
[4] Pre-harvest inventory is determined by the net merchantable volume in the timber cruise for the block.
[5] To determine the target Cw planted (%) for blocks with 20.1 - 40% Cw multiply % Cw by 150%.
[6] To determine the target Cw planted (%) for blocks with 40.1 – 100% Cw multiply the % Cw by 125%.

2) Meet the regeneration delay, free growing heights, and free growing dates as described in the stocking standards (Appendix I) that apply to this FSP.

2.3 Wildlife

Reference Information	
Type of Objective	1. Objective set in regulation: FPPR s.7(1) 2. Objectives enabled by regulation: GAR s. 9, 10, 11, 12, 13 3. Land–Use Objectives: Kalum SRMP Objectives 8, 9,11 and 12
Effective Date	1. January 31, 2004 2. a) *Ungulate Winter Range #6-001 Mountain Goat Kalum TSA:* November 24, 2014 b) *Coastal Tailed Frog WHAs Order #6-058 and #6-059 and #6-060 to #6-067:* March 28, 2006 c) *Ungulate Winter Range #6-009 Moose Kalum TSA, Cascadia TSA, Pacific TSA, TFL 1 and TFL 41:* April 21, 2015 *d) Grizzly Bear WHAs Order #6-287:* June 28, 2018 e) *FPPR s 7(2) Notice- Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Kalum Forest District:* December 30, 2004 3. April 28, 2006
Mandatory Practice Requirements from the FPPR	FPPR s. 69, 70
Practice Requirement(s) Eligible for Exemption	N/A

2.3.1 Objective: Wildlife

FPPR s. 7(1): *The objective set by government for wildlife is 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.

GAR s 9-13: *General wildlife measures; Wildlife habitat areas and objectives; Wildlife habitat features; Ungulate winter ranges and objectives; and Species at risk, regionally important wildlife and ungulate species*

2.3.1.1 RESULT

During the period of this FSP the FSP Holder will:

1) With respect to mountain goat, comply with GAR Order: Ungulate Winter Range – Order #6-001;
2) With respect to moose, comply with GAR Order: Ungulate Winter Range – Order #6-009;

3) With respect to grizzly bear, comply with GAR Order: Wildlife Habitat Area – Order #6-287; and
4) With respect to Coastal Tailed Frog, comply with GAR Orders: Wildlife Habitat Area – Order #6-058, #6-059, and #6-060 - #6-067.
5) With respect to Marbled Murrelet, adopt Result 2.6.3.1 (OGMAs)
6) Ensure their primary forest activities are consistent with the order(s) established under GAR s9-13 that are not listed above.

2.3.1.2 STRATEGY

During the period of this FSP the FSP Holder will adopt Strategy 2.6.2.1(Patch size and seral stage distribution) with respect to Marbled Murrelet.

2.3.1.3 STRATEGY

During the period of this FSP, to manage grizzly bear, moose, and mountain goat within the FSP Holder's blocks, the FSP Holder will:

1) Complete an office and field review[7] prior to development to identify important grizzly bear, moose, and mountain goat habitat[8] and current use; and
2) Ensure that when the presence of grizzly bear, moose or mountain goat is found within the FSP Holders' block:
    a) The site plan has documented the specific management strategies[9] for grizzly bear, moose, and mountain goat; and
    b) The development of the block is consistent with the specific management strategies.

2.3.2 Objective: Grizzly Bear

Kalum SRMP Objective 11: *Maintain natural level of forage supply for grizzly bears in the watersheds identified on Map 7* [of the Kalum SRMP] *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[10] 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,
(d) within McKay-Davies and Copper watersheds, no more than 30% of the forested land base, excluding hardwood, will be between 25 and 100 years old.

2.3.2.1 RESULT

To maintain a natural level of forage supply for grizzly bears, the FSP Holder during the period of the FSP will ensure that stocking standards for the site associations described in Table 2-2 will be met when free growing is declared for the FSP Holder's blocks harvested in Grizzly Bear Identified Watersheds[11]. The minimum size for a silvicultural treatable unit is at least one hectare for pure sub-hygric 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 ha and such sites comprise more than 20% of the ecosystem complex area. The minimum size for a willow or red-osier dogwood complex is one hectare for pure willow and/or red-osier dogwood sites and two hectares of noncontiguous willow and/or red-osier dogwood sites within

[7] Office review and field assessment are defined as a process within the TSK Species of Management Concern Standard Operating Procedure location on the BCTS EMS website.
[8] Important habitat is defined by the TSK Species of Management Concern field cards located on the BCTS EMS website.
[9] Management strategies may include reserves, access management, timing restrictions, and visual screening as determined by BMPs, SOPs, and/or a QP.
[10] The rich and wetter sites are defined in CWHws1&2 as site series 06, 07, 08, 09, and 11; in CWHvm1 as site series 07, 08, 09, 10, and 14; and in CWHvm2 as site series 08, and 11.
[11] As shown on the Kalum SRMP Map 7.

ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex sites.

Table 2-2: Grizzly Bear Stocking Standards

Site Association[12]	*Subzone Variants*	*Free growing stocking standards*[13]		
		Target	Minimum	Maximum[14]
BaSs-Devil's club	vm1 and vm2	600	400	660
BaCw-Devil's club	ws1 and ws2	600	400	660
CwSs- Skunk cabbage	vm1 and vm2 ws 1 and ws2	400	200	440
Ss- salmonberry and Act-Red-osier dogwood	vm1 and vm2 ws1 and ws2	500	200	550

2.3.2.2 RESULT

To maintain a natural level of forage supply for Grizzly Bears, the FSP Holder will ensure, during the period of the FSP, that the FSP Holder does not carry out or authorize harvesting operations within the Copper or the McKay-Davies Grizzly Bear Watersheds[15] if:

1) More than 30% of the forested land base, excluding hardwoods, is between 25 and 100 years old within the Cascadia TSA portion of the Copper Grizzly Bear Watershed or within the McKay-Davies Grizzly Bear Watershed, unless
2) An analysis indicates that having more than 30% of the forested land base, excluding hardwoods, between 25 and 100 years old within the Cascadia TSA portion of the Copper Grizzly Bear Watershed or within the McKay-Davies Grizzly Bear Watershed will not result in the 30% threshold being exceeded for the entire Grizzly Bear watershed and other tenure holders will not be unduly impacted.

2.3.3 Objective: Wildlife Movement

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 [of the Kalum SRMP].*

(a) Within polygon "A", retain 100 % of forested area.
(b) Within polygon "B", timber harvesting will be limited to partial cutting systems.

2.3.3.1 RESULT

During the period of this FSP the FSP Holder will ensure that, for their operations, within the identified area through the level pass between the Kiteen and Cedar drainages[16]:

1) 100% of the forested area located in polygon "A" is retained.
2) Within polygon "B", timber harvesting is limited to partial cutting systems.

[12] Stocking levels for low bench floodplain site associations are not listed; site-specific prescriptions for these associations should be developed that account for the naturally low density of microsites appropriate for crop tree growth and high shrub cover.
[13] The "well spaced" clause does not apply to forage gaps when stems are clustered as part of the site plan/ forest stewardship plan (FSP). Crop tree size vs. competing brush standards is unchanged from existing regional guidelines. When determining the number of crop trees, minimum inter-tree distances, as stated in the site plan/FSP, still apply to trees within the cluster.
[14] If stand exceeds maximum density set in the site plan/FSP at free growing, these guidelines recommend spacing back to this stocking level.
[15] As shown on the Kalum SRMP Map 7.
[16] As shown on Map 5 of the Kalum SRMP

2.3.4 Objective: Wildlife Movement

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* [of the Kalum SRMP].

2.3.4.1 RESULT

To maintain the forest stand structure and function to facilitate wildlife movement in the "Williams and Thomas/Clore SRM" wildlife connectivity corridor[17], the FSP Holder will ensure, during the period of this FSP, that their activities:

1) Are assessed by a QP and the recommendations are followed, and
2) Are limited to:
    a) providing or maintaining access to timber that the FSP Holder has determined would be otherwise isolated; or
    b) 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.
    c) fire control

2.3.5 Objective: Wildlife – Special Management Zones

Kalum SRMP Objective 12: *Maintain wildlife habitat and biodiversity within the Lakelse River Special Resource Management Zone* [Map 8 of the Kalum Sustainable Resource Management Plan].

(a) In Subzone 1 – no harvesting of timber or blowdown salvage will occur.
(b) In Subzone 2 – early seral stage target is a maximum of 27%; the maximum opening size is 15 hectares; a minimum 15 % retention within the cut blocks is required to add structural diversity; and in any five year planning cycle at least 50% of the volume harvested is to be harvested by using a selection silviculture system.

2.3.5.1 RESULT

During the period of this FSP the FSP Holder will ensure that for their operations within the areas identified as Special Resource Management - Lakelse subzones[18]:

1) In Subzone 1:
    a) No harvesting or road construction within the subzone area unless the CMNRD District Manager approves the rationale prepared by FSP Holder, to allow harvesting or road construction that 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) Maximum opening size is less than 15 hectares (net), and retention (WTRA and other reserves) is at least 15% of gross block area.
    c) At least 50% of the timber volume the FSP Holder harvests during the period of this FSP within this subzone shall be partial cutting systems.

[17] As shown on Map 5 of the Kalum SRMP
[18] As shown on Map 8 of the Kalum SRMP

2.4 Water, Fish and Biodiversity within Riparian Areas

Reference Information	
Type of Objective	Water: Objectives set in regulation: FPPR s. 8 Objectives enabled by regulation: GAR s 6 Land-Use Objectives: N/A Fish: Objectives set in Regulation: FPPR s. 8, 8.1 and 12.3 Objectives enabled by Regulation: GAR s 14 and 15 Land-Use Objectives: N/A Biodiversity: Objectives set in Regulation: FPPR s. 8 Objectives enabled by Regulation: N/A Land-Use Objectives: NA
Effective Date	FPPR and GAR: January 31, 2004 Kalum SRMP: April 28, 2006
Mandatory Practice Requirements from the FPPR	FPPR s. 47(1,2,3,7,8) 48(1,2,6,7) 49(1,4,5) 50(2,3) 51(2), 54, and 58
Practice Requirement(s) Eligible for Exemption	FPPR s. 47(4,5,6) 48(3,4,5) 49(2,3) 50(1) 51(1,3) 52(2) 53, 55, 56, 57, and 59-61
	Decision: Adopt FPPR s. 47, 48, 49, 50(1) 51(1,3) 52(2) 53, 55, 56, 57, and 59-61

2.4.1 Objective: Water, Fish and Biodiversity

FPPR s 8: The objective set by government for water, fish, wildlife and biodiversity within riparian areas is to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.

FPPR s 8.1: Until December 31, 2005 the objective set by government for fish habitat in fisheries sensitive watersheds is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities in the fisheries sensitive watershed from resulting in a material adverse impact on the habitat of the fish species for which the fisheries sensitive watershed was established.

GAR s 6, 14, and 15: Lakeshore management zones and objectives; Fisheries sensitive watersheds and objectives; and Temperature sensitive streams.

2.4.1.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 47, 48, 49, 50(1), 51(1,3) 52(2) 53, 55, 56, 57, and 59-63 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR 47, 48, 49, 50(1), 51(1, 3) 52(2) 53, 55, 56, 57, and 59-61 of the FPPR apply to the holder's primary forest activities carried out during the term of the plan.

2.4.1.2 RESULT

There are no designated fisheries sensitive watersheds, temperature sensitive streams or lakeshore management zones in this FDU. At the time that fisheries sensitive watersheds, temperature sensitive streams or lakeshore management zones are established, the FSP Holder will ensure that their primary forest activities are consistent with the order(s) during the period of this FSP.

2.4.1.3 RESULT

During the period of this FSP the FSP Holder will ensure that the percentage of total basal area retained as standing trees in riparian management zones within the FSP Holder's blocks will be:

1) A minimum of 20% on S1, S2 and S3 streams;
2) A minimum of 10% on all Wetlands and Lakes.

2.4.1.4 RESULT

During the period of this FSP the FSP Holder will ensure that:

1) Debris piles and/or spoil sites from their operations are not located within riparian management area (RMAs[19]) associated with the TSL or RP areas.
2) Where practicable, log decks from their operations are not located within RMAs associated with the timber sale license (TSL) or road permit (RP) area.
3) No log decks are left within, or cause damage[20] to, the RMAs associated with the TSL or RP areas after operations are completed.

2.4.1.5 STRATEGY

During the period of this FSP the FSP Holder will ensure that within the FSP Holder's blocks, for S4, S5, and S6 streams the:

1) Retention levels associated with S4, S5, and S6 streams:
   a) Are determined by a QP through the utilization of the small stream and riparian assessment in Appendix X; and
   b) Are documented in the Site Plan.
3) Primary forest activities comply with the prescribed retention levels determined by the small stream and riparian assessment.
4) QP may vary the retention levels for the purpose of conserving water quality, fish habitat, wildlife habitat, or biodiversity associated with riparian areas. Variances will be accompanied by a rationale and will be documented in the Site Plan.

2.5 Water in Community Watersheds

Reference Information	
Type of Objective	1.Objectives set in regulation: FPPR s. 8.2 2.Objectives enabled by regulation: GAR s. 8 3.Land Use Objectives: Kalum SRMP Objective 17
Effective Date	1. January 31, 2004 2. January 31, 2004 3. April 28, 2006
Mandatory Practice Requirements from the FPPR	FPPR s. 58, 62 ,63
Practice Requirement(s) Eligible for Exemption	FPPR s. 59, 60, 61
	Decision: Adopt FPPR s. 59, 60,61

[19] means an area described under FPPR Division 3 [Riparian Areas] of Part 4 [Practice Requirements], that consists of a riparian management zone and a riparian reserve zone.
[20] Damage is defined as any exposed mineral soil, displacement or compaction within the Machine Free Zone for a stream.

2.5.1 Objective: Community Watersheds

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.*

GAR s. 8: *Community watersheds and water quality objectives*

2.5.1.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 59, 60 and 61 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 59, 60 and 61 apply to the holder's primary forest activities carried out during the term of the plan.

2.5.2 Objective: Community Watersheds

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 sub-basins larger than 250 hectares, unless a different threshold is determined as being more appropriate as a measure of maintenance of natural flow regimes.

2.5.2.1 RESULT

During the period of this FSP the FSP Holder will ensure that:

1) When the FSP Holder's activities[21] are planned to occur within an Established Community Watershed[22] a watershed assessment will be completed by a QP on the basin or sub-basin and the recommendations of the assessment will be followed.
2) The FSP Holder's activities will not commence where Equivalent Clear-cut Area (ECA)[23] exceeds:
   a) A threshold of 20% for sub-basins larger than 250 ha; or
   b) For sub-basins smaller than 250 ha, the ECA may exceed the threshold of 20% only if the overall ECA for the entire community watershed basin is less than 20%; or
3) The assessment may determine a different ECA threshold than identified in (a) or (b) above if:
   a) The assessment determines that new threshold is determined as a more appropriate measure of maintenance of natural flow regimes, or
   b) The assessment identifies a different parameter to be a more appropriate measure for maintenance of natural flow regimes.

[21] Activities include timber harvesting and road building.
[22] Deep Creek, Drake Creek, Gitzyon Creek, Wathl Creek, Eneeksagilaguaw Creek, Ksa Miintl Am Hawak Creek, Rosswood (Clear Creek), Usk (Skovens Brook), Kleanza (Singlehurst Creek), Gossen (Gossen Creek) and Hatchery Creek
[23] ECA: means an indicator which expresses, as a percentage of an entire watershed, the degree to which regenerating forest stands are hydrologically similar to clearcuts, relative to the hydrologic status of the original stands. Assessments will be consistent with the Watershed Assessment Guidebook (2nd Ed, version 2.1 April 1999), or with another process determined to be acceptable by a Qualified Professional.

2.6 Biodiversity

Reference Information	
Type of Objective	Objectives set in regulation: FPPR s. 9 and 9.1 Objectives enabled by regulation: *Order establishing Provincial Non-Spatial Old Growth Objectives* (applies to the Kowesas LU) Land-Use Objectives: Kalum SRMP Objectives 1, 2,3, 4, 5, 7,10, 13 and 14 Ministerial Order – Land use Objectives Regulation. Amendment to Land Use Objective 10 – Skeena Islands in the 2006 Kalum SRMP
Effective Date	FPPR and GAR: January 31, 2004 Old Growth Order: June 30, 2004 Kalum SRMP: April 28, 2006 Amendment to Land Use Objective 10 (KSRMP): December 7, 2017)
Mandatory Practice Requirements from the FPPR	FPPR s. 68
Practice Requirement(s) Eligible for Exemption	FPPR s. 64 ,65, 66, 67
	Decision: Exempt FPPR s. 64, 65 as per FPPR s 12.4 (Strategy 2.6.2.1 and Result 2.6.2.2 applies) and FPPR s 66, 67 as per FPPR s 12.5 (Result 2.6.9.1 applies)

2.6.1 Objective: Biodiversity - Landscape Level

FPPR s. 9: *The objective set by government for wildlife and biodiversity at the landscape level is, 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.*

2.6.1.1 RESULT

During the period of this FSP the FSP Holder will locate wildlife tree retention areas associated with FSP Holder blocks based on the considerations listed below in order of priority:

1) Protect trees with valuable wildlife tree attributes[24] and anchor the WTRA to ecologically valuable areas and consideration of areas with cultural heritage resources that are of continuing importance to potentially impacted First Nations.
2) Where there are few trees with valuable attributes, locate retention areas most suitable for long-term wildlife tree recruitment.
3) Where there are no opportunities for current or future valuable tree attributes, locate wildlife tree retention areas representative of the pre-harvest stand.

2.6.2 Objective: Biodiversity - Landscape Level

Kalum SRMP Objective 1: *Maintain a range of forest seral stages by biogeoclimatic variant, within each landscape unit, consistent with Tables 1, 2 and 3 [of the Kalum Sustainable Resource Management Plan].*

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 Sustainable Resource Management Plan].*

2.6.2.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that:

[24] Examples of wildlife tree attributes are listed in Appendix XI

1) Areas harvested by the FSP Holder will be of a size and distribution that emulates the historical temporal and spatial distribution of the Natural Disturbance Types (NDTs) for the forests within the Kalum South FDU area[25].
2) Areas harvested by the FSP Holder will remain static or move towards the patch size and seral stage distribution targets that are in place for the NDTs. Guidance is found within Appendix IX when there are conflicting targets.
3) An analysis will be calculated separately for each LU that overlaps the Kalum South FDU, in accordance with items 4 and 5 below.
4) **Temporal**: Conduct seral stage analysis by LU and natural disturbance type
    a) Determine proportional representation of the LUs within the Kalum South FDU
    b) Determine representation with respect to sensitive areas
    c) Determine need for actions to address seral stage imbalances, based on the applicable land use objective(s)[26]
    d) If necessary, prepare action plan(s) to address seral stage imbalances and implement the action plan
5) **Spatial**: Analyze patch size distribution by LU and natural disturbance type
    a) Determine proportional representation of existing patch sizes within the Kalum South FDU
    b) Determine target patch size distribution for the Kalum South FDU
    c) Determine need for actions to address patch size imbalances, based on the applicable land use objective(s)[27]
    d) If necessary, prepare action plan(s) to address patch size distribution imbalances and implement the action plan.
6) Prepare a summary of the seral stage and allowable patch size distribution analysis results within the Kalum South FDU.

2.6.2.2 RESULT

During the period of this FSP the FSP Holder will ensure that:

1) Every three years, by June 1st, a report summarizing the status of the patch and seral distribution within the FDU area will be completed by the FSP Holder. The most recent update to the analysis was completed in 2021.The report will reflect projected changes (i.e., planned harvest) for at least the upcoming five-year period. Where this report indicates movement away from the target levels[28], a rationale will be prepared that describes management strategies for moving towards the target levels.
5) Within a specified period after the approval of this FSP, harvest activities under this FSP are shown to be static or moving toward the target levels for these areas. This specified period shall be five (5) years for each Landscape Unit, unless otherwise determined by mutual agreement between the FSP Holder and the CMNR District Manager.

[25] Based on the methodology of "A Guide for using the Seral Stage and Patch Size Distribution Analysis for Landscape Units and Forest Development Units in the Kalum and Nass portions of the Coast Mountains Natural Resource District (2020-2025 Analysis)" and as it may be updated from time to time.
[26] In the Kalum South FDU the applicable land use objective is the Kalum SRMP (April 2006) with the exception of the Kowesas LU where the applicable land use objective is the Old Growth Order (June 2004), unless superseded by a new land use objective.
[27] In the Kalum South FDU the applicable land use objective is the Kalum SRMP (April 2006) with the exception of the Kowesas LU where the applicable land use objective is the Old Growth Order (June 2004), unless superseded by a new land use objective.
[28] Target levels for Landscape Units and Special Resource Management Zones are identified in the Kalum SRMP

2.6.3 Objective: OGMAs

Kalum SRMP Objective 3: *Maintain or recruit old seral stage forest, reflective of the full range of ecosystems, including some with interior forest conditions, throughout each rotation within the Old Growth Management Areas (OGMAs) shown on Map 4 [of the Kalum Sustainable Resource Management Plan]. Forest harvesting activities in the OGMAs are limited to insect or disease control measures that are necessary to mitigate severe damage to the habitat attributes in the OGMAs, or other forest values in the landscape.*

2.6.3.1 RESULT

During the period of this FSP the FSP Holder will ensure that harvest within Old Growth Management Areas (OGMAs)[29] does not occur other than for insect or disease control measures that are necessary to mitigate severe damage to the habitat attributes in the OGMAs, or other forest values in the landscape, or in accordance with strategy 2.6.4.2

2.6.4 Objective: OGMAs

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:*

(a) allowing road development where no practicable alternative exist;
(b) to better reflect physical features that were intended to form the actual boundaries of the OGMA;
(c) 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; or,
(e) 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:

(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.

2.6.4.1 RESULT

During the period of this FSP the FSP Holder will ensure that their operations will not exceed 10 hectares or 10% of an individual Old Growth Management Area (OGMA), whichever is less, to be disturbed for one or more of the following purposes:

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

[29] As shown on Map 4 of the Kalum SRMP

2.6.4.2 STRATEGY

During the period of this FSP the FSP Holder will ensure that the process of amending OGMAs will follow the approved *Old Growth Management Area (OGMA) Amendment Policy – Skeena Region*[30] *(February 9, 2011)* and as may be amended from time to time.

2.6.5 Objective: Biodiversity - Seral Stage Forest

Kalum SRMP Objective 2: *Maintain old seral stage forest within each undeveloped watershed*[31] *listed in Table 4 [of the Kalum Sustainable Resource Management Plan] and shown on Map 3 [of the Kalum Sustainable Resource Management Plan] consistent with Table 5 [of the Kalum Sustainable Resource Management Plan]*

2.6.5.1 RESULT

During the period of this FSP, the FSP Holder will ensure that their operations maintain the old seral stage forest within the Undeveloped Watershed.

2.6.5.2 STRATEGY

During the period of this FSP, prior to the FSP Holder harvesting within an Undeveloped Watershed (UW) the FSP Holder will:

1) Determine the amount of old seral stage forest that exists within the portion of the UW that falls within the Kalum South FDU.
2) Subject to section (3), if the amount of old seral stage forest is equal to or exceeds the minimum targets for the Biogeoclimatic Ecological Classification (BEC) site series[32] described in Objective 2 (Table 5) of the Kalum SRMP, no further action is required.
    a) If the amount is below the minimum targets, and if there is insufficient old seral stage forest, designate old seral stage forest recruitment areas to capture the BEC site series.
    b) If the UW includes a conservancy area the entire UW area will be assessed for old seral stage forest
3) Section 2 does not apply to a road if the FSP holder submits an exemption request to the CMNRD District Manager and the CMNRD District Manager approves a rationale for one of the following reasons:
    a) The road is necessary to access timber beyond the occurrence of a BEC site series that is below the minimum threshold if that timber would otherwise be isolated from harvest, and
    b) Terrain conditions such as slope, gradient or terrain stability constrain road locations and dictate that sections of road enter and leave a BEC site series that is below the minimum threshold to access timber that otherwise would be isolated from harvest, or
    c) No practicable alternative exists.

2.6.6 Objective: Biodiversity - Rare Plant Communities

Kalum SRMP Objective 10 *[of the Ministerial Order – Land use Objectives Regulation Amendment to Land Use Objective 10 – Skeena Islands December 7, 2017*]: *Conserve rare plant communities on the Skeena Islands identified on Map 6, according to a), b), c) and d):*

[30] Replacement or amendment of OGMAs beyond the scope addressed within Objective 4 of the Kalum SRMP will be guided by this document.
[31] Jesse, Emsley, Wathlsto, Hugh, Brim, Wahoo, and Owyacumish
[32] Site series may be represented through Predictive Ecosystem Mapping, or some other surrogate as agreed to by the CMNRD District Manager

(a) Within the High Conservation Areas [for the area identified as "Salvus", government-led research activities, including harvesting for research purposes, is allowed], retain 100% of the Crown forested land.
(b) Outside the High Conservation Areas, retain a forested, harvest-free 50 meter buffer around all back channels
(c) Outside the High Conservation Areas, retain a forested, harvest-free 50 meter 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.
(d) Only where it is otherwise not practicable and the objective to conserve rare plant community complex can be achieved, may new roads be constructed within the High Conservation Areas to access timber outside those areas.

2.6.6.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with the Kalum SRMP [Ministerial Order – Land use Objectives Regulation Amendment to Land Use Objective 10 – Skeena Islands December 7, 2017] Objective 10 (a) through (d).

2.6.7 Objective: SRMZ

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 of the Kalum Sustainable Resource Management Plan]. Road construction is acceptable to access timber outside of SRMZ where there is no other practicable route solution.*

2.6.7.1 RESULT

During the period of this FSP the FSP Holder will ensure they do not harvest with the Upper Kitsumkalum SRMZ[33]. Where access is required to the timber harvesting land base beyond the Upper Kitsumkalum Special Resource Management Zone (SRMZ), and where the only practicable way to provide for this access is by building road in or through the SRMZ, a rationale will be prepared by the FSP Holder, kept on file and a copy provided to the CMNRD District Manager prior to a Cutting Authority issuance or Road Permit application. This rationale will detail why the road is required in or through the Upper Kitsumkalum SRMZ, including what options were evaluated.

2.6.8 Objective: Biodiversity – Fens

Kalum SRMP Objective 14: *Conserve uncommon reticulated fens (Map 8 of the Kalum Sustainable Resource Management Plan) within the Miligit Valley area.*

2.6.8.1 RESULT

During the period of this FSP the FSP Holder will ensure that they do not harvest timber or construct roads within the uncommon reticulated fens in the Miligit Creek Sensitive Area, as shown on Map 8 of the Kalum SRMP.

2.6.9 Objective: Wildlife Trees

FPPR s. 9.1: *The objective set by government for wildlife and biodiversity at the stand level is to retain wildlife trees.*

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 [of the Kalum Sustainable Resource Management Plan]. Shift or vary targets shown in Table 6 [of the Kalum*

[33] As shown on Map 8 of the Kalum SRMP

Sustainable Resource Management Plan] among cut blocks within a cut block aggregate[34] based on risks to biodiversity.

2.6.9.1 RESULT

During the period of this FSP the FSP Holder will:

1) Maintain structural diversity in managed stands by retaining wildlife tree retention areas (WTRA) within each cut block, over the rotation, by following the targets[35] from Table 6 of the Kalum SRMP (Appendix VI) except where:
    a) a Qualified Professional has provided a rationale for shifting or varying WTRA targets shown in Appendix VI among cut blocks within a cut block aggregate based on the risk to biodiversity, and the recommendations within the rationale are followed.
6) Allow natural processes (insect, diseases, blowdown) to occur within WTRA's within cutblocks or cutblock aggregates unless infestation or infection in the WTRA threatens to spread to adjacent forested areas. Where intervention is required, treatment will retain a diversity of structural attributes consistent with 1) above or a suitable replacement WTRA will be located.
7) Not harvest timber from a WTRA unless trees on the net area to be reforested of the cutblock to which the WTRA area relates have developed attributes that are consistent with a mature seral condition except where:
    b) harvesting is required to access timber that otherwise would be isolated from harvest beyond the WTRA area; or
    c) terrain conditions such as slope, gradient, or terrain stability constrain road locations and dictate that sections of a road enter and leave the WTRA to access timber that otherwise would be isolated from harvest.
8) Prior to harvesting within a WTRA, the FSP Holder will identify and establish a replacement WTRA area with similar stand characteristics to the WTRA planned for harvest and will ensure that the associated Site Plan is amended to account for the reconfiguration.

2.7 Visual Quality

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s 9.2(2) 2. Objectives enabled in regulation: GAR 7(1), 7(2), 17 and 18 3. Kalum SRMP Objectives 15 and 16
Effective Date	1. FPPR: January 31, 2004 2. Kalum District Manager's letters dated January 7, 1997, September 8, 1998, and March 23, 2000, established VQOs and designated Scenic Areas in the Kalum District. 3. April 28, 2006
Mandatory Practice Requirements from the FPPR	N/A

[34] Cut block aggregate: A group of cut blocks which are within 10 kilometers radius of each other and where the Site Plan for these blocks refers to the fact that they are a cut block aggregate.
[35] Where the Kalum SRMP WTRA target is <3.5%, the FSP Holder will increase WTRA target to 3.5%

Practice Requirement(s) Eligible for Exemption	N/A

2.7.1 Objective: Visual Quality – Scenic Areas

FPPR s. 9.2(2): *The objective set by government in relation to visual quality for a scenic area, that*

(a) was established on or before October 24, 2002, and
(b) for which there is no visual quality objective is to ensure that the altered forest landscape for the scenic area
(c) in visual sensitivity class 1 is in either the preservation or retention category,
(d) in visual sensitivity class 2 is in either the retention or partial retention category,
(e) in visual sensitivity class 3 is in either the partial retention or modification category,
(f) in visual sensitivity class 4 is in either the partial retention or modification category, and
(g) in visual sensitivity class 5 is in either the modification or maximum modification category.

2.7.1.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that:

1) A visual impact assessment (VIA) will be carried out by a QP in accordance with the methodology identified in the Visual Impact Assessment Guidebook (Visual Impact Assessment Guidebook (gov.bc.ca)) and will be attached or referred to in the Site Plan for their blocks that are located within known scenic areas and that are identified with an established Visual Quality Objective (VQO).
    a) Visual Sensitivity Classes will be treated as having VQOs as follows:
        i) VSC 1 = Retention
        ii) VSC 2 = Partial Retention
        iii) VSC 3 and 4 = Modification
        iv) VSC 5 = Maximum Modification
2) The visual impact assessment will:
    a) review the visual landscape from selected viewpoints (see below for viewpoint selection and criteria)
    b) describe how the visual design conforms to the VQO.
3) The block design, at the date of cutting authority issuance, will reflect the visual design as described in the visual assessment.
4) Viewpoints are identified, but not limited to, as follows:
    a) As shown on the FSP maps (as amended from time to time), or
    b) At a point along a travel corridor that allows for an extended viewing experience[36], or
    c) At a place, along a travel corridor, that persons can stop for an extended viewing experience.
5) An exemption has been approved by the CMNRD District Manager under FRPA, where catastrophic damage such as wind-throw, fire, disease, or pest damage occurs and any timber harvest by the FSP Holder would cause the scale criteria for a VQO to be exceeded. Where practicable, road location and/or block design will be modified to mitigate impact to the visual condition by incorporating visual design elements. Visual design elements include cut-block shape, size, pattern and retention of wildlife trees (patches and/or single trees).

[36] For the purpose of 4 (b) and (c) "extended viewing experience" means greater than 60 seconds uninterrupted view at the posted/normal speed limit. A travel corridor is defined as a route, highway or waterway used by the public to travel from one geographic area to another.

2.7.2 Objective: Visual Quality – Upper Copper River

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.

2.7.2.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that on the Upper Zymoetz (Copper) River (i.e. upstream of the confluence with Limonite Creek within the Kalum SRMP area) they:

1) will have no more than one active bridge crossing on the Upper Zymoetz (Copper) River (i.e. upstream of the confluence with Limonite Creek within the Kalum SRMP area)
2) will establish a 100 m reserve along either side of the river, or less if "Preservation" visual quality can be achieved from viewpoints on the riverbank or on the waterway, as described/ determined in a Site Plan for the area where the reserve is less than 100 m (All distances are measured in slope distance).

2.7.3 Objective: Visual Quality – Sue Channel

Kalum SRMP Objective 16: *Maintain the visual quality of the area visible from the Sue Channel/Hawkesbury Island protected area [Map 8 of the Kalum Sustainable Resource Management Plan] by:*

(a) applying single tree or group selection silviculture system; and,
(b) limiting the maximum opening size to 1-2 tree lengths.

2.7.3.1 STRATEGY

During the period of this FSP the FSP Holder will maintain the visual quality of the area visible from the Sue Channel/Hawkesbury Island protected area (Map 8 of the Kalum Sustainable Resource Management Plan) by applying single tree or group selection silviculture system; and limiting the maximum opening size to 1-2 tree lengths.

2.8 Cultural Heritage Resources

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s. 10 2. Objectives enabled by regulation: N/A 3. Land-Use objectives: N/A
Effective Date	1. January 31, 2004 2. N/A 3. N/A
Mandatory Practice Requirements from the FPPR	N/A

Practice Requirement(s) Eligible for Exemption	N/A

2.8.1 Objective: Cultural Heritage Resources

FPPR s. 10: *The objective set by government for Cultural Heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are:*

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

GAR s. 5 *Resource Features*

2.8.1.1 RESULT

During the period of this FSP the FSP Holder will ensure that a Cultural Heritage Resource Evaluation (CHRE) will be completed on all FSP Holder blocks and roads before harvesting or construction activities occur, or mechanical site preparation activities are prescribed, and that forest practices or activities are consistent with the recommendations in the CHRE.

2.8.1.2 STRATEGY

During the period of this FSP the FSP Holder will ensure that the CHRE (cultural heritage resource evaluation), defined as a process conducted by field and office persons, will consist of the following steps:

1) Identify potentially affected First Nations[37] through the Consultative Area Database (CAD).
2) Complete an initial office-based review of all proposed blocks and roads in relation to known information. Known information may include, but is not limited to, the following:
    a) Traditional Use Studies,
    b) First Nation values identified during previous consultation, and
    c) Archaeological databases.
3) Share the results from (2) and request the First Nations identify any additional values and interests[38].
4) Complete a field evaluation for the presence of cultural heritage resources and First Nations identified values and interests from (2 and 3). Record information related to the location, nature and extent of all interests and values in the CHRE form.
5) Share the results from (4) and consult with the potentially affected First Nation to prepare recommendations to conserve or mitigate impacts and/ or, as required, protect the cultural heritage resource and First Nations identified values and interests at the location, considering:
    a) The relative value or importance of the cultural heritage resource and First Nations identified values and interests to a traditional use by an aboriginal people,
    b) If the cultural heritage resource and First Nations identified values and interests is of continuing importance to the First Nations, and
    c) The historical extent of the traditional use of the cultural heritage resource and First Nations identified values and interests.

[37] Potentially affected First Nations are First Nations who have identified areas of interest (as defined by the Consultative Areas Database or equivalent government system or government staff direction) that overlap the proposed area where primary forest activities under this FSP are planned to occur.
[38] First Nations Identified values and interests may include but is not limited to the following: cedar management; access management; culturally important plants; stream management and wildlife management.

2.8.1.3 STRATEGY

During the period of this FSP the FSP Holder will ensure that if during timber harvesting, road construction or mechanical site preparations they encounter a previously unidentified cultural heritage resource feature on their cutblock or road, the FSP Holder will:

1) stop the activity to the extent necessary to protect the cultural heritage resource until an assessment is carried out,

9) consult with the potentially affected First Nations with the details of the previously unidentified cultural heritage resource feature, and

10) ensure the FSP Holder's harvesting, road construction, or mechanical site preparation activities continue in a manner that follows the recommendations given in the assessment, that are practicable and are required to conserve or, if necessary, protect a cultural heritage resource if it is of continuing importance to the First Nations.

2.8.1.4 STRATEGY

During the period of this FSP, for any block with a western red cedar (*Thuja plicata*) or yellow cedar (*Chamaecyparis nootkatensis*) component, the FSP Holder will facilitate, upon request, potentially affected First Nations'[37] removal of these species from retention areas (including WTRAs or RMZs[39] for cultural purposes . The FSP Holder will:

1) notify First Nations, in the CHRE and Shared Engagement Record, when there is western red cedar and yellow cedar suitable for cultural purposes[40] in a block.

11) at the request of the First Nation, assist with identifying suitable trees within WTRAs where trees can be removed, while maintaining WTRA functionality.

12) at the request of the First Nation, assist with identifying suitable trees within RMZs where trees can be removed while maintaining RMZ functionality.

2.9 Recreation Trails and Sites

Reference Information	
Type of Objective	1. Objective set in regulation: FRR s. 16 (a) (ii) and (b) (ii) 2. Objectives enabled by regulation: GAR s. 5(f), 5(g) 3. Land Use Objectives: N/A
Effective Date	1. January 31, 2004 2. a) Order to Establish Objectives for a Recreation Site, Recreation Trail, or Interpretive Site (July 25, 1997). b) Order to Establish Objectives for a Recreation Site, Recreation Trail, or Interpretive Site (November 8, 1996). 3. N/A
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

2.9.1 Objective: Interpretive Forest Sites, Recreation Sites and Recreation Trails

FRR s. 16 *Unless authorized by a recreation officer, a person must not use*
(a) a recreation site, recreation trail or interpretive forest site for
ii) a business or industrial activity

[39] Removal of stems from within Riparian Reserve Zones will be consistent with the Forest Planning and Practices Regulation
[40] Suitability will be defined by the requesting First Nation

GAR s. 5 *Resource Features*

2.9.1.1 RESULT

During the period of this FSP, the FSP Holder will work with the District Recreation Officer when the proposed activities are within 100 m of an established recreation site[41] or an established recreation trail[42] to develop a mutually agreed upon plan to manage the activities in accordance with the established recreation site and established recreation trail management objectives[43].

2.9.1.2 RESULT

During the period of this FSP, the FSP Holder will ensure a Forest Recreation Regulation (FRR) section 16 authorization from the District Recreation Officer is approved prior to a recreation site, recreation trail or interpretive forest site being used for industrial activity and that the industrial activity follows the recommendations in the FRR section 16 authorization.

2.9.1.3 RESULT

During the period of this FSP, the FSP Holder will ensure that for established interpretive forest sites, recreation sites, and recreation trails with established legal objectives the FSP Holder's harvesting, road construction and silviculture activities are consistent with the legally established objectives.

2.9.1.4 STRATEGY

During the period of this FSP the FSP Holder will repair or mitigate any damage to an established recreation site or an established recreation trail within one year following harvest completion by:

1) relocating the original trail route or establishing an alternate trail route, if the original route in not practicable due to safety concerns, and
2) remove all harvesting debris that crosses the established recreation trail.

[41] A recreation site identified within the BC Government Warehouse recreation data layers.
[42] A recreation trail identified within the BC Government Warehouse recreation data layers.
[43] The management objectives identified within Forest Tenure Administration (FTA)

3 NASS FDU

The Nass Forest Development Unit (FDU) is a single unit that encompasses the entire Nass TSA. The Nass FDU covers the operations of BCTS – Skeena Business Area including Timber Sale Licences (TSLs) issued by the Timber Sales Manager. BC Timber Sales' annual allowable cut apportionment within the Nass TSA is 238,511 m^3. The objectives, results and strategies in this chapter apply to the area within the Nass FDU (Figure 3).

The objectives for the Nass FDU derive from the FRPA, GAR and the Nass South SRMP LUOR Order (February 25, 2016).

