Hazelton Forest Stewardship Plan Replacement
2018 - 2023

For Operations in the Skeena Stikine Natural Resource District:

Kispiox Timber Supply Area

Administered by BC Timber Sales Skeena Business Area

BC Timber Sales
Skeena Business Area
#200 – 5220 Keith Avenue
Terrace, British Columbia,
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Kispiox Timber Supply Area

BC Timber Sales – Skeena Business Area
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Timber Sales Manager Signature: for Dave Nicholson RPF.

Name: Gordon Haley, RFT

Date: Aug 8, 2018

Authorized RPF Signature:

Name: David Berg, RPF

"I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work."

REGISTERED PROFESSIONAL FORESTER
PROVINCE OF BRITISH COLUMBIA
DAVID CLINTON BERG
NO. 4508

Date: August 9, 2018

Authorized approval by Delegated Decision Maker: _____

Name: Jevan Hanchard, RPF

Date: _____

FSP ID #:216

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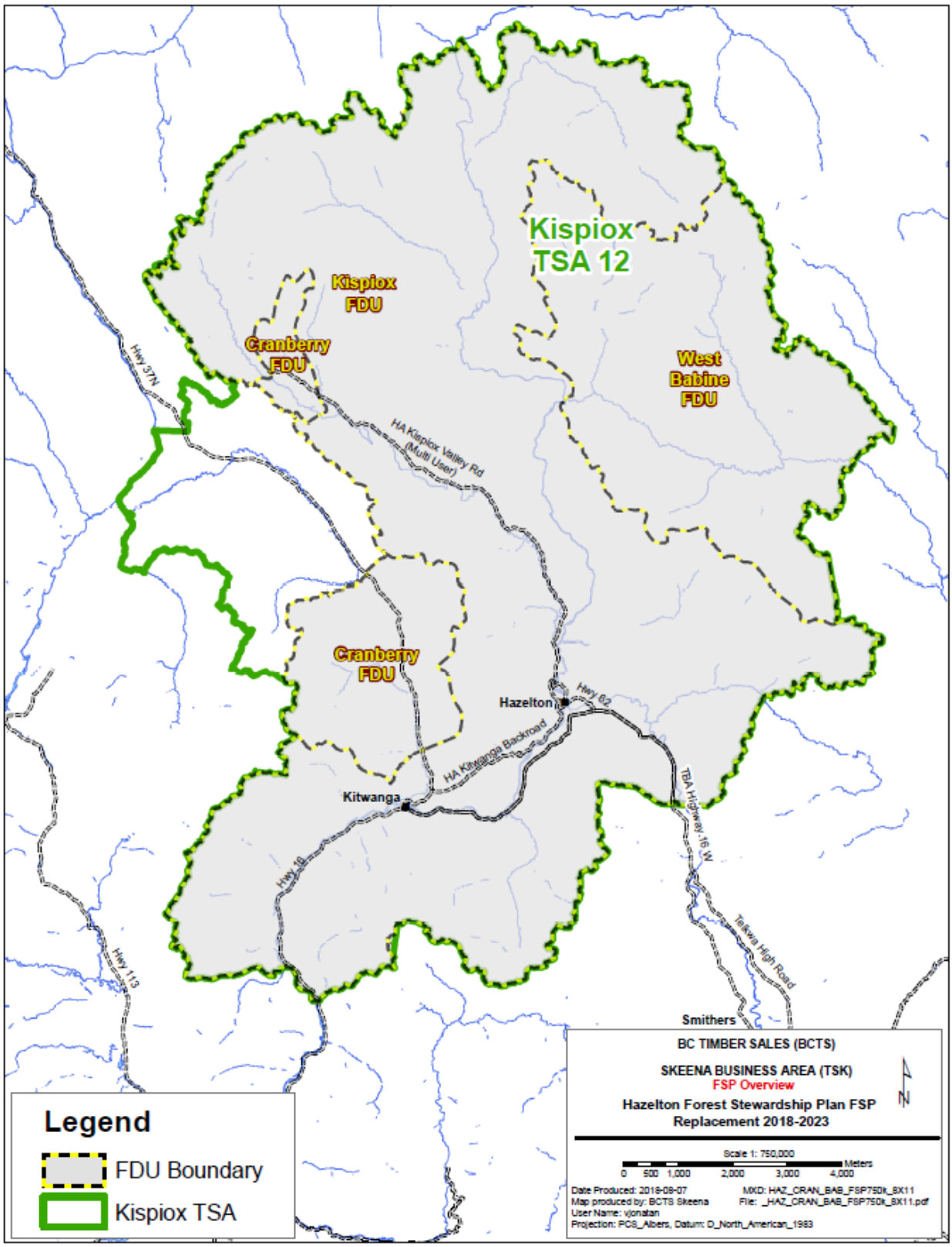
FIGURE 1: OVERVIEW MAP



1 APPLICATION OF THIS FSP

1.1 The Licence Holder

The Holder of this Forest Stewardship Plan (FSP) is the BC Timber Sales Manager (TSM) for the Skeena Business Area, and where applicable, by extension, the holder of a Timber Sale Licence (TSL) or Road Permit (RP) where granted by the TSM under the jurisdiction of this FSP. All references in the plan to harvesting, operations and activities refer to activities authorized by the FSP Holder.