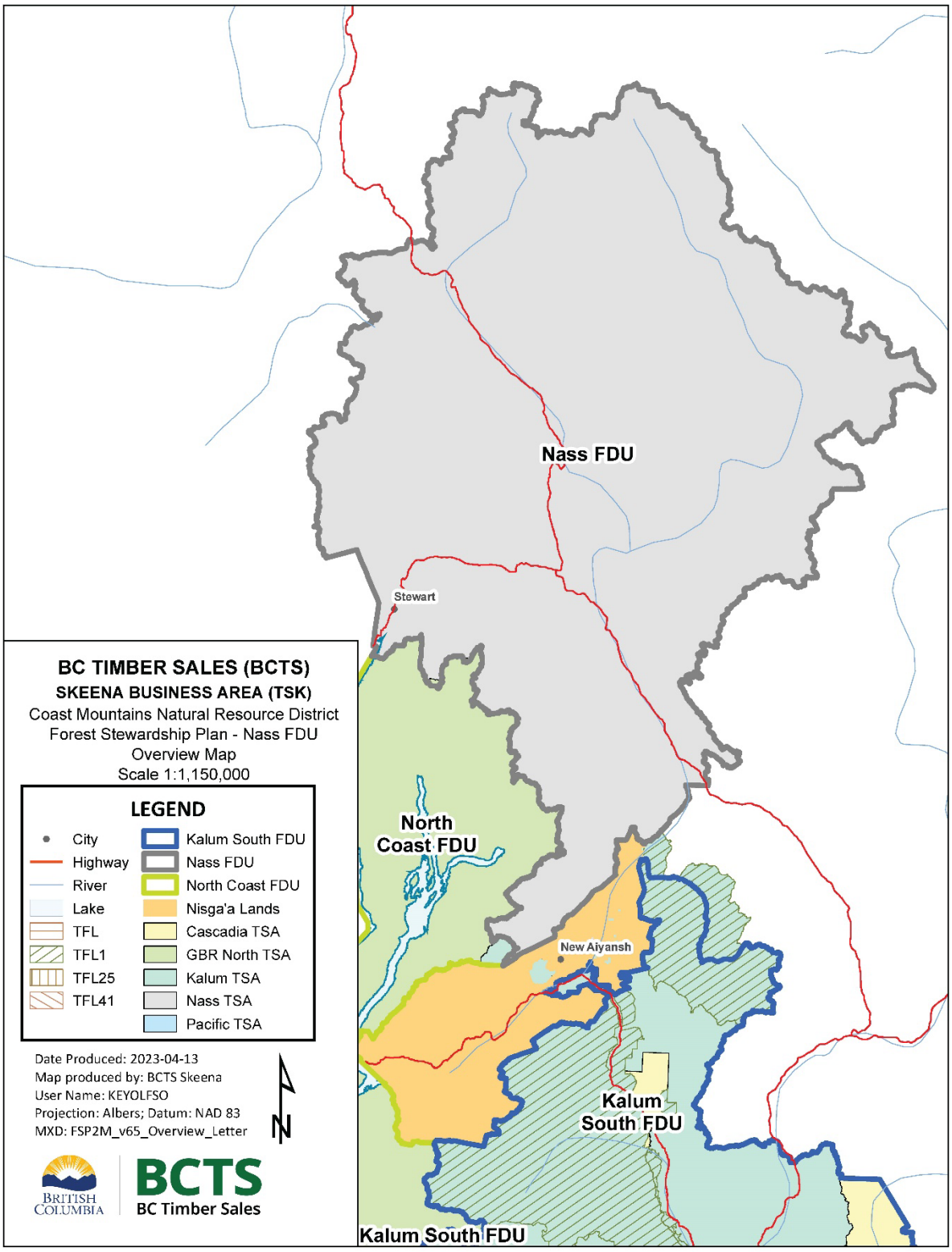

Figure 3: Nass FDU Overview Map

3.1 Soils

Reference Information		
Type of Objective	1. Objectives set in regulation: FPPR s.5 2. Objectives enabled by regulation: N/A 3. N/A	
Effective Date	1. January 31, 2004 2. N/A 3. N/A	
Mandatory Practice Requirements from the FPPR	FPPR ss. 37, 38, 39, 40	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 35, 36	Decision: Adopt FPPR ss. 35 & 36

3.1.1 Objective: Soils

FPPR s.5: *The objective set by government for soils is to conserve the productivity and the hydrologic function of soils.*

3.1.1.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 35[44] and 36 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 35 and 36 apply to the holder's primary forest activities carried out during the term of the plan.

3.1.1.2 STRATEGY

During the period of this FSP, for roads within the FDU that fall under the FSP Holder's responsibility, the FSP Holder will:

1) Perform a risk assessment to determine and document an inspection frequency. Road maintenance inspections will be completed in accordance with the results of the assessment, or where a risk assessment has yet to be completed the FSP Holder will follow these minimum inspection frequencies:
    a) For roads being used for active hauling by the FSP Holder, the minimum inspection frequency is once every three months. The initial inspection will occur within 30 days before or after the start of hauling.
    b) For roads that will be inactive for more than nine months, the minimum inspection frequency is once per calendar year, under snow-free conditions.
2) Conduct inspections in accordance with (1).

Actions for addressing items that are identified through road inspections, based on priorities set by BCTS, will be undertaken that reflect the results of the inspections.

3.2 Timber

Reference Information

[44] As per the Administration Boundaries Regulation, regarding FPPR s 35, the Nass FDU is considered "coast" for "sensitive soils" as it falls within the Coast Mountains Forest District.

Type of Objective	1. Objective set in regulation: FPPR s.6, FRPA 2. Objectives enabled by regulation: GAR s. 5(1)(c) 3. Land –Use Objectives: N/A
Effective Date	1. January 31, 2004 2. December 13, 2004 3. N/A
Mandatory Practice Requirements from the FPPR	FPPR ss. 41,42, 43, 44, 45,46
Practice Requirement(s) Eligible for Exemption	NA

3.2.1 Objective: Timber

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.

GAR s 5 (1) (c): *Resource Features*

3.2.1.1 RESULT

During the period of this FSP the FSP Holder will ensure that their blocks with a reforestation obligation are reforested to:

1) At least the minimum stocking with species identified in the stocking standards as per the BEC classification referenced in Appendix I that apply to this FSP; and
2) Meet the regeneration delay, free growing heights, and free growing dates as described in the stocking standards (Appendix I) that apply to this FSP.

3.2.1.2 RESULT

During the period of this FSP, the FSP Holder will ensure they do not carry out any timber harvesting or road building activities within the proposed Gitanyow treaty settlement lands (as shown on Nass South SRMP Map 17) unless otherwise agreed to with Gitanyow.

3.2.1.3 RESULT

During the period of this FSP the FSP Holder will ensure that their operations retain a minimum one tree length buffer around:

1) The Nisga'a Lands
2) The Fee Simple Lands identified on the FSP Maps
3) The Nisga'a Memorial Lava Bed Park, and
4) The Gingietl Creek Ecological Reserve.

3.2.1.4 STRATEGY

During the period of this FSP the FSP Holder will:

1) Refer to available spatial data of known and existing research installations with information from the BC Geographic Warehouse (BCGW), at web address: http://catalogue.data.gov.bc.ca/dataset/growth-and-yield-samples-all-status
2) Prior to harvesting, incorporate protective buffers (disturbance free zones) with a minimum radius of 50 meters around established permanent sample plots and research installations, unless alternative measures are determined to be necessary to adequately protect the sample from resource development;
3) Notify a cutting authority or road permit holder, through the site plan, of the location of known sample plots and research installations within the area covered by the site plan.
4) Make known to the appropriate FOR staff[45] whenever any unidentified permanent sample plots or research installations are found during the course of operational planning and resource development, and
5) Incorporate buffered research installations and permanent sample plots into one or more of the following:
   a) Riparian Reserve Zones;
   b) Riparian Management Zones;
   c) Wildlife Tree Retention Areas;
   d) Old Growth Management Areas; and/or,
   e) Any other area constrained for non-timber values.

3.3 Wildlife

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s. 7(1) 2. Objectives enabled by regulation: GAR sections 9,10,11,12, 13 3. Land Use Objectives: Nass South SRMP LUOR Order Objectives 22,23,24,25,26,27,28,29,30,31,32
Effective Date	1.(a)January 31, 2004 (b) *Notice- Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Kalum Forest District:* December 30, 2004 2. (a). *Ungulate Winter Range (mountain goat) - #U-6-002 Nass TSA and Upper Portion of Ningunsaw and Unuk Watershed:* December 12, 2008. (b) *UWR #6-018 Moose Nass TSA:* September 17, 2014. (c) *Order-Specified Area #6-282 Grizzly Bear – Nass Timber Supply Area:* October 20, 2014. (d) *Specified Area Thinhorn sheep #SA-6-292*:

[45] VRI Specialist for sample plots for growth and yield mensuration. Natural Resources Researcher for research installations.

	April 16, 2020 3. *Ministerial Order Land Objectives Order Nass South Sustainable Resource Management Plan Area*: February 25, 2016
Mandatory Practice Requirements for the FPPR	FPPR ss. 69, 70
Practice Requirement(s) Eligible for Exemption	N/A

3.3.1 Objective: Wildlife

FPPR s. 7(1): *The objective set by government for wildlife is 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.

GAR s 9-13: *General wildlife measures; Wildlife habitat areas and objectives; Wildlife habitat features; Ungulate winter ranges and objectives; and Species at risk, regionally important wildlife and ungulate species*

3.3.1.1 RESULT

During the period of this FSP the FSP Holder will:

1) With respect to mountain goat, comply with GAR Order: Ungulate Winter Range – Order #6-002
2) With respect to thinhorn sheep, comply with GAR Order: Specified Area – SA-6-292
3) With respect to moose, comply with GAR Order: Ungulate Winter Range – Order #6-018;
4) With respect to grizzly bear, comply with GAR Order: Wildlife Habitat Area – Order #6-282; and
5) With respect to Marbled Murrelet, adopt Result 3.7.1.2 (Patch Size Distribution and Seral Stage).
6) Ensure their primary forest activities are consistent with the order(s) established under GAR s9-13 that are not listed above.

3.3.1.2 STRATEGY

With respect to Marbled Murrelet, the FSP Holder adopts Strategies 3.7.1.1 (Patch Size Distribution and Seral Stage), 3.7.7.1(OGMA), 3.7.8.1(Ecosystem Network-Hydroriparian Zone), 3.7.9.1 (Ecosystem Network-Structural Connectivity), and 3.7.10.1(Ecosystem Network-Buffer) during the period of this FSP.

3.3.1.3 RESULT

During the period of this FSP the FSP Holder will ensure BCTS activities[46] will not occur within the Nelson and Willoughby Creek-Flat and White River Area[47].

3.3.1.4 STRATEGY

During the period of this FSP the FSP Holder will ensure that their operations adopt the following strategies for moose habitat:

1) maintain a windfirm, visual screen around the following moose forage areas:

[46] Activities means one or more of the following: (a) timber harvesting, and (b) road construction
[47] As shown on the FSP maps.

a) All classifiable lakes and wetlands in areas designated through an ungulate winter range order[48] and the Nass Moose Winter Survey Area[49]; and

b) Any forested area greater than 1 contiguous hectare that has greater than 50% cover of willow, red-osier dogwood, high brush cranberry, twinberry, red elderberry, mountain ask, aspen, or cottonwood in areas designated through Ungulate Winter Range[50] and the Nass Moose Winter Survey Area.

2) Unless there is no other practicable way to access the timber that would otherwise be isolated, roads will not be constructed within the visual screen (noted in (1) above).

3) All timber harvest or new road construction within the Wildlife Migration Corridor identified on the FSP maps must be designed in consultation with a QP to maintain the integrity of the corridor.

4) When undertaking brushing treatments within BCTS cutblocks, important moose forage species[51] will be avoided if they are not competing unduly with the future crop trees.

3.3.1.5 STRATEGY

During the period of this FSP, to manage grizzly bear, moose, and mountain goat within the FSP Holder's blocks, the FSP Holder will:

1) Complete an office and field review[52] prior to development to identify important grizzly bear, moose, and mountain goat habitat[53] and current use; and

2) Ensure that when the presence of grizzly bear, moose or mountain goat is found within the FSP Holders' block:

a) The site plan has documented the specific management strategies[54] for grizzly bear, moose, and mountain goat; and

b) The development of the block is consistent with the specific management strategies.

3.3.2 Objective: Goshawk

Nass South SRMP LUOR Order Objective 24: *Maintain nesting and post-fledging habitats at known goshawk nest areas, in order to support continued use of and reproduction in those areas.*

Nass South SRMP LUOR Order Objective 25: *Maintain all known goshawk nest and post-fledging areas*.

Nass South SRMP LUOR Order Objective 26: *Between February 15 and August 15, around any active goshawk nest, maintain a 500-metre buffer in which there are no mechanical activities allowed. Mechanized activities mean road construction and timber harvesting / mechanized silviculture activities.*

Nass South SRMP LUOR Order Objective 27: *Between February 15 and August 15, around any active goshawk nest, maintain a 200-metre buffer in which there are no forestry-related human activities allowed, unless no practicable alternative exists. Forestry-related human activities include log hauling and those activities not identified as mechanized activities.*

[48] UWR #6-018 Moose Nass TSA
[49] As shown on the FSP maps.
[50] UWR #6-018 Moose Nass TSA
[51] Important moose forage species include willow, red-osier dogwood, paper birch, trembling aspen, subalpine fir, black cottonwood, highbrush-cranberry, and *Vaccinium sp*.
[52] Office review and field assessment are defined as the process within the TSK Species of Management Concern Standard Operating Procedure location on the BCTS EMS website.
[53] Important habitat is defined by the TSK Species of Management Concern field cards located on the BCTS EMS website.
[54] Management strategies may include reserves, access management, timing restrictions, and visual screening as determined by BMPs, SOPs, and/or a QP.

Nass South SRMP LUOR Order Objective 28: *Maintain foraging habitat around known goshawk nest and post-fledging areas*.

Nass South SRMP LUOR Order Objective 29: *Maintain at least 30% of the perimeter around known goshawk nests and post-fledging areas so that it is directly connected by mature or old forests to a comparable forest in the foraging area. A foraging area is the hunting territory typically used by a pair of goshawks. Where the perimeter is less than 30%, forests that are available will be used, and the most suitable adjacent forest will be allowed to mature over time to provide connectivity, as determined by a qualified professional*.

Nass South SRMP LUOR Order Objective 30: *Maintain ≥ 60% mature and old forest structure and function within determined foraging areas around known goshawk nest and post-fledging areas. Where at least 60% does not currently exist, forests that are available will be used. Suitable forest areas adjacent to foraging areas must be maintained as recruitment areas to provide the mature and old structure and function over time*.

3.3.2.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that their operations will maintain nesting and post-fledging habitats at known goshawk nest areas, in order to support continued use of and reproduction in those areas, by ensuring that when the FSP Holder's operations are planned to occur within 2 km of known goshawk nest sites[55]:

1) a written assessment of the nesting and post-fledging habitat[56] associated with an identified nest is completed by a QP to determine:
    a) the location of all nests and post-fledging habitat;
    b) if the goshawk nest site is active, or recently active; and
    c) to assess the long-term suitability of the nest and post-fledging habitat.
2) The FSP Holder will work in consultation with the QP who completed the report to ensure their operations are consistent with the Nass South SRMP LUOR Order Objectives 25, 26 and 27.

3.3.2.2 STRATEGY

During the period of this FSP the FSP Holder will ensure that their operations maintain foraging habitat around known goshawk nest and post-fledging areas by ensuring that when the FSP Holder's operations are planned to occur within 2 km of known goshawk nest sites:

1) a written assessment of the breeding[57] and foraging area[58] associated with the nest site is completed by a QP to determine:
    a) the location of the breeding and foraging habitat;
    b) if the goshawk nest site is active, and
    c) to provide recommendations on suitability of the foraging habitat.

[55] A "known goshawk nest site" is defined as a nest site, identified by a QP, to belong to a goshawk and that has been active in the past 5 years.
[56] Post-fledging habitat is the area used by fledgling goshawks, within a given year, from fledging until dispersal as per Kari-Stuart Smith et al. 2012. A Scientific Basis for Managing Northern Goshawk Breeding Areas in the Interior of British Columbia: Best Management Practices.
[57] For the purpose of this FSP the breeding area is the combination of the nest area and post-fledging habitat identified in the Nass South SRMP LUOR. Breeding area represents the fundamental ecological unit used by goshawks for nesting and rearing activities over many years as per Kari-Stuart Smith et al. 2012. A Scientific Basis for Managing Northern Goshawk Breeding Areas in the Interior of British Columbia: Best Management Practices.
[58] Foraging habitat represents the breeding home range defined by the Area used by a pair of goshawks during the breeding season, which encompasses both the breeding area and foraging areas as per Kari-Stuart Smith et al. 2012. A Scientific Basis for Managing Northern Goshawk Breeding Areas in the Interior of British Columbia: Best Management Practices.

2) the FSP Holder will work in consultation with the QP who completed the report to ensure their operations are consistent with Nass South SRMP LUOR Order Objectives 29 and 30.

3.3.3 Objective: Special Habitats for General Wildlife

Nass South SRMP LUOR Order Objective 31: *Maintain effectiveness*[59] *of riparian habitats adjacent to wetlands in polygons identified as Special Habitats for General Wildlife on Schedule J* [of the Nass South SRMP LUOR Order].

3.3.3.1 RESULT

During the period of this FSP the FSP Holder will ensure that their operations maintain the effectiveness of riparian habitats adjacent to wetlands[60] in polygons identified as Special Habitats for General Wildlife as shown on the Nass South SRMP LUOR Order Map J by retaining 100% of the forested area of the hydroriparian zone.

3.3.4 Objective: Special Habitats for General Wildlife

Nass South SRMP LUOR Order Objective 32: *Retain 100% of the forested area of the hydroriparian zone for each polygon identified as Special Habitats for General Wildlife on Schedule J* [of the Nass South SRMP LUOR Order], *except where no practicable alternative access exists to access or harvest timber that is outside the hydroriparian zone; to mitigate a safety concern; or where required to negate impacts on adjacent forest values from a compelling forest health issue.*

3.3.4.1 RESULT

During the period of this FSP the FSP Holder will ensure that their operations will retain 100% of the forested area of the hydroriparian zone for each polygon identified as Special Habitats for General Wildlife on Nass South SRMP LUOR Order Schedule J, except where no practicable alternative exists to:

1) access or harvest timber that is outside the hydroriparian zone, or
2) mitigate a safety concern, or
3) negate impacts on adjacent forest values from a compelling forest health issue.

3.3.5 Objective: Fur-Bearers

Nass South SRMP LUOR Order Objective 22: *Minimize impacts to known high value fisher and wolverine habitats.*

Nass South SRMP LUOR Order Objective 23: *Maintain known fisher and wolverine denning sites.*

3.3.5.1 RESULT

During the period of this FSP the FSP Holder:

1) adopts results 3.7.1.2 (Patch Size Distribution Seral Stage) and 3.7.2.1 (Wildlife Trees) as a result for Objective 3.3.5; and will
2) provides a 100 m no-harvest boundary around known fisher and wolverine maternal den sites when harvesting or road construction is considered in the vicinity unless alternate direction is provided by a Qualified Professional.

3.3.5.2 STRATEGY

During the period of this FSP the FSP Holder adopts strategy 3.7.1.1 (Patch Size Distribution and Seral Stage) as a strategy for Objective 3.3.5

[59] "Effectiveness" means the continued use of a habitat by species that historically utilized it.
[60] "wetlands" refers to the specific habitats mapped as Special Habitats for General Wildlife, does not meet the definition of "wetland" found in the FPPR.

3.4 Water and Riparian

Reference Information		
	Inside Nass South SRMP LUOR Order Area	Outside Nass South SRMP LUOR Order Area
Type of Objective	1.Objectives set by regulation: FPPR s. 8, 8.1, 12.3 2.Objectives enabled by regulation: GAR s. 6 3. Land Use Objectives: Nass South SRMP LUOR Order Objectives 1,2,3,4,5,6,7,8,37,38	1. Objectives set by regulation: FPPR s. 8, 8.1, 12.3 2. Objectives enabled by regulation: GAR s. 6 3. Land-use Objectives: N/A
Effective Date	1. January 31, 2004 2. December 13, 2004 3.February 25, 2016	1.January 31, 2004 2. December 13, 2004 3. N/A
Mandatory Practice Requirements from the FPPR	FPPR ss. 47(1,2,3,7,8) 48(1,2,6,7) 49(1,4,5) 50(2,3) 51(2), 54 & 58	FPPR ss. 47(1,2,3,7,8) 48(1,2,6,7) 49(1,4,5) 50(2,3) 51(2), 54 & 58
Practice Requirement(s) Eligible for Exemption	FPPR ss. 47(4,5,6) 48(3,4,5) 49(2,3) 50(1) 51(1,3) 52(2) 53, 55, 56, 57, and 59-60	FPPR ss. 47(4,5,6) 48(3,4,5) 49(2,3) 50(1) 51(1,3) 52(2) 53, 55, 56, 57 and 59-60
	Decision: Exempt FPPR ss. 47(4,5,6) 48(3,4,5) 49(2,3), as per FPPR s. 12.31 (Results 3.4.3.1, 3.4.4.1, 3.4.5.1 and 3.4.6.1 apply). Adopt FPPR ss. 50(1) 51(1,3) 52(2) 53, 55, 56 57, and 59-60	Decision: Adopt FPPR ss. 47(4,5,6) 48(3,4,5) 49(2,3), 50(1) 51(1,3) 52(2) 53, 55, 56 57, and 59-60

3.4.1 Objective: Hydrologic Stability of Watersheds

Nass South SRMP LUOR Order Objective 1: *Maintain the hydrologic stability of watersheds identified in Schedule B [of the Nass South SRMP LUOR Order] so that the thresholds identified in Schedule B1 [of the Nass South SRMP LUOR Order] are not exceeded, except where a hydrologic assessment is completed by a qualified professional prior to any harvesting that would cause the thresholds to be exceeded and that subsequent activities are conducted in a manner that is consistent with the results of the assessment.*

3.4.1.1 RESULT

During the period of this FSP, within the watersheds identified in Appendix VII, the FSP Holder will ensure that a Hydrologic Assessment is completed by a QP prior to any timber harvesting that would cause the thresholds identified in Appendix VII to be exceeded and that any timber harvesting that would cause the thresholds to be exceeded is consistent with the recommendations of the QP assessment. This result does not apply to cut blocks that are: approved under section 196(1) of the FRPA; declared areas under section 14(4) of the FPPR; or have an issued TSL prior to the date of the approval of this FSP.

3.4.2 Objective: Water and Riparian – Riparian Features

FPPR s 8: *The objective set by government for water, fish, wildlife and biodiversity within riparian areas is to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.*

GAR s 6: *Lakeshore management zones and objectives*

3.4.2.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 47(4,5,6) 48(3,4,5) 49(2,3) 50(1) 51(1,3) 52(2) 53, 55, 56, 57 and 59-60 of the FPPR for areas outside the area of the Nass South SRMP LUOR Order. The TSM will notify each holder of a TSL or RP outside the area of the Nass South SRMP LUOR Order that FPPR sections 47(4,5,6) 48(3,4,5) 49(2,3) 50(1) 51(1,3) 52(2), 53, 55, 56, 57 and 59-60 apply to the holder's primary forest activities carried out during the term of the plan.

3.4.2.2 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 50(1) 51(1, 3) 52(2) 53, 55, 56, 57 and 59 and 60 within the area of the Nass South SRMP LUOR Order. The TSM will notify each holder of a timber sale license or road permit inside the area of the Nass South SRMP LUOR Order that FPPR sections 50(1) 51(1,3) 52(2), 53, 55, 56, 57 and 59-60 apply to the holder's primary forest activities carried out during the term of the plan.

3.4.2.3 RESULT

During the period of this FSP the FSP Holder will ensure that their primary forest activities are consistent with an order, once established, for established lakeshore management zones.

3.4.2.4 RESULT

During the period of this FSP the FSP Holder will ensure that:

1) Debris piles and/or spoil sites from their operations are not located within RMAs[61] associated with the TSL or RP areas.

13) Where practicable, the FSP Holder will ensure that log decks, from their operations, are not located within RMAs associated with the TSL or RP area.

14) No log decks are left within, or cause damage[62] to, the RMAs associated with the TSL or RP areas after operations are completed.

3.4.2.5 STRATEGY

During the period of this FSP the FSP Holder will ensure that within the FSP Holder's blocks, for S4, S5, and S6 streams the:

1) Retention levels associated with S4, S5, and S6 streams:
    a) Are determined by a QP through the utilization of the small stream and riparian assessment in Appendix X; and
    b) Are documented in the Site Plan.
2) Primary forest activities comply with the prescribed retention levels determine by the small stream and riparian assessment.

[61] means an area described under FPPR Division 3 [Riparian Areas] of Part 4 [Practice Requirements], that consists of a riparian management zone and a riparian reserve zone.
[62] Damage is defined as any exposed mineral soil, displacement or compaction within the Machine Free Zone for a stream.

3) Prescribing forester may vary the retention levels for the purpose of conserving water quality, fish habitat, wildlife habitat, or biodiversity associated with riparian areas. Variances will be accompanied by a rationale and will be documented in the Site Plan.

3.4.3 Objective: Water and Riparian – Riparian Features

Nass South SRMP LUOR Order Objective 2: *Maintain the ecological functioning of streams, rivers, wetland complexes and lakes, including those that do not support populations of fish.*

Nass South SRMP LUOR Order Objective 3: *Ensure that industrial forestry activity on all rivers and streams does not cause significant consequences for fish habitat or human water consumption from channel bank erosion, channel aggradation, degradation or dewatering, or change in channel morphology.*

Nass South SRMP LUOR Order Objective 4: *Maintain reserve zones and management zones around riparian features identified in Schedule C* [of the Nass South SRMP LUOR Order] *for all rivers, streams, lakes and wetlands.*

3.4.3.1 RESULT

During the period of the FSP, for the FSP Holder's operations within the area of the Nass South SRMP LUOR Order, the FSP Holder will ensure that riparian reserves and riparian management zones around riparian features associated with their cutblocks comply with the targets listed in Table 3-1.

Table 3-1 Retention Targets in Riparian Reserve Zones (RRZ) and Riparian Management Zones (RMZ)

Riparian Class	Reserve Zone Width[1] - Minimum (m)	Retention -Minimum (%)	Management Zone Width[1] - Minimum (m)	Retention -Minimum (%)
Streams:				
S1 Large Rivers (≥ 100m width)	As per Objectives for Biodiversity regarding the Ecosystem Network, and Objectives for Water Management Units and General Wildlife.			
S1, S2,S3 and Specific Rivers	As per Objectives for Biodiversity regarding the Ecosystem Network. Specific Rivers are: Kinskuch River – Ksi Ginsgox, Nass River – K'alii Aksim Lisims, Bell-Irving River, White River, Paw Creek, Axnegrelga Creek, Brown Bear Creek, Bear River, American Creek, Bitter Creek and Upper Hoan Creek			
S1 (other than Large and Specific Rivers)	50	100	20	0
S2	30	100	20	0
S3	20	100	20	0
S4	0	n/a	30	0
S5	0	n/a	30	0
S6	0	n/a	20	0
Wetlands:				
W1*	10	100	40	0
W2	Not applicable: no W2 in the Nass South SRMP LUOR Order area			
W3*	0	n/a	30	0
W4	Not applicable: no W4 in the Nass South SRMP LUOR Order area			
W5*	10	100	40	0
Lakes:				
L1	10	100	20	0
L2	Not applicable: no L2 in the Nass South SRMP LUOR Order area			
L3	n/a	n/a	30	0
L4	Not applicable: no L4 in the Nass South SRMP LUOR Order area			

Note: RRZ and RMZ retention percentage means the percentage of naturally occurring pre-harvest forest basal area and structure of mature and old forest that occupies (or historically occupied) the site
[1] Width will be measured in slope distance
*Excluding those wetlands identified as Special Habitat for General Wildlife in Schedule J

3.4.4 Objective: Large Woody Debris

Nass South SRMP LUOR Order Objective 5: *Retain blowdown within riparian reserve zones and/or riparian management zones as large woody debris for all rivers, streams, lakes, and wetlands.*

Nass South SRMP LUOR Order Objective 6: *Maintain naturally deposited large woody debris in rivers and streams in riparian classes S1 to S4, except where necessary to satisfy safety considerations.*

3.4.4.1 RESULT

During the period of the FSP the FSP Holder adopts the following results, except where necessary to satisfy safety considerations:

1) Blowdown within the RRZ and RMZ of the FSP Holder's cutting authorities will be retained as large woody debris.
2) For rivers and streams within the FSP Holder's cutting authorities, in riparian classes S1 to S4, large woody debris that would not naturally be in the channel will not be added, and naturally deposited large woody debris will not be removed, except where necessary to satisfy safety considerations.

3.4.5 Objective: Ground Water

Nass South SRMP LUOR Order Objective 7: *Ensure that when new roads and trails are built, ground water is allowed to reach natural ground water receiving sites.*

3.4.5.1 RESULT

During the period of the FSP the FSP Holder will install sufficient drainage structures in new roads and trails to:

1) conduct groundwater towards natural ground water receiving sites,
2) ensure groundwater accumulation will not run into surface water; and,
3) ensure that the subsurface water will reach natural ground water receiving sites.

3.4.6 Objective: Floodplains and Alluvial Fans

Nass South SRMP LUOR Order Objective 8: *Maintain the functional integrity of all floodplains and alluvial fans.*

3.4.6.1 STRATEGY

During the period of this FSP the FSP Holder will ensure primary forest activities planned on alluvial fans and flood plains will be designed to maintain the functional integrity of these geomorphic processes in consultation with a qualified professional using available guidance documents and experience to:

1) Identify fans/floodplains in an operating area,
2) Determine potential hydrogeomorphic hazards through pre-typing watersheds and review of aerial photographs,
3) Recognize and identify key features in the field, and
4) Develop prescriptions that address the hydrogeomorphic hazards.

3.4.7 Objective: Water Management Units

Nass South SRMP LUOR Order Objective 37: *Ensure proper hydrological functioning[63] of:*

(a) each stream, wetland and lake within a Water Management Unit identified on Schedule K [of the Nass South SRMP LUOR Order]; *and*
(b) each local and downstream stream receiving water from a cutblock within a Water Management Unit identified on Schedule K [of the Nass South SRMP LUOR Order].

Nass South SRMP LUOR Order Objective 38:

(a) Retain 100% of the forested area of the hydroriparian zone[64] of each stream, wetland and lake within a Water Management Unit as shown on Schedule K [of the Nass South LUOR Order]*, unless harvesting is required to address compelling forest health issues[65] or as set out in b).*
(b) Cutblocks may overlap a Water Management Unit as shown on Schedule K [of the Nass South SRMP LUOR Order] *by no more than 200 meters or 50% of any individual cutblock area, whichever is less, provided that the riparian management practices applicable to the forest land base outside a Water Management Unit are maintained.*

3.4.7.1 RESULT

During the period of this FSP, to ensure the proper hydrological functioning of the areas described in Nass South SRMP LUOR Order Objectives 37a & b and 38b, the FSP holder will, within areas of their operations, retain 100% of the forested area of the hydroriparian zone of each stream, wetland and lake within a Water Management Unit as shown on Nass South SRMP Schedule K, unless harvesting is required to address compelling forest health issues, or as set out in 1) below

1) Operations may overlap a Water Management Unit as shown on Nass South SRMP LUOR Order Schedule K by no more than 200 metres or 50% of any individual TSL cutblock area, whichever is less, provided that the riparian management practices applicable to the forest land base outside a Water Management Unit is maintained.

3.5 Fish

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s. 8, 8.1 2. Objectives enabled by regulation: GAR s. 14-15 3. Land Use Objectives: Nass South SRMP LUOR Order Objectives 33, 34
Effective Date	1.January 31, 2004 2. N/A 3.February 25, 2016

[63] "proper hydrological functioning" means the ability of a stream, river, wetland or lake and its riparian area to: withstand normal peak flood events without experiencing accelerated soil loss, channel movement or bank movement; filter runoff; and store and safely release water. It also means the ability of riparian habitat to: maintain an adequate root network or large woody debris supply; provide shade; and reduce bank microclimate change, and have fish habitat in streams and riparian areas that are fully connected so that fish habitat is not lost or isolated as a result of some management activity.
[64] "hydroriparian zone" means the area that extends to the edge of the influence of water on land, or land on water, as defined by plant communities (including high bench or dry floodplain communities) or landforms, plus one and one-half site specific tree heights horizontal distance (Hydroriparian Planning Guide, Coast Information Team, Jan. 30, 2004). Landforms include: (a) The stream channel, lake or wetland and adjacent riparian ecosystem, where no floodplain exists; (b) The full width of the floodplain for streams; (c) Adjacent active fluvial units; (d) Up to the top of the inner gorge or where slopes become less than 50% for reaches of streams that are gullied, or are in a ravine or canyon; and, (e) Immediately adjacent unstable slopes (class IV and V terrain) where it is located such that a surcharge of sediment may be delivered to the stream, lake or wetland.
[65] Compelling forest health issue' described in the Nass South LUOR Order Schedule 1 – Rationale for amending the ecosystem network, section 3 as, "e.g. a forest pest or disease is established in the Ecosystem Network and spreads to the point where it threatens adjacent values and resources outside the Ecosystem Network".

Practice Requirement(s) Eligible for Exemption	FPPR ss. 55, 56, 57	Decision: Adopt FPPR ss.55, 56, 57

3.5.1 Objective: Fish Habitat in Fisheries Sensitive Watersheds

FPPR s. 8.1: *(2) Until December 31, 2005 the objective set by government for fish habitat in fisheries sensitive watersheds is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities in the fisheries sensitive watershed from resulting in a material adverse impact on the habitat of the fish species for which the fisheries sensitive watershed was established.*

GAR s 14-15: *Fisheries sensitive watersheds and objectives; and Temperature sensitive streams.*

3.5.1.1 RESULT

During the period of this FSP the FSP Holder will undertake to comply with sections 55, 56 and 57 of the FPPR when designated fisheries sensitive watersheds are established within this FDU. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 55, 56 and 57 apply to the holder's primary forest activities carried out during the term of the plan.

3.5.1.2 RESULT

There are no designated fisheries sensitive watersheds or temperature sensitive streams in this FDU. At the time that fisheries sensitive watersheds or temperature sensitive streams are established, during the period of this FSP the FSP Holder will ensure that their primary forest activities are consistent with the order for:

1) established fisheries sensitive watershed, and
2) established temperature sensitive streams.

3.5.2 Objective: Indigenous Fish Populations

Nass South SRMP LUOR Order Objective 33: *Maintain habitat for indigenous fish populations.*

Nass South SRMP LUOR Order Objective 34: *Maintain the functional integrity of fish-bearing streams, rivers and lakes.*

3.5.2.1 RESULT

During the period of this FSP the FSP Holder will address the potential impacts of their harvesting and road construction activities to fish bearing streams, rivers, and lakes through the adoption of Results 3.4.4.1 (Large Woody Debris), 3.4.2.1 (Riparian Features), 3.4.3.1 (Riparian Features), and 3.4.7.1 (Water Management Units).

3.5.2.2 STRATEGY

During the period of this FSP the FSP Holder will address the potential impacts of their harvesting and road construction activities to fish bearing streams through the adoption of Strategies 3.7.8.1(Ecosystem Network-Hydroriparian Zone), 3.7.9.1(Ecosystem Network-Structural Connectivity), 3.7.10.1 (Ecosystem Network-Buffer), and 3.4.6.1 (Floodplains and Alluvial Fans).

3.6 Water in Community Watersheds

Reference Information	
Type of Objective	1.Objectives set in regulation: FRPR s.8.2 2.Objectives enables by regulation: GAR s. 8 3.Land Use Objectives: N/A

Effective Date	1. January 31, 2004 2. December 13, 2004 3. N/A	
Mandatory Practice Requirements from the FPPR	FPPR ss. 58, 60(1), 62 ,63	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 59, 60(2), 61	Decision: Adopt FPPR ss. 59, 60(2),61

3.6.1 Objective: Water in Community Watersheds

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 licence pertaining to the waterworks.

3.6.1.1 RESULT

There are no designated Community Watersheds in this FDU. At the time that Community Watersheds are established, during the period of this FSP the FSP Holder will undertake to comply with sections 59, 60(2) and 61 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 59, 60(2) and 61 apply to the holder's primary forest activities carried out during the term of the plan.

3.7 Biodiversity

Reference Information		
Applicable Area	Within Nass South SRMP LUOR Order Area	Outside Nass South SRMP LUOR Order Area
Type of Objective	1.Objectives set in Regulation: FPPR s. 9, 9.1 2. Objectives enabled by Regulation: N/A 3. Land Use Objectives: Nass South SRMP LUOR Order Objectives 9,10,11,12,13,14,15,16,17, 18,19,20	1. Objectives set in Regulation: FPPR s. 9, 9.1 2. Objectives enabled by Regulation: Order Establishing Provincial Non-Spatial Old Growth Objectives 3. N/A
Effective Date	1. January 31, 2004 2. N/A 3. February 25, 2016	1. January 31, 2004 2. June 30, 2004 3. TBD

Reference Information		
Mandatory Practice Requirements from the FPPR	FPPR ss.68	FPPR ss.68
Practice Requirement(s) Eligible for Exemption	FPPR ss. 64, 65, 66, 67	FPPR ss. 64, 65, 66, 67
	Decision: Exempt FPPR ss.64, 65, 66, and 67 as per FPPR s. 12.5, 12.6 (Strategy 3.7.1.1 and Results 3.7.1.2 and 3.7.3.1 apply)	Decision: Exempt FPPR ss.64, 65, 66, and 67 as per FPPR s.12.4 and 12.5 (Strategy 3.7.1.1 and Results 3.7.1.2 and 3.7.3.1 apply)

3.7.1 Objective: Patch and Seral Distribution

FPPR s.9: *The objective set by government for wildlife and biodiversity at the landscape level is,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.*

Nass South SRMP LUOR Order Objective 9: *Maintain a landscape pattern of patchiness that, over the long term, reflects the natural disturbance pattern within the forested area of each Landscape Unit, as per Schedule D* [of the Nass South SRMP LUOR Order].

Nass South SRMP LUOR Order Objective 16: *Maintain a range of forest seral stages as per Schedule G* [of the Nass South SRMP LUOR Order].

Order Establishing Provincial Non-Spatial Old Growth Objectives 1-2, and 5-7 (2004)

3.7.1.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that:

1) Areas harvested by the FSP Holder will be of a size and distribution that emulates the historical temporal and spatial distribution of the Natural Disturbance Types (NDTs) for the forests within the Nass FDU area.
2) Areas harvested by the FSP Holder will remain static or move towards the patch size and seral stage distribution targets that are in place for the NDTs. Guidance is found within Appendix IX when there are conflicting targets
3) An analysis will be calculated separately for each LU that overlaps the Nass FDU, in accordance with items 4 and 5 below.
4) **Temporal:** Conduct seral stage analysis by LU and natural disturbance type
    a) Determine proportional representation of the LUs within the Nass FDU
    b) Determine representation with respect to sensitive areas
    c) Determine need for actions to address seral stage imbalances, based on the applicable land use objective(s)[66]
    d) If necessary, prepare action plan(s) to address seral stage imbalances and implement the action plan
5) **Spatial:** Analyze patch size distribution by LU and natural disturbance type

[66] Seral Stage Condition targets for Landscape Units within the area covered by the Nass South SRMP LUOR Order are specified in Appendix VIII. Seral Stage Condition targets for Landscape Units outside the area covered by the Nass South SRMP LUOR Order will be as per the Biodiversity Emphasis Options listed in Table 3-2 and fully described in the Biodiversity Guidebook 1995, and the Order Establishing Provincial Non-Spatial Old Growth Objectives 1-2, and 5-7 (2004).

a) Determine proportional representation of existing patch sizes within the Nass FDU

b) Determine target patch size distribution for the Nass FDU

c) Determine need for actions to address patch size imbalances, based on the applicable land use objective(s)[67]

d) If necessary, prepare action plan(s) to address patch size distribution imbalances and implement the action plan.

6) Prepare a summary of the seral stage and allowable patch size distribution analysis results within the Nass FDU.

3.7.1.2 RESULT

During the period of this FSP the FSP Holder will ensure that:

1) Every three years, by June 1st, a report summarizing the status of the patch and seral distribution within the FDU area will be completed by the FSP Holder. The most recent update to the analysis was completed in 2021.The report will reflect projected changes (i.e. planned harvest) for at least the upcoming five year period. Where this report indicates movement away from the target levels[68], a rationale will be prepared that describes management strategies for moving towards the target levels.

2) Within a specified period after the approval of this FSP, harvest activities under this FSP will be to be static or moving toward the target levels for these areas. This specified period shall be five (5) years for each Landscape Unit, unless otherwise determined by mutual agreement between the FSP Holder and the CMNR District Manager.

Table 3-2 Biodiversity Emphasis Options for Landscape Units Outside the Area of the Nass South SRMP LUOR

Landscape Unit	*Biodiversity Emphasis Option*
Craven	Intermediate
Muskaboo	Low
Nass River Kalum	High
Oweegee	Low
Sallysout	Low
Taylor-Damdochax	Intermediate

3.7.2 Objective: Wildlife Trees

FPPR s. 9.1: *The objective set by government for wildlife and biodiversity at the stand level is to retain wildlife trees.*

3.7.2.1 RESULT

During the period of this FSP the FSP Holder will locate wildlife tree retention areas associated with FSP Holder blocks based on the considerations listed below in order of priority:

1) Protect trees with valuable wildlife tree attributes[69] and anchor the WTRA to ecologically valuable areas and consideration of areas with cultural heritage resources that are of continuing importance to potentially impacted First Nations.

15) Where there are few trees with valuable attributes, locate retention area most suitable for long-term wildlife tree recruitment.

[67] Patch Size Distribution for all Landscape Units within the Nass FDU are identified in Appendix VIII.
[68] Target Levels: The Patch size and seral condition targets identified in the strategy above
[69] Examples of wildlife tree attributes are listed in Appendix XI

16) Where there are no opportunities for current or future valuable tree attributes, locate wildlife tree retention areas representative of the pre-harvest stand.

3.7.3 Objective: Wildlife Trees

Nass South SRMP LUOR Order Objective 10: *Maintain or recruit structural diversity in managed stands by retaining at least 3.5% of each proposed cutblock and at least 7% of proposed cutblocks aggregated[70] on an annual basis, as wildlife tree retention areas, over the rotation.*

3.7.3.1 RESULT

During the period of this FSP the FSP Holder will ensure that they will:

1) Maintain or recruit structural diversity in managed stands by retaining at least 3.5% of each proposed cutblock and at least 7% of proposed cutblocks aggregated on an annual basis, as wildlife tree retention areas, over the rotation.
2) Allow natural processes (insect, diseases, blowdown) to occur within WTRA's unless infestation or infection in the WTRA threatens to spread to adjacent forested areas. Where intervention is required, treatment will retain a diversity of structural attributes comply with (1) above or a suitable replacement WTRA will be located.
3) Will not harvest timber from a WTRA unless trees on the net area to be reforested of the cutblock to which the WTRA area relates have developed attributes that comply with a mature seral condition except where:
    a) harvesting is required to access timber that otherwise would be isolated from harvest beyond the WTRA area; or
    b) terrain conditions such as slope, gradient, or terrain stability constrain road locations and dictate that sections of a road enter and leave the WTRA to access timber that otherwise would be isolated from harvest; or
4) Identify and establish a replacement area with similar stand characteristics to the WTRA planned for harvest prior to harvesting within a WTRA and will ensure that the associated Site Plan is amended to account for the reconfiguration.

3.7.4 Objective: Red and Blue - Listed Species

Nass South SRMP LUOR Order Objective 11: *Retain 100% of the area and basal area of red-listed ecological communities[71], as listed on Schedule E [of the Nass South SRMP LUOR Order], except where:*

> *(a) required to access timber that otherwise would be isolated from harvest beyond the core area;*
> *(b) terrain conditions such as slope, gradient, or terrain stability constrain road locations and dictate that sections of road enter and leave red-listed ecological communities to access timber that otherwise would be isolated from harvest; or*
> *(c) no practicable alternative exists.*

Nass South SRMP LUOR Order Objective 12: *Retain a windfirm, forested buffer around the red-listed ecological communities [14] listed on Schedule E* [of the Nass South SRMP LUOR Order]*, as required to maintain the conditions of soil chemistry, moisture, temperature, and light that define and sustain the ecosystem except where:*

> *(a) required to access timber that otherwise would be isolated from harvest beyond the core area;*

[70] Cut block aggregate: A group of cut blocks which are within 10 kilometers radius of each other and where the Site Plan for these blocks refers to the fact that they are a cut block aggregate.

[71] the required minimum size of a red-listed ecological community is 0.25 ha. Where the community exists as the dominant component of a complex, the minimum size of the complex is 1 ha

(b) terrain conditions such as slope, gradient, or terrain stability constrain road locations and dictate that sections of road enter and leave red-listed ecological communities to access timber that otherwise would be isolated from harvest; or
(c) no practicable alternative exists.

Nass South SRMP LUOR Order Objective 13: *Retain at least 70% of the area or basal area of each blue-listed ecological community* [72] *within a cutblock as listed on Schedule F* [of the Nass South SRMP LUOR Order].

3.7.4.1 RESULT

During the period of this FSP the FSP Holder will ensure that during the development of cutblocks and roads under the authority of the FSP Holder:

1) Field development personnel review planned harvest areas (including roads) for the occurrence of red-listed[73] or blue-listed[74] plant communities and will map any readily identifiable occurrences:
   a) larger than 0.25 ha that occur as a distinct unit, or
   b) larger than 1.0 ha that occur as the dominant ecosystem within an ecosystem mosaic
2) 100% of the area and basal area of each occurrence of a red-listed ecological community is retained unless:
   a) Disturbance is required to access timber that otherwise would be isolated from harvest beyond the core area;
   b) Terrain conditions such as slope, gradient, or terrain stability constrain road locations and dictate that sections of road enter and leave red-listed ecological communities to access timber that otherwise would be isolated from harvest; or
   c) No practicable alternative exists
3) A windfirm forested buffer will be placed around identified red listed ecological communities as required to maintain the conditions of soil chemistry, moisture, temperature, and light that define and sustain the ecosystem except for the instances listed in 3.7.4.1 2a, 2b, and 2c.
4) At least 70% of the area or basal area of each occurrence of blue-listed ecological community is retained.

3.7.5 Objective: Natural Species Composition

Nass South SRMP LUOR Order Objective 14: *Maintain a diversity of coniferous and deciduous species that represent the natural species composition at the landscape and stand levels by ensuring that all cutblocks at the free-growing stage will have a diversity of species ecologically appropriate to the site.*

3.7.5.1 RESULT

During the period of this FSP the FSP Holder adopts Result 3.2.1.1 (Stocking standards) for the FSP Holder's blocks with a reforestation obligation.

[72] the required minimum size of the blue listed ecological community is 0.25 ha. Where the community exists as the dominant component of a complex, the minimum size of the complex is 1 ha.
[73] Red-listed plant communities are as described on Schedule E of the Nass South SRMP LUOR Order and the Conservation Data Center website when accessed on the day the original Site Plan is signed.
[74] Blue-listed plant communities are as described on Schedule F of the Nass South SRMP LUOR Order and the Conservation Data Center website when accessed on the day the original Site Plan is signed.

3.7.6 Objective: Natural Species Composition

Nass South SRMP LUOR Order Objective 15: *Maintain a diversity of coniferous and deciduous species that represent the natural species composition at the landscape and stand levels by ensuring that where an area larger than one contiguous hectare is harvested and it is composed of more than 50% deciduous trees by basal area, it will either be regenerated with a similar deciduous stand or will be replaced at a different location on a similar site series by regenerating an existing coniferous stand with similar deciduous species.*

3.7.6.1 STRATEGY

During the period of this FSP the FSP Holder will reforest harvested areas associated with the FSP Holder's operations that are greater than one contiguous hectare, which originally had more that 50% deciduous trees by basal area, with a similar deciduous leading stand.

3.7.7 Objective: Old Growth Management Areas

Nass South SRMP LUOR Order Objective 17*: Retain 100% of the forested area within Old Growth Management Areas as identified on Schedule H* [of the Nass South SRMP LUOR Order].

3.7.7.1 STRATEGY

During the period of this FSP the FSP Holder will not harvest within the OGMAs as shown on Nass South SRMP LUOR Order Schedule H, without first completing an amendment as per the process described in the approved *Old Growth Management Area (OGMA) Amendment Policy – Skeena Region (February 9, 2011)* and as may be amended from time to time.

3.7.8 Objective: Ecosystem Network

Nass South SRMP LUOR Order Objective 18: *Retain 100% of the forested area of the hydroriparian zone within Ecosystem Network, as identified on Schedule I* [of the Nass South SRMP LUOR Order]. *Acceptable rationales for amending the Ecosystem Network are identified in Schedule I1* [of the Nass South SRMP LUOR Order].

3.7.8.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that during their operations 100% of the forested area of the hydroriparian zone within the Ecosystem Network identified on Nass South SRMP LUOR Order Schedule I is retained. Acceptable rationales for amending the Ecosystem Network are identified in Table 3-3, *Rationale for Amending the Ecosystem Network.*

Table 3-3 Rationale for Amending the Ecosystem Network

Acceptable Rationale for Amendment	**Major or Minor Amendment**	**Allowable Amendment**
Access issues that were overlooked or unknown during the initial Ecosystem Network delineation, where no practicable alternative exists (refer to Biodiversity Measure 7.2)	Minor	• To establish an appropriate road width through the Ecosystem Network.
To account for cut blocks in place prior to the establishment of the Ecosystem Network, including those: • *approved under section 196(1) of the Forest and Range Practices Act;*	Minor	• To the edge of the cut block, temporarily, to allow timber harvest. • Return to original location following completion of timber harvest and silvicultural responsibilities.

• *as declared areas under section 14(4) of the Forest Planning and Practices Regulation; or* • *that have a cutting permit in place*		
To address a compelling forest health issue (e.g. a forest pest or disease is established in the Ecosystem Network and spreads to the point where it threatens adjacent values and resources outside the Ecosystem Network).	Minor	• To the extent necessary to eliminate the threat to the land and water adjacent to the Ecosystem Network.
New data and information such as ground truthing of the hydroriparian zone[10], new resource inventories, First Nations cultural sites and updated wildlife mapping. Notwithstanding the exceptions detailed under items 1 to 3 above, in no case will the Ecosystem Network be smaller than the hydroriparian zone.	Major for the following rivers: • Kinskuch River, Nass River, Bell-Irving River, White River, Paw Creek, Axnegrelga Creek, and Brown Bear Creek Minor for all other portions of the EN	• to improve the degree to which the Ecosystem Network captures values for First Nations, provides habitat for wildlife, or generally benefits biodiversity. • To increase the accuracy of the Ecosystem Network in terms of how it maps the hydroriparian zone.

3.7.9 Objective: Ecosystem Network

Nass South SRMP LUOR Order Objective 19: *Maintain structural connectivity in the Ecosystem Network, as identified on Schedule I* [of the Nass South SRMP LUOR Order] *except where:*

(a) Required to access timber beyond the Ecosystem Network that would otherwise be isolated from harvest;
(b) Required to access timber that would otherwise be isolated from harvest due to terrain conditions such as slope, gradient or terrain stability that constrain road locations and dictate that sections of road enter and leave the Ecosystem Network; or
(c) no practicable alternative exists.

3.7.9.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that their operations maintain structural connectivity in the Ecosystem Network as shown on Nass South SRMP LUOR Order Schedule I except where:

1) Required to access timber beyond the Ecosystem Network that would otherwise be isolated from harvest;
2) Required to access timber that would otherwise be isolated from harvest due to terrain conditions such as slope, gradient or terrain stability that constrain road locations and dictate that sections of road enter and leave Ecosystem Network; or
3) Where no practicable alternative exists.

3.7.10 Objective: Ecosystem Network

Nass South SRMP LUOR Order Objective 20: *Retain a 100 m wide buffer around the Ecosystem Network as identified on Schedule I that meets the following forest conditions:*

1) Continuous forest cover
2) Small discontinuous canopy gaps
3) ≥70% structure and function[75] retained, including large, old trees, snags, and coarse woody debris
4) Multi-canopy levels, multi-aged forest
5) 0% permanent road access, except where, for ecological or economic reasons, no other alternative is possible.

3.7.10.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that their operations retain a 100 m wide buffer around the Ecosystem Network as depicted on Nass South SRMP LUOR Order Schedule I. The buffer will meet the following forest conditions:

1) Continuous forest cover,
17) Small discontinuous canopy gaps,
18) ≥70% structure and function[19] retained, including large, old trees, snags, and coarse woody debris,
19) Multi-canopy levels, multi-aged forest , and
20) 0% permanent road access, except where, for ecological or economic reasons, no other alternative is possible.

3.8 Visual Quality

Reference Information	
Type of Objective	1.Objectives set if regulation: FPPR s 9.2(2) 2.Objectives enabled in regulation: GAR 7(1), 7(2) and 17 3.Land Use Objectives: N/A
Effective Date	1. FPPR: January 31, 2004 2. Kalum District Manager's letters dated January 7 1997, September 8 1998 and March 23 2000 established VQOs and designated Scenic Areas in the Kalum District. 3. N/A
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.8.1 Objective: Visual Quality

FPPR s. 9.2(2): *The objective set by government in relation to visual quality for a scenic area, that*

(a) was established on or before October 24, 2002, and for which there is no visual quality objective is to ensure that the altered forest landscape for the scenic area

[75] Any harvest unit within the buffer portions of the EN will, within the buffer, retain ≥70% of the naturally occurring mature and old forest structure (live trees, range of diameter classes, snags, coarse woody debris, tree species etc.) of the harvest unit measured either as basal area (M^2) or forest area (hectares). No further harvesting may occur within the harvest unit (within the EN buffer area) until such time as the harvested portion has returned to a mature or older condition (ie. ICH 100 years, ESSF 120 years).

(b) in visual sensitivity class 1 is in either the preservation or retention category,
(c) in visual sensitivity class 2 is in either the retention or partial retention category,
(d) in visual sensitivity class 3 is in either the partial retention or modification category,
(e) in visual sensitivity class 4 is in either the partial retention or modification category, and
(f) in visual sensitivity class 5 is in either the modification or maximum modification category.

3.8.1.1 STRATEGY

During the period of this FSP the FSP Holder will ensure that:

1) A visual impact assessment (VIA) be carried out by a QP in accordance with the methodology identified in the Visual Impact Assessment Guidebook (Visual Impact Assessment Guidebook (gov.bc.ca))and will be attached or referred to in the Site Plan for their blocks that are located within known scenic areas and that are identified with an established Visual Quality Objective (VQO).
    a) Visual Sensitivity Class will be treated as having VQOs as follows:
        i) VSC 1 = Retention
        ii) VSC 2 = Partial Retention
        iii) VSC 3 and 4 = Modification
        iv) VSC 5 = Maximum Modification
2) The visual impact assessment will:
    a) review the visual landscape from selected viewpoints (see below for viewpoint selection and criteria)
    b) describe how the visual design conforms to the VQO.
3) The block design, at the date of cutting authority issuance, will reflect the visual design as described in the visual assessment.
4) Viewpoints are identified, but not limited to, as follows:
    a) As shown on the FSP maps (as amended from time to time), or
    b) At a point along a travel corridor[76] that allows for an extended viewing experience[77], or
    c) At a place, along a travel corridor, that persons can stop for an extended viewing experience.
5) An exemption has been approved by the CMNRD District Manager, under FRPA where catastrophic damage such as wind-throw, fire, disease, or pest damage occurs and any timber harvested by the FSP Holder would cause the scale criteria for a VQO to be exceeded. Where practicable, road location and/or block design will be modified to mitigate impact to the visual condition by incorporating visual design elements. Visual design elements include cut-block shape, size, pattern and retention of wildlife trees (patches and/or single trees).

3.9 Cultural Heritage Resources

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s. 10 2. Objectives enabled by regulation: N/A 3. Land Use Objectives: Nass South SRMP LUOR Order Objective 35 and 36

[76] A travel corridor is defined as a route, highway or waterway used by the public to travel from one geographic area to another.
[77] For the purpose of 4 (b) and (c) "extended viewing experience" means greater than 60 seconds uninterrupted view at the posted/ normal speed limit.

Effective Date	1. January 31, 2004 2. N/A 3. February 25, 2016
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.9.1 Objective: Cultural Heritage Resources

FPPR s. 10: *The objective set by government for Cultural Heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are:*

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

Nass South SRMP LUOR Order Objective 35: *Preserve cultural heritage resources and cultural sites, including culturally modified trees, trails, cache pits, house pits, grave sites, fishing sites, pictograph sites, smoke houses, cabins, and camping sites.*

3.9.1.1 RESULT

During the period of this FSP the FSP Holder will ensure that a Cultural Heritage Resource Evaluation (CHRE) will be completed on all FSP Holder blocks and roads before harvesting or road construction activities occur, or mechanical site preparation activities are prescribed, and that forest practices or activities are consistent with the recommendations in the CHRE.

3.9.1.2 STRATEGY

During the period of this FSP the FSP Holder will ensure that the CHRE (cultural heritage resource evaluation), defined as a process conducted by field and office persons, will consist of the following steps:

1) Identify potentially affected First Nations[78] through the Consultative Area Database (CAD).
2) Complete an initial office-based review of all proposed blocks and roads in relation to known information. Known information may include, but is not limited to, the following:
    a) Traditional Use Studies,
    b) First Nation values identified during previous consultation, and
    c) Archaeological databases.
3) Share the results from (2) and request the First Nations identify any additional values and interests[79].
4) Complete a field evaluation for the presence of cultural heritage resources and First Nations identified values and interests from (2 and 3). Record information related to the location, nature and extent of all interests and values in the CHRE form.
5) Share the results from (4) and consult with the potentially affected First Nation to prepare recommendations to conserve or mitigate impacts and/ or, as required, protect the cultural heritage resource and First Nations identified values and interests at the location, considering:

[78] Potentially affected First Nations are First Nations who have identified areas of interest (as defined by the Consultative Areas Database or equivalent government system or government staff direction) that overlap the proposed area where primary forest activities under this FSP are planned to occur.
[79] First Nations Identified values and interests may include but is not limited to the following: cedar management; access management; culturally important plants; stream management and wildlife management.

a) The relative value or importance of the cultural heritage resource and First Nations identified values and interests to a traditional use by an aboriginal people,

b) If the cultural heritage resource and First Nations identified values and interests is of continuing importance to the First Nations, and

c) The historical extent of the traditional use of the cultural heritage resource and First Nations identified values and interests.

3.9.1.3 STRATEGY

During the period of this FSP the FSP Holder will ensure that if during timber harvesting, road construction or mechanical site preparations they encounter a previously unidentified cultural heritage resource feature on their cutblock or road, the FSP Holder will:

1) Stop the activity to the extent necessary to protect the cultural heritage resource until an assessment is carried out,

2) Consult with the potentially affected First Nations with the details of the previously unidentified cultural heritage resource feature, and

3) Ensure the FSP Holder's harvesting, road construction, or mechanical site preparation activities continue in a manner that follows the recommendations given in the assessment, that are practicable and are required to conserve or, if necessary, protect a cultural heritage resource if it is of continuing importance to the First Nations.

3.9.2 Objective: Cedar

Nass South SRMP LUOR Order 36: *Maintain a sustainable source of cedar for the applicable First Nation to practice their traditional, cultural and subsistence uses*.

3.9.2.1 STRATEGY

During the period of this FSP, for any block with a western red cedar (*Thuja plicata*) or yellow cedar (*Chamaecyparis nootkatensis*) component, the FSP Holder will facilitate, upon request, potentially affected First Nations'[80] removal of these species from retention areas (including WTRAs or RMZs[81] for cultural purposes. The FSP Holder will:

1) notify First Nations, in the CHRE and Shared Engagement Record, when there is western red cedar and yellow cedar suitable for cultural purposes[82] in a block.

21) at the request of the First Nation, assist with identifying suitable trees within WTRAs where trees can be removed, while maintaining WTRA functionality.

22) at the request of the First Nation, assist with identifying suitable trees within RMZs where trees can be removed while maintaining RMZ functionality.

3.9.2.2 STRATEGY

During the period of this FSP the FSP Holder with ensure for their operations:

1) Where safe and practicable, non-merchantable cedar stems within the cutblock will be retained.

2) Where safe and practicable, roads and landings will be located to avoid non-merchantable cedar stems and patches of regenerating cedar.

3) Where safe and practicable, large wood debris will be retained intact and on-site.

[80] Potentially affected First Nations are First Nations who have Traditional Territory (as defined by the Consultative Areas Database or equivalent government system or government staff direction) that overlaps the proposed area where primary forest activities under this FSP are planned to occur or occur/
[81] Removal of stems from within Riparian Reserve Zones will be consistent with the Forest Planning and Practices Regulation
[82] Suitability will be defined by the requesting First Nation

4) Where preharvest stand contains western red cedar, western red cedar will be re-stocked to the minimum density that occurred in the pre-harvest stand.

3.10 Botanical Forest Resources

Reference Information	
Type of Objective	1. Objective set in regulation: 2. Objectives enabled by regulation: 3. Land Use Objectives: Nass South SRMP LUOR Order Objective 21
Effective Date	1. N/A 2. N/A 3. February 25, 2016
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.10.1 Objective: Pine Mushroom Resources

Nass South SRMP LUOR Order Objective 21*: Maintain at least 50% of the productive pine mushroom (Tricholoma magnivelare) sites[83], in forest ages ranging from 80 to 200 years[84].*

3.10.1.1 STRATEGY

During the period of this FSP, the FSP Holder will adopt Strategy 3.7.1.1(Patch Size Distribution and Seral Stage) and Result 3.7.1.2 (Patch Size Distribution and Seral Stage) for their operations.

3.10.1.2 STRATEGY

During the period of this FSP the FSP Holder will ensure that productive pine mushroom sites associated with their operations are maintained through the following actions:

1) The FSP holder will identify and map productive pine mushroom sites at the stand level during the ecological site mapping stage of operational planning.
2) If harvesting or road construction is proposed within the identified and mapped productive pine mushroom sites, 100% of the identified productive pine mushroom area will be addressed through the Site Plan to ensure that, at a minimum, 50% of the identified productive pine mushroom area will be maintained.

3.11 Recreation Trails and Sites

Reference Information	
Type of Objective	1. Objective set in regulation: FRR s 16(a)ii 2. Objectives enabled by regulation: GAR s. 5(f), 5(g) 3. Land Use Objectives: N/A
Effective Date	1. January 31 2004 2. a. Order to Establish Objectives for a Recreation Site, Recreation Trail, or Interpretive Site

[83] Productive pine mushroom sites means sites that are generally pine- or hemlock-leading stands below 800 metres elevation in the following site series: ICHmc1/01b, ICHmc2/01b and CWHws2/03. The minimum size of area to be considered is 0.3 ha for homogeneous site series and 1 ha for site series complexes.
[84] If future research shows that silviculture systems (other than clearcut harvesting) can perpetuate pine mushroom production, the areas having these silviculture systems will contribute to meeting the objective.

	(July 25, 1997). b. Order to Establish Objectives for a Recreation Site, Recreation Trail, or Interpretive Site (November 8, 1996). 3. N/A
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.11.1 Objective: Interpretive Forest Sites, Recreation Sites and Recreation Trails

FRR s. 16 *Unless authorized by a recreation officer, a person must not use*

a) a recreation site, recreation trail or interpretive forest site for
ii) a business or industrial activity

GAR s. 5 *Resource Features*

3.11.1.1 RESULT

During the period of this FSP, the FSP Holder will work with the District Recreation Officer when their proposed activities are within 100 m of an established recreation site[85] or an established recreation trail[86] to develop a mutually agreed upon plan to manage the activities in accordance with the established recreation site and established recreation trail management objectives[87].

3.11.1.2 RESULT

During the period of this FSP, the FSP Holder will ensure a FRR section 16 authorization from the District Recreation Officer is approved prior to a recreation site, recreation trail or interpretive forest site being used for industrial activity and that the industrial activity follows the recommendations in the FRR s. 16 authorization.

3.11.1.3 RESULT

During the period of this FSP, the FSP Holder will ensure that for established interpretive forest sites, recreation sites, and recreation trails with established legal objectives the FSP Holder's harvesting, road construction and silviculture activities are consistent with the legally established objectives.

3.11.1.4 STRATEGY

During the period of this FSP the FSP Holder will repair or mitigate any damage to an established recreation site or an established recreation trail within one year following harvest completion by:

1) relocating the original trail route or establishing an alternate trail route, if the original route in note practicable due to safety concerns, and

2) remove all harvesting debris that crosses the established recreation trail.

[85] A recreation site identified within the BC Government Warehouse recreation data layers.
[86] A recreation trail identified within the BC Government Warehouse recreation data layers.
[87] The management objectives identified within Forest Tenure Administration (FTA).

4 NORTH COAST FDU

The North Coast Forest Development Unit (NC FDU) is a single unit that encompasses the historic North Coast TSA portion of the GBR North TSA and excludes Tree Farm License (TFL) # 25. BC Timber Sales' annual allowable cut apportionment within the GBR North TSA is 52,611m^3. BCTS' operations may occur within any portion of the FDU specified by this FSP. Gitxaala Forest Products Ltd.'s tenure areas are identified in section 1.4 of this FSP. The objectives, results and strategies in this chapter apply to the area within the North Coast FDU (Figure 4).

Objectives for the NC FDU derive from the overarching FRPA and the Great Bear Rainforest Order (June 9th 2023). In addition, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time, will be considered during development.

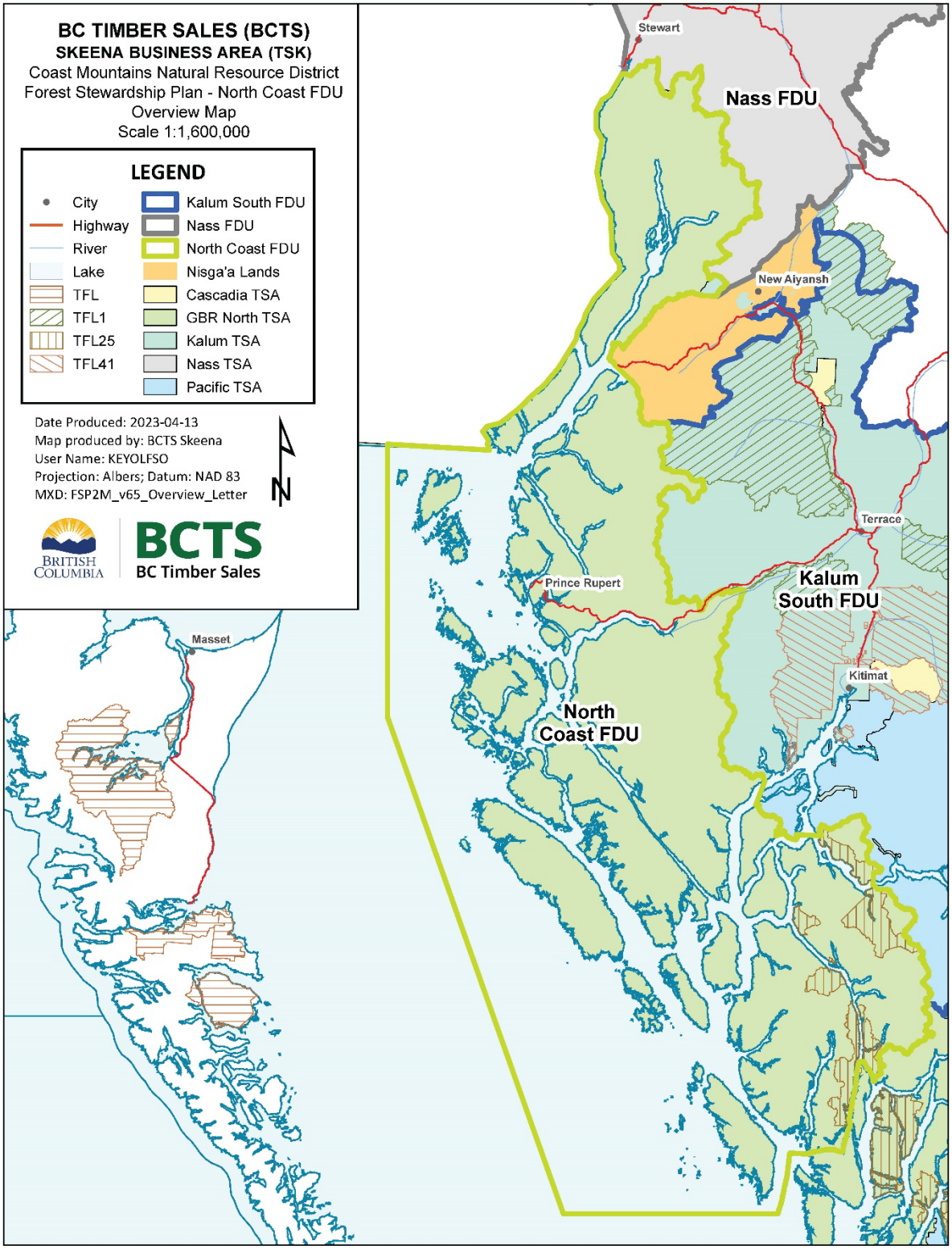

Figure 4. North Coast FDU Overview Map

4.1 Soils

Reference Information		
Type of Objective	1. Objective set in regulation: FPPR s. 5 2. Objectives enabled by regulation: NA 3. Land-Use objectives: N/A	
Effective Date	1. January 31, 2004 2. N/A 3. N/A	
Mandatory Practice Requirements from the FPPR	FPPR ss. 37, 38, 39, & 40	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 35 & 36	Decision: Adopt FPPR ss. 35 & 36

4.1.1 Objective: Soils

FPPR s. 5: *The objective set by government for Soils is conserve the productivity and hydrologic function of soils.*

4.1.1.1 RESULT

During the period of this FSP the FSP Holders will undertake to comply with sections 35 and 36 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 35 and 36 apply to the holder's primary forest activities carried out during the term of the plan.

4.1.1.2 STRATEGY

During the period of this FSP, for roads within the FDU that fall under the FSP Holder's responsibility, the FSP Holder will:

1) Perform a risk assessment to determine and document an inspection frequency. Road maintenance inspections will be completed in accordance with the results of the assessment, or where a risk assessment has yet to be completed the FSP Holder will follow these minimum inspection frequencies:
    a) For roads being used for active hauling by the FSP Holder, the minimum inspection frequency is once every three months. The initial inspection will occur within 30 days before or after the start of hauling.
    b) For roads that will be inactive for more than nine months, the minimum inspection frequency is once per calendar year, under snow-free conditions.
2) Conduct inspections in accordance with (1).

Action items that are identified through road inspections, based on priorities set by BCTS, will be undertaken that reflect the results of the inspections.

4.2 Timber

Reference Information	
Type of Objective	1. Objective set in regulation: FPPR s.6; FRPA s. 149 2. Objectives enabled by regulation: N/A 3. Land-Use objectives: N/A

Effective Date	1. January 31, 2004 2. N/A 3. N/A
Exempted Areas	Protected Areas including National and Provincial Parks, Biodiversity, Mining, Tourism Areas (BMTA)
Mandatory Practice Requirements from the FPPR	FPPR ss. 41,42, 43, 44, 45,46
Practice Requirement(s) Eligible for Exemption	NA

4.2.1 Objective: Timber

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 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.

4.2.1.1 RESULT

During the period of this FSP the FSP Holders will ensure that their blocks with a reforestation obligation are reforested to:

1) at least the minimum stocking with species identified in the stocking standards as per the BEC classification referenced in Appendix I that apply to this FSP; and
2) meet the regeneration delay, free growing heights, and free growing dates as described in the stocking standards (Appendix I) that apply to this FSP.

4.2.1.2 STRATEGY

During the period of this FSP the FSP Holders will:

1) Refer to available spatial data of known and existing research installations with information from the BC Geographic Warehouse (BCGW), at web address: http://catalogue.data.gov.bc.ca/dataset/growth-and-yield-samples-all-status
2) Prior to harvesting, incorporate protective buffers (disturbance free zones) with a minimum radius of 50 meters around established permanent sample plots and research installations, unless alternative measures are determined to be necessary to adequately protect the sample from resource development;
3) Notify a cutting authority or road permit holder, through the site plan, of the location of known sample plots and research installations within the area covered by the site plan.
4) Make known to the appropriate FOR staff whenever any unidentified permanent sample plots or research installations are found during the course of operational planning and resource development, and
5) Incorporate buffered research installations and permanent sample plots into one or more of the following:

a. Riparian Reserve Zones;
b. Riparian Management Zones;
c. Wildlife Tree Retention Areas;
d. Old Growth Management Areas; and/or,
e. Any other area constrained for non-timber values.

4.3 Wildlife

Reference Information	
Type of Objective	1. Objective set in regulation: FRPA s. 7(1) 2. Objectives enabled by regulation: GAR ss: 9, 10, 11, 12, 13; 3. Land Use Objectives: Great Bear Rainforest Order Objectives: 18, 19, 20 and 21
Effective Date	1. FPPR; January 31, 2004 2. GAR; December 13, 2004 (a) *Goat UWR # 6-010;* August 8, 2012 (b) *Moose UWR #-6-014;* April 22, 2015 (c) *Goshawk WHA #* 6-003; February 10, 2005 (d) *Marbled Murrelet WHA # 6-153 to 6-188, 6-280 and 6-281;* June 29, 2010 (e) *Coastal Tailed Frog WHA # 6-*056 and *6-057;* March 17, 2005 (f) *Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the North Coast Forest District, December 30, 2004* (g) *Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the North Coast Forest District, December 30, 2004* 3. June 9th 2023
Mandatory Practice Requirements from FPPR	FPPR ss 69 and 70
Practice Requirement(s) Eligible for Exemption	NA

4.3.1 Objective: Wildlife

FPPR s. 7(1):
The objective set by government for wildlife is 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.

4.3.1.1 STRATEGY

During the period of this FSP the FSP Holders will ensure that when their operations are planned to occur within 2 km of known Queen Charlotte Goshawk nest sites:

1) a written assessment of the breeding and foraging area associated with the nest site is completed by a Qualified Professional (QP),
2) the QP will provide the FSP Holders with a report containing recommended mitigative actions, and
3) the FSP Holders will ensure that the recommendations outlined in the report are implemented.

4.3.2 Objective: Wildlife - Grizzly Bear Habitat

Great Bear Rainforest Order; Part 2, Division 5 – Wildlife 18. Objectives for Grizzly Bear Habitat:

(1) Maintain 100% of class 1 grizzly bear habitat
a) shown in Schedule D, or
b) identified in the field by a qualified professional.

(2) Maintain 50% of class 2 grizzly bear habitat
(a)shown in Schedule D, or
(b)identified in the field by a qualified professional, and that provides a mix of habitat type, seasonal value, and distribution within a watershed or landscape unit.

(3) Despite subsection (1), class 1 grizzly bear habitat may be altered or harvested, provided that:

(a) a Qualified Professional:
(i) completes an assessment that identifies the characteristics of the habitat and linkages, where appropriate, to other grizzly bear habitat; and
(ii) confirms that the alteration or harvesting will result in no net loss of class 1 grizzly habitat and connectivity and no functional loss of habitat connectivity; and
(b) measures are implemented that will ensure the alteration or harvesting will not cause a material adverse impact to the suitability of the class 1 grizzly bear habitat.
(c) the plans to alter or harvest class 1 grizzly bear habitat have been developed through a process of First Nation engagement with applicable First Nations.

(4) Despite subsection (1), class 1 grizzly bear habitats may be altered or harvested for road access or other infrastructure, or to address a safety concern, provided that:
(a) there is no practicable alternative for road access or other infrastructure, or the alteration or harvesting is required to address a safety concern;
(b) the road right-of-way clearing width is the minimum safe width necessary to accommodate the road,
(c) measures are implemented that, to the extent practicable, will ensure the alteration or harvesting will not cause a material adverse impact to the suitability of the class 1 grizzly bear habitat, and
(d) the plans to alter or harvest class 1 grizzly bear habitat have been developed through a process of First Nation engagement with applicable First Nations.
(5) All identified grizzly bear habitat polygons must be documented and the documentation submitted to the applicable First Nations and the Province of British Columbia at the end of each calendar year.

4.3.2.1 STRATEGY

During the period of this FSP, the FSP Holders will:

1) Maintain 100% of class 1 grizzly bear habitat
   a) shown in Schedule D, or
   b) identified in the field by a qualified professional
2) Maintain 50% of class 2 grizzly bear habitat
   a) shown in Schedule D, or
   b) identified in the field by a qualified professional, and that provides a mix of habitat type, seasonal value, and distribution within a watershed or landscape unit.
3) Despite (1), class 1 grizzly bear habitat may be altered or harvested, provided that:
   a) a Qualified Professional:

i) completes an assessment that identifies the characteristics of the habitat and linkages, where appropriate, to other grizzly bear habitat; and

ii) confirms that the alteration or harvesting will result in no net loss of class 1 grizzly habitat and connectivity and no functional loss of habitat connectivity,

b) Measures are implemented that will ensure the alteration or harvesting will not cause a material adverse impact to the suitability of the class 1 grizzly bear habitat, and

c) The plans to alter or harvest class 1 grizzly bear habitat have been developed through a process of First Nation engagement with applicable First Nations.

4) Despite (1), class 1 grizzly bear habitat may be altered or harvested for road access or other infrastructure, to address safety concern, provided that:

a) there is no other practicable alternative for road access or other infrastructure or the alteration or harvesting is required to address a safety concern;

b) the road-right-of-way clearing width is the minimum safe width necessary to accommodate the road;

c) measures are implemented that, to the extent practicable, will ensure the alteration or harvesting will not cause a material adverse impact to the suitability of the class 1 grizzly bear habitat, and

d) The plans to alter or harvest class 1 grizzly bear habitat have been developed through a process of First Nation engagement with applicable First Nations.

5) All identified grizzly bear habitat polygons must be documented and the documentation submitted to the applicable First Nations and the Province of British Columbia at the end of each calendar year.

6) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.3.3 Objective: Wildlife – Grizzly Bear Dens

Great Bear Rainforest Order; Part 2, Division 5 – Wildlife 19. Objectives for Grizzly Bear Dens:

(1) Protect grizzly bear dens.

(2) Adjacent to grizzly bear dens, maintain a reserve zone with a minimum width of 50 metres.

(3) Despite subsections (1) and (2), alteration or removal of a grizzly bear den or its reserve zone, or both, may occur, provided that

(a)the alteration or removal is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,

(b)the alteration or removal does not occur during the winter hibernation season, and

(c)the plans to alter or remove a grizzly bear den or reserve zone have been developed through a process of First Nation engagement with applicable First Nations.

(4) Adjacent to any reserve zone required by subsection (2), maintain a management zone with an average width of 1.0 tree lengths, measured from the outer edge of the reserve zone, to protect the integrity of the reserve zone.

(5) Within the management zone required by subsection (4), alteration or removal of trees may occur outside of the winter hibernation season to

(a) accommodate operational requirements for road and bridge construction, where there is no practicable alternative,
(b) accommodate road maintenance and deactivation, the removal of danger trees, and brushing and clearing within the right-of-way, for safety purposes, on any existing road under active tenure, or
(c) mitigate the impact of windthrow, provided that the plans to alter or remove trees have been developed through a process of First Nation engagement with applicable First Nations.(6) All found grizzly bear dens must be documented and the documentation submitted to the applicable First Nations and the Province of British Columbia at the end of each calendar year.

4.3.3.1 STRATEGY

During the period of the FSP, the FSP Holder will:

1) Protect grizzly bear dens.
2) Adjacent to grizzly bear dens, maintain a reserve zone with a minimum width of 50 metres.
3) Despite subsections (1) and (2), alteration or removal of a grizzly bear den or its reserve zone, or both, may occur, provided that
    a) the alteration or removal is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,
    b) the alteration or removal does not occur during the winter hibernation season, and
    c) the plans to alter or remove a grizzly bear den or reserve zone have been developed through a process of First Nation engagement with applicable First Nations.
4) In addition to (1) and (2), adjacent to any reserve zone required by subsection (2), maintain a management zone with an average width of 1.0 tree lengths, measured from the outer edge of the reserve zone, to protect the integrity of the reserve zone.
5) Within the management zone required by subsection (4), alteration or removal of trees may occur outside of the winter hibernation season to
    a) accommodate operational requirements for road and bridge construction, where there is no practicable alternative,
    b) accommodate road maintenance and deactivation, the removal of danger trees, and brushing and clearing within the right-of-way, for safety purposes, on any existing road under active tenure, or
    c) mitigate the impact of windthrow, provided that the plans to alter or remove trees have been developed through a process of First Nation engagement with applicable First Nations.
6) All found grizzly bear dens must be documented and the documentation submitted to the applicable First Nations and the Province of British Columbia at the end of each calendar year.
7) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
    a) Deviations from these documents will be rationalized in the Site Plan

4.3.4 Objective: Wildlife – Black Bear Dens

Great Bear Rainforest Order; Part 2, Division 5 – Wildlife 20. Objectives for Black Bear Dens:

(1) Protect black bear dens.

(2) Adjacent to black bear dens, maintain a Reserve Zone with a minimum width of 30 metres.

(3) Despite subsections (1) and (2), alteration or removal of a black bear den or its reserve zone, or both, may occur, provided that

> *(a) the alteration or removal is required for road access or to address a safety concern and there is no practicable alternative;*
> *(b) the alteration or removal does not occur during the winter hibernation season; and*
> *(c) the plans to alter or remove a black bear den or reserve zone have been developed through a process of First Nation engagement with applicable First Nations.*

(4) Adjacent to any reserve zone required by subsection (2), maintain a management zone of sufficient width and design to protect the integrity of the bear den and the reserve zone.

(5) Within the Management Zone required by subsection (4), alteration or removal of trees may occur outside of the winter hibernation season to:

> *(a) accommodate operational requirements for road and bridge construction, where there is no practicable alternative,*
> *(b) accommodate road maintenance and deactivation, the removal of danger trees, and brushing and clearing within the right-of-way, for safety purposes, on any existing road under active tenure; or*
> *(c) mitigate the impact of windthrow, provided that the plans to alter or remove trees have been developed through a process of First Nation engagement with applicable First Nations.*

(6) Where practicable, include suitable future and additional black bear denning habitat in management zones and in stand retention.

(7) All found black bear dens must be documented and this documentation must be submitted to the Applicable First Nations and the Province of British Columbia at the end of each calendar year.

4.3.4.1 STRATEGY

During the period of the FSP the FSP Holder will:

1) Protect black bear dens.
2) Adjacent to black bear dens, maintain a reserve zone with a minimum width of 30 metres.
3) Despite subsections (1) and (2), alteration or removal of a black bear den or its reserve zone, or both, may occur, provided that,
    a) the alteration or removal is required for road access or to address a safety concern and there is no practicable alternative.
    b) the alteration or removal does not occur during the winter hibernation season; and the plans to alter or remove a black bear den or reserve zone have been developed through a process of First Nation engagement with applicable First Nations.
4) in addition to (1) and (2), adjacent to any reserve zone required by subsection (2), maintain a management zone of sufficient width and design to protect the integrity of the bear den and the reserve zone.
5) Within the management zone required by subsection (4), alteration or removal of trees may occur outside of the winter hibernation season to
    a) accommodate operational requirements for road and bridge construction, where there is no practicable alternative,

b) accommodate road maintenance and deactivation, the removal of danger trees, and brushing and clearing within the right-of-way, for safety purposes, on any existing road under active tenure, or

c) mitigate the impact of windthrow.