1.2 Introduction

BC Timber Sales (BCTS) Skeena has prepared this Forest Stewardship Plan (FSP) for the areas to be managed under its operations within the Kispiox Timber Supply Area portion of the Skeen Stikine 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[1] to evaluate whether consistency with the objectives is being achieved. Within the FSP document, the description of each result or strategy will indicate whether it applies to all, some, or just one of the FDUs identified in the FSP.

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

- Soils
- Timber (including Forest Health)
- Wildlife
- Water Quality
- Fish/Riparian
- Biodiversity
- Cultural Heritage
- Recreation
- Resource Features
- Visual Quality
- Forage & Associated Plant Communities

1.3 Description of the Skeena Business Area of BC Timber Sales

BC Timber Sales was brought into being by Regulation in April 2003 with a mandate to collect representative cost and price data to support the Market Pricing System for timber harvested from public land in British Columbia. BC Timber Sales manages approximately 20% of the annual provincial Crown harvest through 12 Business Areas and has a staff presence in 33 locations. The Skeena Business Area has its main office in Terrace, BC, with a field office in Hazelton, BC.

At the time of submission, the total annual allowable cut apportionment administered by the Skeena Business Area is 984,524 m^3, and the annual apportionment within the area of this FSP is 254,233 m^3. The area of the plan covered by this FSP is restricted to the Kispiox Timber Supply Area portion of the Skeena Stikine Natural Resource District.

[1] For this FSP, the Delegated Decision Maker is the District Manager of the Skeena Stikine Natural Resource District, Ministry of Forests, Lands, Natural Resource Operations & Rural Development.

1.4 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).

1.5 Forest Development Units

This FSP includes three distinct planning areas, which are identified as Forest Development Units (FDUs) and shown on the overview map (Figure 1). The FSP includes a separate chapter (section) for each Forest Development Unit. The FDUs have been established to be consistent with existing land use order boundaries:

- The **Cranberry FDU** includes portions of the geographic area subject to the Land Use Objectives from the *Cranberry Sustainable Resource Management Plan LUOR Order* (March 3, 2016)

- The **Kispiox FDU** includes the geographic area subject to the Land Use Objectives from the *Kispiox LRMP Higher Level Plan Objectives for Biodiversity, Visual Quality, and Wildlife*, January 2006 (Kispiox HLPO), which includes the following two orders:

    a. *Order to establish Kispiox Landscape Units and Objectives* (June 1, 2006); and,
    b. *Order to Establish Scenic Areas in the Kispiox TSA* (Feb.1, 2006).

- The **West Babine FDU** includes the geographic area subject to the Land Use Objectives from the *Order to Establish the West Babine Landscape Unit and Objectives and to vary the Atna/Shelagyote and Babine River Special Management Zone Boundaries* (August 1, 2004).

A complete set of maps, showing Forest Development Units, Landscape Units, Special Management Zones, and other elements relevant to the application of this FSP are included with this plan in Appendix V.

1.6 First Nation Consultation and Information Sharing

The FSP Holder will consult in accordance with Treaties, First Nations consultation protocols or agreements that are in effect at the time of consultation. In the absence of such agreements, the FSP Holder will be consistent with current provincial consultation procedures.

1.7 Interpretation

All references to the Forest and Range Practices Act, or to FRPA, mean the *Forest and Range Practices Act (SBC 2002, s.69, as it was on March 3, 2017)*

All references to the Forest Planning and Practices Regulation, or to "FPPR", mean the Forest *Planning and Practices Regulation (BC Reg 177/2014, consolidated to February 29, 2016) as it was on March 3, 2017*.