6) Where practicable, include suitable future and additional black bear denning habitat in management zones and in stand retention.

7) All found black bear dens must be documented and the documentation submitted to the applicable First Nations and the Province of British Columbia at the end of each calendar year.

8) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.3.5 Objective: Wildlife – Kermode Habitat

Great Bear Rainforest Order; Part 2, Division 5 – Wildlife 21. Objectives for Kermode Habitat:

(1) To maintain Kermode bear habitat, within managed forest in the Kermode stewardship areas shown in Schedule R,

(a) where practicable, thin or harvest mid seral stands to create patchy openings and less canopy closure to encourage shrub growth, and
(b) maintain critical black bear habitat.

(2) Despite subsection (1)(b), up to 5% of a critical black bear habitat occurrence may be altered if there is no practicable alternative for road access or other infrastructure, or to address a safety concern, provided that the plans to alter critical black bear habitat have been developed through a process of First Nation engagement with applicable First Nations.

4.3.5.1 RESULT

During the period of this FSP and within managed forest in the Kermode Stewardship Areas as shown in Schedule 'R' of the GBRO, in the event of planned harvesting activities FSP Holders:

1) where practicable, will thin or harvest mid seral stands to create patchy openings and less canopy closure to encourage shrub growth,

2) will not alter critical black bear habitat except in accordance with section 3.

3) may alter up to 5% of a critical black bear habitat occurrence if there is no practicable alternative for road access or other infrastructure, or to address a safety concern, provided that the plans to alter critical black bear habitat have been developed through a process of First Nation engagement with applicable First Nations. First Nation Engagement will occur as per Strategy 4.8.2.1.

4) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.4 Water, Fish and Biodiversity within Riparian Areas

Reference Information		
Type of Objective	Water: Objectives set in regulation: FPPR s. 8 Fish: Objectives set in regulation: FPPR s. 8 Objectives enabled by regulation: NA Land-Use Objectives: GBR Objectives: 10, 11, 12, 13, 14 and 15 Biodiversity: Objectives set in regulation: FPPR ss. 8, 9 and 9.1 Objectives enabled by regulation: NA Land-Use Objectives: GBR Objectives: 10, 11, 12, 13, 14 and 15	
Effective Date	FPPR: January 31, 2004 GAR: December 13, 2004 GBR Order: June 9th 2023	
Mandatory Practice Requirements from the FPPR	Water and Fish: FPPR ss. 54 & 58 Biodiversity: NA	
Practice Requirement(s) Eligible for Exemption	FPPR ss FPPR ss. 47,48, 49, 50,51, 52(2) 53, 55, 56 & 57	Decision: Adopt: FPPR ss. 47,48, 49, 50, 51, 52(2) and 53 except within areas addressed under GBRO Objectives 11, 12, 13 and 15 (where results 4.4.3.1, 4.4.4.1, 4.4.5.1 and 4.4.7.1 apply) Adopt: FPPR ss 55, 56 and 57

4.4.1 Objective: Water, Fish and Biodiversity

a. FPPR s 8: *The objective set by government for water, fish, wildlife and biodiversity within riparian areas is to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.*
b. FPPR s 8.1: (2) *Until December 31, 2005 the objective set by government for fish habitat in fisheries sensitive watersheds is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities in the fisheries sensitive watershed from resulting in a material adverse impact on the habitat of the fish species for which the fisheries sensitive watershed was established.*

4.4.1.1 RESULT

During the period of this FSP the FSP Holders will undertake to comply with FPPR ss. 55, 56 and 57. Outside of the areas covered under GBRO objectives 11, 12, 13 and 15 (where results 4.4.3.1, 4.4.4.1, 4.4.5.1 and 4.4.7.1 apply) the FSP Holders will also undertake to comply with FPPR ss. 47, 48, 49, 50, 51, 52(2) and 53. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that these sections apply to the holder's primary forest activities carried out during the term of the plan.

4.4.1.2 RESULT

During the period of this FSP the FSP Holders will ensure that the percentage of total basal area retained as standing trees in riparian management zones within their blocks (with the exception of those areas addressed in Result 4.4.3.1(Type 2 Aquatic Habitat), Result 4.4.5.1 (Forested Swamps) and Result 4.4.7.1 (Active Fluvial Units)) will be:

a. A minimum of 20% on S1, S2 and S3 streams;

b. A minimum of 10% on all Wetlands and Lakes.

4.4.1.3 Strategy

During the period of this FSP, with the exception of those areas addressed in Result 4.4.4.1 (Type 2 Aquatic Habitat), Result 4.4.5.1 (Forested Swamps) and Result 4.4.7.1 (Active Fluvial Units), the FSP Holder will ensure that within the FSP Holder's blocks, for S4, S5, and S6 streams the:

5) Retention levels associated with S4, S5, and S6 streams:
   a) Are determined by a QP through the utilization of the small stream and riparian assessment in Appendix X; and
   b) Are documented in the Site Plan.
6) Primary forest activities comply with the prescribed retention levels determined by the small stream and riparian assessment.
7) QP may vary the retention levels for the purpose of conserving water quality, fish habitat, wildlife habitat, or biodiversity associated with riparian areas. Variances will be accompanied by a rationale and will be documented in the Site Plan.

4.4.2 Objective: Important Fisheries Watershed

Great Bear Rainforest Order: Part 2, Division 3 – Aquatic Habitats 10. Objectives for Important Fisheries Watersheds:

(1) Within each of the important fisheries watersheds shown in Schedule E, prior to declaring areas or applying for a cutting authority, ensure that
(a) a watershed assessment or similar assessment of watershed sensitivity to forest development disturbance is completed by a qualified professional,
(b) an amount, type and distribution of forest cover sufficient to sustain natural hydrological and fluvial processes within the watershed is maintained,
(c) the effectiveness of the management strategies implemented pursuant to paragraph (b) are monitored, and
(d) the watershed assessment and monitoring strategies have been developed through a process of First Nation engagement with applicable First Nations.
(2) Despite subsection (1), forest stewardship plan holders may apply for a cutting authority in an important fisheries watershed if
(a) a preliminary watershed assessment indicates there will be no adverse impact on fish habitat, stream flow quality or quantity, or other watershed health indicators, and
(b) First Nations support, or do not object to, the application.

4.4.2.1 RESULT

During the period of this FSP the FSP Holders:

1) Will within each of the important fisheries watersheds shown in Schedule E, prior to declaring areas or applying for a cutting authority, ensure that
   a) a watershed assessment or similar assessment of watershed sensitivity to forest development disturbance is completed by a qualified professional,
   b) an amount, type and distribution of forest cover sufficient to sustain natural hydrological and fluvial processes within the watershed is maintained,
   c) the effectiveness of the management strategies implemented pursuant to paragraph (b) are monitored, and

d) the watershed assessment and monitoring strategies have been developed through a process of First Nation engagement with applicable First Nations.

2) Despite subsection (1), may apply for a cutting authority in an important fisheries watershed if

a) a preliminary watershed assessment indicates there will be no adverse impact on fish habitat, stream flow quality or quantity, or other watershed health indicators, and

b) First Nations support, or do not object to, the application.

3) Where there is an overlap with an important fisheries watershed with other FSP holder(s), will make best efforts to communication, collaborate and cooperate with the other holders of the FSPs as practicable to meet Objective 10(1) and 10(2).

4) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.4.3 Objective: Type 1 Aquatic Habitat[88]

Great Bear Rainforest Order: Part 2, Division 3 – Aquatic Habitats 11. Objectives for Type 1 Aquatic Habitat:

(1) Protect and maintain Type 1 Aquatic Habitats by, within or adjacent cutblocks and roads, but excluding stream crossings, maintaining an adjacent Reserve Zone with a minimum width of 1.5 Tree Lengths and an outer edge designed to minimize risk of windthrow.

(2) Despite subsection (1), the width of a Reserve Zone may be decreased at specific locations to address site characteristics and values, provided that:

(a) a decrease is no more than 0.5 Tree Lengths; and
(b) there is no net loss of Reserve Zone area required in subsection (1) within or adjacent to the cutblock.

(3) Despite subsections (1) and (2), the width of the Reserve Zone may be decreased, at specific locations to address site characteristics and values, by more than 0.5 Tree Lengths provided that:

(a) there is no net loss of the reserve zone area required by subsection (1),
(b) assessments have been prepared by a Qualified Professional that specifies measures:
(i) to maintain the geomorphic and hydroriparian characteristics of the stream channel,
(ii) to maintain the life cycle needs of fish in affected stream reaches,
(iii) to maintain local terrestrial habitat needs and linkages to other reserves, and
(iv) to minimize loss of trees in the reserve zone from windthrow,
(c) the measure required by paragraph (b) are implemented, and
(d) the plan to decrease the width of the reserve zone have been developed through a process of First Nation engagement with applicable First Nations.

(4) Where some or all of the forest required by subsections (1), (2) and (3) has been previously altered or harvested, to the extent practicable, recruit or create functional riparian forest in the reserve zone in the shortest time practicable.

4.4.3.1 STRATEGY

During the period of this FSP the FSP Holders

[88] As defined in the Great Bear Rainforest Order, Part 2, Division 1.

1) Will maintain type 1 aquatic habitats, within or adjacent to the FSP Holders cutblocks and roads, by maintaining an adjacent reserve zone with a minimum width of 1.5 tree lengths and an outer edge designed to minimize risk of windthrow,

2) Despite (1), may decrease the width of a reserve zone specific locations to address site characteristics and values provided that

   a) A decrease is no more than 0.5 tree lengths, and

   b) There is no net loss of reserve zone area required in (1) within or adjacent to the cutblock.

3) Despite (1) and (2), may decrease the width of the reserve zone, at specific locations to address site characteristics and values, by more than 0.5 tree lengths provided that

   b) There is no net loss of the reserve zone area required by (1),

   c) Assessment have been prepared by a QP that specifies measures:

      i) To maintain the geomorphic and hydroriparian characteristics of the stream channel,

      ii) To maintain the life cycle needs of fish in affected stream reaches, and

      iii) To minimize loss of trees in the reserve zone from windthrow,

   d) The measures required by paragraph (b) are implemented, and

   e) The plan to decrease the width of the reserve zone have been developed through a process of First Nation engagement with applicable First Nations.

5) Will, where some or all of the forest required by (1), (2) and (3) have been previously altered or harvested, to the extent practicable, will recruit or create functional riparian forest in the reserve zone in the shortest time practicable.

6) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

   a) Deviations from these documents will be rationalized in the Site Plan

4.4.4 Objective: Type 2 Aquatic Habitat[89]

Great Bear Rainforest Order: Part 2, Division 3 – Aquatic Habitats 12. Objectives for Type 2 Aquatic Habitat*:*

(1) Maintain the natural ecological function of Type 2 Aquatic Habitat other than stream crossings by, within or adjacent to cutblocks and roads, retaining 90% of the forest in an adjacent Management Zone with a minimum width of 1.5 Tree Lengths and an outer edge designed to minimize risk of windthrow.

(2) Despite subsection (1), the width of the Management Zone in any cutblock may be decreased by up to 0.5 Tree Lengths to address site characteristics and values, provided there is no net loss of Management Zone area within the cutblock.

(3) Despite subsections (1) and (2), the width of the Management Zone may be increased or decreased by more than 0.5 Tree Lengths and alteration or harvesting within the Management Zone may occur provided that:

(a) there is no net loss of Management Zone area required in subsection (1) in the cutblock,
(b) an assessment has been prepared by a Qualified Professional that specifies measures:
(i) to maintain the geomorphic and hydroriparian characteristics of the stream channel,
(ii) to maintain the life cycle needs of fish in affected stream reaches,
(iii) to maintain local terrestrial habitat needs and linkages to other reserves, and
(iv) to minimize loss of trees in the Reserve Zone from windthrow,

[89] As defined in Great Bear Rainforest Order, Part 2, Division 1 (January 28, 2016).

(c) the measures required by paragraph (b) are implemented, and
(d) the plans to increase or decrease the width of the management zone have been developed through a process of First Nation engagement with applicable First Nations.

(4) Where some or all of the forest required in subsections (1), (2) and (3) has been previously altered or harvested, to the extent practicable, recruit or create Functional Riparian Forest in the Management Zone in the shortest time practicable.

4.4.4.1 STRATEGY

During the period of this FSP the FSP Holders,

1) Will maintain the natural ecological function of Type 2 Aquatic Habitat other than stream crossings by, within or adjacent to cutblocks and roads, retaining 90% of the forest in an adjacent Management Zone with a minimum width of 1.5 Tree Lengths and an outer edge designed to minimize risk of windthrow,
2) Despite (1), may decrease the width of the Management Zone in any cutblock by up to 0.5 Tree Lengths to address site characteristics and values, provided there is no net loss of Management Zone area within the cutblock.
3) Despite subsections (1) and (2), may increase or decrease the width of the Management Zone by more than 0.5 Tree Lengths and alter or harvest within the Management Zone provided that
    a) there is no net loss of Management Zone area required in subsection (1) in the cutblock,
    b) an assessment has been prepared by a Qualified Professional that specifies measures
        i) to maintain the geomorphic and hydroriparian characteristics of the stream channel,
        ii) to maintain the life cycle needs of fish in affected stream reaches,
        iii) to maintain local terrestrial habitat needs and linkages to other reserves, and
        iv) to minimize loss of trees in the Reserve Zone from windthrow,
    c) the measures required by paragraph (b) are implemented, and
    d) the plans to increase or decrease the width of the management zone have been developed through a process of First Nation engagement with applicable First Nations.
4) Will, where some or all of the forest required in (1), (2) and (3) has been previously altered or harvested, to the extent practicable, recruit or create Functional Riparian Forest in the Management Zone in the shortest time practicable.
5) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
    a) Deviations from these documents will be rationalized in the Site Plan

4.4.5 Objective: Forested Swamps[90]

Great Bear Rainforest Order: Part 2, Division 3 – Aquatic Habitats 13. Objectives for Forested Swamps:

(1) Maintain the ecological characteristics and function of Forested Swamps.

(2) Adjacent to Forested Swamps greater than 0.25 hectares, retain 70% of the Functional Riparian Forest in a Management Zone with a minimum width of 1.5 Tree Lengths and an outer edge designed to minimize risk of windthrow.

[90] As defined in Great Bear Rainforest Order, Part 2, Division 1.

(3) Despite subsection (2), the width of the Management Zone adjacent to a Forested Swamp may be decreased by up to 0.5 Tree Lengths to address site-specific characteristics and values.

(4) Despite subsections (2) and (3), the width of the Management Zone may be decreased by more than 0.5 Tree Lengths and additional harvesting within the Management Zone may occur provided that:

(a) A Forested Swamp assessment has been prepared by a Qualified Professional that specifies measures:
(i) to maintain local terrestrial habitat needs and linkages to other reserves, and
(ii) to minimize loss of trees in the Management Zone from windthrow,
(b) the measures in paragraph (a) are implemented, and
(c) the plans to decrease the width of the management zone have been developed through a process of First Nation engagement with applicable First Nations.

(5) Where some or all of the forest within the Management Zone required in subsections (2), (3) or (4) has been previously altered or harvested, to the extent practicable, recruit or create functional riparian forest in the management zone in the shortest time practicable.

4.4.5.1 STRATEGY

During the period of this FSP the FSP Holders will ensure their primary forest activities will maintain the ecological characteristics and function of Forested Swamps by,

1) Adjacent to Forested Swamps greater than 0.25 hectares, ensuring 70% of the Functional Riparian Forest in a Management Zone is maintained with a minimum width of 1.5 Tree Lengths and an outer edge designed to minimize risk of windthrow.
2) Despite (1), ensuring the width of the Management Zone adjacent to a Forested Swamp is only decreased by up to 0.5 Tree Lengths to address site-specific characteristics and values.
3) Despite subsections (1) and (2), ensuring the width of the Management Zone is only decreased by more than 0.5 Tree Lengths or additional harvesting within the Management Zone occurs provided that:
    a) A Forested Swamp assessment has been prepared by a Qualified Professional that specifies measures,
        i) to maintain local terrestrial habitat needs and linkages to other reserves, and
        ii) to minimize loss of trees in the Management Zone from windthrow,
    b) the measures in paragraph (a) are implemented, and
    c) the plans to decrease the width of the management zone have been developed through a process of First Nation engagement with applicable First Nations.
4) Where some or all of the forest within the Management Zone required in subsections (1), (2) or (3) has been previously altered or harvested, to the extent practicable, recruit or create functional riparian forest in the management zone in the shortest time practicable.
5) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
    a) Deviations from these documents will be rationalized in the Site Plan

4.4.6 Objective: Upland Stream Areas

Great Bear Rainforest Order: Part 2, Division 3 – Aquatic Habitats 14. Objectives for Upland Streams:

(1) Maintain the hydrologic and hydrogeomorphic processes in watershed planning units within the

range of natural variation by maintaining a minimum of 70% of the forest in the upland stream area as functional riparian forest.

(2) For the purposes of subsection (1), to the extent practicable, preferentially retain the functional riparian forest to create windfirm reserve zones and management zones adjacent to streams in the upland stream area that

> *(a) are located upstream from type 1 aquatic habitat and type 2 aquatic habitat,*
> *(b) have sensitive hydrogeomorphic attributes,*
> *(c) are stream reaches with known tailed frog habitat, or*
> *(d) have unique microclimate or other rare ecological characteristics.*

(3) Despite subsection (1) and (2), an alternative plan to maintain hydrologic and hydrogeomorphic processes in a watershed planning unit within the range of natural variability may be prepared as a result of a watershed assessment conducted by a qualified professional, consistent with professional practice guidelines, provided that

> *(a) the effectiveness of strategies implemented in accordance with the plan under this subsection is monitored,*
> *(b) the watershed assessment and plan are updated to reflect the results of such monitoring, and*
> *(c) the strategy has been developed through a process of First Nation engagement with applicable First Nations.*

4.4.6.1 STRATEGY

During the period of this FSP the FSP Holders will ensure that their operations will

1) Maintain the hydrologic and hydrogeomorphic processes in watershed planning units within the range of natural variation by maintaining a minimum of 70% of the forest in the upland stream area as functional riparian forest.
2) For the purposes of (1), to the extent practicable, preferentially retain the functional riparian forest to create windfirm reserve zones and management zones adjacent to streams in the upland stream area that:
    a) are located upstream from type 1 aquatic habitat and type 2 aquatic habitat,
    b) have sensitive hydrogeomorphic attributes,
    c) are stream reaches with known tailed frog habitat, or
    d) have unique microclimate or other rare ecological characteristics.
3) Despite (1) and (2), be consistent an alternative plan to maintain hydrologic and hydrogeomorphic processes in a watershed planning unit within the range of natural variability as a result of a watershed assessment conducted by a qualified professional, consistent with professional practice guidelines, provided that:
    a) the effectiveness of strategies implemented in accordance with the plan under this subsection is monitored,
    b) the watershed assessment and plan are updated to reflect the results of such monitoring, and
    c) the strategy has been developed through a process of First Nation engagement with applicable First Nations.
4) Before the FSP Holder carries out or authorizes timber harvesting or road construction within Watershed Planning Units, and where other licence holders operate in shared Watershed Planning Units, the FSP Holder will request information from the other licence holders and use

best available information to calculate Functional Riparian Forest percentages to meet the objective.

5) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

   a) Deviations from these documents will be rationalized in the Site Plan

4.4.7 Objective: Active Fluvial Units

Great Bear Rainforest Order: Part 2, Division 3 – Aquatic Habitats 15. Objectives for Active Fluvial Units:

(1) Reserve all forest on Active Fluvial Units.

(2) Adjacent to Active Fluvial Units, retain a minimum of 90% of the forest in a Management Zone with an average width of 1.5 Tree Lengths.

(3) Despite subsections (1) and (2), forest on an Active Fluvial Unit may be altered or harvested, and less than 90% of the forest in the Management Zone may be retained, to allow for road access or other infrastructure, or to address a safety concern, provided that:

(a) there is no practicable alternative to access a development area,
(b) an active fluvial unit assessment has been prepared by a qualified professional that
(i) specifies measures to maintain stream flow patterns, flow capacity and geomorphic stability of the Active Fluvial Unit for roads or other infrastructure; or
(ii) where the removal of four or more live trees is proposed for safety reasons, provides an assessment of the potential impact on geomorphic stability,
(c) the measures in paragraph (b) are implemented in a manner that will maintain the flow patterns, flow capacity and geomorphic stability of the Active Fluvial Unit, and
(d) the plans to alter or harvest an active fluvial unit or retain less than 90% of the forest in the management zone have been developed through a process of First Nation engagement with applicable First Nations.

(4) Where some or all of the forest required to be retained in subsections (1) and (2) has been previously altered or harvested, to the extent practicable, recruit or create Functional Riparian Forest on the Active Fluvial Unit in the shortest time practicable.

4.4.7.1 RESULT

During the period of this FSP the FSP Holders will

1) Reserve all forest on Active Fluvial Units.
2) Adjacent to Active Fluvial Units, retain a minimum of 90% of the forest in a Management Zone with an average width of 1.5 Tree Lengths.
3) Despite (1) and (2), forest on an Active Fluvial Unit may be altered or harvested, and less than 90% of the forest in the Management Zone may be retained, to allow for road access or other infrastructure, or to address a safety concern, provided that:
   a) There is no practicable alternative to access a development area,
   b) An active fluvial unit assessment has been prepared by a qualified professional that;
      i) Specifies measures to maintain stream flow patterns, flow capacity and geomorphic stability of the Active Fluvial Unit for roads and other infrastructure; or
      ii) Where the removal of four or more live trees is proposed for safety reasons, provides an assessment of the potential impacts on geomorphic stability,

c) The measures in paragraph (b) are implemented in a manner that will maintain the flow patterns, flow capacity and geomorphic stability of the Active Fluvial Unit, and

d) The plans to alter or harvest an active fluvial unit or retain less than 90% of the forest in the management zone have been developed through a process of First Nation engagement with applicable First Nations.

4) Where some or all of the forest required to be retained in subsections (1) and (2) have been previously altered or harvested, to the extent practicable, recruit or create functional riparian forest on the active fluvial unit in the shortest time practicable.

5) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.5 Community Watersheds

Reference Information		
Type of Objective	1.Objectives set in regulation: FRPA s.150; FPPR s. 8.2 2.Objectives enabled by regulation: N/A 3.Land Use Objectives: N/A	
Effective Date	1. January 31, 2004 2. N/A 3. N/A	
Mandatory Practice Requirements from the FPPR	FPPR ss. 58, 62 ,63	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 59, 60, 61	Decision: Adopt FPPR ss. 59, 60,61

4.5.1 Objective: Community Watersheds

FPPR s. 8.2*:*

(1) In this section, ***"community watershed"*** *means a community watershed*

(a) that is continued under section 180 (e) of the Act, and
(b) for which a water quality objective has not been
(i) continued under section 181 of the Act, or
(ii) established under the Government Actions Regulation.

(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 licence pertaining to the waterworks.

4.5.1.1 RESULT

During the period of this FSP the FSP Holders will undertake to comply with sections 59, 60 and 61 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR sections 59, 60 and 61 apply to the holder's primary forest activities carried out during the term of the plan.

4.6 Biodiversity

Reference Information		
Type of Objective	Biodiversity: 1. Objectives set in regulation: FPPR ss 9, 9.1 2. Objectives enabled by regulation: N/A 3. Land-Use Objectives: GBR Objectives: 4, 5, 6, 16 and 17	
Effective Date	1. FPPR: January 31, 2004 2. N/A 3. GBR Order: June 9th 2023	
Mandatory Practice Requirements from the FPPR	FPPR ss.68	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 64,65 ,66,67	Decision: Adopt FPPR s 64,65 and 67 Exempt FPPR ss 66 as per FPPR s 12.5

4.6.1 Objective: Biodiversity – Landscape Level

a. FPPR s. 9*: The objective set by government for Wildlife and Biodiversity at the Landscape Level is, 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.*

4.6.1.1 RESULT

During the period of this FSP the FSP Holders will undertake to comply with section 64, 65 and 67 of the FPPR. The TSM will notify each holder of a timber sale license or road permit to which the plan relates that FPPR section 64, 65, and 67 applies to the holder's primary forest activities carried out during the term of the plan.

4.6.2 Objective: Biodiversity – Landscape Level

Great Bear Rainforest Order: Part 1, Division 3 – Biodiversity 4. Objectives for old forest maintenance and recovery:

(1) Maintain landscape level biodiversity as follows:

> *(a) For each Site Series Group in the order area, maintain a distribution of forest stand ages that will achieve the Old Forest Representation Targets listed in Column "A" in Schedule G by no later than 2264;*
> *(b) For each Site Series Group in the order area, retain an amount of Old Forest equal to or greater than the order area Minimum Old Forest Retention Levels listed in Column "B" in Schedule G and*
> *(c) For the purposes of paragraphs (a) and (b), for each Site Series Group in a Landscape Unit, retain a minimum of 30% of the total forest area of the Site Series Group as Old Forest.*

(2) Despite subsection (1)(c), alteration or harvesting of Old Forest in a Site Series Group in a Landscape Unit may occur where less than 30% of the total forest area of the Site Series Group in the Landscape Unit is Old Forest, provided that:

> *(a) within the Landscape Unit area:*

(i) the alteration or harvesting is required for road access, other infrastructure, or to address a safety concern, where there is no practicable alternative; or
(ii) the lesser of 20% of the total forest area or the Minimum Old Forest Retention Level specified in Schedule F is maintained as Old Forest;

(b) The aggregate area of Old Forest in the order area harvested under paragraph (a) after January 28, 2016 does not exceed 18,650 hectares, and

(c) The plan to alter or harvest old forest in a site series group in a landscape unit have been developed through a process of First Nation engagement with applicable First Nations.

(3) Where there is not enough old forest available to meet the targets in subsection (1)(b) and (c), or as a result of subsection (2), recruit forest to meet the old forest requirements by no later than 2264.

4.6.2.1 STRATEGY

During the period of this FSP the FSP Holders will:

1) Maintain landscape level biodiversity as follows:
    a) For each Site Series Group in the order area, maintain a distribution of forest stand ages that will achieve the Old Forest Representation Targets listed in Column “A” in Schedule G by no later than 2264;
    b) For each Site Series Group in the order area, retain an amount of Old Forest equal to or greater than the order area Minimum Old Forest Retention Levels listed in Column “B” in Schedule G and;
    c) For the purposes of (1)(a) and (1)(b), for each Site Series Group in a Landscape Unit, retain a minimum of 30% of the total forest area of the Site Series Group as Old Forest;
2) Despite (1)(c), alteration or harvesting of Old Forest in a Site Series Group in a Landscape Unit may occur where less than 30% of the total forest area of the Site Series Group in the Landscape Unit is Old Forest, provided that:
    a) within the Landscape Unit area:
        i) alteration or harvesting is required for road access, other infrastructure, or to address a safety concern, where there is no practicable alternative; or
        ii) the lesser of 20% of the total forest area or the Minimum Old Forest Retention Level specified in Schedule F is maintained as Old Forest; and
    b) The aggregate area of Old Forest in the order area harvested under (2) (a) after January 28, 2016 does not exceed 18,650 hectares; and
    c) The plans to alter or harvest old forest in a site series group in a Landscape Unit have been developed through a process of First Nation Engagement with Applicable First Nations.
3) Where there is not enough Old Forest available to meet the targets in (1)(b) and (1)(c), or as a result of (2), the FSP Holder will recruit forest to meet the Old Forest requirements by no later than 2264.
4) To achieve (1) through (3), to the extent practicable, in Landscape Units in which they operate, the FSP Holder will complete Landscape Reserve Designs (LRDs) which are consistent with the “Landscape Reserve Design Methodology, July 18, 2016,” as may be amended from time to time, and Objective 5 (Landscape Reserve Designs).
5) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
    a) Deviations from these documents will be rationalized in the Site Plan

4.6.3 Objective: Landscape Reserve Designs

Great Bear Rainforest Order: Part 1, Division 3 – Biodiversity 5. Objectives for Landscape Reserve Designs:

(1) For each Landscape Unit in the order area, a Landscape Reserve Design must be prepared by a qualified professional that addresses the minimum old forest retention levels specified in section 4(1)(c) and (2), and, to the extent practicable, contributes to

> *(a) the Old Forest Representation Targets specified in sections 4(1) (a) and 4(1) (b),*
> *(b) the protection and stewardship of Indigenous forest values,*
> *(c) the protection, connectivity and stewardship of red-listed plant communities, blue-listed plant communities, rare and at-risk ecosystems, habitat important for species at risk, ungulate winter range, and habitat for regionally important wildlife including, but not limited to, mountain goats, grizzly bears, black bears, northern goshawks, tailed frogs, and marbled murrelets, and*
> *(d) the protected and reserved forest area and the managed forest area specified in section 6(1).*

(2) For the purposes of subsection (1) (a), the provisions in section 16(1) and (2) of Part 3 apply.

(3) No commercial timber harvesting is permitted in a Landscape Reserve Design.

(4) For the purposes of subsection (1),

> *(a) complete Landscape Reserve Designs prior to declaring areas or applying for a cutting authority, and*
> *(b) to the extent practicable, complete Landscape Reserve Designs in all landscape units by December 31, 2026.*

(5) Despite subsection (3), thinning and silvicultural treatments are permitted in Landscape Reserve Designs to expedite restoration to Old Forest structural characteristics, provided that the proposed treatments are developed through a process of First Nation engagement with applicable First Nations.

(6) A Landscape Reserve Design may be altered or modified to address new information, provided that the alteration or modification:

> *(a) is developed by a Qualified Professional,*
> *(b) maintains or improves outcomes pursuant to subsection (1), and*
> *(c) is developed through a process of First Nation engagement with applicable First Nations.*

4.6.3.1 STRATEGY

During the period of this FSP, the FSP Holders will:

1) For each Landscape Unit in the order area, a Landscape Reserve Design must be prepared by a Qualified Professional that addresses the Minimum Old Forest Retention Levels specified in Objective 4(1)(c) and 4(2), and, to the extent practicable, contributes to:
   a) The Old Forest Representation Targets specified in Objective 4(1)(a) and 4(1)(b)
   b) The protection and stewardship of Indigenous Forest Values:
   c) The protection, connectivity and stewardship of Red-Listed Plant Communities, and Blue-Listed Plant Communities, rare and at-risk ecosystems, habitat important for species at risk, ungulate winter range, and habitat for regionally important wildlife, including, but not limited to, mountain goats, grizzly bears, black bears, northern goshawks, tailed frogs, and marbled murrelets; and

d) the protected and reserved forest area and the managed forest area specified in 6(1)

2) For the purposes of subsection (1)(a), the provisions of section 16 (1) and (2) of Part 3 apply.

3) Not authorize commercial timber harvesting within a landscape reserve design.

4) For the purposes of subsection (1),

a) complete landscape reserve designs prior to declaring areas or applying for a cutting authority, and

b) to the extent practicable, complete landscape reserve designs in all landscape units by December 31, 2026.

5) Despite subsection (3), thinning and silvicultural treatments are permitted in landscape reserve designs to expedite recovery to old forest structural characteristics, provided that the proposed treatments are developed through a process of First Nation engagement with applicable First Nations.

6) Not alter or modify a landscape reserve design except to address new information, provided that the alteration or modification

a) is developed by a qualified professional,

b) maintains or improves outcomes pursuant to subsection (1), and

c) is developed through a process of First Nation engagement with applicable First Nations.

7) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.6.4 Objective: Biodiversity – Managed and Natural Forest

Great Bear Rainforest Order: Part 1, Division 3 – Biodiversity 6. Objectives for Managed Forest and Natural Forest:

(1) Identify and maintain in the order area:

(a) a Managed Forest area of 550,032 hectares, and
(b) a protected and reserved forest area that
(i) continues to grow older over time subject to natural disturbance and non-forest tenure activity, and
(ii) has an area of 3,108,876 hectares.

4.6.4.1 RESULT

During the period of this FSP the FSP Holders will follow Strategies 4.6.3.1 and 4.6.2.1 to identify and maintain the amount of hectares required to meet Managed Forest and Natural Forest commitments.

4.6.5 Objective: Biodiversity – Red-Listed and Blue-Listed Plant Communities

Great Bear Rainforest Order: Part 2, Division 4 – Biodiversity 16. Objectives for Red-Listed and Blue Listed Plant Communities:

(1) Protect each occurrence of a Red-Listed Plant Community during a primary forest activity in accordance with Schedule N.

(2) Despite subsection (1), up to 5% of each occurrence of a Red-Listed Plant Community may be disturbed if

(a) there is no practicable alternative for road access, other infrastructure or to address a safety concern, and

(b) the plans to disturb the red-listed plant community have been developed through a process of First Nation engagement with applicable First Nations.

(3) Despite subsection (1) and (2), more than 5% of a red-listed plant community occurrence smaller than one hectare may be disturbed if it is necessary for critical road access, provided that

(a) the total disturbance of that red-listed plant community in a landscape unit does not exceed 5%, and

(b) the plans to disturb the red-listed plant community have been developed through a process of First Nation engagement with applicable First Nations.

(4) Reserve a minimum of 70% of each occurrence of a Blue-Listed Plant Community during a primary forest activity or reserve a minimum of 70% of the total area of each Blue-Listed Plant Community within a Landscape Unit as per Schedule O.

4.6.5.1 STRATEGY

During the period of this FSP the FSP Holders will ensure that their operations will:

1) Protect each occurrence of a red-listed plant community during a primary forest activity in accordance with Schedule N.
2) Despite (1), up to 5% of each Occurrence of a Red-Listed Plant Community may be disturbed if
   a) there is no practicable alternative for road access or, other infrastructure or to address a safety concern; and
   b) the plans to disturb the red-listed plant community have been developed through a process of First Nation Engagement with Applicable First Nations.
3) Despite (1) and (2), more than 5% of a red-listed plant community occurrence smaller than one hectare may be disturbed if it is necessary for critical road access, provided that
   a) the total disturbance of that Red-Listed Plant Community in a Landscape Unit does not exceed 5%, and
   b) the plans to disturb the red-listed plant community have been developed through a process of First Nation engagement with applicable First Nations.
4) Reserve a minimum of 70% of each Occurrence of a Blue-Listed Plant Community during a primary forest activity or reserve a minimum of 70% of the total area of each Blue-Listed Plant Community, within a Landscape Unit in accordance with Schedule O.
5) Where there are other license holders operating in the Landscape Unit, the FSP Holder will communicate and share information as necessary for the FSP Holder to meet (3) and (4) when managing for 70% of the total area of each Blue-listed Plant Community, and when managing for 95% of the total area of each Red-Listed Plant Community.
6) The identification of Red-listed and Blue-listed plant communities, and the term “Sufficiently Established” will be guided by the Land Management Handbook 72, as may be amended from time to time.
7) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
   a) Deviations from these documents will be rationalized in the Site Plan

4.6.6 Objective: Biodiversity – Stand Retention

Great Bear Rainforest Order: Part 2, Division 4 – Biodiversity 17. Objectives for Stand Retention:

(1) Maintain forest structure and diversity at the stand level by:

(a) maintaining a minimum of 15% of the cutblock area as stand retention,
(b) distributing stand retention throughout the cutblock,
(c) maintaining more than 15% retention as necessary, considering cutblock size, landscape unit context and immediate landscape context, and
(d) managing windthrow.

(2) To the extent practicable, include the following within stand retention:

(a) Indigenous forest values;
(b) habitat elements important for restoration of old forest;
(c) habitat elements important for wildlife.

4.6.6.1 STRATEGY

During the period of this FSP the FSP Holders will

1) maintain forest structure and diversity at the stand level by
   a) maintaining a minimum of 15% of the cutblock area as stand retention,
   b) distributing stand retention throughout the cutblock
   c) maintaining more than 15% retention as necessary, considering cutblock size, landscape unit context and immediate landscape context, and
   d) managing windthrow
2) to the extent practicable, include the following within stand retention
   a) Indigenous forest values
   b) Habitat elements important for restoration of old forest
   c) Habitat elements important for wildlife.
3) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
   a) Deviations from these documents will be rationalized in the Site Plan

4.7 Visual Quality

Reference Information	
Type of Objective	Objectives set in regulation: FPPR s 9.2(2) Objectives enabled by regulation: GAR 7(1), 7(2), 17 and 18 Land-Use objectives: N/A
Effective Date	FPPR : January 31, 2004 GAR: May 18 2006 Land Use objectives: N/A Scenic Areas and Visual Quality Objectives for Skeena Corridor; Inside Passage; Portland / Work Channel; Douglas Channel / Gribbell Island
Exempted Areas	N/A

Practice Requirement(s) Eligible for Exemption	N/A
Mandatory Practice Requirements from the FPPR	N/A

4.7.1 Objective: Visual Quality

FPPR s. 9.2(2)*: The objective set by government in relation to visual quality for a scenic area, that*

(a) was established on or before October 24, 2002, and
(b) for which there is no visual quality objective is to ensure that the altered forest landscape for the scenic area
(c) in visual sensitivity class 1 is in either the preservation or retention category,
(d) in visual sensitivity class 2 is in either the retention or partial retention category,
(e) in visual sensitivity class 3 is in either the partial retention or modification category,
(f) in visual sensitivity class 4 is in either the partial retention or modification category, and
(g) in visual sensitivity class 5 is in either the modification or maximum modification category.

4.7.1.1 STRATEGY

During the period of this FSP the FSP Holders will ensure that the area within Visual Polygon "AA" (as identified on the FSP maps) that is visible from the village of Gingolx, (as represented by a viewpoint shown on the FSP map with coordinates 54° 59' 34" North and 129° 57' 26" West) will be treated as having a Visual Quality Objective (VQO) of Partial Retention with respect to the FSP Holders' operations.

4.7.1.2 STRATEGY

During the period of this FSP the FSP Holders will ensure that:

1) A visual impact assessment (VIA) will be carried out by a QP in accordance with the methodology identified in the Visual Impact Assessment Guidebook (Visual Impact Assessment Guidebook (gov.bc.ca) and will be attached or referred to in the Site Plan for their blocks that are located within known scenic areas and that are identified with an established Visual Quality Objective (VQO).
    a. Visual Sensitivity Classes will be treated as having VQOs as follows:
        i. VSC 1 = Retention
        ii. VSC 2 = Partial Retention
        iii. VSC 3 and 4 = Modification
        iv. VSC 5 = Maximum Modification
2) The visual impact assessment will:
    a. review the visual landscape from selected viewpoints (see below for viewpoint selection and criteria)
    b. describe how the visual design conforms to the VQO.
3) The block design, at the date of cutting authority issuance, will reflect the visual design as described in the visual assessment.
4) Viewpoints are identified, but not limited to, as follows:
    a. As shown on the FSP maps (as amended from time to time), or
    b. At a point along a travel corridor[91] that allows for an extended viewing experience[92], or

[91] A travel corridor is defined as a route, highway or waterway used by the public to travel from one geographic area to another.
[92] For the purpose of 4 (b) and (c) "extended viewing experience" means greater than 60 seconds uninterrupted view at the posted/ normal speed limit.

c. At a place, along a travel corridor, that persons can stop for an extended viewing experience.

5) An exemption has been provided by the CMNRD District Manager where catastrophic damage such as wind-throw, fire, disease, or pest damage occurs and any timber harvest by the FSP Holders would cause the scale criteria for a VQO to be exceeded. Where practicable, road location and/or block design will be modified to mitigate impact to the visual condition by incorporating visual design elements. Visual design elements include cut-block shape, size, pattern and retention of wildlife trees (patches and/or single trees).

4.8 Cultural Heritage Resources

Reference Information	
Type of Objective	Objectives set in regulation: FPPR s 10 Objectives enabled by regulation: NA Land-Use objectives: Great Bear Rainforest Order: 3, 4, 5, 6, 7, 8 and 9
Effective Date	FPPR: January 2004 Objectives enabled by Regulation: NA GBR Order: January 28, 2016
Exempted Areas	N/A
Practice Requirement(s) Eligible for Exemption	N/A
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

4.8.1 Objective: Cultural Heritage Resources

FPPR s. 10:
The objective set by government for Cultural Heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are:

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

4.8.1.1 STRATEGY

During the period of this FSP the FSP Holders will ensure that for their operations the strategies specified for each Objective of the Great Bear Rainforest Order: Part 2 – Division 2 First Nations are followed. These specifically are: Strategies 4.8.2.1, 4.8.3.1, 4.8.4.1, 4.8.7.1 and 4.8.8.1.

4.8.1.2 RESULT

During the period of this FSP the FSP Holders will ensure that for their operations the results specified for each Objective of the Great Bear Rainforest Order: Part 2 – Division 2 First Nations are followed. These specifically are: Results 4.8.5.1 and 4.8.6.1.

4.8.2 Objective: First Nation Information Sharing and Engagement

Great Bear Rainforest Order: Part 2, Division 2- First Nations 3. Objective for First Nation Information Sharing and Engagement:

(1) For the purpose of implementing and achieving the intent of the objectives in this order, conduct First Nation engagement with applicable First Nations.

4.8.2.1 STRATEGY

During the period of the FSP the FSP Holder will make all reasonable efforts to

1) First Nation Engagement will be as agreed upon by existing guidance, processes, protocols or agreements between the Applicable First Nation and the FSP Holder or the Province. Existing agreements may be revised as mutually agreed upon by both parties.

2) In addition to (1) where requested by the Applicable First Nation(s), the FSP Holder will make reasonable efforts to build additional agreements with Applicable First Nation(s) in the plan area, detailing how and when First Nation Engagement will occur.

3) Conduct First Nation Engagement in a manner that information sharing occurs prior to the Crown initiating formal Consultation, and during operational development where requested and agreed to between the Applicable First Nation and the FSP Holder.

Future Agreements and where no Agreements Exist:

4) Where no agreement exists or has been agreed to by the FSP Holder and the Applicable First Nations detailing when and how information sharing and Engagement are to occur, the FSP Holder, to address the intent of (1) through (3) above, will make all reasonable efforts to:

   a) Information-share at least annually, or at an interval mutually agreed upon by the FSP Holder and the Applicable First Nation to:

      i) seek to meet with the designated representatives of the applicable First Nations;

      ii) share an overview of planned and proposed activities across the entire territory;

      iii) provide a 1:20,000 or comparably suitable scale overview map(s), of specific areas of planned and proposed development activities;

      iv) work with the Applicable First Nations to identify, understand and discuss their values, interests and concerns, that includes asking the Applicable First Nation if they wish to receive operational plans, rationales prepared by Qualified Professionals pertaining to other objectives throughout the GBRO section, including additional follow-up information and correspondence described in section (4)(b).

   b) Unless requested otherwise by the applicable First Nation, to undertake more detailed information sharing and engagement with the Applicable First Nation in respect of operational plans and activities the FSP Holder will:

      i) provide overview and site level maps showing the proposed development.

      ii) communicate proposed modifications and strategies to operational plans that may affect the Applicable First Nations values, interests or concerns raised during the information sharing meeting in (4)(a);

      iii) share more detailed information that has been collected during the assessment and development of the planned and proposed activities under the operational plans in the context of the interests, values or concerns raised by the applicable First Nation in (4)(a); and

      iv) modify or adjust proposed and planned forest development activities, where required, to address concerns identified as a result of review and discussion of the more detailed information provided above.

5) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.8.3 Objective: Indigenous Forest Values

Great Bear Rainforest Order: Part 2, Division 2- First Nations 4. Objective for Identification of Indigenous forest values:

(1) Prior to undertaking road construction or timber harvesting, identify, through field reconnaissance or field assessments and First Nation engagement as appropriate, Indigenous forest values that may be altered or adversely impacted by road construction, timber harvesting, or other site development activity.

4.8.3.1 STRATEGY

During the period of this FSP the FSP Holders will ensure that:

1) Through First Nation engagement, they seek to confirm those resources and features which the applicable First Nation would like to have identified as Indigenous forest values, and
2) During operational planning phases within areas proposed by the FSP Holders for road building or harvesting, the FSP Holders will carry out a field reconnaissance or field assessment to identify and locate features listed in section (1) and their estimated quantity and location will be recorded and shared with applicable First Nations as a part of subsequent First Nations Information Sharing and Engagement with the applicable First Nation.
3) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

a) Deviations from these documents will be rationalized in the Site Plan

4.8.4 Objective: Indigenous Forest Resources

Great Bear Rainforest Order: Part 2, Division 2- First Nations 5. Objective for Indigenous Forest Resources:

(1) Avoid road construction, timber harvesting and other site development activities in areas and sites that contain Indigenous forest resources, to the extent practicable.

(2) Despite subsection (1), areas or sites containing Indigenous forest resources may be harvested or altered, provided that measures to identify and manage, or provide access to, the Indigenous forest resources have been developed through a process of First Nation engagement with applicable First Nations.

4.8.4.1 STRATEGY

During the period of this FSP and for any areas where the FSP Holders' forest development operations are planned for authorization, the FSP Holders will:

1) Request information from applicable First Nations regarding the location of Indigenous forest resources.
2) To the extent practicable, avoid road construction, timber harvesting and other site development activities in areas and sites that contain Indigenous forest resources.
3) Despite (2), harvest or alter sites and areas containing Indigenous forest resources if the measures to identify and manage, or provide access to, the Indigenous forest resources have been developed through a process of First Nation engagement with applicable First Nations.

4) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

   a) Deviations from these documents will be rationalized in the Site Plan

4.8.5 Objective: Indigenous Heritage Features

Great Bear Rainforest Order: Part 2, Division 2- First Nations 6. Objective for Aboriginal Heritage Features:

(1) Protect Type 1 Indigenous Heritage Features.

(2) Adjacent to Type 1 Indigenous Heritage Features, maintain a Reserve Zone with a minimum width of 200 metres and an outer edge designed to minimize windthrow to protect the Type 1 Indigenous Heritage Feature.

(3) Despite subsections (1) and (2), a Type 1 Indigenous Heritage Feature and its Reserve Zone may be modified with the support of, or lack of objection from, the Applicable First Nations.

(4) Despite subsections (2) and (3), a Reserve Zone may be modified if:

> *(a) The modification is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,*
> *(b) alternative measures are implemented to avoid, mitigate or otherwise address impacts on the Type 1 Indigenous heritage feature, and*
> *(c) the alternative measures have been developed through a process of First Nation engagement with applicable First Nations.*

(5) Protect Type 2 Indigenous Heritage Features.

(6) Adjacent to Type 2 Indigenous Heritage Features, maintain a Reserve Zone with a minimum width of 1.5 Tree Lengths measured from the edge of the feature and an outer edge designed to minimize risk of windthrow to protect the Type 2 Indigenous heritage feature.

(7) Despite subsections (5) and (6), a Type 2 Indigenous Heritage Feature and its Reserve Zone may be modified with the support of, or lack of objection from, the Applicable First Nation.

(8) Despite subsections (6) and (7), the Reserve Zone may be modified if:

> *(a) the modification is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,*
> *(b) alternative measures are implemented to avoid, mitigate or otherwise address impacts on the Type 2 Indigenous heritage feature, and*
> *(c) the alternative measures have been developed through a process of First Nation engagement with applicable First Nations.*

4.8.5.1 RESULT

During the period of this FSP the FSP Holders will ensure that their operations:

1) Protect Type 1 Indigenous Heritage Features.
2) Adjacent to Type 1 Indigenous Heritage Features, maintain a Reserve Zone with a minimum width of 200 metres and an outer edge designed to minimize windthrow to protect the Type 1 Aboriginal Heritage Feature.
3) Despite subsections (1) and (2), a Type 1 Indigenous Heritage Feature and its Reserve Zone may be modified with the support of, or lack of objection from, the Applicable First Nations

4) Despite subsections (2) and (3), the Reserve Zone may be modified when:

   a. The modification is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,

   b. Alternative measures are implemented to avoid, mitigate or otherwise address impacts on the Type 1 Indigenous heritage feature, and

   c. the alternative measures have been developed through a process of First Nation engagement with applicable First Nations.

5) Protect Type 2 Indigenous Heritage Features.

6) Adjacent to Type 2 Indigenous Heritage Features, maintain a Reserve Zone with a minimum width of 1.5 Tree Lengths measured from the edge of the feature and an outer edge designed to minimize risk of windthrow to protect the Type 2 Indigenous Heritage Feature.

7) Despite subsections (5) and (6), a Type 2 Indigenous Heritage Feature and its Reserve Zone may be modified with the support of, or lack of objection from, the Applicable First Nation.

8) Despite subsections (6) and (7), the Reserve Zone may be modified when:

   a. The modification is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,

   b. Alternative measures are implemented to avoid, mitigate or otherwise address impacts on the Type 2 Indigenous heritage feature, and

   c. the alternative measures have been developed through a process of First Nation engagement with applicable First Nations.

9) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

   a. Deviations from these documents will be rationalized in the Site Plan

4.8.6 Objective: Historical Culturally Modified Trees

Great Bear Rainforest Order: Part 2, Division 2- First Nations 7. Objective for Historical Culturally Modified Trees:

(1) Protect Historical Culturally Modified Trees

(2) Adjacent to Historical Culturally Modified Trees, maintain a Management Zone of sufficient width and design to protect the Historical Culturally Modified Trees from site-specific local hazards and windthrow.

(3) Despite subsections (1) and (2), Historical Culturally Modified Trees and their Management Zones may be altered or harvested if:
(a) the alteration or harvesting is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative, or
(b) protection of all historical culturally modified trees in the cutblock area would make harvesting economically unviable,

Provided that the plans to alter or harvest the historical culturally modified trees have been developed through a process of First Nation engagement with applicable First Nations.

4.8.6.1 RESULT

During the period of this FSP the FSP Holders will ensure that their operations will:

1) Protect Historical Culturally Modified Trees

2) Adjacent to Historical Culturally Modified Trees, maintain a Management Zone of sufficient width and design to protect the Historical Culturally Modified Trees from site-specific local hazards and windthrow

3) Despite (1) and (2), a Historical Culturally Modified Tree and the adjacent Management Zone may be altered or harvested if plans to alter or harvest have been developed through a process of First Nation Engagement with Applicable First Nations; and

    a. alteration or harvesting is required for road access, other infrastructure, or to address a safety concern and there is no practicable alternative; or
    b. protection of all of the Historical Culturally Modified Trees in the cutblock area would make harvesting economically unviable.

4) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
    a. Deviations from these documents will be rationalized in the Site Plan

4.8.7 Objective: Indigenous Tree Use

Great Bear Rainforest Order: Part 2, Division 2- First Nations 8. Objective for Indigenous Tree Use:

(1) Maintain a sufficient volume and quality, specified during First Nation engagement, of western redcedar, yellow cedar and other tree species to support the Applicable First Nations' Indigenous Tree Use.

(2) In Cedar Stewardship Areas, maintain, and recruit as necessary, Monumental Cedar, western redcedar and yellow cedar, specified during First Nation engagement, to support the Applicable First Nations' Indigenous Tree Use.

(3) Within Development Areas, retain Monumental Cedar and cultural cedar stands with windfirm buffers, specified during First Nation engagement, to support the Applicable First Nations' Indigenous Tree Use.

(4) Despite subsection (3), a Monumental Cedar and its windfirm buffer, or a Cultural Cedar Stand, may be altered or harvested if

(a) the alteration or harvesting is required for road access or other infrastructure, or to address a safety concern, and there is no practicable alternative,
(b) it has been determined by the applicable First Nation that the monumental cedar or cultural cedar stand is not suitable or is not required for a cultural cedar use, or
(c) the monumental cedar or cedar from the cultural cedar stand will be provided to the applicable First Nation,
Provided that
(d) *retention of all of the Monumental Cedar and Cultural Cedar Stands in the Cutblock area would make harvesting economically unviable, and*
(e) the plans to alter or harvest the monumental cedar or cultural cedar stands have been
(f) *developed through a process of First Nation engagement with applicable First Nations.*

(5) Within a Cutblock, for the first 15% of the pre-harvest stand retained in Stand Retention as specified in section 17(1), design Stand Retention to maintain mature and old western redcedar and yellow cedar representative of the pre-harvest stand.

4.8.7.1 STRATEGY

1) Maintain a volume and quality, specified during First Nation Engagement of western red cedar, yellow cedar and other tree species to support the Applicable First Nations' Indigenous Tree Use;

2) In Cedar Stewardship Areas (*Schedule Q*), maintain, and recruit as necessary, Monumental Cedar, western redcedar and yellow cedar specified during First Nation Engagement to support the Applicable First Nations' Indigenous Tree Use;

3) Within Development Areas, retain Monumental Cedar, and Cultural Cedar Stands with windfirm buffers, specified during First Nation Engagement to support the Applicable First Nations' present and future Indigenous Tree Use.

4) Despite (3), a Monumental Cedar and its windfirm buffer, or a Cultural Cedar Stand, may be altered or harvested by the FSP Holder if

   a) the alteration or harvesting is required for road access, or other infrastructure, or to address a safety concern and there is no practicable alternative;

   b) it has been determined by the Applicable First Nation that the Monumental Cedar or Cultural Cedar Stand is not suitable or is not required for a cultural cedar use; or

   c) the Monumental Cedar or cedar from Cultural Cedar Stand will be provided to the Applicable First Nation provided that

   d) retention of all Monumental Cedar and Cultural Cedar Stands in the Cutblock area would make harvesting economically unviable; and

   e) the plans to alter or harvest the Monumental Cedar or Cultural Cedar Stands have been developed through a process of First Nation Engagement with Applicable First Nations.

5) Within a Cutblock, for the first 15% of the pre-harvest stand retained in Stand Retention as specified in Objective 17(1), the FSP Holder will design Stand Retention to maintain mature and old western redcedar and yellow cedar representative of the pre-harvest stand.

6) The FSP Holder will utilize ecologically suitable minimum stocking standards for western red cedar and yellow cedar to ensure appropriate future supply for the Applicable First Nation.

7) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.

   a) Deviations from these documents will be rationalized in the Site Plan

4.8.8 Objective: Retention of Western Yew

Great Bear Rainforest Order: Part 2, Division 2- First Nations 9. Objective for Retention of Western Yew:

(1) Retain western yew trees.

(2) Despite subsection (1), western yew trees may be altered or harvested if:

> *(a) alteration or harvesting is required to accommodate operational requirements for road and bridge construction and there is no practicable alternative; or*
> *(b) the retention of all western yew trees in a Cutblock would make harvesting economically unviable,*
> *Provided that*
> *(c) measures are implemented to provide for use of the altered or harvested western yew trees by Applicable First Nations, and*
> *(d) the plans to alter or harvest the western yew trees have been developed through a process of First Nation engagement with applicable First Nations.*

(3) Where practicable, include western yew trees in Stand Retention.

(4) All areas retained or managed in accordance with subsections (1), (2) and (3) must be documented and all the documentation submitted by the licensee as digital spatial data at the end of each calendar year to the Applicable First Nation and the Province of British Columbia.

4.8.8.1 STRATEGY

During the period of this FSP and within all areas planned by the FSP Holders for harvesting, the FSP Holders will:

1) Observe for and record the location of all occurrences of western yew trees that are within the planned harvest area, during the course of primary forest development planning activities that are conducted in the field, including cut block reconnaissance and design and timber cruising activities.
2) Retain all occurrences of western yew.
3) Despite 2, western yew trees may be altered if:
    a) alteration or harvesting is required to accommodate operational requirements for road and bridge construction and there is no practicable alternative; or
    b) the retention of all western yew trees in a Cutblock would make harvesting economically unviable, provided that:
    c) measures are implemented to provide for use of the altered or harvested western yew trees by Applicable First Nations, and
    d) the plans to alter or harvest the western yew trees have been developed through a process of First Nation engagement with applicable First Nations.
4) Where practicable, include western yew trees in Stand Retention.
5) Report to applicable First Nations as digital spatial data at the end of each calendar year the occurrence locations and management actions taken for all recorded western yew trees and western yew tree patches.
6) Will consider, where practicable, the guidance provided in the EBM Planning and Practices Guidance and the Supplemental Technical Guidance documents, as currently available and as they may be replaced or amended from time to time.
    a) Deviations from these documents will be rationalized in the Site Plan

4.9 Recreation Trails and Sites

Reference Information	
Type of Objective	Objectives set in regulation: FRR s 16(a)ii Objectives enabled by regulation: GAR: s. 5 (f) and (g) Land-Use Objectives: N/A
Effective Date	FRPA: January 2004 GAR: December 13, 2004 Land Use Objectives: N/A
Practice Requirement(s) Eligible for Exemption	N/A
Mandatory Practice Requirements from the FPPR	N/A

4.9.1 Objective: Interpretive Forest Sites, Recreation Sites and Recreation Trails

FRR s. 16 Unless authorized by a recreation officer, a person must not use

(a) a recreation site, recreation trail or interpretive forest site for

(ii) a business or industrial activity

GAR s. 5 Resource Features

4.9.1.1 RESULT

During the period of this FSP, the FSP Holder will work with the District Recreation Officer when the proposed activities are within 100 m of an established recreation site[93] or an established recreation trail[94] to develop a mutually agreed upon plan to manage the activities in accordance with the established recreation site and established recreation trail management objectives[95].

4.9.1.2 RESULT

During the period of this FSP, the FSP Holder will ensure a Forest Recreation Regulation (FRR) section 16 authorization from the District Recreation Officer is approved prior to a recreation site, recreation trail or interpretive forest site being used for industrial activity and that the industrial activity follows the recommendations in the FRR section 16 authorization.

4.9.1.3 RESULT

During the period of this FSP, the FSP Holder will ensure that for established interpretive forest sites, recreation sites, and recreation trails with established legal objectives the FSP Holder's harvesting, road construction and silviculture activities are consistent with the legally established objectives.

4.9.1.4 RESULT

During the period of this FSP the FSP Holder will repair or mitigate any damage to an established recreation site or an established recreation trail within one year following harvest completion by:

1) relocating the original trail route or establishing an alternate trail route, if the original route in not practicable due to safety concerns, and
2) remove all harvesting debris that crosses the established recreation trail.

4.9.1.5 STRATEGY

During the period of this FSP the FSP Holders will ensure that for their activities in proximity to the Tall Tree Trail, Mt. Mclean Recreation Trail and Butze Rapids Trail:

1) No disturbance by the FSP Holders' harvesting, road construction or silviculture activities to natural vegetation occurs within 10 m of trail centerline other than for a required crossing unless the Delegated Decision Maker (e.g. Recreation Officer) for the Ministry responsible for the trail grants an exemption for that activity.
2) Development activities that occur within from 10 meters to 50 meters either side of trail centerline:
    a. will only occur after the planned activity has been approved by the Delegated Decision Maker (e.g. Recreation Officer) for the Ministry responsible for the trail and
    b. the authorized development activities will comply with the details of the approval.
3) A crossing of the trail is permitted if the crossing is required to access productive forest land that would otherwise be isolated and
4) The trail location is re-established if the crossing disturbs it. Alternatively, the trail can be relocated away from the crossing. The timing of the trail crossing, re-establishment, or trail relocation will require approval by the Delegated Decision Maker (e.g. Recreation Officer) for the Ministry responsible for the trail.

[93] A recreation site identified within the BC Government Warehouse recreation data layers
[94] A recreation trail identified within the BC Government Warehouse recreation data layers
[95] The management objectives identified within Forest Tenure Administration (FTA)

5) A trail crossing is deactivated once it is no longer required.

4.9.1.6 STRATEGY

During the period of this FSP the FSP Holders will ensure that for the Gwunya Recreation Site and Maple Bay Recreation Site there will be no disturbance[96] 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 other than where the FSP Holders and the Delegated Decision Maker (e.g. Recreation Officer) for the Ministry responsible for the site agree the disturbance will be for the improvement of the recreation experience, or where action or access is required to prevent or address potential losses due to fire, wind, or forest health factors.

[96] From activities related the FSP Holders' road construction, harvesting or silviculture activities.

5 ADDITIONAL FSP INFORMATION

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

5.1 Areas under Cutting Authority (TSL, FSR, RP)

The FSP maps and Appendices III and IV indicate the blocks that are currently issued under a Timber Sales Licence (TSL) and Forest Service Roads (FSR) that are under the control of BC Timber Sales. Section 1.5 of this FSP identifies Gitxaala's approved Cutting Permit and Road Permit.

5.2 Stocking Standards

The stocking standards have been developed to ensure site specific criteria are applied for the establishment of healthy, valuable, and ecologically suited trees on areas harvested by the FSP Holders that have a reforestation obligation. The Tables in Appendix I identify the applicable stocking standards by BEC zone, subzone, variant, and site series and include the applicable regeneration date, free growing date and height.

Tables describing the stocking standards that apply on the FDU's in this FSP are provided in Appendix I. The stocking standards in Appendix I include:

- *Table A1:* Standards for clearcut even-aged management, including 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:* Grizzly bear areas;
- *Table A3:* Moose Habitat areas;
- *Table A4:* Coastal Forest type (partial cut), Single Entry Dispersed Retention Stocking Standards (SEDRSS);
- *Table A5:* Interior Forest type Standards (partial cut);
- *Table A6*: Deviation from Potential (partial cut);
- *Table A7:* Climate Change Adaptation;
- *Table A8:* Footnotes; footnotes apply to Tables A1, A2, A3, A4 and A5; and
- *Table A9:* Footnotes for Spruce leader weevil stocking standards.

Additional criteria and opportunity for variation from stocking standards in Appendix I are provided below to address circumstances that occur in the natural environment and management priorities identified within this FSP.

5.3 Application of Stocking Standards

General applications are as follows:

- Stocking standards are applicable across all FDU's unless otherwise stated.
- The late free growing date is 20 years for all standards units.
- Free Growing can be declared or assessed no earlier than 12 months after completion of harvest, except for stands prescribed with SEDR stocking standards where Free Growing can be declared no earlier than 24 months after completion of harvest.

- Where a standards unit is comprised of a complex of 2 or more ecological classifications, the standards unit(s) will be managed according to the dominant site series. For wildlife forage areas the area is to be stratified as a separate standards unit.
- For the purposes of FPPR s 46.11(2), for an area to be considered mappable its minimum dimension must be at least 40 metres.

5.4 Even-aged Stocking Standards

Even-aged management stocking standards set out in Appendix I, Tables A1 to A6 apply to silvicultural systems when two or less distinct age classes of crop trees will be created within a stand.

Even-aged management silvicultural systems include clearcut, clearcut with reserves, seed tree, shelterwood, retention, and patch cut (where the openings created meet the above definition). For examples of partial cutting see the *Silvicultural Systems Handbook for BC.*

5.5 Wildlife Forage Stocking Standards

Wildlife forage stocking standards set out in Appendix I, Table A2 and A3 are for Grizzly Bear and Moose. Table A2 applies to areas with specific ecological classifications within Grizzly Bear Identified Watersheds (GBIW) shown on Map 7 of the Kalum SRMP. Management of grizzly bear habitat will be focused on the grizzly bear identified watersheds and will be managed by maintaining forage within critical habitats. Table A3 applies to specific ecological classifications that are favourable for moose habitat.

5.6 Selection of Well-Spaced Stems

Trees that are selected as well-spaced are being chosen to form part of a future crop, so they must be of sufficient health and form that they can be utilized as crop trees at the time of harvest.

Trees must be greater than five (5) centimetres. Trees less than 10cm in height are to be evaluated at the site and must show excellent colour and form.

For the purposes of the FSP, the criteria for good health, good form and good vigour are to be used when evaluating well-spaced trees according to:

- *Silviculture Surveys FS660* coniferous trees, and
- For Pine that is infected by Dothistroma: the “Defoliation Free Growing Damage Standard for Determinate Growth Conifers” March 2, 2005.

5.7 Selection of Free Growing Crop Trees

In addition to stocking standards in Appendix I, for a well-spaced crop tree to be considered Free Growing it must be in accordance with Free Growing Damage criteria set out in the *Silviculture Surveys FS660*.

- For Even-aged, age class 1, coniferous trees,
- For Broadleaf, and
- For Layered and SEDRSS stands.

5.8 Minimum Horizontal Inter-Tree Distance (MITD)

The MITD between well-spaced trees is two (2.0) metres, but this can be reduced for site-specific circumstances identified in the Site Plan, as follows:

- 1.6 metres immediately adjacent to any stream or riparian area, natural non-productive area or unplantable slash (unplantable slash is defined as when slash coverage is 30% or greater across the Standards Unit),

- 1.6 metres on hygric or sub-hydric sites,
- 1.6 metres where trees are within the roadside area of a permanent access structure,
- 1.6 metres where cluster planting is required to avoid planting within 5 meters of infected, stumps in areas that have Tomentosus or Annosus root disease,
- 1.0 metres for Layer 4 of multi-layer and SEDR stands where planting has occurred to allow stump planting,
- 1.0 metres where cluster management is prescribed in identified high-value and moderate-value wildlife forage areas,
- 1.0 metres on colluvial or talus sites,
- 1.0 metres on mechanically mounded sites, and
- 0.0 metres between Layer 1 trees in layered or SEDR stands.

5.9 Free Growing Crop Trees – Criteria for Evaluating Competition

In addition to stocking standards in Appendix I, for a well-spaced crop tree to be considered Free Growing it must be growing unimpeded from competing herbs, shrubs, or other trees, in accordance with assessment methods set out in Appendix 9 of the *Establishment to Free Growing Guidebook – Prince Rupert Forest Region, version 2.3, May 2000 (Appendix 9 revised October 2007)*, with the following modified criteria:

- Species eligible for selection as well-spaced crop trees are not competing vegetation.
- The minimum percentage height above competing brush in order to be free growing is as follows:

Table 5-1: Minimum percentage height above competing brush in order to be free growing

% Height above competing brush:	100%	125%	150%
Applies to:	ICH	ESSF, MH	All Others

Note: competing brush is defined as deleterious species that are over-topping crop trees or have the potential to over-top crop trees.

5.10 Broadleaf

Broadleaf (deciduous) species are noted in the Stocking Standards, and will be used as follows:

Cottonwood (Act) is a commercial species and will be considered a preferred or acceptable species as noted in the stocking standards in Appendix I, A1.

Alder (Dr) is a commercial species and where utilized from a stand where alder was a leading species ($\geq$ 30% of original stand composition) alder will be considered a preferred or acceptable species as noted in the stocking standards in Appendix I, A1.

Where a Site Plan has identified management for a component of broadleaves, broadleaves (other than cottonwood, or alder as noted in the previous bullet) may be used as a preferred or acceptable species. The original species composition of broadleaves for these broadleaf management areas must be $\geq$ 30%.

5.11 Riparian Management Considerations

Aspen, birch, and cottonwood are not considered competing vegetation within riparian management areas of a stream, lake or wetland.

Herbaceous vegetation within 5 m of a S4, S5 or S6 stream is not considered competing vegetation.

5.12 Biogeoclimatic Transition Zones

Standards units that are on a transitional site occurring between ecological classifications will be managed to the standard of the dominant BEC subzone. The prescribed stocking standard may be modified to include components of the standard associated with the sub-dominant BEC subzone(s). Such site-specific modifications to stocking standards will be supported by a rationale documented in the Site Plan and by means of an approved variation.

5.13 Wildfire Management

Site plans developed for blocks within established boundaries of the Rosswood, Jackpine Flats, and Lakelse Lake Fire Management Areas will be managed using the established stocking standards of Appendix I. FMA's will be determined by the Wildfire Management Branch or within approved District Fire Management Plans. To reduce the available forest fuels of new forests the target densities should be increased, and genetically improved stock planted to promote self-pruning. Deciduous species can be utilized according to the species composition section of the standards in Appendix I, A1.

In addition to density and species management, fuel loading will be reduced by burning roadside debris piles. Debris can also be distributed so it is discontinuous.

5.14 Extension of Regeneration Delay Date

The regeneration delay period for a Standards Unit may be extended:

- By an amount not exceeding four (4) years to a maximum of seven (7) years regeneration delay in circumstances where a TSL has been extended by the Timber Sales Manager. The regeneration delay period extension is to be consistent with the extension period applied to the TSL term; or,
- By an amount not exceeding three (3) years in circumstances where the Standards Unit is rendered inaccessible as a result of catastrophic weather, fire or civil blockades and no practicable opportunity exists to meet the regeneration delay requirement. If access is not available due to the above reasons, the regeneration delay period extension can be consistent with the time period of no access, given that everything practicable is carried out to attain access. This may affect the time available for achieving free growing. The late free growing date may also be extended a time not exceeding the regeneration delay period extension.

5.15 Climate Change

To accommodate a changing climate, it is expected that tree species suited to lower elevations will migrate upwards in elevation and tree species at lower latitudes will move north. Douglas-fir and Western Larch which are non-indigenous species to the ICHmc2, SBSdk and SBSmc2 sites will be classed as acceptable species only if approved in the *Chief Forester's Standards for Seed Use.* The maximum amount of non-indigenous species will be 10% collectively across the landscape.

Table A5 - "Climate Change Adaptation" in Appendix I will be used when reforesting with non-indigenous species on an Approved Variation basis. Site-specific modifications will be supported by a rationale documented in the Site Plan.

5.16 Herbicide Use

During the period of this FSP the FSP Holders will ensure that herbicides will not be used for the purposes of brushing to meet silviculture obligations on the FSP Holders' cutblocks.

5.17 Addition of Species to Stocking Standards

The *Chief Forester's Standards for Seed Use* may be amended from time to time to change or add transfer limits for specific species. Where such changes occur, the species may be added to prescribed stocking standards as an acceptable species on a site-specific basis within geographic and other limitations set out

in the Chief Forester's Standards for Seed Use. Such site-specific modifications to stocking standards will be supported by a rationale documented in the Site Plan.

5.18 Standard Units/ 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. The minimum standards units area is to be 1.0ha in accordance with the *Silviculture Surveys Procedures Manual.*

5.19 Partial Cut Stocking Standards - General

Partial cutting stocking standards are classed according to geographic areas:

- Coastal forest types [97]- the Single Entry Dispersed Retention Stocking Standards (SEDRSS) apply, and
- Interior forest types [98]- the SEDRSS approach will apply.

The following apply to partial cuts:

- Even-aged silvicultural systems are used,
- Trees contributing to the retained basal area (layer 1) must be species identified as preferred and acceptable species in Appendix I, Table A1 for the BEC site series in this FSP, and
- Trees contributing to the basal area comply with the attributes defined in the *Silviculture Surveys Procedures Manual* as found in the *FS 660* – "Free Growing Damage Criteria for Single Entry Dispersed Retention Stocking Standard Managed Stands in Coastal BC and for Interior DFP".
- The RESULTS reporting requirements must be met for stands with layer 1 retention greater than 5m2/ha.

Specific Partial Cut stocking standards can be found in Appendix 1, Table A4, Coastal Forest, Single Entry Dispersed Retention Stocking Standards and in Table A5, Interior Forest Type Partial Cut Stocking Standards.

Single Entry Dispersed Retention Stocking Standards (SEDRSS) is a stocking standard for the dispersed retention silvicultural system for cedar/hemlock coastal forest types. SEDRSS are only to be applied where higher level objectives cannot be met by other silvicultural systems where retained trees and new regeneration contribute towards a stand's reforestation obligation without application of stand structure objectives. SEDRSS stands retain a dispersed Residual Basal Area (RBA) ranging from 11 to 39m^2 per hectare and create a suitable regeneration environment to maintain crop trees that will contribute to stand value for potential future harvest.

Interior Forest Type Partial Cut Stocking Standards is a stocking standard for hemlock/amabilis forest types. These Interior standards retain a dispersed Residual Basal Area (RBA) ranging from 11 to 29m^2 per hectare and create a suitable regeneration environment to maintain crop trees that will contribute to stand value for potential future harvest.

[97] Coastal forest types are forests in the CWH vh2, CWH vm, vm1, vm2 biogeoclimatic variants, except for the North Hirsch.
[98] Interior forest types are forests in the CWH ws1, ws2, ICH mc 1, mc2, mc1a biogeoclimatic variants.

5.20 Reporting: Silviculture Updates and Land Status Tracking System (RESULTS)

For stands where the post-harvest basal area retention of layer 1 trees is greater than 5m^2/ha, these stands are to be reported to RESULTS, consistent with section 86 of the Forest Planning and Practices Regulation and the Silviculture Surveys Procedures Manual,

Effect of Approval of the FSP
In accordance with FPPR s.14, Appendix II identifies those blocks and roads that are declared under section 14(4) of the FPPR or identified as section196 blocks under the FRPA.

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

This FSP does not apply to cut-blocks or roads in cutting authorities issued by the Timber Sales Manager and identified in Appendices II, III, IV or to the Cutting Permit and Road Permit identified under section 1.5 of this FSP.

5.21 Invasive Plants

The following are measures required, in accordance with FPPR s. 17, for control of invasive plant species identified in the Invasive Plants Regulation:

1) If, as a result of primary forest activities authorized by the FSP Holders during the period of this FSP, more than 0.10 contiguous hectare (excluding road prism) of mineral soil has been exposed by an FSP Holders' road, trail, or landing construction, maintenance or deactivation; or through forest floor displacement during, site preparation or debris disposal in and following harvest of a cutblock to which this FSP applies, and such disturbance is likely to result in the introduction or spread of invasive plants, the FSP Holders will, within nine months of completion of the above listed activity, ensure the seeding of seed in the disturbed area. All sites that have been seeded will be inspected within 24 months of seeding to assess the efficacy of the seeding treatment and will be subsequently re-seeded if necessary to promote vegetative cover of the site.
2) The seed mix used for the purposes of paragraph (1) will: either be the Canada No. 1 Forage Mix or an Erosion Control mix, as deemed suitable taking into account site level considerations such overlapping with range tenure areas, concerns over human-wildlife interactions and soil erodibility.

The FSP Holders' field personnel, in the course of their duties, will make note of occurrences of invasive plants, and will report new occurrences of invasive plant species through the on-line Report-A-Weed wizard found at https://testwww.for.gov.bc.ca/hra/Plants/raw.htm. The FSP holder's field personnel in the course of their duties will review the Invasive Alien Plan Program (IAPP) map found at IAPP (gov.bc.ca) to identify known occurrences within proximity to the work being conducted.

5.22 Natural Range Barriers

In relation to section 18 of the FPPR, during the period of this FSP and within the FSP area the FSP Holders will:

1) at least 180 days before the FSP Holders harvest a cutblock or constructs a road that is located within an area subject to a range agreement, inform the holder of that range agreement of the harvesting or construction; and
2) request information on the presence of, location and nature of any natural range barriers that may be partially or fully rendered ineffective; and
3) seek input on appropriate mitigative measures that may be taken; and
4) make reasonable efforts to come to an agreement with that holder on mitigation measures, and implement:

a. mitigation measures in accordance with that agreement; or,

b. reasonable mitigation measures as soon as practical after the harvesting or construction, if an agreement referred to above is not reached.

5.23 Cumulative Effects of Multiple FSPs

Where applicable, the FSP must address the cumulative effect of multiple FSPs in an area (FPPR s. 19). There are a number of other approved FSPs that have overlap with the FDUs within BCTS Coast Mountains District FSP Replacement 2023-2028:

Kalum South FDU:

- Kalum Ventures Ltd. – Non-Renewable Forest Licence A90734 and Forestry Licence To Cut A91358
- Kitselas Forest Products Ltd. - Non-Renewable Forest Licence A90733 and Forestry Licence To Cut A91360
- Coast Tsimshian Resources - TFL 1 and RFL A16835
- Skeena Sawmills – TFL 41 and RFL A16885
- A&A Trading Ltd – FL A16836
- Terrace Community Forest – CFA K1X
- Haisla Resources LP- FNWL N1D

Nass FDU:

- Canada Resurgence Ltd.- FL A16884
- Skeena Sawmills – A16882
- Gitanyow Economic Development Corp.– NRFL A96100

North Coast FDU:

- Gitga'at Forestry Inc. – NRFL A71731, RFL A95995
- Gitxaala Forest Products – RFL A16820, A95624, NRFL A95623
- Interfor Corporation – RFL A16841
- Metlakatla Forestry Limited Partnership– NRFL A94773
- Metlakatla Forestry Corporation – N3B
- Sonora Logging Limited – RFL A16837 and A16838
- Lax Kw'alaams- RFL A97045
- Kitasoo Forest Company Ltd. – RFL A94009
- Kvuama Forest Services Ltd. – RFL A94010

The strategies and results 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 comply with each other in this respect as well.

5.24 Referral and Public Review Summary

Details regarding the referral of the Forest Stewardship Plan to agencies and First Nations, the public review process of the FSP, and any subsequent revisions to the FSP, will be described in the supporting document to this FSP.

5.25 Maps

The FSP maps are provided separately from the FSP text. The FSP maps are provided at a scale of 1:100,000. The maps 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 in the FSP. They are shown on the maps and are identified as:

The Kalum South FDU – includes the Cascadia TSA and TFL 1, the Kalum TSA, the Pacific TSA and TFL 41

The Nass FDU – consists of the Nass TSA

The North Coast FDU – consists of the historic North Coast TSA and excludes TFL 25# and Nisga'a Core Lands.

The FDUs were chosen primarily to match Land Use Orders areas: the Kalum SRMP for the Kalum South FDU, the Nass South SRMP LUO for the majority of the Nass FDU and the Great Bear Rainforest LUO for the North Coast FDU. Areas where harvesting is prohibited may be included within the FDU shape. These areas are shown on the maps in Appendix XI, however, they are not shown on the overview maps embedded in the FSP text.

6 SUPPORTING DOCUMENTATION

The information that supports or was used in the development of this FSP is contained in a separate document entitled the BC Timber Sales Skeena Supporting Document for the Coast Mountains Natural Resource District Forest Stewardship Plan Replacement 2023-2028 and contains:

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

Appendix I Stocking Standards

Stocking Standards

Table A1: Clearcut even –aged, Regeneration and Free Growing standards;
Table A2: Grizzly Bear standards;
Table A3: Moose Habitat standards;
Table A4: Coastal Forest type (partial cut), Single Entry Dispersed Retention Stocking Standards (SEDRSS);
Table A5: Interior Forest type (common partial cut) Stocking Standards
Table A6: Climate Change Adaptation.

Footnotes

Table A7: Footnotes for Stocking standards, and
Table A8: Spruce Leader Weevil standards footnotes.

Figures

Figure 5: Spruce Leader Weevil Hazard Map BCTS Skeena

Table A1. Clear-cut even-aged Stocking Standards

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 for the identification and interpretation of ecosystems, as applicable to a harvested area. MIN" or "Min" means minimum, "Max" means maximum.