All references to the Government Actions Regulation, or to GAR, mean the *Government Actions Regulation (BC Reg 582/2004, effective Dec 13, 2004) as it was on March 3, 2017.*

All references to the Land Act mean the *Land Act (Chapter 245[RSBC 1996], effective March 18 2013*) *as it was on March 3, 2017.*

All references to the Kispiox HLPO, mean the *Kispiox LRMP Higher Level Plan Objectives for Biodiversity, Visual Quality and Wildlife Order (January 27, 2006).*

All references to the Kispiox LRMP, mean the *Kispiox Land and Resource Management Plan (April 1996, Amended March 2001).*

All references to the West Babine SRMP, mean the *Xsu gwin lik'l'inswx: West Babine Sustainable Resource Management Plan (March 2004).*

All references to the Cranberry SRMP, mean the *Ministerial Order Land use Objectives Regulation Order Cranberry Sustainable Resource Management Plan (March 3, 2016).*

Unless otherwise noted, statements and information provided are current to March 3, 2017. Every effort has been made to ensure that current data have been used in map generation and analyses: i.e. current to March 3, 2017.

1.8 Content Requirements

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

The basic requirements are:

1. A map that shows the boundary of proposed and approved Forest Development Units (FDUs). *FRPA section 5(1) (a)*. There are three FDUs:
    - Kispiox FDU
    - Cranberry FDU
    - West Babine FDU
2. Details of the lands within these FDUs are shown on the FSP maps.
3. 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.** Within each Chapter of this FSP, and for the applicable FDU, the reference table that precedes each Objective identifies which 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).
4. A description or a map showing the following where it exists on the FSP area. *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

    The above information is provided in Appendix V - FSP maps.
5. Description of the Stocking Standards that will apply on the FDUs (FPPR s. 16). Described in **Section 6.1.2.**
6. Effect of Approval of the FSP **Section 6.1.16**
7. Where applicable, address:
    - Invasive plants (FPPR s. 17) **Section 5.1.1**
    - Natural range barriers (FPPR s. 18) **Section 5.1.2**
8. The cumulative effect of multiple FSPs in an area (FPPR s. 19) **Section 6.1.17**

9. 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.**
10. Signature by an authorized representative of the licensee (FRPA s. 5(3)). **Title page**

1.9 Explanation of Objectives, Strategies, and Results

***Objective*s** 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.

Examples of applicable Objectives set in regulation:

- Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Ungulate Species in the Cranberry Timber Supply Area, December 30, 2004.
- Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Skeena Stikine Forest District, December 30, 2004.

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.

Example of applicable Objectives enabled by regulation:

- Order – Ungulate Winter Range #U-6-006, Effective Date June 20, 2007, Amended September 17, 2014.

For example, in the Skeena Stikine 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 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 some sort of higher-level plan such as a Land and Resource Management Plan or Sustainable Resource Management Plan. The Minister of Forests, Lands, Natural Resource Operations & Rural Development (FNRORD) sets these objectives.

This plan includes land use objectives from the following sources:

1. Kispiox Land and Resource Management Plan, April 1996, Amended March 2001 (KLRMP);
2. Kispiox LRMP Higher Level Plan Objectives for Biodiversity, Visual Quality, and Wildlife, January 2006 (Kispiox HLPO), which included the following two orders:
    a. Order to establish Kispiox Landscape Units and Objectives, dated January 27, 2006 and effective June 1, 2006; and,
    b. Order to Establish Scenic Areas in the Kispiox TSA, dated January 27, 2006 and effective Feb.1 2006;
3. District Manager letter of February 20, 2006 Regarding: Clarification regarding Kispiox Land and Resource Management Plan, Higher Level Plan Order, Dated January 27, 2006 (Kispiox HLPO Clarification Letter);
4. Order to Establish a Sensitive Area and Objectives for 117 ha in the Mill Creek watershed, Effective Date June 15, 1999;
5. Dominion Telegraph Trail Management Plan, May 2000 (DTTMP);
6. Xsu gwin lik'l'inswx: West Babine Sustainable Resource Management Plan, 2004 (West Babine SRMP); and,
7. Order to Establish the West Babine Landscape Unit and Objectives and to vary the Atna/Shelagyote and Babine River Special Management Zone Boundaries, August 1, 2004.
8. Cranberry Sustainable Resource Management Plan, June 22, 2012
9. Cranberry Sustainable Resource Management LUOR Order, March 3, 2016.

Strategies are:

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

Results are:

- measurable or verifiable outcomes in respect of a particular established objective, and
- the situations or circumstances that determine where in a forest development unit the outcomes will be applied.

Note: As per section 7(3) of the Forest Planning and Practices Regulation, forest tenure holders are exempt 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, for approved Wildlife Habitat Areas.

Under the FPPR, there are practices described that must be followed. However, some of these practice requirements are optional if, in the FSP, there are strategies or results provided for objectives that also meet the intent of the practice. Conversely, some of these optional practice requirements, if committed to in the FSP, may relieve the FSP Holder from having to provide strategies or results for certain objectives. These "default" practice requirements are considered to achieve some of the objectives set by government. It is up to the FSP Holder to indicate whether the strategies and results in the FSP allow the FSP to be exempted from following these optional practice requirements. More information on the objectives, strategies, and results and how they relate to the forest values can be found in the *Supporting Document* to this FSP.

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 Result 2.2.1.1 relates to Objective 2.2.1.

1.10 Parts of this Document that Comprise the Forest Stewardship Plan

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

- The title/ signature page
- The results, strategies, and identification of which eligible FPPR practice requirements have been exempted, as described in **Sections 2, 3 and 4**;
- The additional information provided, discussed, or referenced in **Sections 5** and **6**; and
- The 1:50,000 scale maps indicating the FDUs.

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.

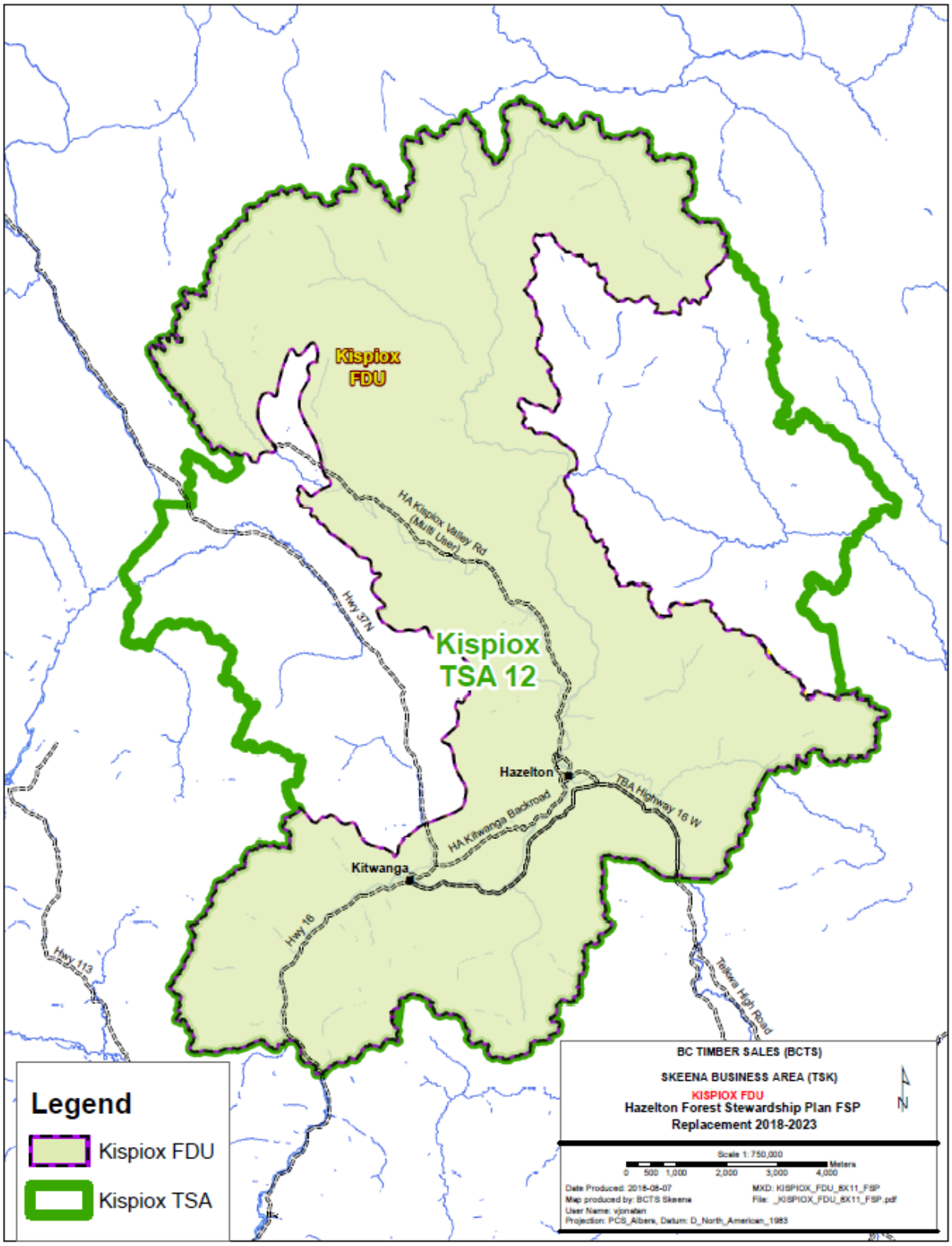
1.11 Acronyms and Definition of Terms

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

ATV:	All Terrain Vehicles
BCTS:	British Columbia Timber Sales
BEC:	Biological, Ecological, and Climatic; or Biogeoclimatic Ecosystem Classification
CHR	Cultural Heritage Resource
CHRE	Cultural Heritage Resource Evaluation
CWH:	Coastal Western Hemlock
DDM:	Delegated Decision Maker
ECA:	Equivalent Clearcut Area
EVQO:	Established Visual Quality Objective
FDP:	Forest Development Plan
FDU:	Forest Development Unit
FL:	Forest License
FLNRORD:	Ministry of Forests, Lands, Natural Resource Operations & Rural Development
FLTC:	Forestry License to Cut
FPC:	Forest Practices Code of British Columbia Act
FPPR:	Forest Planning and Practices Regulation
FRPA:	Forest and Range Practices Act
FSP:	Forest Stewardship Plan
FSP Holder:	BC Timber Sales Skeena Business Area Timber Sales Manager
GAR:	Government Actions Regulation
GRD:	General Resource Development Zone
ICH:	Interior Cedar-Hemlock
LRMP:	Land and Resource Management Plan
LUOR:	Land Use Order Regulation
LU:	Landscape Unit
MH:	Mountain Hemlock
NDT:	Natural Disturbance Type
NAR:	Net Area to be Reforested
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 Hazelton FSP Replacement 2018-2023

Primary Forest Activity:	means one or more of the following: a. Timber harvesting; b. Silviculture treatments; and, c. Road construction, maintenance and deactivation.
QP:	Qualified Professional
RMZ:	Riparian Management Zone
RPF:	Registered Professional Forester
RRZ:	Riparian Reserve Zone
RVQC:	Recommended Visual Quality Class (Preservation, retention, partial retention, modification, maximum modification).
SRMP:	Sustainable Resource Management Plan
TSA:	Timber Supply Area
TSM:	Timber Sales Manager
TSK:	BC Timber Sales – Skeena Business Area
TSL:	Timber Sale License
UWR:	Ungulate Winter Range
VIA:	Visual Impact Assessment
VQO:	Visual Quality Objective
VSC:	Visual Sensitivity Class
WAP:	Watershed Assessment Procedure
WTRA:	Wildlife Tree Retention Area

Figure 2: Kispiox FDU Key Map