	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004656	**BWBSdk1**	01	Pli Sw[32]	Bl Sb	At[a] Ep[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004657	BWBSdk1	02*	Pli	Sw Sb	At[a]	1000	500	400	7	Pli	1.20
										Others	0.60
1004658	BWBSdk1	03	Pli	Sw[28]	At[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004659	BWBSdk1	04	Pli Sb[50]	Sw[32]	At[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004660	BWBSdk1	05	Pli Sw	Bl Sb	At[b] Ep[b]	1200	700	600	7	Pli	1.60
										Others	0.80
1004661	BWBSdk1	06	Pli Sw[32]	Bl Sb	Act[a] At[a] Ep[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004662	BWBSdk1	07	Pli[1] Sb[1] Sw[1,32]	Bl[50]	At[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004663	BWBSdk1	08	Sw[1,32]	Pli[1] Bl[50] Sb	Act[b] At[a] Ep[a]	1000	500	400	4	Pli	1.20
										Others	0.60
1004664	BWBSdk1	09*	Sb[1] Sw[1,32]	Pli[1]		400	200	200	4	Pli	1.20
										Others	0.60
1004665	BWBSdk1	10*	Sb[1] Sw[1,32]	Pli[1]		400	200	200	4	Pli	1.20
										Others	0.60
1004666	BWBSdk1	11*	Sb[1] Sw[1]	Pli[1]	Act[a] At[a]	400	200	200	4	Pli	1.20
										Others	0.60
	BWBSdk1	31	non-	forested		-	-	-	-	-	-
	BWBSdk1	32	non-	forested		-	-	-	-	-	-
	BWBSdk1	81	non-	forested		-	-	-	-	-	-
1004667	**BWBSdk2**	01	Pli Sw[32]	Sb	At[a] Ep[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004668	BWBSdk2	02*	Pli	Sb Sw	At[a]	1000	500	400	7	Pli	1.20
										Others	0.60
1004669	BWBSdk2	03	Pli Sb[50]	Sw[32]	At[a]	1200	700	600	7	Pli	1.60
										Others	0.80
1004670	BWBSdk2	04	Pli Sb Sw	Lt	At[a]	1000	500	400	4	Pli	1.20
										Others	0.60
1004671	BWBSdk2	05	Pli Sw[32]		At[b] Ep[b]	1200	700	600	7	Pli	1.60
										Others	0.80
1004672	BWBSdk2	06	Sw[1,32]	Sb Pli[1] Lt[1]	Act[b] At[a] Ep[a]	1000	500	400	4	Pli	1.60
										Others	0.80
1004673	BWBSdk2	07*	Lt[1]Sb[1] Sw[1,32]	Pli[1]		400	200	200	4	Pli	1.20
										Others	0.60
1004674	BWBSdk2	08*	Lt[1] Sb[1] Sw[1,32]			400	200	200	4	All	0.60
	BWBSdk2	31	non-	forested		-	-	-	-	-	-
	BWBSdk2	32	non-	forested		-	-	-	-	-	-
	BWBSdk2	81	non-	forested		-	-	-	-	-	-
1004675	**CWHvh2**	01	Cw Hw YcPlc[16]	Ba[18] Ss[18,]	Dr[a]	900	500	400	6	Hw Ss Plc	2.0
										Cw Yc	1.5
										Ba	1.4
										Others	1.0
1004676	CWHvh2	02	Cw Yc Plc	Hw		400	200	200	3	Plc	1.4
										Others	1.0

	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004677	CWHvh2	03	Cw Hw Yc Plc	Ss		800	400	400	6	Hw Pl Others	1.8 1.4 1.0
1004678	CWHvh2	04	Cw Hw Ba Ss[56] Yc[16]		Dr[a]	900	500	400	6	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1004679	CWHvh2	05	Cw Hw[19] Ba Ss[56] Yc[16]		Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1004680	CWHvh2	06	Cw Hw[19] Ba Ss[56] Yc[16]		Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1049795	CWHvh2	07	Cw Ba Ss[56], Hw[2,19] Yc[16]		Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1004682	CWHvh2	08	Cw Ba Ss[56]	Hw	Dr[b]	900	500	400	3	Hw Ss Cw Ba Others	2.0 1.5 1.4 1.0
1004683	CWHvh2	09	Cw[1,] Ba[1] Ss[1, 56]	Hw	Dr[b]	900	500	400	3	Hw Ss Cw Ba Others	2.0 1.5 1.4 1.0
1004684	CWHvh2	11	Cw[1,] Hw[1] Yc[1,] Plc[1]		Dr[a]	800	400	400	3	Hw Pl Others	1.8 1.4 1.0
1004685	CWHvh2	12	Cw[1]Yc[1] Plc[1]			400	200	200	3	Pl Others	1.4 1.0
1004686	CWHvh2	13	Cw[1]Yc[1]Plc[1,16] Ss[16,56] Hw[19]	Ba Hm	Dr[a]	900	500	400	6	Ss Hw Others	2.0 1.8 1.0
1004687	CWHvh2	14	Ss[56]	Cw Plc Hw	Dr[a]	400	200	200	3	Ss Hw Pl Others	2.0 1.8 1.4 1.0
1004688	CWHvh2	15	Ss[56]	Cw Hw	Dr[a]	900	500	400	3	Hw Ss Cw Others	2.0 1.5 1.0
1004689	CWHvh2	16	Ss[56]	Cw Plc	Dr[a]	400	200	200	3	Ss Pl Others	2.0 1.4 1.0
1004690	CWHvh2	17	Cw Ss	Hw Yc	Dr[a]	900	500	400	3	Hw Ss Cw Yc Others	2.0 1.5 1.0
1004691	CWHvh2	18	Cw[1] Ss[1, 56]			400	200	200	3	Ss Cw	2.0 1.5
1004692	CWHvh2	19	Cw[1,] Ss[1,56]			400	200	200	3	Ss Cw	2.0 1.5
	CWHvh2	31	non-	forested		-	-	-	-	-	-
	CWHvh2	32	non-	forested		-	-	-	-	-	-
	CWHvh2	33	non-	forested		-	-	-	-	-	-
1049807	**CWHvm1**	01	Hw[19] Ba[18] Cw, Ss[7,18, , 56]	Yc[c]	Dr[a]	900	500	400	6	Hw, Ss Cw, Yc Others	2.00 1.50 1.40

I.D. #	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1049808	CWHvm1	02*	Plc Cw Hw	Fdc[22] Yc[c]		400	200	200	3	Hw, Plc Others	1.40 1.00
1049810	CWHvm1	03	Cw Hw	Fdc[22] Yc[c] Pl		800	400	400	6	Hw Pl Others	1.4 1.0
1049812	CWHvm1	04	Hw[19] Ba Cw Ss[,56]	Yc[c]	Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1049813	CWHvm1	05	Hw[19] Ba Cw Ss[,56]	Yc[c]	Act Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1049814	CWHvm1	06	Hw[19] Ba[18] Cw Ss[7,18,, 56]	Yc[c]	Dr[a]	900	500	400	6	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
	CWHvm1	07	**Not in this area**		-	-	-	-	-	-	-
1004701	CWHvm1	10	Cw [1] Ss[1,12,56]	Ba[1]	Act[b] Dr[b]	900	500	400	3	Ss Cw Ba Others	2.0 1.5 1.4 1.0
1049818	CWHvm1	12	Cw[1] Hw[1,] Yc[1]	Pl[1] Hm Ss		800	400	400	3	Hw Pl Hm Others	1.4 0.8 1.0
1004703	CWHvm1	13*	Cw[1] Plc[1] Yc[1]	Hw[1,]		400	200	200	3	Pl Others	1.4 1.0
1049822	**CWHvm2**	01	Hw[19] Ba Cw[16] Yc Ss[4,12,56]	Hm[,15]	Dr[a]	900	500	400	6	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1049823	CWHvm2	02*	Cw Yc Plc	Hw[12] Hm		400	200	200	3	Hw Pl Cw Yc Hm	1.8 1.4 1.0
1004707	CWHvm2	03	Cw Hw	Hm[,] Plc Yc		800	400	400	6	Hw Pl Cw Yc Hm	1.8 1.4 1.0
	CWHvm2	04	**Not in this area**								
1049824	CWHvm2	05	Hw[19] Ba Cw[16] Yc Ss[56]	Hm	Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1049825	CWHvm2	06	Hw[19] Ba Cw[16] Yc Ss[7,56]	Hm	Dr[a]	900	500	400	6	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
1004711	CWHvm2	09	Cw[1] Hw[1] Yc[1]	Plc[1] Hm[1]		800	400	400	3	Hw Pl Cw Yc Hm	1.8 1.4 1.0 0.8
1004712	CWHvm2	10*	Plc[1] Yc[1]	Hm		400	200	200	3	Pl Yc Hm	1.4 1.0 0.8
1004714	**CWHwm**	01	Ba[16,50] Hw Ss[,56]	Cw Hm[12]Yc[12,]	Dr[a]	900	500	400	6	Hw Ss Cw Yc Ba Hm	2.0 1.4 1.0

I.D. #	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004715	CWHwm	02	Cw[16,50] Hw Plc	Hm[12,]	Dr[a]	900	500	400	6	Hw Pl Cw Hm	2.0 1.4 1.0
1004716	CWHwm	03	Ba[16,50] Ss[,56] Hw	Cw Yc[12]	Act[a] Dr[a]	900	500	400	3	Hw Ss Cw Yc Ba	2.0 1.4
1004717	CWHwm	04	Ss[56] Hw	Ba Cw Yc[12]	Act[a] Dr[b]	900	500	400	3	Hw Ss Cw Yc Ba	2.0 1.4
1004718	CWHwm	05	Ba[16,50] Ss[,56] Hw	Cw	Act[b] Dr[b]	900	500	400	3	Hw Ss Cw Ba	2.0 1.4
1004719	CWHwm	06	Ba[1,16,50] Ss[1,56]	Cw[1]	Act[b] Dr[b]	900	500	400	3	Ss Cw Ba	2.0 1.4
	CWHwm	07*	no	conifers		-	-	-	-		
1004720	CWHwm	08	Cw[1,16] Plc[1] Yc[1] Hw[1,]	Hm[12]	Act[a] Dr[a]	900	500	400	6	Hw Pl Cw Yc Hm	2.0 1.4
1004721	CWHwm	09	Cw[1,16,50] Ss[1,56]	Yc[1] Hw[1] Hm	Act[a] Dr[a]	800	400	400	3	Hw Ss Cw Yc	1.4 1.0
1004722	CWHwm	10*	Plc[1] Yc[1]	Cw[1] Hw		400	200	200	3	Pl Cw Yc	1.4 1.0
	CWHwm	31	non-	forested		-	-	-	-	-	-
	CWHwm	32	non-	forested		-	-	-	-	-	-
	CWHwm	51	non-	forested		-	-	-	-	-	-
1049828	**CWHws1**	01	Hw[19] Ba Cw Sxs[,56]	Pl	Dr[a]	900	500	400	6	Hw, Pl Sxs Others	2.00 2.00 1.40
1004724	CWHws1	02*	Plc Hw	Cw[c]		600	400	400	6	Hw, Pl Others	1.40 1.00
1049829	CWHws1	03	Hw Plc Cw			900	500	400	6	Hw, Pl Others	2.00 1.40
1049830	CWHws1	04	Hw[219] Ba Cw Sxs[,56]		Act[a] Dr[a]	900	500	400	3	Hw, Pl Sxs Others	2.00 2.00 1.40
1049831	CWHws1	05	Hw[19] Ba Cw Sxs[7,56]		Dr[a]	900	500	400	6	Hw, Sxs Others	2.00 1.40
1049832	CWHws1	06	Hw[219] Ba Cw Sxs[,56]		Act[a] Dr[b]	900	500	400	3	Hw, Sxs Others	2.00 1.40
	CWHws1	09*	no	conifers	Act[a] Dr[a]	-	-	-	-	All	1.40
1004731	CWHws1	10*	Plc[1]	Cw[1,c] Hw		400	200	200	3	Hw, Pl Cw	1.40 1.00
1004733	**CWHws2**	01	Sxs[56] Hw Ba Cw[16]	Bl[12] Plc	Dr[a]	900	500	400	6	Pl Hw Others	2.00 1.30 1.00
1004734	CWHws2	02*	Plc Hw	Cw Hm		600	400	400	6	Pl Others	1.40 0.80
1004735	CWHws2	03	Hw Plc	HmCw	Dr[a]	900	500	400	6	Pl Hw Others	2.00 1.30 1.00
1004736	CWHws2	04	Sxs[56] Hw Ba Cw[16]	Bl[12] Hm	Act[a] Dr[a]	900	500	400	3	Hw Others	1.30 1.00
1004737	CWHws2	05	Sxs[756] Hw Ba Cw[16]	Bl[12]	Dr[a]	900	500	400	6	Hw Others	1.30 1.00
1004738	CWHws2	06	Sxs[56] Hw Ba Cw[16]	Bl[12]	Act[a] Dr[a]	900	500	400	3	Hw Others	1.30 1.00
	CWHws2	09	no	conifers	Act[a] Dr[a]					All	1.40
1004741	CWHws2	10*	Plc[1]	Cw[1] Hm Hw		400	200	200	3	Pl Others	1.40 0.80

I.D. #	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004743	**ESSFmc**	01	Bl Sx	Pli[34]		1200	700	600	7	Pli Others	1.60 0.80
1004744	ESSFmc	02*	Pli	Bl Sx		1000	500	400	7	Pli Others	1.20 0.60
1004745	ESSFmc	03*	Pli	Bl Sx		1000	500	400	7	Pli Others	1.20 0.60
1004746	ESSFmc	04	Pli Bl Sx			1200	700	600	7	Pli Others	1.60 0.80
1004747	ESSFmc	05	Bl Sx	Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004748	ESSFmc	06	Bl Sx	Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004749	ESSFmc	07	Bl Sx[32]			1200	700	600	4	Pli Others	1.60 0.80
1004750	ESSFmc	08*	Bl Sx[32]			1000	500	400	4	All	0.60
1004751	ESSFmc	09	Bl[1] Sx[1,32]			1000	500	400	4	All	0.60
1004752	ESSFmc	10	Bl[1] Sx[1,32]			1000	500	400	4	All	0.60
1004753	**ESSFmk**	01	Bl Se	Ba[17] Hm Pli[34]		1200	700	600	7	Pli Others	1.60 0.80
1004754	ESSFmk	02*	Pa Pli	Bl Hm Se		1000	500	400	7	Pli Others	1.20 0.60
1004755	ESSFmk	03*	Pa Pli	Bl Hm Se Ba[17]		1200	700	600	7	Pli Others	1.60 0.80
1004756	ESSFmk	04	Bl Se	Ba[17] Hm Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004757	ESSFmk	05	Bl Se[32]	Hm Ba[17]		1200	700	600	4	Pli Others	1.60 0.80
1004758	ESSFmk	06	Bl[1] Se[1,32]	Hm Ba		1000	500	400	4	All	0.80
1004759	ESSFmk	07	Bl[1] Se[1,32]	Ba		1000	500	400	4	All	0.80
1004760	**ESSFmv3**	01	Bl Se	Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004761	ESSFmv3	02*	Pli[34]	Se[28] Bl[28]		1000	500	400	4	Pli Others	1.20 0.60
1004762	ESSFmv3	03	Bl Se	Sb Pli[34]		1000	500	400	4	Pli Others	1.20 0.60
1004763	ESSFmv3	04	Bl Se	Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004764	ESSFmv3	05	Bl Se	Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004765	ESSFmv3	06	Bl Sx	Pli[34]		1200	700	600	7	Pli Others	1.60 0.80
1004766	ESSFmv3	07	Bl[1] Se[1,32]	Pli[1,34]		1000	500	400	4	Pli Others	1.20 0.60
1004767	**ESSFwv**	01	Bl Se	Hm Hw Pli[34]		1200	700	600	7	Pli Others	1.60 0.80
1004768	ESSFwv	02*	Pli	Bl Hm Se		1000	500	400	7	Pli Others	1.20 0.60
1004769	ESSFwv	03*	Pli	Bl Hm Se Hw		1200	700	600	7	Pli Others	1.60 0.80
1004770	ESSFwv	04	Pli Bl	Se Hm		1200	700	600	7	Pli Others	1.60 0.80
1004771	ESSFwv	05	Bl Se	Hm Hw Pli[34]		1200	700	600	4	Pli Others	1.60 0.80
1004772	ESSFwv	06	Bl Se[32]	Hm Hw		1200	700	600	4	Pli Others	1.60 0.80
1004773	ESSFwv	07*	Bl Se[32]	Hm Hw		1000	500	400	4	All	0.60
1004774	ESSFwv	08	Bl[1] Se[1,32]			1000	500	400	4	All	0.60
1004775	ESSFwv	09	Bl[1] Se[1,32]			1000	500	400	4	All	0.60

I.D. #	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1049835	**ICHmc1**	01	Bl[29] Ba[50] Hw[32] Sx[56]	Pli	At[a] Ep[a]	1200	700	600	7	Pli Others	2.00 1.00
1004777	ICHmc1	02*	Pli	Bl Hw[32]	At[a]	1000	500	400	7	Pli Others	1.40 0.80
1004778	ICHmc1	03	Bl[29] Ba[50] Hw[32] Sx[56]	Pli	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004779	ICHmc1	04	Bl[29] Ba[50] Sx[56] Hw[32]	Pli	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1049836	**ICHmc1a**	01	Ba[7] Hw[32] Sx[56]	Bl[50] Pli	At[a] Ep[a]	1200	700	600	7	Pli Others	2.00 1.00
1004783	ICHmc1a	02	Hw[32] Ba Sx[56]	Bl[50] Pli	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004785	**ICHmc2**	01	Hw[32] Sx[56] Cw[32]	Ba[50] Pli Bl[29]	At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004786	ICHmc2	02*	Pli	Bl Hw Ba[50]	At[a]	1000	500	400	7	Pli Others	1.40 0.80
1004787	ICHmc2	03	Cw[32] Hw[32] Sx[56]	Bl[29] Pli Ba[50]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004788	ICHmc2	04	Cw[32] Sx[56]	Bl[29] Hw[32] Pli Ba[50]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004789	ICHmc2	05	Cw[1,32] Sx[156]	Ba[50] Bl[1,29] Hw[1,32] Pli[1]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004790	ICHmc2	06	Cw[1,32] Sx[156]	Ba[50] Bl[1,29] Hw[1,32]	Act[b] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004792	ICHmc2	08*	Sb[1] Sx[1,32,56]	Pli[1]		400	200	200	4	Pli Others	1.40 0.80
1004793	ICHmc2	51	Pli Hw	Bl[28,29] Sx[28] Ba[50]	At[a] Ep[a]	1200	700	600	4	Pli Others	2.00 1.00
1004794	ICHmc2	52	Hw[32] Sx[56] Cw[32]	Pli Bl[29] Ba[50]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004795	ICHmc2	53	Hw[32] Sx[56] Cw[32]	Pli Bl[29] Ba[50]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004796	ICHmc2	54	Cw[32] Sx[56]	Bl[29] Hw[32] Pli Ba[50]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004797	**ICHvc**	01	Bl Hw[32]	Hm[50] Sx[34,]	Act[a] At[a] Ep[a]	1200	700	600	4	All	1.00
1004798	ICHvc	02	Bl Hw[32]	Hm[50] Pli[3,9] Sx[34]	At[a] Ep[a]	1200	700	600	4	Pli Others	2.00 1.00
1004799	ICHvc	03	Bl Sx[3456]	Hw	Act[a] At[a] Ep[a]	1200	700	600	4	All	1.00
1004800	ICHvc	04	Bl[1] Sx[1,3456]		Act[b] At[a] Ep[a]	1200	700	600	4	All	1.00
1004801	ICHvc	05	Bl[1] Sx[1,32,3456]		Act[b] At[b]	1200	700	600	4	All	1.00
1004802	ICHvc	06	Bl[1] Sx[1,32,34,56]		Act[a] At[a] Ep[a]	1000	500	400	4	All	0.80
1004803	ICHvc	51*	Bl Sx[34,56]			1000	500	400	3	All	0.80
1004804	ICHvc	52*	Bl Sx[34,56]			400	200	200	3	All	0.80
1004805	**ICHwc**	01	Bl Hw[32] Sx[56]	Pli	Act[a] At[a] Ep[a]	1200	700	600	4	Pli Others	2.00 1.00
1004806	ICHwc	02*	Pli	Bl Hw	At[a]	1000	500	400	7	Pli Others	1.40 0.80
1004807	ICHwc	03	Bl Hw[32] Pli Sx[28,56]		At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004808	ICHwc	04	Bl Sx[56]	Hw[32]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004809	ICHwc	05	Bl Sx[56]	Hw[32]	Act[a] At[b] Ep[b]	1200	700	600	4	All	1.00
1004810	ICHwc	06	Bl[1] Sx[1,56]	Hw[1,32]	Act[b] At[b] Ep[b]	1200	700	600	4	All	1.00

	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
I.D. #	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004811	ICHwc	07	Sx[1,56] Bl[1]	Hw[1,32] Pli[1]		1000	500	400	4	Pli Others	1.40 0.80
1004812	ICHwc	08	Bl[1] Sx[1,56]	Hw[1,32]	Act[a] At[a] Ep[a]	1000	500	400	4	All	0.80
1004813	ICHwc	51	Bl Sx[56]			1000	500	400	4	All	0.80
1004814	ICHwc	52	Bl[1] Sx[1,56]			400	200	200	3	All	0.80
1049837	**Mhmm1**	01	Ba Hm[15]	Hw[14] Cw[14] Yc[15]		900	500	400	7	All	1.0
1019390	MHmm1	02*	Hm Yc	Ba		800	400	400	4	All	0.8
1049838	MHmm1	03	Ba Hm Yc	Hw		900	500	400	4	All	1.0
1049839	MHmm1	04	Ba Hm Yc	Hw		900	500	400	7	All	1.0
1049841	MHmm1	05	Ba Yc Hm	Hw		900	500	400	4	All	1.0
1049842	MHmm1	06*	Hm Yc	Ba		800	400	400	7	All	0.8
1004821	MHmm1	07*	Ba Yc Hm			900	500	400	4	All	1.0
1004822	MHmm1	08*	Hm Yc	Hw Ba		400	200	200	4	All	0.8
1004823	MHmm1	09*	Hm Yc	Ba Hw		800	400	400	4	All	0.8
	MHmm1	31	non-	forested		-	-	-	-	-	-
	MHmm1	51	non-	forested		-	-	-	-	-	-
1049843	**MHmm2**	01	Ba Hm[15]	Bl[15,50] Hw[14], Cw[14] Yc[15,17,50]		900	500	400	7	All	1.00
1004825	MHmm2	02*	Hm	Yc[17,50] Ba Bl[50]		800	400	400	4	All	0.80
1004826	MHmm2	03	Ba Hm	Yc[17,50] Bl[50]		900	500	400	4	All	1.00
1004827	MHmm2	04	Ba Hm	Yc[17,50] Bl[50]		900	500	400	7	All	1.00
1004828	MHmm2	05	Ba Hm	Yc[17,50] Bl[50]		900	500	400	4	All	1.00
1004829	MHmm2	06*	Hm[1]	Yc[17,50]		800	400	400	7	All	1.00
1004830	MHmm2	07*	Ba[1]	Yc[1,17,50] Hm[1]		900	500	400	4	All	1.00
1004831	MHmm2	08*	Hm[1]	Ba Bl[1,50] Yc[1,17,50]		400	200	200	4	All	0.80
1004832	MHmm2	09*	Hm[1]	Ba[1] Yc[1,17,50]		800	400	400	4	All	0.80
	MHmm2	31	non-	forested		-	-	-	-	-	-
	MHmm2	51	non-	forested		-	-	-	-	-	-
1004833	**MHwh1**	01	Ba Hm Yc	Cw[1] Hw[1] Ss[1]		900	500	400	7	All	1.0
1004834	MHwh1	02*	Hm Yc	Cw[1]		400	200	200	4	All	0.8
1004835	MHwh1	03	Hm Yc	Cw[1] Ss[1]		900	500	400	7	All	1.0
1004836	MHwh1	04	Hm Yc	Cw[1]Ba Hw[1]		900	500	400	7	All	1.0
1004837	MHwh1	05	Ba Yc	Cw[1] Hm Hw[1] Ss[1]		900	500	400	4	All	1.0
1004838	MHwh1	06*	Hm[1] Yc[1]	Ba[1] Ss[1]		800	400	400	7	All	0.8
1004839	MHwh1	07*	Ba[1] Yc[1]	Cw[1] Hm[1] Ss[1]		900	500	400	4	All	1.0
1004840	MHwh1	08*	Hm[1] Yc[1]	Ba[1] Hw[1]		400	200	200	4	All	0.8
1004841	MHwh1	09*	Yc[1]	Cw[1] Hw[1] Ba Hm[1]		800	500	400	4	All	0.8
	MHwh1	31	non-	forested		-	-	-	-	-	-

I.D. #	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004842	**SBPSmc**	01	Pli	Sb Sx	At[a]	1200	700	600	7	Pli Others	1.60 0.80
1004843	SBPSmc	02*	Pli	Sb Sx	At[a]	1000	500	400	7	Pli Others	1.20 0.60
1004844	SBPSmc	03	Pli	Sb Sx	At[a]	1200	700	600	7	Pli Others	1.60 0.80
1004845	SBPSmc	04*	Pli Sb Sx[32, 56]		At[a]	1000	500	400	4	Pli Others	1.20 0.60
1004846	SBPSmc	05	Sx[1,32,56]	Sb Pli[1]	Act[a]	1000	500	400	4	Pli Others	1.20 0.60
1004847	SBPSmc	06	Sx[1,32,56]	Sb Pli[1]	Act[a]	1000	500	400	4	Pli Others	1.20 0.60
1004848	SBPSmc	07*	Pli[1] Sb[1] Sx[1,32,56]			400	200	200	4	Pli Others	1.20 0.60
1004849	**SBSdk**	01	Pli Sx[56]	Fdi[9,18]	At[b] Ep[b]	1200	700	600	7	Pli Fdi Others	2.00 1.40 1.00
1004850	SBSdk	02*	Pli	Sx[28]	At[a] Ep[a]	1000	500	400	7	Pli Others	1.40 0.80
1004851	SBSdk	03*	Pli	Sx[28] Sb[28]	At[a]	1200	700	600	7	Pli Others	2.00 1.00
1004852	SBSdk	04	Fdi Pli Sx[28,56]		At[a] Ep[b]	1200	700	600	7	Pli Fdi Others	2.00 1.40 1.00
1004853	SBSdk	05	Pli Sx[28,56]	Fdi[9,18]	At[b] Ep[b]	1200	700	600	7	Pli Fdi Others	2.00 1.40 1.00
1004854	SBSdk	06	Pli Sx[56]	Fdi[9,18]	Act[b] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004855	SBSdk	07	Sx[1,32, 56]	Pli[1]	Act[a] At[a] Ep[a]	1000	500	400	4	Pli Others	1.40 0.80
1004856	SBSdk	08	Sx[1,32, 56]		Act[b] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004857	SBSdk	09*	Pli[1] Sb[1]	Sx[1,]		400	200	200	4	Pli Others	1.40 0.80
1004858	SBSdk	10*	Pli[1] Sb[1] Sx[1,32, 56]			400	200	200	4	Pli Others	1.40 0.80
1004859	**SBSmc2**	01	Pli Sx[56]	Bl[29]	At[b]	1200	700	600	7	Pli Others	1.60 0.80
1004860	SBSmc2	02*	Pli	Bl Sx[32]	At[a]	1000	500	400	7	Pli Others	1.20 0.60
1004861	SBSmc2	03	Pli Sx[32,56]	Bl[29] Sb	At[a]	1200	700	600	7	Pli Others	1.60 0.80
1004862	SBSmc2	05	Pli Sx[56]	Bl[29]	Act[b] At[b]	1200	700	600	4	Pli Others	1.60 0.80
1004863	SBSmc2	06	Pli Sx[56]	Bl[29]	Act[a] At[b]	1200	700	600	4	Pli Others	1.60 0.80
1004864	SBSmc2	07*	Pli Sb Sx[32, 56]	Bl	At[a]	1000	500	400	4	Pli Others	1.20 0.60
1004865	SBSmc2	08	Pli Sx[56]	Bl[29]	Act[a] At[b]	1200	700	600	4	Pli Others	1.60 0.80
1004866	SBSmc2	09	Sx[56] Bl[29]	Pli	Act[a] At[b]	1200	700	600	4	Pli Others	1.60 0.80
1004867	SBSmc2	10	Sx[1,32, 56] Bl[1,29]	Pli[1]	Act[a] At[a]	1000	500	400	4	Pli Others	1.20 0.60
1004868	SBSmc2	12*	Sb[1] Sx[1,32, 56]	Pli[1] Bl[1]		400	200	200	4	Pli Others	1.20 0.60
1004869	**SBSwk3**	01	Pli Sx[56]	Bl[29]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004870	SBSwk3	02	Pli	Bl[28] Sx[28]		1000	500	400	7	Pli Others	1.40 0.80

I.D. #	BEC Classification		Regeneration Guide							Free Growing Guide	
			Species			Stocking (well-spaced/ha)			Regen Delay	Min. Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a), as per footnotes	Target	MIN pa	MIN p	(Max yrs)	Species	Ht (m)
1004871	SBSwk3	03	Fdi[16] Pli Sx[28,56]		At[a] Ep[a]	1200	700	600	7	Pli Fdi Others	2.00 1.40 1.00
1004872	SBSwk3	04	Pli Sx[56]	Bl	At[b] Ep[b]	1200	700	600	7	Pli Others	2.00 1.00
1004873	SBSwk3	05	Pli	Sb Sx	At[a]	1200	700	600	7	Pli Others	2.00 1.00
1004874	SBSwk3	06	Pli Sx[56]	Bl[29]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004875	SBSwk3	07	Sx[32, 56]	Pli Bl[29]	Act[a] At[b] Ep[b]	1200	700	600	4	Pli Others	2.00 1.00
1004876	SBSwk3	08	Sx[1,32, 56]	Pli[1] Bl[1,29]	Act[b] At[b]	1000	500	400	4	Pli Others	1.40 0.80

Wildlife Forage Stocking Standards

Table A2: Grizzly Bear

I.D. #	BEC Classification		Regeneration Guide *(Notes 1, 2)*						Free Growing Guide	
			Species			Stocking (well spaced/ha)			Min, Height	
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a) as per footnotes	Target	MIN pa	MAX *(Note 4)*	Species	Ht (m)
Devil's Club Site Series										
1004883	CWHvm1	08	Hw[2,19] Ba Cw Ss[56]		Act[b] Dr[b]	600	400	660	Hw Ss Cw Ba Others	2.0 1.5 1.4 1.0
1004884	CWHvm2	08	Hw[2,19] Ba Cw[16] Yc Ss[56]	Hm[1]	Dr[a]	600	400	660	Hw Ss Cw Yc Ba Others	2.0 1.5 1.4 1.0
Skunk Cabbage Site Series (Note 7)										
1004887	CWHvm1	14	Cw[1] Ba[1]	Pl[1] Hw[1] Ss[1,] Yc[1]		400	200	440	Ss Hw Others	1.4 1.0
1004888	CWHvm2	11	Cw[1] Yc[1] Ss[1,56] Ba Hw	Hm[1]		400	200	440	Hw Ss Others	1.8 1.4 1.0
1004889	CWHws1	11	Cw[1] Sxs[1,56]	Ba[1] Hw[1]	Act[a] Dr[a]	400	200	440	Hw, Sxs Others	1.40 1.00
1004890	CWHws2	11	Cw[1] Sxs[1, 56]	Hw[1] Ba[1]	Act[a] Dr[a]	400	200	440	All	0.80
Salmonberry & Red-osier Dogwood Site Series (Note 7)										
1004891	CWHvm1	09	Cw Hw[2,19] Ba Ss[12,56]		Act[b] Dr[b]	500	200	550	Hw Ss Cw Ba Others	2.0 1.5 1.4 1.0

1004892	CWHvm1	10	Cw[1] Ss[1,12,56]	Ba[1]	Act[b] Dr[b]	500	200	550	Ss Cw Ba Others	2.0 1.5 1.4 1.0
1004893	CWHws1	07	Hw[12,19] Ba Cw Sxs[12,56]		Act[b]	500	200	550	Hw, Sxs Others	2.00 1.40
1004894	CWHws1	08	Ba[1] Cw[1] Hw[19]	Hw Sxs[1,]	Act[b] Dr[b]	500	200	550	Sxs Others	2.0 1.4
1004895	CWHws2	07	Sxs[56] Hw Ba Cw	Bl[12]	Act[b] Dr[b]	500	200	550	Hw Others	1.3 1.0
1004896	CWHws2	08	Sxs[56] Hw Ba[1] Cw[1]	Bl[12]	Act[b] Dr[b]	500	200	550	All	1.0

Table A3. Moose Habitat

Nass Interior Cedar Hemlock										
1075534	ICHmc1	05	Ba[50] Sx[1,56] Bl[1,29]		Act[b] At[b] Ep[b]	800	400	800	All	1.0
1075535	ICHmc1	06	Ba[50] Sx[1,56] Bl[1,29]	Hw[1,32]	Act[a]	800	400	800	All	1.0
1075536	ICHmc1a	03	Hw[32] Ba Sx[56]	PliBl[50]Pli		800	400	800	Pli Others	2.0 1.0
1075537	ICHmc2	07	Ba[50] Bl[1,29] Sx[1,56] Cw[1,32]	Hw[1,32]	Act[a] At[a] Ep[a]	800	400	800	All	1.00

Note 1: Preferred and acceptable species (both conifer and broad-leaf), Free-growing assessment, Tree Height - Same as the stocking standards for the ecosystem as described in Table A1.

Note 2: Minimum Inter-tree Spacing - As per stocking standards section 5.1.10.

Note 3: 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.

Note 4: Maximum stocking - If the stand exceeds the maximum density set in the prescription at free growing but does not exceed 4,000 countable sph of conifer and deciduous species for Grizzly bear, the stand will be assessed to ensure there are sufficient gaps to provide forage for wildlife. To test if adequate gap creation exists, a minimum of 20% (per standards unit) of the randomly systematic established plots (50m2) must contain less than or equal to one countable conifer (> 50 cm height), or the equivalent of 200 stems per ha. If the results of the Free Growing survey show, there is insufficient forage gaps or that the total stems per ha exceeds 4000sph a spacing treatment to meet the forage objective will be implemented.

Note 5: Maximum Stocking in Kermode Stewardship Areas - Within Kermode Stewardship Areas, note 5 replaces Note 4. If the stand exceeds the maximum density set in the prescription at free growing but does not exceed 4000sph, the stand will be assessed to ensure there are sufficient gaps to provide forage for wildlife. To test if adequate gap creation exists, a minimum of 30% (per standards unit) of the randomly systematic established plots (50m2) must contain less than or equal to one conifer (> 50 cm height), or the equivalent of 200 stems per ha. If the results of the Free Growing survey show, there is insufficient forage gaps or that the total stems per ha exceeds 4000sph a spacing treatment to meet the forage objective will be implemented.

Note 6: Regen Delay – the regeneration delay for all wildlife stocking standard numbers is six (6) years. Consider shortening the regen delay period if brush hazard is such that the full regen delay period will prevent stocking from being achieved.

Note 7: Red Cedar Management – Western red cedar is known for its wildlife values and important biodiversity role within the above ecosystems. The current maximum densities, less than 600 stems per ha may be increased to 600 stems per ha dependent on the capacity of the site. These densities represent post spacing densities, where the focal species is Cw. Any changes to the densities for this purpose will be achieved by an "Approved Variation".

If the area is planted or spaced then cluster distribution management from page 97 and 98 of *Silviculture Guidelines and Practices for Maintaining or Recruiting Key Habitat Objectives, 2004* will be used as a best management practice. (http://www.env.gov.bc.ca/fia/documents/mca_silvbmp.pdf)

Table A4. Single Entry Dispersed Retention Stocking Standards (SEDRSS)

SEDRSS BASAL AREA AND REGENERATION GUIDE (Hw Cw site index 18 – 30)								
		Low → Basal Area Site Occupancy → High						
Residual Basal Area	**Layer 1 Only ≥ 12.5 dbh (m^2/ha)**	**0-10**	**11-15**	**16-22**	**23-28**	**29-39**	**≥ 40**	**Approved FSP Leave Tree and Forest Health Criteria Apply No MITD layer 1**
Layers L2, L3, L4	Well-Spaced SPH	TSS 900 MSS 500	TSS 800 MSS 400	TSS 700 MSS 350	TSS 600 MSS 300	TSS 500 MSS 250	TSS 0 MSS 0	Individual plots within a SU may contain a combination of plots A through F. If an area within category A or F is > 1ha, it is to be stratified."
Retention Regime		**A**	**B**	**C**	**D**	**E**	**F**	
Ecologically Suitable Tree Species and Minimum Heights (m)		As per Table A1 for the ecological association (site series)						Regeneration Date 6 years, MITD 2.0 meters, all layers L2, L3, L4 are outside of the dripline of all L1 trees.
Stocking Standard id # 1075538 1075539 1075540 1075541		SEDR B: 11 – 15 m^2/ha SEDR C: 16 – 22 m^2/ha SEDR D: 23 – 28 m^2/ha SEDR E: 29 – 39 m^2/ha						Maximum values applied for the SSIDs
Stocking Standard id # 1075542		SEDR F: ≥ 40m2/ha						If this retention regime is achieved a stocking standards id # is required.

These SEDRSS standards are to be applied to coastal cedar hemlock stands with a site index of 18 to 30.

Table A5: Interior Forest Type (common partial cut) Stocking Standards

INTERIOR FOREST TYPE BASAL AREA AND REGENERATION GUIDE (Hw Ba site index 21 – 26)								
Low → Basal Area Site Occupancy → High								
Residual Basal Area	**Layer 1 Only ≥ 12.5 dbh (m^2/ha)**	**0-10**	**11 - 14**	**15 - 17**	**18 -25**	**26-29**	**≥ 30**	**Approved FSP Leave Tree and Forest Health Criteria Apply No MITD layer 1**
Layers L2, L3, L4	Well-Spaced SPH	TSS 900 MSS 500	TSS 800 MSS 400	TSS 500 MSS 300	TSS 400 MSS 200	TSS 300 MSS 100	TSS 0 MSS 0	*Individual plots within a SU may contain a combination of plots A through F. If an area within category A or F is > 1ha, it is to be stratified."*
Retention Regime		**A**	**B**	**C**	**D**	**E**	**F**	
Ecologically Suitable Tree Species and Minimum Heights (m)		As per Table A1 for the ecological association (site series)					Regeneration Date 6 years, MITD 2.0 meters, all layers L2, L3, L4 are outside of the dripline of all L1 trees.	
Stocking Standard id # Xxxxx Xxxxx Xxxxx Xxxxx		B: 11 – 14 m^2/ha C: 15 – 17 m^2/ha D: 18 – 25 m^2/ha E: 26 – 29 m^2/ha					Maximum values applied for the SSIDS	
Stocking Standard id # Xxxxx		F: ≥ 30m^2/ha					If this retention regime is achieved a stocking standards id # is required.	

Partial Cut Stocking Standard for Hw/Ba stands aged 35-55 years with site index 21-26m
When partial cutting of western hemlock and/or amabilis fir stands aged 35-55 years, with a field measured site index between 21-26m, partially harvested with a mechanized, geometric pattern it shall be deemed a commercial thinning, consistent with Forest Planning and Practices Regulation section 44(4) where the harvested stand complies with the conditions specified below for a minimum period of 12 months following the completion of harvesting.

a. Equal to or greater than 30 m^2/ha average basal must be retained in trees with a diameter at breast high of ≥ 12.5 cm; and
b. no contiguous area > 2 ha or 10% of the SU area, whichever is less, has a retained basal area less than 30 m2; and
c. there is no regeneration obligation.

Table A4 and A5 Standards

If during the 12 months period following the completion of harvesting (for SEDRSS stands a 24 month period) the minimum basal area for retention regime F above is not maintained, the partial cutting standards unit may be further stratified, and the site plan amended to delineate where BCTS shall hold a regeneration and free growing obligation on the harvested area and uphold the appropriate stocking standards in this FSP, including target and minimum density.

The stocking standard identification numbers in the Forest Stewardship Plan Tracking System (FSPTS) [99]and RESULTS will be based on the basal area retention categories B to E. The species and heights will be selected and consistent according to the corresponding ecological association identified in Table A1. This will be done by means of an Approved Variation for the database "Reporting Silviculture Updates and Land Status Tracking System" (RESULTS).

Where partial cutting is completed the following standards apply.

a. the minimum inter-tree distance is 0 m;
b. trees contributing to the retained basal area must be the species identified as preferred and acceptable in the even-aged stocking standards in the FSP;
c. greater than 50% of the contributing retained basal area must be a preferred tree species as defined in (d) above, if it existed on site prior to harvest; and
d. trees contributing to the retained basal area comply with the attributes defined in *FS660 Free Growing Damage Criteria for Layered, Interior DFP and SEDRSS Managed Stands, Layer 1 and Layers 2,3 and 4.*

Dripline is defined in the silviculture surveys manual.

For more information for surveying partial cut stands see the *Silviculture Surveys Procedures Manual (2023)* section 9.2.2 and 9.2.3.4. The definition for dripline is also in this Manual.

Table A6: Climate Change Adaptation[100]

This table will used for when Douglas-fir (Fd) and Western Larch (Lw) will be managed within a standards unit. It will be implemented by means of an approved variation. These species are excluded from Appendix I, Table A1 stocking standards. Other species, as indicated by an asterisk below, have been integrated into the Table A1 stocking standards.

Species	Present Category	Suggested Category	Recommendation	Decision	Footnotes
ICHmc2 / site series 01a, 03, 04					
Fd	Absent	Minor (acceptable)	Acceptable	Promote	Well drained somewhat drier soils. Avoid areas where there is potential of cold/air ponding.
Lw	Absent	Minor (acceptable)	Acceptable	Promote	Southern aspects and moist drained soils preferred. Avoid areas where there is potential of cold/air ponding.
ICHmc2/ site series 01b					
Fd	Absent	Minor	Acceptable	Promote	Southern aspects and moist drained soils preferred. Avoid areas where there is potential of cold/air ponding.

[99] The Forest Stewardship Plan Tracking System is an application that stores and tracks stocking standards according to FSP stocking standard identification numbers.
[100] "Updates to the Reference Guide for FDP Stocking Standards 2014 Climate-Change Related Stocking Standards" Draft

Species	Present Category	Suggested Category	Recommendation	Decision	Footnotes
SBSdk/ site series 01, 04, 06, 07a					
Fd	Absent	Minor (acceptable)	Acceptable	Promote	Well drained somewhat drier soils. Avoid areas where there is potential of cold/air ponding.
Lw	Absent	Minor (acceptable)	Acceptable	Promote	Southern aspects and moist drained soils preferred. Avoid areas where there is potential of cold/air ponding.
SBSdk/ site series 03, 05					
Fd	Absent	Minor	Acceptable	Promote	Well drained somewhat drier soils. Avoid areas where there is potential of cold/air ponding.
Lw	Absent	Minor	Acceptable	Promote	Southern aspects and moist drained soils preferred. Avoid areas where there is potential of cold/air ponding.
SBSmc2/ site series 01, 05, 06					
Fd	Absent	Minor (acceptable)	Acceptable	Promote	Well drained somewhat drier soils. Avoid areas where there is potential of cold/air ponding.
Lw	Absent	Minor (acceptable)	Acceptable	Promote	Southern aspects and moist drained soils preferred. Avoid areas where there is potential of cold/air ponding.
SBSmc2/ site series 03					
Fd	Absent	Minor	Acceptable	Promote	Well drained somewhat drier soils. Avoid areas where there is potential of cold/air ponding.
Lw	Absent	Minor	Acceptable	Promote	Southern aspects and moist drained soils preferred. Avoid areas where there is potential of cold/air ponding.
CWHvm2/ site series 01					
Hm	Minor FSP is acc	Minor	Acceptable	Demote	Use at upper elevations
Yc	Acceptable FSP is pref	Minor	Acceptable	Demote	Use at lower elevations
MHmm1/01					
Cw	Absent	Acceptable	Acceptable	Promote	Use in lower elevations
Hm	Preferred	Acceptable	Preferred	Demote	Use at upper elevations
*Hw	Absent	Acceptable	Acceptable	Promote	Use at lower elevations
Yc	Preferred	Acceptable	Acceptable	Demote	Use at upper elevations
Ss	Absent	Minor	Acceptable	Promote	Trial basis at lower elevations; use Sxs in interior transition areas
MHmm2/01					
Bl	Minor (FSP is acc	Minor	Acceptable	Demote	Use at upper elevations
Hm	Preferred	Acceptable	Preferred	Demote	Use at upper elevations
Yc	Acceptable	Acceptable	Acceptable	Demote	Use at upper elevations
*Cw	Absent	Minor	Acceptable	Promote	Use at lower elevations
*Hw	Absent	Acceptable	Acceptable	Promote	Use at lower elevations

* Added to Appendix I, Table A1.