2 KISPIOX FDU

The Kispiox Forest Development Unit (FDU) is a single unit that encompasses a portion of the Kispiox Timber Supply Area (TSA). Objectives for the Kispiox FDU are land use objectives and come from three sources:

1. Kispiox LRMP Higher Level Plan Objectives for Biodiversity, Visual Quality, and Wildlife, January 2006 (identified in this Forest Stewardship Plan (FSP) as the **Kispiox HLPO**), which included the following two orders:
    a. Order to establish Kispiox Landscape Units and Objectives, (signed January 27, 2006, effective June 1, 2006): and;
    b. Order to Establish Scenic Areas in the Kispiox TSA, (signed January 27, 2006, effective February 1, 2006)
2. Kispiox Land and Resource Management Plan, April 1996, amended March 2001 (identified in this FSP as the **Kispiox LRMP**), including the District Manager letter of February 20, 2006 Clarification Regarding Kispiox Land and Resource Management Plan, Higher Level Plan Order, Dated January 2006.

3. Forest Range and Practices Act **(FRPA)** and Forest Planning and Practices Regulation (**FPPR)** for resource values without established land use objectives from a higher-level plan.

The Kispiox HLPO provides objectives for biodiversity, wildlife, and visual quality in the Kispiox FDU. Objectives for the remaining FRPA resource values, initially approved as land use objectives in the Kispiox LRMP, were clarified in the Kispiox HLPO Clarification letter for application in FSP preparation under the FRPA. Circumstances or situations where each objective applies and where practice requirements under the FRPA are eligible for either exemption or the proposal of an alternative are included in the reference information section for each objective.

'Indicator(s)' and 'Threshold/Measures' from the Kispiox HLPO are adopted as results and strategies for biodiversity, wildlife, and visual quality in the Kispiox FDU. Results and strategies have been developed to address the remaining applicable land use objectives from the Kispiox LRMP and FRPA objectives to the extent practicable, measurable and/or verifiable. Objectives from the Kispiox LRMP that have been identified in the Kispiox HLPO as being "not applicable" to an Operational Plan are not included in this plan.

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: Kispiox LRMP	
Effective Date of Objective	1. January 31, 2004 2. N/A 3. April 25,1996; Amended March, 2001	
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

2.1.1 Objective: Soil Productivity and Hydrologic Function

FPPR s. 5: The objective set by government for soils is, without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and hydrologic function of soils.

Kispiox LRMP Section 6.5: To provide appropriate road development within the planning area.

2.1.1.1 RESULT FOR SOIL PRODUCTIVITY AND HYDROLOGIC FUNCTION

During the period of this FSP the FSP Holder will undertake to comply with sections 35 and 36 of the FPPR. The FSP Holder 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 period of the plan.

2.1.1.2 STRATEGY FOR SOIL PRODUCTIVITY AND HYDROLOGIC FUNCTION

During the period of this FSP the FSP Holder adopts Strategy 2.4.1.2 as a strategy for Objective 2.1.1.

2.2 Timber

Reference Information		
Type of Objective	1. Objectives set in regulation: FPPR s.6 2. Objectives enabled by regulation: N/A 3. Land Use Objectives: Kispiox LRMP	
Effective Date of Objective	1. January 31, 2004 2. N/A 3. April 25,1996; Amended March, 2001	
Mandatory Practice Requirements from the FPPR	FPPR ss. 41,42,43,44,45,46	
Practice Requirement(s) Eligible for Exemption	N/A	N/A

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.

Kispiox LRMP Section 6.11: To maintain the health and productivity of forest resources by providing protection from fire, insects and diseases, and through reforestation.

2.2.1.1 RESULT FOR TIMBER

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

2.2.1.2 STRATEGY FOR TIMBER

During the period of this FSP the FSP Holder will:

1) Refer to available spatial data of known and existing research installations as identified on the BC Geographic Warehouse (BCGW) website, at web address: http://catalogue.data.gov.bc.ca/dataset/growth-and-yield-samples-all-status
2) Make known to the appropriate FLNRORD staff whenever any unidentified permanent sample plots or research installations are found during the course of operational planning and resource development; and,
3) 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;
4) 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.
5) Notify a timber sale license 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.

2.3 Wildlife

Reference Information	
Type of Objective	1. Objective set in regulation: FPPR s.7(1) 2. Objectives enabled by regulation: GAR sections 9, 10, 11, 12 & 13 3. Land Use Objectives: Kispiox HLPO
Effective Date of Objective	1. January 31, 2004 2. Order- *Ungulate Winter Range – #U-6-006 (Kispiox and Cranberry TSAs Effective Date June 20, 2007 (Amended September 17, 2014).* 3. June 1, 2006
Mandatory Practice Requirements from the FPPR	FPPR ss. 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, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for

(a) the survival of species at risk,
(b) the survival of regionally important wildlife, and
(c) the winter survival of specified ungulate species.

Kispiox LRMP Section 6.13:

- *To maintain natural ecosystems and habitat to sustain viable populations of all native wildlife within their natural ranges.*

- *To protect or enhance populations and habitat of rare or endangered and regionally significant species.*

2.3.1.1 RESULT FOR WILDLIFE

During the period of this FSP the FSP Holder adopts Results 2.3.2.1, 2.3.3.1, 2.3.3.2, and 2.3.4.1 as a result for Objective 2.3.1.

2.3.1.2 STRATEGY FOR WILDLIFE

During the period of this FSP the FSP Holder adopts Strategy 2.3.2.2 as a strategy for Objective 2.3.1

2.3.2 Objective: Grizzly Bear

Kispiox HLPO- Section 3.2:

- *Maintain the integrity of critical grizzly bear habitat[3] within high-value grizzly bear habitat identified in Map 11* [of the Kispiox HLPO].

- *Limit the disruption to bear use of the high value habitat in the Upper Kispiox access management Zone (AMZ) identified on Map 11* [of the Kispiox HLPO].

- *Limit the impact of road building and forest harvesting activities on critical habitat[3] within the Upper Kispiox access management zone identified on Map 11* [of the Kispiox HLPO].

- *Limit the impact of road building and forest harvesting activities on high-value habitat within the East Kispiox/Kuldo access management zone identified on Map 11* [of the Kispiox HLPO].

- *Limit the impact of road building and forest harvesting activities on high-value habitat within the Upper Cranberry access management zone identified on Map 11* [of the Kispiox HLPO].