Table A7: Footnotes for Stocking Standards in Tables A1, A2, A3, and layers 3 and 4 for Table A4;

Standards* footnotes to" Preferred" or "Acceptable" species	
a	Species is limited in productivity, reliability and/or feasibility, and subject to **Section 4.010.9 of this FSP**, may only be considered as "acceptable".
b	Species constitutes a productive, reliable, and feasible regeneration option, and subject to **Section 4.010.9 of this FSP**, may be considered as "preferred.
c	Within Cedar Stewardship Areas (as identified in the Schedule to the Central and North Coast Order), Red Cedar and Yellow Cedar may be considered "preferred" species.
16	Restrict to a maximum of 25% of well-spaced stocking

56	Spruce content restricted to the percentage described in Table A7a and A7b below for well-spaced and free growing trees on a standards unit due to leader weevil. Footnote 56 will apply to all spruce in BEC units in A7a.

*These footnotes are part of the Stocking Standards and are measurable, verifiable, and enforceable

Advisory footnotes to "Preferred" or "Acceptable" species within Tables A1 and A2**	
1	Elevated microsites are preferred
2	Suitable on thick forest floors
3	Restricted to coarse-textured soils
7	Restricted to nutrient-medium sites
9	Restricted to southerly aspects
10	Most suited to southern portion of biogeoclimatic unit
12	Suitable on cold air drainage sites
14	Restricted to lower elevations of biogeoclimatic unit
15	Restricted to upper elevations of biogeoclimatic unit
17	Restricted to western portion of biogeoclimatic unit in region
18	Suitable as a minor species in salal-dominated sites (e.g., less than 30%)
19	Limit Hw to a maximum of 50% of well-spaced stocking at Free Growing
22	Restricted to southern Gardner Canal – Kitlope area (i.e., where Douglas-fir could occur naturally)
28	Limited by moisture deficit
29	Risk of heavy browsing by moose
32	Limited by growing-season frosts
34	Risk of snow damage
44	Suitable in areas with stronger maritime influence
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: 4-6, 8, 11,13, 20-21, 23, 24-27, 30, 31, 33, 35, 36-43, 45-49, 51-55	

**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.
All Cw and Yc are at risk for deer browse and all Hw, Hm, and Spruce are at risk for porcupine damage. The Forest Professional is to assess the associated risk for these tree species at the site.

Table A8a. Spruce Leader Weevil Hazard Ratings by BEC (See Figure 5)

Hazard Rating		
Low (1-10%) [A]	**Moderate (11-30%) [A]**	**High (> 31%) [A]**
CWH vh2 ICHmc1, mc1a ICHmc2 360m+ ICHvc	CWHvm1 (north) CWHvm2 (north) ICHmc2 0-360m	CWHws1 0-400m
[B]CWHvm1 (south) [B]CWHvm2 (south)	CWHws1 400m+ CWHws2 (north)	
[B]CWHws2 (south)	SBPSmc	
	SBSdk, mc2, wk3	

[A] The percentage range associated with each hazard rating is the estimated amount of IWS found in non-resistant, natural stands based on the best available information (historical and site assessments).
[B] Defined as South of latitude 53° 43' 32" (North end of Maitland Island).

Table 8b. Maximum % of Spruce by Hazard ("A" is A class orchard seed and B+ is naturally genetic improved seed)

Low		**Moderate**		**High**	
Natural or non-resistant	*Resistant stock type planted*	*Natural or non-resistant*	*Resistant stock type planted*	*Natural or non-resistant*	*Resistant stock type planted*

60% **40%	"A" No restriction	30%	"A" No restriction	20%	"A" 60%
	B+, Sxs or identified provenances No restriction		B+, Sxs or identified provenances 40%		B+, Sxs or identified provenances 40%

**Ss

Identified provenances are those have been proven to be resistant. See supporting document for further information.

BEC - Biogeoclimatic Ecosystem Classification			
CWH	**Coastal Western Hemlock zone**	**MH**	**Mountain Hemlock zone**
vh2	very wet hypermaritime subzone, central variant	mm1	moist maritime subzone, windward variant
vm	very wet maritime subzone	mm2	moist maritime subzone, leeward variant
vm1	very wet maritime subzone, submontane variant	mmp	moist maritime subzone, parkland variant
vm2	very wet maritime subzone, montane variant	wh1	wet hypermaritime subzone – windward variant
wm	wet maritime subzone	whp	wet hypermaritime subzone – parkland variant
ws1	wet submaritime subzone, submontane variant		
ws2	wet submaritime subzone, montane variant		

Conifer Tree Species		**Broadleaf Tree Species**
"Ba" means amabalis fir "Bl" means subalpine fir; "Cw" means western red cedar; "Hm" means mountain hemlock; "Hw" means western hemlock;	"Pl" means lodgepole pine; "Ss" means sitka spruce; "Sx" or "Sxs" means hybrid or interior spruce; "Yc" means yellow cedar.	"Act" means black cottonwood; "At" means trembling aspen; "Dr" means red alder "Ep" means common paper birch;

The terms Ss, Sx and Sxs are used interchangeably as the terms are an indication of the seed registration and not indicative of the genetic material.

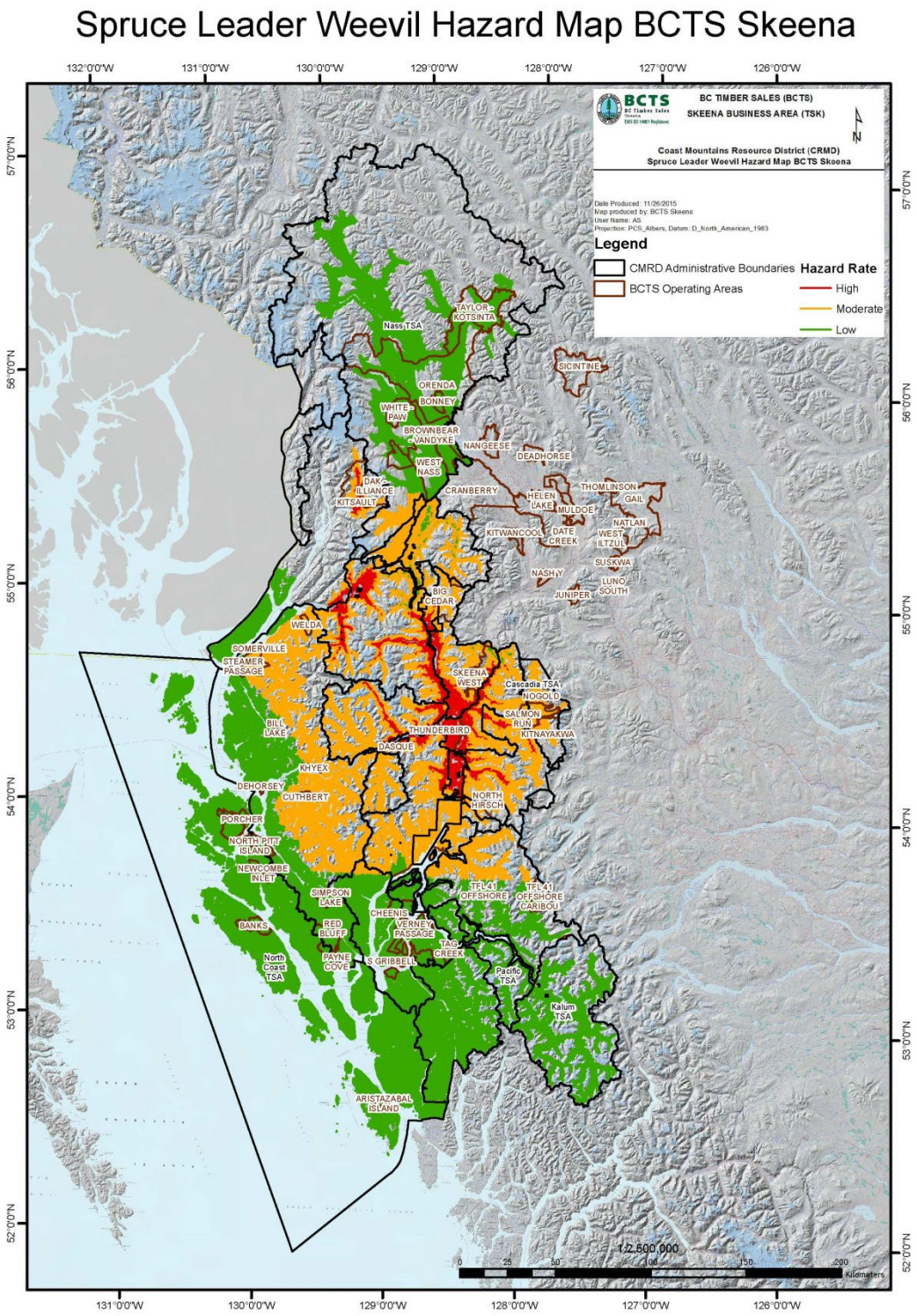

Figure 5: Spruce Leader Weevil Hazard Map BCTS Skeena

Appendix II FRPA Declared 14(4) and Section 196 Areas

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A85174	1	Thunderbird	103I047	Block Declared
A64097	1	Skeena West	103I089	Block Declared
A64102	1	Williams Creek Area	103I049	Block Declared
A56484	3	Thunderbird	103I048	Block Declared
A86363	TEth017	Thunderbird	103I038	Block Declared
A85517	1	Skeena West	103I079	Block Declared
A64097	3	Skeena West	103I089	Block Declared
A85649	TEsw016	New Skeena West	103I079	Block Declared
A85595	TEbc015	Big Cedar	103P007	Block Declared
A85594	TEbc008	Big Cedar	103P007	Block Declared
A85649	TEsw046	New Skeena West	103I079	Block Declared
A80500	1	Dasque	103I035	Block Declared
A77838	1	Skeena West	103I089	Block Declared
A64097	4	Skeena West	103I089	Block Declared
A80514	1	Skeena West	103I089	Block Declared
A64097	2	Skeena West	103I089	Block Declared
!Planning b	77851-2	Thunderbird	103I037	Block Declared
A56484	2	Thunderbird	103I048	Block Declared
A49460	1	Thunderbird	103I047	Block Declared
A84694	1	Skeena West	103I089	Block Declared
A50585	1	Skeena West	103I089	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A56484	1	Thunderbird	103I048	Block Declared
A81413	1	Rosswood / Leanto Ck	103I067	Block Declared
A64304	1	Miscellaneous Kalum	103I067	Block Declared
A85649	TEsw051	Skeena West	103I079	Block Declared
A89837	1	Rosswood / Leanto Ck	103I087	Block Declared
A77687	1	Thunderbird	103I047	Block Declared
A80514	3	Skeena West	103I079	Block Declared
!Planning b	77851-1	Thunderbird	103I037	Block Declared
A83098	1	Skeena West	103I079	Block Declared
!Planning b	50588-2	Skeena West	103I079	Block Declared
!Planning b	50588-1	Skeena West	103I079	Block Declared
A64103	1	Williams Creek Area	103I039	Block Declared
A85596	TEbc019	Big Cedar	103P007	Block Declared
A85595	TEbc014	Big Cedar	103P007	Block Declared
A85649	TEsw017	New Skeena West	103I079	Block Declared
A85594	TEbc009	Big Cedar	103P017	Block Declared
A80514	4	Skeena West	103I079	Block Declared
A64124	1	Skeena West	103I089	Block Declared
A65308	1	Thunderbird	103I037	Block Declared
A80642	2	Skeena West	103I079	Block Declared
A80642	1	Skeena West	103I089	Block Declared
A77853	1	Big Cedar	103P006	Block Declared
A85595	TEbc012	Big Cedar	103P007	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A54540	1	Kwinageese /Brown Bear FSR Area	104A016	Block Declared
A83088	3	West Nass	103P076	Block Declared
A61016	1	Harper FSR Area	103P076	Block Declared
!Planning b	64065-1	Kwinageese /Brown Bear FSR Area	104A017/027	Block Declared
A64111	1	Kwinageese /Brown Bear FSR Area	104A007	Block Declared
A64112	1	Kinskuch	103P075	Block Declared
A64117	1	Bonney Lakes Area	103P097	Block Declared
A68142	1	Kwinageese /Brown Bear FSR Area	104A016	Block Declared
A68149	1	Van Dyke	103P077	Block Declared
A64104	TEkn003b	Kinskuch	103P065	Block Declared
A80513	TEbb009	Kwinageese /Brown Bear FSR Area	103P086/087	Block Declared
A80513	TEbb010	Kwinageese /Brown Bear FSR Area	103P086	Block Declared
A64104	TEkn003	Kinskuch	103P065	Block Declared
A83096	TEor030	Orenda	103P096	Block Declared
A83096	TEor031	Orenda	103P086/096	Block Declared
A80513	TEor033	Orenda	103P086	Block Declared
A88207	TEwn018	West Nass	103P076	Block Declared
A84151	TEwn019	West Nass	103P056	Block Declared
A85593	TEwn023	West Nass	103P066	Block Declared
A84151	TEwn024	West Nass	103P056	Block Declared
A84152	TEwn025	West Nass	103P076	Block Declared
A83089	1	West Nass	103P066	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A77852	4	Kinskuch	103P075	Block Declared
A77852	3	Kinskuch	103P074/075	Block Declared
A77860	1	Upper White River	103P095	Block Declared
A80524	2	Kwinageese /Brown Bear FSR Area	104A007	Block Declared
!Planning b	64114-4	Kwinageese /Brown Bear FSR Area	103P086	Block Declared
A61019	2	Harper FSR Area	103P076	Block Declared
A85593	TEwn014	West Nass	103P066/067	Block Declared
A83096	1	Orenda	103P086	Block Declared
A80526	TEor011	Orenda	103P086/096	Block Declared
A84148	1	Orenda	104A005	Block Declared
A64119	2	Kwinageese /Brown Bear FSR Area	104A007	Block Declared
!Planning b	2	Bonney Lakes Area	104A006	Block Declared
A64122	2	Bonney Lakes Area	103P096	Block Declared
A56444	1	Harper FSR Area	103P056	Block Declared
!Planning b	64122-3	Bonney Lakes Area	103P096	Block Declared
A61019	1	Harper FSR Area	103P076	Block Declared
A87104	1	Upper White River	103P094	Block Declared
A64114	1	Kwinageese /Brown Bear FSR Area	103P086	Block Declared
A64115	1	Orenda	103P096	Block Declared
A64115	2	Orenda	103P096	Block Declared
A64120	1	Kwinageese /Brown Bear FSR Area	103P097	Block Declared
A64121	1	Kwinageese /Brown Bear FSR Area	104A007	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A68145	2	Van Dyke	103P077	Block Declared
A68145	1	Van Dyke	103P077	Block Declared
A68146	1	Van Dyke	103P077	Block Declared
A68150	1	Van Dyke	103P077	Block Declared
A68150	2	Van Dyke	103P077	Block Declared
A68364	1	Harper FSR Area	103P056	Block Declared
A68147	1	Van Dyke	103P077	Block Declared
A84150	TEbb002	Kwinageese /Brown Bear FSR Area	103P096	Block Declared
A83090	2	West Nass	103P075	Block Declared
A77852	2	Kinskuch	103P074	Block Declared
A64111	2	Kwinageese /Brown Bear FSR Area	104A007	Block Declared
A77852	5	Kinskuch	103P075	Block Declared
A64108	2	Kinskuch	103P065	Block Declared
A64114	2	Kwinageese /Brown Bear FSR Area	103P086	Block Declared
A64114	3	Kwinageese /Brown Bear FSR Area	103P086	Block Declared
A83093	1	Orenda	103P096/95	Block Declared
A83095	1	Orenda	103P096	Block Declared
A83094	1	Orenda	104A015	Block Declared
A84149	TEor023	Orenda	103P096	Block Declared
A61016	2	Harper FSR Area	103P076	Block Declared
A43384	1	Bonney Lakes Area	103P096	Block Declared
A83090	1	West Nass	103P075	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A83088	1	West Nass	103P076	Block Declared
A83088	2	West Nass	103P076	Block Declared
A88207	1	West Nass	103P066/076	Block Declared
A88207	TEwn017	West Nass	103P076	Block Declared
A80525	TEor035	Orenda	103P086/096	Block Declared
A80525	TEor036	Orenda	103P086/096	Block Declared
A84149	TEor040	Orenda	103P096	Block Declared
A83089	TEwn020	West Nass	103P066	Block Declared
A84151	TEwn021	West Nass	103P066	Block Declared
A84151	TEwn022	West Nass	103P066	Block Declared
A83093	2	Orenda	103P096	Block Declared
A77852	1	Kinskuch	103P074	Block Declared
A77857	1	Upper White River	103P084	Block Declared
A64108	1	Kinskuch	103P065	Block Declared
A64119	1	Kwinageese /Brown Bear FSR Area	104A007	Block Declared
A64122	1	Bonney Lakes Area	103P096	Block Declared
A84152	TEwn005	West Nass	103P076	Block Declared
A80524	1	Kwinageese /Brown Bear FSR Area	104A007	Block Declared
A84150	TEor022	Orenda	103P097	Block Declared
A92768	VPmp012 A	Verney Passage - A52939F	103H056	Block Declared
A92768	VPmp012 B	Verney Passage - A52939F	103H056	Block Declared
A92768	VPmp012 C	Verney Passage - A52939F	103H056	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
!Planning b	VPmp012 D	Verney Passage - A52939F	103H056	Block Declared
!Planning b	NCgo A	Goat Harbour - A46652F	103H037	Block Declared
A69859	2	Porcher Inlet - A53698F	103G098	Block Declared
A70465	1	Porcher Inlet - A53698F	103G099	Block Declared
A87060	1	Kennedy Island - A46439F	103J010	Block Declared
A89318	VPmp122-1	Verney Passage - A52939F	103H056	Block Declared
!Planning b	NCgo C	Goat Harbour - A46652F	103H037	Block Declared
!Planning b	CCcc003	Captain Cove - A27583F	103G080	Block Declared
A69859	1	Porcher Inlet - A53698F	103G098	Block Declared
A87685	2	Banks Island - A53696F	103G050	Block Declared
A87685	4	Banks Island - A53696F	103G050	Block Declared
A87685	3	Banks Island - A53696F	103G050	Block Declared
A87685	1	Banks Island - A53696F	103G050	Block Declared
A87060	2	Kennedy Island - A46439F	103J010	Block Declared
A92768	6	Verney Passage - A52939F	103H056	Block Declared
A70465	3	Porcher Inlet - A53698F	103G098/103G099	Block Declared
A70465	2	Porcher Inlet - A53698F	103G099	Block Declared
!Planning b	NCgo D	Goat Harbour - A46652F	103H037	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
!Planning b	NCgo E	Goat Harbour - A46652F	103H037	Block Declared
!Planning b	CCcc001	Captain Cove - A27583F	103G080	Block Declared
!Planning b	CCcc004	Captain Cove - A27583F	103G080	Block Declared
!Planning b	CCcc002	Captain Cove - A27583F	103G080	Block Declared
A77634	A	Monkey Beach	103H046	Block Declared
A89318	VPmp123-1	Verney Passage - A52939F	103H056	Block Declared
A89318	VPmp123-2	Verney Passage - A52939F	103H056	Block Declared
!Planning b	NCgo B	Goat Harbour - A46652F	103H037	Block Declared
A92224	012	Hawkesbury Island Kalum	103H066/103 H076	Block Declared
A92224	004	Hawkesbury Island Kalum	103H076	Block Declared
A92224	003	Hawkesbury Island Kalum	103H076	Block Declared
A92224	011	Maitland Island	103H076	Block Declared
A92224	002	Hawkesbury Island Kalum	103H076	Block Declared
A92224	001	Hawkesbury Island Kalum	103H076	Block Declared
A92224	009	Maitland Island	103H076	Block Declared
A92224	005	Hawkesbury Island Kalum	103H076	Block Declared
A92224	006	Hawkesbury Island Kalum	103H076	Block Declared
!Planning _Pacif	OFfa001	Falls River	103H078/088	Block Declared
!Planning _Pacif	OFho004	Horetzky Creek	093E051	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A93070	008	Heysham Creek	103H066/067	Block Declared
A93070	016	Heysham Creek	103H066	Block Declared
!Planning_Pacif	OFka001	Kildala Arm	103H088	Block Declared
!Planning_Pacif	OFke011	Kemano River	103H060	Block Declared
A93068	002	Barrie Creek	103H049	Block Declared
A93068	001	Barrie Creek	103H049	Block Declared
!Planning_Pacif	8	Dala River	103H088	Block Declared
!Planning_Pacif	10	Dala River	103H089	Block Declared
!Planning_Pacif	OFda012	Dala River	103H099	Block Declared
A93070	009	Heysham Creek	103H0067	Block Declared
A93068	004	Barrie Creek	103H049	Block Declared
!Planning_Pacif	OFse004	South Seekwyakin Creek	093E051	Block Declared
!Planning_Pacif	OFse007	South Seekwyakin Creek	093E041	Block Declared
A93068	003	Barrie Creek	103H049	Block Declared
A92224	007	Hawkesbury Island Kalum	103H076	Block Declared
!Planning_Pacif	OFfa004	Falls River	103H088/078	Block Declared
A92224	008	Hawkesbury Island Kalum	103H066	Block Declared
A92224	010	Hawkesbury Island Kalum	103h076	Block Declared
A92226	1	Dala River	103H088	Block Declared
A93070	017	Heysham Creek	103H067	Block Declared
!Planning_Pacif	OFeg009	Eagle Bay	103H087	Block Declared
A92226	2	Dala River	103H088/089	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
!Planning _Pacif	OFse012	South Seekwyakin Creek	093E042	Block Declared
A85520	1	Kitnayakwa	093L041	Block Declared
A85597	TEki014	Kitnayakwa	093L041	Block Declared
A79854	3	Rosswood / Leanto Ck	103I096/097	Block Declared
A85597	TEki010	Kitnayakwa	093L041	Block Declared
A85520	2	Kitnayakwa	093L041	Block Declared
A79854	1	Rosswood / Leanto Ck	103I097	Block Declared
A79854	2	Rosswood / Leanto Ck	103I087/097	Block Declared
A64091	2	Limonite	093L051	Block Declared
A85258	1	Kitnayakwa	093L041	Block Declared
A64076	1	Limonite	093L051	Block Declared
A64091	1	Limonite	093L051	Block Declared
A84155	1	Lower Skeena	103I035	Block Declared
A78679	2	Kitnayakwa	093L041	Block Declared
A64092	2	Limonite	093L051	Block Declared
A85258	2	Kitnayakwa	093L041	Block Declared
A78678	1	Kitnayakwa	093L041	Block Declared
A78678	2	Kitnayakwa	093L041	Block Declared
A78679	1	Kitnayakwa	093L041	Block Declared
A78679	3	Kitnayakwa	093L031	Block Declared
A85192	002	Hugh Creek	103H077	Block Declared
A85192	003	Hugh Creek	103H077	Block Declared
A86030	3	Hugh Creek	103H077	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A85521	1	North Hirsch	103I009	Block Declared
A85521	2	North Hirsch	103I009	Block Declared
A85521	3	North Hirsch	103I009	Block Declared
A64099	1	Hawkesbury Island Kalum	103H066	Block Declared
A64099	3	Hawkesbury Island Kalum	103H066	Block Declared
A64099	4	Hawkesbury Island Kalum	103H066	Block Declared
A85192	014	Hugh Creek	103H077	Block Declared
A85193	8	Eagle Bay	103H087	Block Declared
A86030	1	Hugh Creek	103H077	Block Declared
A85193	2	Eagle Bay	103H077/087	Block Declared
A84030	25	Dala River	103H099	Block Declared
A86733	1	Dala River	103H089	Block Declared
A77629	2	Heysham Creek	103H066	Block Declared
A77629	3	Heysham Creek	103H066	Block Declared
A77629	1	Heysham Creek	103H066	Block Declared
A64099	2	Hawkesbury Island Kalum	103H066	Block Declared
A85192	015	Hugh Creek	103H077	Block Declared
A81677	7	Eagle Bay	103H087	Block Declared
A77635	4	Eagle Bay	103H087	Block Declared
A77635	8	Eagle Bay	103H087	Block Declared
A85192	008	Hugh Creek	103H077	Block Declared
A83717	1	Kildala Arm	103H087	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A84030	13	Dala River	103H099	Block Declared
A86973	1	Caribou Creek	093E061	Block Declared
A86734	1	Dala River	103H088	Block Declared
A86733	2	Dala River	103H089	Block Declared
A64087	1	North Hirsch	103I009	Block Declared
A77635	3	Eagle Bay	103H077	Block Declared
A86030	2	Hugh Creek	103H077	Block Declared
A86734	2	Dala River	103H089	Block Declared
A86734	3	Dala River	103H089	Block Declared
A87582	4	Hawkesbury Island Kalum	103H066	Block Declared
A87582	2	Hawkesbury Island Kalum	103H066	Block Declared
A85519	1	Kitnayakwa	093L051	Block Declared
A85518	1	Big Cedar	103P006/103 P007	Block Declared
A86362	002	South Hirsch	103I009	Block Declared
A79850	TEki015	Kitnayakwa	093L041	Block Declared
A79849	TEki009	Kitnayakwa	093L032	Block Declared
A86361	TElm002	Limonite	093L051	Block Declared
A86361	TElm005	Limonite	093L051	Block Declared
A79855	1	Miscellaneo us Kalum	103I066	Block Declared
A79855	2	Miscellaneo us Kalum	103I066	Block Declared
!Planning C	TEsm003	Miscellaneo us Kalum	103P028	Block Declared
A92955	001	North Hirsch	103I009	Block Declared
A64094	1	Limonite	093L051	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A86310	1	Lower Skeena	103I045	Block Declared
A64093	3	Limonite	093L051	Block Declared
A92955	002	North Hirsch	103I009	Block Declared
!Planning C	TEsm002	Miscellaneous Kalum	103P028	Block Declared
!Planning C	TEsm001	Miscellaneous Kalum	103P028	Block Declared
A86361	TElm006	Limonite	093L051	Block Declared
A92225	001	South Hirsch	103I018	Block Declared
A79849	TEki016	Kitnayakwa	093L041	Block Declared
A64069	TElm013	Limonite	093L051	Block Declared
A64094	2	Limonite	093L051	Block Declared
!Planning C	TElm032	Limonite	093L051	Block Declared
A64070	TEbc022	Big Cedar	103I096	Block Declared
A64070	TEbc023	Big Cedar	103I096	Block Declared
A64070	TEbc024	Big Cedar	103I096	Block Declared
A93663	TEki007	Kitnayakwa	093L041	Block Declared
A93663	TEki017	Kitnayakwa	093L032	Block Declared
A93663	TEki018	Kitnayakwa	093L041	Block Declared
A93662	TElm001	Limonite	093L051	Block Declared
A93662	TElm003	Limonite	093L041/093L051	Block Declared
A93664	TElm024	Limonite	93L041\93L051	Block Declared
A93664	TElm025	Limonite	93L041	Block Declared
A93664	TElm026	Limonite	93L041	Block Declared
A64068	TEki019	Kitnayakwa	093L041	Block Declared
A64068	TEki020	Kitnayakwa	093L041	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A64069	TElm020	Limonite	93L051	Block Declared
A64069	TElm022	Limonite	093L051	Block Declared
A78680	TEsa002	Sandur	103I0048	Block Declared
A93496	TEbc005	Big Cedar	103P007	Block Declared
A93496	TEbc045	Big Cedar	103P007	Block Declared
A79852	TEsw048	Skeena West	103I079	Block Declared
A79851	TEsw022	Skeena West	103I089	Block Declared
A79851	TEsw030	Skeena West	103I079/103I089	Block Declared
A90583	TEsw025	Skeena West	103I089	Block Declared
A77688	TEbc043	Big Cedar	103P007	Block Declared
A93435	TEwn026	West Nass	103P075	Block Declared
A93435	TEwn037	West Nass	103P076	Block Declared

Blocks Declared Post July 4th 2016

A94376	TEng08A	No Gold	093051L	Block Declared
A95419	TElm030	Limonite	93L051	Block Declared
TA1101	TEsm002	Stenstrom Creek	103P028	Block Declared
TA0541	TEnh001	North Hirsh	103I008/103I018	Block Declared
TA1038	TEbc057	Big Cedar	103P017	Block Declared
TA0474	TEkz003	Kleanza	103I058	Block Declared
TA0534	TEsw012	Skeena West	103I068	Block Declared
TA0534	TEsw033	Skeena West	103I079	Block Declared
TA0535	TEsw043	Skeena West	103I079	Block Declared
TA1105	TEbc006	Big Cedar	103P017	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A68364	1	West Nass	103P056	Block Declared
A83094	TEor007	Orenda	103P095/96	Block Declared
A83094	TEor019	Orenda	104A015	Block Declared
TA1116	TEwn031	West Nass	103P076	Block Declared
TA1116	TEwn032	West Nass	103P076	Block Declared
TA1116	TEwn035	West Nass	103P076	Block Declared
TA1118	TEwn027	West Nass	103P076	Block Declared
TA1118	TEwn048	West Nass	103P076	Block Declared
TA1118	TEwn049	West Nass	103P076	Block Declared
TA0571	TEwn044	West Nass	103P076	Block Declared
TA0571	TEwn045	West Nass	103P076	Block Declared
TA1042	TEwn042	West Nass	103P075	Block Declared
TA1042	TEwn043	West Nass	103P075	Block Declared
TA1626	TEwn046	West Nass	103P076	Block Declared
A95645	TEng005	No Gold	103I060\93L051	Block Declared
A95645	TEng006	No Gold	103I060\93L051	Block Declared
A95647	TEki027	Kitnayakwa	093L041	Block Declared
A95647	TEki034	Kitnayakwa	093L032	Block Declared
A95647	TEki036	Kitnayakwa	093L032	Block Declared
A94172	015	North Hirsch	103i009	Block Declared
A94172	016	North Hirsch	103i009	Block Declared
A79853	TEki022	Kitnayakwa	093L041/093L051	Block Declared
A79853	TEki026	Kitnayakwa	093L041	Block Declared
A79853	TElm066	Limonite	93L051	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A93665	TElm008	Limonite	093L051	Block Declared
A93665	TElm009	Limonite	093L051	Block Declared
A93665	TElm010	Limonite	093L051	Block Declared
A94373	TElm027	Limonite	93L051	Block Declared
A94373	TElm028	Limonite	93L051	Block Declared
A94376	TEng007	No Gold	93L051	Block Declared
A94376	TEng011	No Gold	93L051	Block Declared
A94376	TEng013	No Gold	93L051	Block Declared
A94376	TEng009	No Gold	93L051	Block Declared
A95587	TElm064	Limonite	93L051	Block Declared
A85651	TEki023	Kitnayakwa	093L041	Block Declared
A85651	TEki024	Kitnayakwa	093L041	Block Declared
A85651	TElm004	Limonite	093L051	Block Declared
A85651	TElm014	Limonite	093L051	Block Declared
A85651	TElm054	Limonite	093L051	Block Declared
A95750	TElm015	Limonite	93L051	Block Declared
A95750	TElm016	Limonite	93L051	Block Declared
A95750	TElm017	Limonite	93L051	Block Declared
A95750	TElm018	Limonite	93L051\103I060	Block Declared
A95750	TElm019	Limonite	103I060	Block Declared
TA2161	TElm060	Limonite	93L051	Block Declared
TA0475	TElm053	Limonite	93L051	Block Declared
TA0475	TElm055	Limonite	93L051	Block Declared
TA0551	TEng018	No Gold	93L051	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
TA0537	TEnh025	Hirsch	103I009	Block Declared
A95103	TEbc055	Big Cedar	103P017	Block Declared
A95103	TEbc056	Big Cedar	103P017	Block Declared
A94565	031	Big Cedar	103P017	Block Declared
A94565	032	Big Cedar	103P017	Block Declared
A95769	TEbc044	Big Cedar	103P017	Block Declared
A95770	TEbc059	Big Cedar	103P007/017	Block Declared
A95770	TEbc061	Big Cedar	103P007	Block Declared
A95770	TEbc080	Big Cedar	103P007	Block Declared
A95771	TEth007	Thunderbird	103I048	Block Declared
A95771	TEth027	Thunderbird	103I048	Block Declared
A95771	TEth028	Thunderbird	103I048	Block Declared
A95864	TEsw056	Skeena West	103I079	Block Declared
A95864	TEsw057	Skeena West	103I079	Block Declared
A95864	TEsw058	Skeena West	103I079	Block Declared
TA0389	TEbc060	Big Cedar	103P007	Block Declared
TA0389	TEbc081	Big Cedar	103P007	Block Declared
TA0535	TEsw020	Skeena West	103I079	Block Declared
TA0535	TEsw032	Skeena West	103I079	Block Declared
TA0535	TEsw038	Skeena West	103I079	Block Declared
TA0535	TEsw044	Skeena West	103I079	Block Declared
A95137	OFda054	Dala River	103H088	Block Declared
A95137	OFda053	Dala River	103H088	Block Declared
A95137	OFda052	Dala River	103H088	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
A95137	OFda051	Dala River	103H088	Block Declared
A95137	OFda055	Dala River	103H088	Block Declared
A95136	OFda050	Dala River	103H088	Block Declared
A95136	OFda048	Dala River	103H088	Block Declared
A95136	OFda046	Dala River	103H088	Block Declared
A95136	OFda045	Dala River	103H088	Block Declared
A95136	OFda049	Dala River	103H088	Block Declared
TA0316	OFfa020	Falls River	103H088	Block Declared
TA0316	OFfa021	Falls River	103H088	Block Declared
TA0316	OFfa023	Falls River	103H088	Block Declared
TA1626	TEwn068	West Nass	103P076	Block Declared
TA1626	TEwn069	West Nass	103P076	Block Declared
TA1626	TEwn070	West Nass	103P076	Block Declared
TA1275	Br. 1400 0+000-0+682, 1+499-1+759	Dahlaks	103H089, 103H088	Block Declared
TA0317	OFki013	Dala	103H088	Block Declared
TA0317	OFki014	Dala	103H088	Block Declared
TA0317	OFki015	Dala	103H088	Block Declared
TA1594	TEki032	Kitnayakwa	093L032	Block Declared
TA1595	TEng014	No Gold	093L061	Block Declared
TA1596	TEbc077	Big Cedar	103P006, 103P007	Block Declared
TA1596	TEbc104	Big Cedar	I03I096, 103I097	Block Declared
TA1597	TEbc036	Big Cedar	103I096, 103P006	Block Declared
TA1598	TElm063	Limonite	093L051	Block Declared
TA1597	TEbc040	Big Cedar	103I096	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
TA2019	TEbc125	Big Cedar	103I096	Block Declared
TA2020	TEbc114	Big Cedar	103I097	Block Declared
TA2020	TEbc115	Big Cedar	103I097	Block Declared
TA2021	TEng008	No Gold	093L051	Block Declared
TA2022	TEbc128	Big Cedar	103P006	Block Declared
TA2311	TEwn077	West Nass	103P076	Block Declared
TA2311	TEwn093	Arbor Lake	103P075	Block Declared
TA2281	TElm050	Limonite	093L051	Block Declared
TA2281	TElm051	Limonite	093L051	Block Declared
TA2282	TEnh009	North Hirsch	103I009	Block Declared
TA2282	TEnh021	North Hirsch	103I009	Block Declared
TA2282	TEnh028	North Hirsch	103I009	Block Declared
TA2283	TEki037	Kitnayakwa	093L032	Block Declared
TA2283	TEki040	Kitnayakwa	093L032	Block Declared
TA1561	TEbc011	Big Cedar	103I097	Block Declared
TA1561	TEbc089	Big Cedar	103I097	Block Declared
TA1561	TEbc090	Big Cedar	103I097	Block Declared
TA1563	TEth001	Thunderbird	103I047	Block Declared
TA1563	TEth005	Thunderbird	103I047	Block Declared
TA1563	TEth030	Thunderbird	103I047	Block Declared
TA1563	TEth031	Thunderbird	103I047	Block Declared
TA1626	TEwn060	West Nass	103P066	Block Declared
TA2083	TEvd014	Van Dyke	103P067	Block Declared
TA1982	TEwn075	West Nass	103P076	Block Declared

Licence ID	Block ID	Geographic Region	Mapsheet	Plan Status
TA2043	TEor049	Orenda	104A015	Block Declared
TA2043	TEor052	Orenda	104A015	Block Declared
A68149	2	Van Dyke	103P077	Block Declared
TA2339	2	White River	103P094	Block Declared
TA2090	TEbc098	Big Cedar	103P007	Block Declared
TA2090	TEbc017	Big Cedar	103P017	Block Declared
TA2071	TEsw054	Skeena West	103I079	Block Declared
TA2071	TEsw021	Skeena West	103I089	Block Declared
TA2071	TEsw028	Skeena West	103I089	Block Declared
TA2070	TEbc112	Big Cedar	103P007	Block Declared
TA2070	TEbc120	Big Cedar	103P007	Block Declared
A95136	OFda047	Dala	103H088	Block Declared

Appendix III Issued Road Permits

Permit ID	Section ID
R18004	C
R19040	A
R19040	B
R19040	C
R19040	D
R19063	A
R19063	B
R19063	C
R19063	D
R19063	E
R19063	F
R19179	A
R19179	B
R19179	C
R19179	D
R15737	A
R16763	A
R16860	A
R16860	B
R18004	A
R18004	B
R19686	A
R19686	B
R19686	C
R19736	A
R19739	A
R19744	A
R20350	A
R20350	B
R20350	C
R20667	A
R20667	B
R20667	C
R20667	D
R23032	1

Permit ID	Section ID
R23032	2
R23032	3
R23397	A
R23397	B
R23397	C
R23397	D
R23397	E
R23397	F
R23397	G
R23299	01
R23299	02
R23299	03
R23299	04
R23299	05
R23178	1
R23178	2
R23558	A
R23558	B
R23558	C
R23558	D
R23558	E
R23558	F
R23558	G
R23558	H
R22912	A
R22912	B
R22912	C
R23381	A
R23223	A
R23223	B
R23223	C
R23223	D
R23223	E
R22851	01
R22851	02
R22949	01
R22949	02
R22671	A
R20629	A

Permit ID	Section ID
R22501	A
R22501	B
R22501	C
R22501	D
R22488	A
R22488	B
R22488	C
R22488	D
R22413	A
R22413	B
R22413	C
R22413	D
R22413	E
R22413	F
R22413	G
R22413	H
R22412	A
R22412	B
R17878	A
R17878	B
R17878	C
R22546	A
R22546	B
R22546	C
R22546	D
R22546	E
R22546	F
R22546	G
R22546	H
R22546	I
R20667	A
R20667	B
R20667	C
R20667	D
R19736	A
R18358	A
R18358	B
R21071	A
R21071	B

Permit ID	Section ID
R21071	C
R21071	D
R21071	E
R20350	A
R20350	B
R20350	C
R21176	A
R21176	B
R21176	C
R22216	A
R22216	B
R22216	C
R22990	1
R22990	2
R22990	3
R22990	4
R22343	A
R22343	B
R22343	C
R22542	A
R22542	B
R22542	C
R22542	D
R22542	E
R22542	F
R22547	A
R22547	B
R22547	C
R22547	D
R22547	E
R23071	02
R23071	03
R23071	1
R23974	01
R23974	02
R23974	3
R23408	A
R23408	B
R23408	C

Permit ID	Section ID
R23408	D
R23408	E
R23408	F
R23408	G
R23408	H

Appendix IV Issued Timber Sales Licences

Licence ID	Block ID	Management Unit
TA1271	TEki009	Kitnayakwa
TA1271	TEki016	Kitnayakwa
TA1594	TEki032	Kitnayakwa
A94376	TEng007	Kleanza
TA1885	1	Williams Creek
TA1563	TEth001	Thunderbird
TA1563	TEth005	Thunderbird
TA1563	TEth030	Thunderbird
TA1563	TEth031	Thunderbird
TA1118	TEwn027	Arbor
TA1118	TEwn048	Arbor
TA1537	1	Upper White
TA1537	2	Upper White
TA0316	OFfa021	Falls River
TA0316	Offa023	Falls River
TA1269	TEsw016	Fiddler
TA1269	TEsw017	Fiddler
TA1269	TEsw051	Fiddler
TA1595	TEng014	Kleanza/ No Gold
TA0317	OFki013	Dala
TA0317	OFki014	Dala
TA0317	OFki015	Dala

Appendix V Kalum SRMP Seral Stage and Patch Size Distribution Targets

Seral stage definition by biogeoclimatic unit (based on the Biodiversity Guidebook 1995).

BEC Unit	NDT	Forest Stand Age (years)		
		Early	Mature	Old
CWHvh2, vm, vm1, vm2	1	<40	>80	>250
ESSFwv, MH mm1, mm2	1	<40	>120	>250
CWHws1, ws2	2	<40	>80	>250
ESSFmk	2	<40	>120	>250
ICHmc1, mc2	2	<40	>100	>250

Target seral stage distribution (% of forested land base in each BEC unit)

Landscape Unit	BEO	BEC Variant	Seral Stage Distribution (% of forested land base)		
			Early	Mature + old	Old
Nass River (K'alii Aksim Lisims) Kalum	**H**	**ICHmc1/mc2**	<27	>46	>13
Skeena River Kalum	**H**	**CWHvm** **CWHws1/ws2** **ICHmc2** **MHmm1/mm2**	<23 <27 <27 <17	>54 >51 >46 >54	>19 >13 >13 >28
Beaver	**I**	**CWHws1/ws2** **MHmm2**	<36 <22	>34 >36	>9 >19
Clore	**I**	**CWHws1/ws2** **ESSFmk** **ESSFwv, MHmm2**	<36 <36 <22	>34 >28 >36	>9 >9 >19
Exstew	**I**	**CWHws1/ws2** **MHmm2**	<36 <22	>34 >36	>9 >19
Hawkesbury Island West	**I**	**CWHvh2** **MHwh1**	<30 <22	>36 >36	>13 >19
Hirsch[101]	**I**	**CWHvm** **CWHws1/ws2,** **MHmm1**	<30 <36 <22	>36 >34 >36	>13 >9 >19
Ishkheenickh (Ksi Hlginx)	**I**	**CWHvm,** **CWHws1/ws2** **MHmm1**	<30 <36 <22	>36 >34 >36	>13 >9 >19
Kalum	**I**	**CWHws1/ws2** **MHmm2**	<36 <22	>34 >36	>9 >19
Kasiks	**I**	**CWHvm** **MHmm1**	<30 <22	>36 >36	>13 >19
Kemano[102]	**I**	**CWHvm/vm1/vm2** **CWHws2** **ESSFmk** **MHmm1/mm2**	<30 <36 <36 <22	>36 >34 >28 >36	>13 >9 >9 >19

[101] The old seral targets do not apply to the Wathlsto watershed of this landscape unit (see Map 3 of the Kalum SRMP). Old seral targets fort this watershed are specified in Table 5 of the Kalum SRMP.
[102] The old seral targets do not apply to the Owyacumish, Brim, and Wahoo watersheds of this landscape unit (see Map3 of the Kalum SRMP). Old seral targets for these watersheds are specified in Table 5 of the Kalum SRMP

Lakelse[103]	**I**	**CWHws1/ws2** **MHmm2**	<36 <22	>34 >36	>9 >19
Tseax (Ksi Sii Aks)	**I**	**CWHws1/ws2** **ICHmc1/mc2** **MHmm2**	<36 <36 <22	>34 >31 >36	>9 >9 >19
Wedeene	**I**	**CWHvh2/vm** **CWHws1/ws2** **MHmm1/mm2**	<30 <36 <22	>36 >34 >36	>13 >9 >19
Dala	**L**	**CWHvm** **CWHws2** **MHmm1**	n/a n/a n/a	>18 >17 >19	>13 >9 >19
Dasque	**L**	**CWHws1/ws2** **MHmm2**	n/a n/a	>17 >19	>9 >19
Exchamsiks	**L**	**CWHvm** **MHmm1**	n/a n/a	>18 >19	>13 >19
Falls[104]	**L**	**CWHvm/vm1** **MHmm1**	n/a n/a	>18 >19	>13 >19
Hawkesbury Island East	**L**	**CWHvh2** **MHwh1**	n/a n/a	>18 >19	>13 >19
Horetzky	**L**	**CWHws2** **MHmm2**	n/a n/a	>17 >19	>9 >19
Hot Springs	**L**	**CWHws1/ws2** **MHmm2**	n/a n/a	>17 >19	>9 >19
Jesse Bish[105]	**L**	**CWHvm** **MHmm1**	n/a n/a	>18 >19	>13 >19
Kiteen (Ksi Gahlt'in)	**L**	**CWHws2** **ICHmc1/mc2** **MHmm2**	n/a n/a n/a	>17 >15 >19	>9 >9 >19
Kitimat	**L**	**CWHvm** **CWHws1/ws2**	n/a n/a	>18 >17	>13 >9
Kleanza Treasure	**L**	**CWHws1/ws2** **ICHmc2** **MHmm2**	n/a n/a n/a	>17 >15 >19	>9 >9 >19
Ksedin (Ksi Mat'in)	**L**	**CWHws1/ws2** **MHmm2**	n/a n/a	>19 >19	>9 >19
Nelson Fiddler	**L**	**CWHws1/ws2** **ICHmc2** **MHmm2**	n/a n/a n/a	>17 >15 >19	>9 >9 >19

Allowable deviations from the early seral stage targets set above

Landscape Unit	BEC variant	Maximum Early Seral Forest (% of forested land base)
Nass River (K'alii Aksim Lisims) Kalum	**ICHmc1** **ICHmc2**	<42 <37

[103] The early seral targets do not apply to Lakelse River Special Resource Management Zone (SRMZ), Subzone 2 (Map 8 of the Kalum SRMP). Targets for this area are specified in objective 12 of the Kalum SRMP

[104] The old seral targets do not apply to the Hugh watershed of this landscape unit (see Map 3 of the Kalum SRMP). Old seral targets forthis watershed are specified in Table 5 of the Kalum SRMP.

[105] The old seral targets do not apply to the Jesse and Emsley watersheds of this landscape unit (see Map 3 of the Kalum SRMP). Old seral targets for these watersheds are specified in Table 5 of the Kalum SRMP.

Skeena River Kalum	**CWHvm** **CWHws1** **CWHws2, ICHmc2** **MHmm1, MHmm2**	<33 <42 <37 <27
Beaver	**CWHws1** **CWHws2** **MHmm2**	<51 <46 <32
Clore	**CWHws1** **CWHws2, ESSFmk** **ESSFwv, MHmm2**	<51 <46 <32
Exstew	**CWHws1** **CWHws2** **MHmm2**	<51 <46 <32
Hawkesbury Island West	**CWHvh2** **MHwh1**	<40 <32
Hirsch	**CWHvm** **CWHws1** **CWHws2** **MHmm1**	<40 <51 <46 <32
Ishkheenickh (Ksi Hlginx)	**CWHvm** **CWHws1, CWHws2** **MHmm1**	<40 <46 <32
Kalum	**CWHws1** **CWHws2** **MHmm2**	<51 <46 <32
Kasiks	**CWHvm** **MHmm1**	<30 <32
Kemano	**CWHvm, CWHvm1, vm2** **CWHws2, ESSFmk** **MHmm1, MHmm2**	<40 <46 <32
Lakelse[14]	**CWHws1** **CWHws2** **MHmm2**	<51 <46 <32
Tseax (Ksi Sii Aks)	**CWHws1** **CWHws2, ICHmc1** **ICHmc2** **MHmm2**	<51 <46 <51 <32
Wedeene	**CWHvh2, CWHvm** **CWHws1** **CWHws2** **MHmm1, MHmm2**	<40 <51 <46 <32

Kalum SRMP Patch Size Distribution Targets

Natural Disturbance Type	Patch Size (ha)	Patch Size Distribution Target (% forested area within landscape unit)
NDT1, NDT2	<40 40-80 80-250	30-40 30-40 20-40

Appendix VI Kalum SRMP Wildlife Tree Patch Retention Targets

Landscape Unit	BEC Subzone	Target WTP retention (% of cutblock area)
Nass River (K'alii Aksim Lisims) Kalum	ICHmc	7
Skeena River Kalum	CWHvm CWHws ICHmc MHmm	5 5 4 0
Beaver	CWHws MHmm	8 0.5
Clore	CWHws ESSFmk ESSFwv MHmm	6 3 1 3
Exstew	CWHws MHmm	6 3
Hawkesbury Island West	CWHvh MHwh	0 0
Hirsch	CWHvm CWHws MHmm	5 11 0
Ishkheenickh (Ksi Hlginx)	CWHvm CWHws MHmm	2 2 0
Kalum	CWHws MHmm	10 5
Kasiks	CWHvm MHmm	0 0
Kemano	CWHvm CWHws ESSFmk MHmm	0 1 0 0
Lakelse	CWHws MHmm	7 0
Tseax (Ksi Sii Aks)	CWHws ICHmc MHmm	4 8 0
Wedeene	CWHvm CWHvh CWHws MHmm	3 2 10 3
Dala	CWHvm CWHws MHmm	3 0.5 0
Dasque	CWHws MHmm	7 0
Exchamsiks	CWHvm MHmm	0 0

Landscape Unit	**BEC Subzone**	**Target WTP retention (% of cutblock area)**
Falls	CWHvm MHmm	1 0
Hawkesbury Island East	CWHvh MHwh	1 0
Horetzky	CWHws MHmm	2 0
Hot Springs	CWHws MHmm	7 0.5
Jesse Bish	CWHvm MHmm	1 0
Kiteen (Ksi Gahlt'in)	CWHws ESSFwv ICHmc MHmm	3 1 7 1
Kitimat	CWHvm CWHws MHmm	5 7 0
Kleanza Treasure	CWHws ICHmc MHmm	7 6 2
Ksedin (Ksi Mat'in)	CWHws MHmm	6 0
Nelson Fiddler	CWHws ICHmc MHmm	8 5 2

Appendix VII Equivalent Clearcut Area

Map ID	Base Watershed (WSD) Unit Code and Order	Unit Name	ECA Threshold %
1	KINRWSD000020 - 3	Meziadin River tributary (contains Yaakin Lk)	25
2	KINRWSD000025 - 3	White River tributary 1 (west of Femur Lk)	35
3	KINRWSD000030 - 3	White River tributary 2 (west of Scrub Lk)	35
4	KINRWSD000033 - 3	Niska Creek	25
5	KINRWSD000035 - 4	Kinskuch River	25 (in ICHmc1/in Plan area)
6	KINRWSD000036 - 3	Outlet of Arbor Lake	25
7	KSHRWSD000010 - 3	Bear River tributary (east of Le Sueur Crk)	25 (in CWHwm)
8	KSHRWSD000011 - 3	Le Sueur Creek	25 (in CWHwm)
9	KSHRWSD000012 - 3	grouped(1) Bitter Creek	25 (in CWHwm)
9	KSHRWSD000013 - 4	grouped(1) Bitter Creek	25 (in CWHwm)
9	KSHRWSD000014 - 3	grouped(1) Bitter Creek	25 (in CWHwm)
9	KSHRWSD000015 - 3	grouped(1) Bitter Creek	25 (in CWHwm)
10	KSHRWSD000016 - 3	Glacier Creek	25 (in CWHwm and MHun separately)
11	LBIRWSD000112 - 3	Bell-Irving River tributary 4 (east flank on Mt. Bell-Irving)	30 (in ICH)
12	LBIRWSD000113 - 3	Bell-Irving River tributary 3 (east flank on Mt. Bell-Irving)	30 (in ICH)
13	LBIRWSD000122 - 3	Bell-Irving River tributary 2 (east flank on Mt. Bell-Irving)	30 (in ICH)
14	LBIRWSD000125 - 3	Bell-Irving River tributary 1 (east flank on Mt. Bell-Irving)	30 (in ICH)
15	LNARWSD000008 - 4	Tchitin River	30 (in ICHmc1 and CWHws2 seperately/in Plan area)
16	LNARWSD000010 - 8	Nass River tributary 1 (east of Kinskuch confluence)	30 (in ICHmc1/in Plan area)
17	LNARWSD000020 - 3	Kshadin Creek tributary (west of Taylor Lk)	25 (in ICHmc1 and CWHws2 collectively/in Plan area)
18	NASRWSD000040 - 5	Kwinageese River	20 (in Plan area)
19	NASRWSD000049 - 3	Nass River tributary 5 (across river from Meziadin Junction)	30
20	NASRWSD000066 - 4	grouped (2) Bonney Creek (unit also contains Alpha Lk)	25 (in Plan area)

Map ID	Base Watershed (WSD) Unit Code and Order	Unit Name	ECA Threshold %
20	NASRWSD000069 - 3	grouped (2) Bonney Creek (unit also contains Alpha Lk)	25 (in Plan area)
21	NASRWSD000072 - 3	Wolverine Creek	30
22	NASRWSD000073 - 4	grouped(3) Axnegrelga Creek (unit also contains Hughan and Jigsaw Lks)	20 (in Plan area)
22	NASRWSD000074 - 3	grouped(3) Axnegrelga Creek (unit also contains Hughan and Jigsaw Lks)	20 (in Plan area)
22	NASRWSD000076 - 4	grouped(3) Axnegrelga Creek (unit also contains Hughan and Jigsaw Lks)	20 (in Plan area)
23	NASRWSD000075 - 3	Kitanweliks Creek	30
24	NASRWSD000077 - 5	Paw Creek	30
25	NASRWSD000078 - 3	Van Dyke Creek	30
26	NASRWSD000079 - 3	Brown Bear Creek	20 (in Plan area)
27	NASRWSD000081 - 4	Little Paw Creek	30
28	NASRWSD000082 - 3	Axnegrelga Creek tributary (west of Brown Bear Lk)	20
29	NASRWSD000083 - 3	Outlet of Noordam Lake	35
30	NASRWSD000084 - 3	Nass River tributary 4 (east of Kinskuch Peak)	35
31	NASRWSD000086 - 4	Nass River tributary 2 (contains Abbi Lk)	35
32	NASRWSD000088 - 3	Nass River tributary 3 (across river from Sideslip Lk)	35

Appendix VIII Nass South SRMP Seral Stage and Patch Size Distribution Targets

Seral Stage Distribution

Landscape Unit	Biodiversity Emphasis Option	Biogeoclimatic Ecosystem Classification	Seral Stages	Age (yrs)	Forest Area (%)
Bear	Intermediate	CWHwm	Early	<40	<30
			Mature + Old	>80	>36
			Old	>250	>13
		ESSFwv	Early	<40	<22
			Mature + Old	>120	>36
			Old	>250	>19
		MHmm2	Early	<40	<22
			Mature + Old	>120	>36
			Old	>250	>19
		MHun	Early	<40	<17
			Mature + Old	>120	<22
			Old	>250	>36
Bowser	Low	ESSFwv	Early	<40	n/a
			Mature + Old	>120	>19
			Old	>250	>19
		ICHvc	Early	<40	n/a
			Mature + Old	>100	>17
			Old	>250	>13
Brown Bear	Low	ESSFwv	Early	<40	n/a
			Mature + Old	>120	>19
			Old	>250	>19
		ICHmc1	Early	<40	n/a
			Mature + Old	>100	>15
			Old	>250	>9
Cambria Icefield	Low	ESSFwv	Early	<40	n/a
			Mature + Old	>120	>19
			Old	>250	>19
		MHmm2	Early	<40	n/a
			Mature + Old	>120	<19
			Old	>250	>19
Kinskuch	Intermediate	ESSFwv	Early	<40	<22
			Mature + Old	>120	>36
			Old	>250	>19
		ICHmc1	Early	<40	<36

Landscape Unit	Biodiversity Emphasis Option	Biogeoclimatic Ecosystem Classification	Seral Stages	Age (yrs)	Forest Area (%)
			Mature + Old	>100	>31
			Old	>250	>9
			Early	<40	<30
		ICHvc	Mature + Old	>100	>34
			Old	>250	>13
			Early	<40	n/a
		CWHws2	Mature + Old	>80	>17
			Old	>250	>9
			Early	<40	n/a
		ICHmc1	Mature + Old	>100	>15
			Old	>250	>9
Kwinamuck	Low		Early	<40	n/a
		MHmm1	Mature + Old	>120	>19
			Old	>250	>19
			Early	<40	n/a
		MHmm2	Mature + Old	>120	>19
			Old	>250	>19
			Early	<40	<22
		ESSFwv	Mature + Old	>120	>36
			Old	>250	>19
			Early	<40	<36
Madley	Intermediate	ICHmc1	Mature + Old	>100	>31
			Old	>250	>9
			Early	<40	<30
		ICHvc	Mature + Old	>100	>34
			Old	>250	>13
			Early	<40	<27
		CWHws2	Mature + Old	>80	>51
			Old	>250	>13
			Early	<40	<17
		ESSFwv	Mature + Old	>120	>54
			Old	>250	>28
Tchitin	High		Early	<40	<27
		ICHmc1	Mature + Old	>100	>46
			Old	>250	>13
			Early	<40	<17
		MHmm2	Mature + Old	>120	>54
			Old	>250	>28

Landscape Unit	Biodiversity Emphasis Option	Biogeoclimatic Ecosystem Classification	Seral Stages	Age (yrs)	Forest Area (%)
Tintina	Low	ESSFwv	Early	<40	n/a
			Mature + Old	>120	>19
			Old	>250	>19
		ICHmc1	Early	<40	n/a
			Mature + Old	>100	>15
			Old	>250	>9
		ICHvc	Early	<40	n/a
			Mature + Old	>100	>17
			Old	>250	>13
White	Intermediate	ESSFwv	Early	<40	<22
			Mature + Old	>120	>36
			Old	>250	>19
		ICHmc1	Early	<40	<36
			Mature + Old	>100	>31
			Old	>250	>9
		ICHvc	Early	<40	<30
			Mature + Old	>100	>34
			Old	>250	>13
		MHmm2	Early	<40	<22
			Mature + Old	>120	>36
			Old	>250	>19
Wildfire	Intermediate	ESSFwv	Early	<40	<22
			Mature + Old	>120	>36
			Old	>250	>19
		ICHvc	Early	<40	<30
			Mature + Old	>100	>34
			Old	>250	>13

Patch Size Distribution

Natural Disturbance Type (NDT)	Biogeoclimatic (BEC) Zone Variant	Percentage of Forest Area within a Landscape Unit		
		Small patches *(<40 ha)*	***Medium patches*** *(40 to 80 ha)*	***Large patches*** *(80 to 250 ha)*
NDT 1	CWHwm	30 to 40	30 to 40	20 to 40
	ESSFwv	30 to 40	30 to 40	20 to 40
	ICHvc	30 to 40	30 to 40	20 to 40
	$MHmm_2$	30 to 40	30 to 40	20 to 40
	MHun	30 to 40	30 to 40	20 to 40
NDT 2	$ICHmc_1$	30 to 40	30 to 40	20 to 40

Appendix IX 2021-2025 Patch Seral Guide

Step	***Guidance***			
1	Identify block(s) to be reviewed			
2	Confirm LU, FDU, and BEC variant for block Also confirm if block falls within a Kalum SRMP Special Management Zone			
3	Confirm if block in 2020-2025 patch/seral analysis Review 2025 pdf maps provided. If block on map, then it has been captured in analysis and go to 4A for Seral, 5A for Patch. If the block is not in the analysis, go to step 4N for Seral, 5N for Patch.			
	Seral Stage Review			
4A	**Block in 2020-2025 Analysis**			
4A-1	Go to the file: "*Seral stage situation Kalum & Nass FDU 2020 & 2025*" to locate your licence/FDU, then review the tables in each of the tabs within the spreadsheet to determine if the block falls within a "red-flag" LU/ BEC variant for Early; Mature + Old; or Old			
4A-2	If no red-flag, then no further work required.	If red-flag for a seral stage within a FDU, go to the file: "*Seral stage situation Kalum & Nass LU 2020 & 2025*" and review the LU tables in that section to determine if the block falls within a "red-flag" LU/ BEC variant for Early; Mature + Old; or Old		
4A-3		If no red-flag, then document, and no further work required.	If red-flag, then compare the variance (ha) column for 2025 with the column for 2020	
4A-4			If the 2025 number is less negative (or more positive) than the 2020 number, then the situation is moving in the right direction, and no further work is required. *Consider informing other licencees that share the LU*	If the 2025 number is negative, and is more negative than in 2020 (or the 2020 number was positive), then the situation is moving in the wrong direction: Consider the Guidance in ***5G*** below & determine if the block should not proceed as projected.
4N	**New Block**			
4N-1	Go to the file: "*Seral stage situation Kalum & Nass FDU 2020 & 2025*". Compare the appropriate information for 2020 and 2025 seral stages for the management unit "operating area" (Nass or Kalum).			
4N-2	Look up the LU and BEC variant for the block in each tab of the spreadsheet (Early, Mature+Old, Old) and compare 2025 with 2020			
4N-3	If the 2025 number shows a large positive variance (i.e. addition of the new block will not bring it anywhere close to a "red-flag" situation), then document this fact, and no further work is required.	If the 2025 number shows a red-flag situation or a small positive variance (such that the addition of the new block or of a few more new blocks will bring it close to a "red-flag" situation), then review the 2020 number.		
4N-4		If the 2025 number is less negative (or more positive) than the 2020 number, then the situation is moving in the right direction. Document this work, and no further action is required. *Consider informing other licencees that share the LU*	If the 2025 number is moving in the wrong direction and there is a likelihood of crossing or approaching the threshold with the addition of the new block, go to the file: "*Seral stage situation Kalum & Nass LU 2020 & 2025*". and review the LU tables in the spreadsheets to determine if the block exceeds the LU/ BEC variant threshold for Early; Mature + Old; or Old. If the LU information indicates that the threshold has been exceeded, consider the Guidance in ***5G*** below & determine if the block should not proceed as projected. *Mitigation of the issue can include confirmation that there is not going to be additional blocks planned (through internal procedures, or in the case of overlapping FDUs, through communication with other licencees). Alternatively, a FSP amendment may be called for.*	

<table>
<tr><th>Step</th><th colspan="4">Guidance</th></tr>
<tr><td></td><td colspan="4">Patch Size Distribution Review</td></tr>
<tr><td>5A</td><td colspan="4">Block in 2020-2025 Analysis</td></tr>
<tr><td>5A-1</td><td colspan="4">Review the 2025 pdf maps provided to determine which patch size category (small, mid, or large) the block falls within.</td></tr>
<tr><td>5A-2</td><td colspan="4">Go to the file: “Patch redflag tables FDU 2020 & 2025” to locate your licence/FDU, then compare the appropriate information for 2020 and 2025 patch size distributions.</td></tr>
<tr><td>5A-3</td><td colspan="4">For the affected patch categories, determine if the adjusted 2025 numbers are within the threshold ranges (or below or above the range).
* You may also have to use the file: “Patch size distribution kalum nass LU 2020 & 2025” for this.</td></tr>
<tr><td>5A-4</td><td>If affected categories are within the threshold ranges, document this fact and no further work is required.</td><td colspan="3">If the affected categories are above or below the threshold ranges, compare the numbers with the 2020 numbers.</td></tr>
<tr><td>5A-5</td><td></td><td>If the change from 2020 to 2025 is still in the right direction (i.e. the 2025 situation is closer to the threshold range than the 2020 situation), then document this fact and no further work is required.</td><td colspan="2">If the change from 2020 to 2025 is not in the right direction (i.e. the 2025 situation is not closer to the threshold range than the 2020 situation), then repeat steps 5A-2 through 5A-4, but using the information for patch sizes consolidated by Landscape Unit (i.e. file: “Patch redflags Kalum Nass LU 2020 & 2025”)</td></tr>
<tr><td>5A-6</td><td colspan="2"></td><td>If okay, document

Consider informing other licencees that share the LU</td><td>If not okay, then block requires mitigation*, or a rationale that
(a) is in agreement with the applicable FSP result or strategy, and
(b) describes how the patch size target is a rotational target (as per wording in the Kalum SRMP).

* Mitigation can include re-configuration of the block or strategic placement of leave strips. Alternatively, a FSP amendment may be called for.</td></tr>
<tr><td>5N</td><td colspan="4">New Block</td></tr>
<tr><td>5N-1</td><td colspan="4">Review 2025 pdf maps provided with report to determine which patch size category (small, mid, or large) the block will be in. This may require work comparing how the block combines with other patches, taking into account the age of those adjacent patches. This may result in changes to all three distributions.</td></tr>
<tr><td>5N-2</td><td colspan="4">Go to the file: “Patch redflag tables FDU 2020 & 2025” to locate your licence/FDU, then compare the appropriate Tables for 2020 and 2025 patch size distributions.</td></tr>
<tr><td>5N-3</td><td colspan="4">Adjust the affected 2025 patch ranges to account for the changes created by the new block.</td></tr>
<tr><td>5N-4</td><td colspan="4">For the affected patch categories, determine if the adjusted 2025 numbers are within the threshold ranges (or below or above the range)
* You may also have to use the file: “Patch size distribution kalum nass LU 2020 & 2025” for this.</td></tr>
<tr><td>5N-5</td><td>If affected categories are within the threshold ranges, document this fact and no further work is required.</td><td colspan="3">If the affected categories are above or below the threshold ranges, compare the numbers with the 2020 numbers.</td></tr>
</table>

Step	*Guidance*			
5N-6		If the change from 2020 to 2025 is still in the right direction (i.e. the 2025 situation is closer to the threshold range than the 2020 situation), then document this fact and no further work is required.	If the change from 2020 to 2025 is not in the right direction (i.e. the 2025 situation is not closer to the threshold range than the 2020 situation), then repeat steps 5A-2 through 5A-4, but using the information for patch sizes **consolidated by Landscape Unit** (i.e. file: "*Patch redflags Kalum Nass LU 2020 & 2025")*	
5N-7			If okay, document	If not okay, then block requires mitigation*, or a rationale that (a) is in agreement with the applicable FSP result or strategy, and (b) describes how the patch size target is a rotational target (as per wording in the Kalum SRMP). * *Mitigation can include re-configuration of the block or strategic placement of leave strips. Alternatively, a FSP amendment may be called for.*
5G	**Guidance when assessing Patch & Seral thresholds in light of conflicting targets (as discussed at the CMNRD Steering Committee, January 8, 2018):** 1. If more than one category is below target: a. If development is moving the category furthest from its target in the right direction, this will be acceptable. This can be measured either on a percentage or area basis. or b. If development is moving the category closest to its target in the right direction in a significant way in comparison to the category furthest from its target (e.g. ten times the area impact), this will be acceptable. 2. If a category is more than 5% below target, and other categories are not: a. Then you can address that category even if it moves one of the other categories slightly in the wrong direction (i.e. less than 1%).			
	SRM Zone Review			
	Block in Kiteen/Cedar SRM Zone. File: "*SMZz and Grizzly Bear Watersheds 2020 & 2025"*			
6-1	Confirm that block is not located in Polygon A. No Harvest in this polygon.			
6-2	If block is located in Polygon B, partial cutting harvest method only.			
	Block in Lakelse SRM Zone. File: "*SMZz and Grizzly Bear Watersheds 2020 & 2025"*			
7-1	Subzone 1: No Harvest. There is to be no harvest in Subzone 1. There should be no blocks in the Lakelse SRM Subzone 1.			
7-2	Subzone 2: In 2020 there is no available harvest room in Subzone 2. In 2025, there is **51 ha** of available harvest room – check the SRMP for specific details around block sizes and selection harvesting.			
	Block in Grizzly Bear SRM Zone. File: "*SMZz and Grizzly Bear Watersheds 2020 & 2025"*			
8-1	Confirm which Grizzly Bear SRM Zone the block is in			
8-3	Check the appropriate tab ("Grizzly Bear Watersheds by Lic") to determine if the block works within your FDU. If the block works, no further action required. If the block does not work, check the tab "Grizzly Bear Watersheds"			
8-2	If the block is in the Copper Grizzly Bear SRMZ, the 2025 projections show that there is over **5,200** ha of additional room in the YME (Young/ Mid/ Early mature) seral stage. The block will be compliant.		If the block is in the McKay-Davies Grizzly Bear SRMZ, the 2025 projections show that there is over **5,100** ha of additional room in the YME (Young/ Mid/ Early mature) seral stage. The block will be compliant.	
	Block in Undeveloped Watershed. File: "*Undeveloped_Watersheds"*			
9-1	Confirm which Undeveloped Watershed the block is in *(Brim, Emsley, Hugh, Jesse, Owyacumish, or Wahoo)*			
9-2	Determine the area by site series for the block.			

Step	***Guidance***	
9-3	Review the Tabs in the spreadsheet file (first by FDU, then by LU if needed) to determine if the block has old forest in any of the site series identified for the appropriate Undeveloped Watershed.	
9-4	If no, no further action required	If yes, set aside that area of old growth contained within the site series
	Block in Mushroom Polygon (Kiteen Order). File: "*Kalum_Kiteen_Order"*	
10-1	Confirm whether the block is within the Mushroom Management Area within the Kiteen area	
10-2	If the block is in the Mushroom Management Area, the 2025 projections show that the Mushroom Management Area is in deficit for stands of age 80- 200 years old. The block will NOT be compliant until this seral imbalance is addressed.	
	Block in Moose Ungulate Winter Range (UWR-6-009, UWR-6-018). File: "*MWR_MU"*	
11-1	Confirm the Moose Ungulate Winter Range Management Unit (MWR-MU) in which the block is located	
11-2	If there is a Moose Management Plan in place for the MWR-MU, follow the Moose Management Plan.	
11-3	If there is not a Moose Management Plan in place for the MWR-MU: Refer to table in the file for the Moose Winter Range Management Unit	
11-4	If the block is already in the Analysis, check the area of mature + old seral stages in the Management Unit: If the mature + old area is above the threshold, no further action is required. If the mature + old area is below the threshold, then the block should not proceed at this time without a Moose Management Plan.	
11-5	If the block is NOT in the Analysis check the area of mature + old seral stages in the Management Unit to determine if there is room for the additional area of the block. If there is no room, then the block should not proceed at this time without a Moose Management Plan.	
	ECA Thresholds	
	Block in ECA Watershed. File: *"ECA Thresholds 2020 & 2025"*	
12-1	Confirm whether block is in a Nass Watershed or a Kalum SRMP Community Watershed. If the block is in either of these, and the block's silviculture system is one that impacts ECA thresholds, then ECA thresholds will apply.	
12-2	Refer to the appropriate tab in the spreadsheet to find the appropriate Nass Watershed or Kalum SRMP Community Watershed	
12-3	If the block is in the Analysis: If the ECA threshold is not exceeded, the block can proceed If the ECA threshold is exceeded, the block should not proceed at this time; alternatively it may be possible to proceed if a Watershed Assessment is conducted (check your FSP).	
12-4	If the block is NOT in the Analysis, check the area of Surrogate Hydrologically Effective Greenup (SHEG) for the watershed to determine if there is room for the additional area of the block.(i.e. the ECA threshold is not exceeded). If there is room, then the block can proceed. *Consider informing other licencees that share the Watershed.* If there is NO room, then the block should not proceed at this time; alternatively it may be possible to proceed if a Watershed Assessment is conducted (check your FSP).	

Appendix X Riparian Assessment

The purpose of this document is to provide direction to field layout personnel who are responsible for site plan riparian management prescriptions for S4, S5 and S6 streams. These streams do not have riparian reserve zones prescribed in legislation and are vulnerable to undue impacts from forestry activities. If suitable measures are not applied, detrimental changes to water temperature regimes, short and long-term channel stability and the amount of sediment and debris that is introduced in the stream may occur. The application of best management practices as a supplement to prescribed requirements is important to ensure riparian management objectives will be achieved.

Stream channels and associated riparian classes are defined in the Forest Planning and Practices Regulation (FPPR) according to the presence/absence of fish, occurrence in a community watershed and average channel width. Legal riparian management requirements by stream class dictate that riparian reserve zones (RRZ's) and riparian management zones (RMZ's) are required on S1, S2 and S3 channels. Only RMZ's are required on S4, S5 and S6 channels. Riparian Management Areas (RMA's) are comprised of the applicable RRZ and RMZ.

S4 Streams are fish bearing streams where there is at minimum a 100 m stream reach that is < 1.5 m wide.

S5 Streams are non-fish bearing streams where there is at minimum a 100 m stream reach that is > 3 m wide.

Large S6 Streams are non-fish bearing streams where there is at minimum a 100 m stream reach that is >1.5 m but < 3 m wide.

Small S6 Streams are non-fish bearing streams where there is at minimum a 100 m stream reach that is < 1.5 m wide.

Riparian areas occur next to the banks of streams, lakes and wetlands and include both the area dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence on it. Vegetation in riparian areas provides stability to stream banks, regulates stream temperatures, and provides a continual source of woody debris and other organic material to the stream channel. When intact, riparian areas help protect water quality by acting as a filter for sediment-laden surface water arriving from upland areas.

For the purpose of riparian zone management, stream channels can be described as either alluvial or non-alluvial based on the composition of the channel bed and banks.

Alluvial refers to materials transported and deposited by flowing water, either historically or under current flow regimes. Alluvial stream channels consist of unconsolidated or erodible materials and are susceptible to bank instability. Riparian root strength resists stream erosion by holding alluvial particles together and large woody debris (LWD), as provided by the riparian zone, creates in-stream structure that dissipates flow energy. As such, alluvial channels are dependent upon riparian vegetation to some extent to maintain both channel bed and bank stability.

Non-alluvial streams are normally composed of bedrock, glacial till, colluvium, or some combination of the three. These materials are less erodible based on their characteristics. The maintenance of riparian vegetation along non-alluvial channels is less important to maintain stability.

Successful stream and riparian management are associated with five main management actions / outcomes:

1) Road associated generation and transport of fine sediments (particularly vulnerable at stream crossings)
7) Level of RMA tree retention
8) Windthrow
9) Falling and yarding trees across small streams

10) Post-harvest machine disturbance in the RMA

When approaching stream crossings with road rights-of-way, minimize the width of the right-of-way and eliminate the potential for road debris and sediments to enter the stream channel (widen the riparian buffers along S4, S5 and S6 streams, divert surface runoff, etc.).
Plan falling and yarding activities so that physical contact with the streambed and banks is avoided (e.g., falling and yarding away from channels whenever possible, machine crossings at designated sites only). Should cross-stream yarding be required, prescribe steps to minimize channel bed disturbance, minimize temporary crossings and implement post-harvest debris assessment and cleaning measures suitable for the site. Yarding over felled timber (i.e., from the back forward across the gully) may minimize overall disturbance.

Riparian Assessment Steps

1) Determine the riparian classification of all reaches.

11) Determine the presence or absence of hydro geomorphic hazards* (e.g. fans) or specific environmental sensitivities or designations (e.g. temperature sensitive steam, fisheries sensitive watershed designations, or higher level plan requirements). **Refer to Land Management Handbook #57 for assistance with identifying hydro geomorphic hazards.*

12) Assess the potential for fish or tailed frog presence and whether the stream is directly connected to fish bearing habitats and (or) licensed waterworks.

13) Delineate alluvial and non-alluvial channel types within all reaches, including short alluvial reaches within longer non-alluvial sections that may need to be managed separately depending on length, level of incision and dependency on riparian vegetation for stability.

14) For alluvial channel types, determine the extent of the active floodplain, as defined by the area adjacent to the active channel that regularly experiences complete or partial flooding.

    a) Determine any large woody debris contribution areas immediately adjacent to the active floodplain where mature vegetation is capable of reaching the channel (generally within 20 m but up to 1 tree length). Note on some large S5 and S6 streams, active management of the floodplain and large woody debris (LWD) contribution areas may extend beyond 20 or 30 m and may be required to maintain channel stability.

15) Assess the potential for post-harvest wind throw disturbance in the riparian management area using a windthrow assessment.

16) Prescribe retention levels based on the recommendations below using the type and size of stream and channel materials determined by the steps above. Ensure the prescription is documented in the site plan, and where retention varies from recommendations below, include a rationale for the prescription as per Strategy 2.4.1.5/ Strategy 3.4.2.5.

Stream Class	Hydrogeomorphic Hazards or Specific Environmental Sensitivities or Designations Present	Incidental Observations of Coastal Tailed Frogs, or Suitable Coastal Tailed Frog Habitat	Alluvial Channel	Non-Alluvial Channel	Flows into Fish Bearing Stream or Stream with licensed waterworks
S4	a. Refer to LMH #57* b. Refer to Legal Orders and FSP results and strategies (if applicable) c. Contact BCTS personnel	Refer to *BCTS Skeena Guide to Species of Management concern* and contact BCTS personnel	1. Within the entire active floodplain: a. Retain non-merch and understory b. Designate a machine free zone (MFZ) 2. Prescribe a minimum 10 m windfirm* reserve area that provides bank stability. If a windfirm reserve area is not practicable due to site conditions or windthrow hazard, maintain a minimum 20% basal area retention. *Consistent with a windthrow assessment and any management prescriptions	Within the first 10 m (minimum) of the stream bank: a. retain non-merch and understory b. designate a minimum 5-m MFZ c. plan operations to minimize yarding within gullies or cross-channel d. retain all deciduous trees	Manage based on channel materials, LMH #57 or *BCTS Skeena Guide to Species of Management concern* where required.
S5	a. Refer to LMH #57* b. Refer to Legal Orders and FSP results and strategies (if applicable) c. Contact BCTS personnel	Refer to *BCTS Skeena Guide to Species of Management concern* and contact BCTS personnel	1. Within the entire active floodplain: a. Retain non-merch and understory b. Designate a MFZ 2. Maintain all deciduous trees within 10 m of the stream bank	Within the first 10 m (minimum) of the stream bank: a. Retain non-merch and understory b. Designate a minimum 5-m MFZ c. Plan operations to minimize yarding within gullies or cross-channel	Within the first 10 m (minimum) of the stream bank: a. Retain non-merch and understory b. Designate a minimum 5 m MFZ c. Retain all deciduous trees d. Plan operations to minimize yarding within gullies or cross-channel
S6 (Large)	a. Refer to LMH #57* b. Refer to Legal Orders and FSP results and strategies (if applicable) c. Contact BCTS personnel	Refer to *BCTS Skeena Guide to Species of Management concern* and contact BCTS personnel	1. Within the entire active floodplain: a. Retain non-merch and understory b. Designate a MFZ 2. Maintain all deciduous trees within 10 m of the stream bank	Within the first 10 m (minimum) of the stream bank: a. Retain non-merch and understory b. Designate a minimum 5-m MFZ c. Plan operations to minimize yarding within gullies or cross-channel	Within the first 10 m (minimum) of the stream bank: a. Retain non-merch and understory b. Designate a minimum 5 m MFZ c. Retain all deciduous trees d. Plan operations to minimize yarding within gullies or cross-channel
S6 (Small)	a. Refer to LMH #57* b. Refer to Legal Orders and FSP results and strategies (if applicable) c. Contact BCTS personnel	Refer to *BCTS Skeena Guide to Species of Management concern* and contact BCTS personnel	1. Within the entire active floodplain: a. Retain non-merch and understory b. Designate a MFZ 2. If the active floodplain is < 5 m, designate a 5 m MFZ	Within the first 10 m (minimum) of the stream bank: a. Retain non-merch and understory b. Designate a minimum 5-m MFZ c. Plan operations to minimize yarding within gullies or cross-channel	Within the first 10 m (minimum) of the stream bank: a. Retain non-merch and understory b. Designate a minimum 5 m MFZ c. Retain all deciduous trees d. Plan operations to minimize yarding within gullies or cross-channel

Appendix XI Wildlife Retention Strategies

Attributes of a high-value wildlife tree	**Attributes of a high-value wildlife tree patch**	**Attributes of high-value, dispersed wildlife tree retention**	**Attributes of high-value wildlife tree retention at the cutblock level**
• Internal decay (heart rot or natural/excavated cavities present). • Crevices present (loose bark or cracks suitable for bats). • Large brooms present. • Active or recent wildlife use. • Tree structure suitable for wildlife use (e.g., large nest, hunting perch, bear den). • Large trees for the site (height and diameter) and veterans. • Locally important wildlife tree species.	• Trees with valuable wildlife tree attributes, including large dead trees. • Potentially dangerous trees have been assessed. • Large patches with no harvest-related modifications. • Patches anchored on high-value trees/habitats, and/or other biodiversity criteria (e.g., around raptor nests, cave entrances), and/or operationally difficult areas (e.g., wet areas). • Retention of uncommon species, stand characteristics, and other elements of stand-level biodiversity. • Designed in consideration of windthrow risk. • Designed to balance valuable wildlife tree habitat attributes (e.g., heart rot, brooms, insects) and forest health issues. • Considers how individual tree species and site conditions affect stand structure. • Patches distributed throughout the cutblock. • Undisturbed forest floor.	• Wildlife trees that can be safely worked around during current and near future forest operations. • Retained trees have the potential to achieve the desired stand structure attributes (e.g., tall, large diameter trees). • Considers the susceptibility to windthrow. • Includes deciduous trees, vets, “wolf trees” and other trees of generally lower economic value.	• Based on a pre-harvest field assessment that identifies best opportunities for retaining wildlife trees in the most ecologically and operationally appropriate locations. • Contains a diversity of wildlife tree retention strategies (e.g., a range of patch sizes combined with dispersed trees). • Captures a diversity of habitat types. • Any fallen trees within reserve areas are left in place to function as coarse woody debris, unless they pose a significant forest health or other concern. • Considers tree windfirmness. Patch and individual tree retention considers the site, stand and individual trees during layout (e.g., low height/diameter ratio). • Ecological interpatch distance has been incorporated into design. • Identifiable on a map for long-term tracking and evaluation/monitoring. • Higher levels of retention on cutblocks with high ecological values, and lower levels of retention on cutblocks with low ecological values. However, ideally some retention on every cutblock. • Increased retention levels where there are exceptional wildlife tree or other stand-level biodiversity values that can be retained.

Note: In general, no single retention strategy is appropriate for all sites. Factors, such as stand type and condition, tree species, and windthrow hazard, create unique conditions for each stand.

Appendix XII FSP Maps

Maps are attached