2.3.2.1 RESULT FOR GRIZZLY BEAR

During the period of this FSP the FSP Holder adopts the Indicators and Threshold/Measures (where provided) in Table 2-1, as a result for Objective 2.3.2

Table 2-1: Landscape Unit Objectives, Indicators and Threshold/Measures for Grizzly Bear Habitat

Objective	Indicator(s)	Threshold/Measure
Maintain the integrity of critical grizzly bear habitat[3] within high-value grizzly bear habitat identified on Map 11 [of the Kispiox HLPO].	Alteration of critical grizzly bear habitat within high-value grizzly bear habitat identified on Map 11 [of the Kispiox HLPO].	No alteration of critical habitat within high-value grizzly bear habitat identified on Map 11[of the Kispiox HLPO], unless no practicable alternative exists.
	Functional forest cover adjacent to non-forested critical habitats within high-value grizzly bear habitat identified on Map 11 [of the Kispiox HLPO].	Maintain approximately 100m of functional forest cover adjacent to non-forested critical habitats, unless no practicable alternative exists
Limit the disruption to bear use of the high value habitat in the Upper Kispiox access management zone identified on Map 11 [of the Kispiox HLPO].	Percent of forest greater than 50 years in age in the Upper Kispiox access management zone.	50% of the forest greater than 50 years.
	Duration and season of activity during operations in the Upper Kispiox access management zone.	No measure provided.
	Motorized use of the road network between operations	Restricted motorized access to the road network between operational periods.
Limit the impact of road building and forest harvesting activities on critical habitat within the Upper Kispiox access management zone identified on Map 11 [of the Kispiox HLPO]	Distance of roads from critical grizzly bear habitats within the Upper Kispiox access management zone.	No permanent roads located within approximately 150m of critical grizzly bear habitat, unless no practicable alternative exists.
Limit the impact of road building and forest harvesting activities on high-value habitat within the East Kispiox/Kuldo access management zone indicated on Map 11 [of the Kispiox HLPO].	Access within high-value habitat within the East Kispiox/Kuldo access management zone.	Restricted motorized access to the road network.
Limit the impact of road building and forest harvesting activities on high-value habitat within the Upper Cranberry access management zone indicated on Map 11 [of the Kispiox HLPO].	Access within high-value habitat within the Upper Cranberry access management zone.	Restricted motorized access to the road network.

[3] *Critical habitat types are >2ha (contiguous) and include Sitka alder-spiny wood fern seepage sites; south aspect Trembling aspen-Douglas maple sites (minimum 5% cover of Douglas maple); Sitka alder-cow parsnip avalanche chutes; Spruce-black twinberry floodplain (ICHmc2/05); trembling aspen-beaked hazelnut sites (ICHmc2/51); paper birch-red osier dogwood fans (ICHmc2/03); south aspect Paper birch-falsebox sites; black cottonwood-red osier dogwood floodplains (CWHws2/08); Spruce-Salmonberry floodplains (CWHws2/07); Cottonwood-Willow Floodplains (CWHws2/09); thimbleberry-cow parsnip moist meadows; willow swamps and willow-sedge wetlands (where willow is the dominant woody vegetation and exceeds 20% cover); Skunk cabbage sites (CWHws2/11; ICHmc2/07; ICHmc1/06).*

2.3.2.2 STRATEGY FOR GRIZZLY BEAR

During the period of this FSP, for critical[3] habitats identified within or adjacent to harvest areas, and access routes that require conservation, mitigation, or protection measures, the FSP Holder will, to the extent practicable:

1) Recognize critical habitats[3] for grizzly bear;
2) Incorporate critical habitats 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) Identify and seed landings, trails and permanent road rights-of-way sites according to section 5.1.1 of this FSP;
4) Deactivate temporary access roads within two (2) years after harvesting is completed; and,
5) Develop access control measures for the Upper Kispiox , East Kispiox / Kuldo and Upper Cranberry access management zones in consultation with the District Manager and the Ministry of Environment.

2.3.3 Objective: Moose

Kispiox HLPO Section 3.1.2:

- *Ensure moose forage is retained and available within moose winter range identified on Map 9* [of the Kispiox HLPO].

- *Maintain cover for security, visual screening, thermal cover and snow interception needs within moose winter range identified on Map 9* [of the Kispiox HLPO].

2.3.3.1 RESULT FOR MOOSE WINTER RANGE

1) During the period of this FSP, within the moose winter range identified on Map 9 of the Kispiox HLPO, the FSP Holder will:
    a. Adopt the indicators and threshold/measures for biodiversity listed in Table 2-4;
    b. Adopt the wildlife tree retention targets listed in Table 2-5.
    c. For the purpose of maintaining visual screening, to the extent practicable retain all deciduous trees and brush cover within 10 m of roads during silvicultural stand tending treatments unless the deciduous tree or brush has a deleterious effect on the ability of a crop tree (subject to stocking standards) to achieve the stocking standards, in which case the deciduous trees or brush will be removed to the extent necessary to meet the stocking standards.
2) Where moose ungulate winter ranges are established through an Order under the Government Actions Regulation, the General Wildlife Measures stated in the Order will be adhered to and the FSP Holder is exempt from Result 2.3.3.1.

2.3.3.2 RESULT FOR MODERATE AND HIGH VALUE MOOSE WINTER RANGE

1) During the period of this FSP, within the moderate and high value polygons identified on the moose winter range identified on Map 9 of the Kispiox HLPO, the FSP Holder will:
    a. Not carry out harvesting operations within willow and red-osier dogwood complexes[4];
    b. Retain security cover[7] ,where it exists, within 50 m of subhygric to subhydric[5] sites that are large

[4] The minimum size for a willow or red-osier dogwood complex is:
- One hectare for pure willow and/or red-osier dogwood sites;
- Two hectares of noncontiguous willow and/or red-osier dogwood sites within ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex area.

enough to be considered a silvicultural treatable unit[6] that contain willow and red osier dogwood as the dominant shrub species ;

c. Retain security cover[7], where it exists within or adjacent to a cutblock, and will ensure that at least 80% of the security cover[7] is separated by no greater than 200 meters;
d. Ensure that all roads that are the responsibility of the FSP Holder, excluding mainlines[9], are deactivated[8] following achievement of regeneration delay.
e. Ensure that all roads that are the responsibility of the FSP Holder, excluding mainlines[9], within 500 meters of a moose winter range polygon are deactivated following achievement of regeneration delay.

2) Where moose ungulate winter ranges are established through an Order under the Government Actions Regulation, the General Wildlife Measures stated in the Order will be adhered to and the FSP Holder is exempt from Result 2.3.3.2 (1) a-e.

3) Variances to points 2.3.3.2 (1)a-e above are permitted if a moose winter range plan for the area is prepared by a QP and operational activities are consistent with the recommendations of the plan.

2.3.4 Objective: Mule Deer

Kispiox HLPO Section 3.1.3: Provide for thermal and snow interception cover and forage for wintering mule deer populations on deer winter range identified on Map 10 [of the Kispiox HLPO].

2.3.4.1 RESULT FOR MULE DEER

During the period of this FSP the FSP Holder adopts Indicators and Threshold/Measures in Table 2-2 as a result for Objective 2.3.4.

Table 2.2: Landscape Unit Objectives, Indicators and Threshold/Measures for Mule Deer

Indicator	Threshold/Measure
Amount of area managed for a rotation age >150 years.	Greater than 15% of the mule deer winter range identified in *Map 10* [of the Kispiox HLPO] will be managed at a rotation age of 150 years. Greater than 40% of this area will be older than 150 years at any one time.

2.4 Water and Riparian Areas

Reference Information	
Type of Objective	1. Objectives set by regulation: FPPR s. 8 2. Objectives enabled by regulation: N/A 3. Land Use Objectives: a) Kispiox HLPO b) Kispiox LRMP
Effective Date of Objective	1.January 31, 2004

[5] For definitions of "subhygric" to "subhydric", see "moisture regime" in the Cranberry SRMP glossary.
[6] The minimum size for a silvicultural treatable unit is:
- One hectare for pure subhygric to subhydric sites;
- Two hectares of noncontiguous subhygric to subhydric sites within ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex area

[7] Security Cover is defined as sufficient vegetation cover and/or terrain features that provides a reasonable opportunity to prevent displacement or disturbance behaviour in moose, despite adjacent activities or predator movement that might otherwise elicit these behaviours.
[8] Deactivated: refers to the FRPA definition of deactivate.

[9] A mainline road is usually a long-term permanent road that may be used continuously or intermittently.

Reference Information	
	2. N/A
	3. (a) June 1, 2006, (b) April 25, 1996; Amended March 2001
Mandatory Practice Requirements from the FPPR	FPPR ss. 47, 48, 49, 50(1), 51(2), 54 & 58
Practice Requirement(s) Eligible for Exemption	FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56, & 57. **Decision**: Adopt FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56, & 57.

2.4.1 Objective: Water and Riparian Areas

FPPR s.8: The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.

Kispiox LRMP Section 6.2:

- *To maintain water quality and quantity for domestic, recreational, agricultural and industrial use, and for wildlife and fisheries.*
- *To protect the hydrological integrity of watersheds.*

Kispiox LRMP Section 6.4: To maintain riparian areas:

a) to protect rivers, streams, and wetlands, and associated recreation, cultural heritage, aboriginal, tourism and wildlife values

b) to protect sources of large organic debris

c) to ensure bank stability

d) to protect water quality and

e) to maintain important fish and wildlife habitat.

Kispiox LRMP Section 6.3: To protect the following sensitive fish habitat:

(a) lakes with small populations of large rainbow trout;

(b) stream reaches with identified populations of bull trout;

(c) important spawning and rearing areas; and

(d) Class I and II angling waters, and their tributaries

2.4.1.1 Result For Water And Riparian Areas

During the period of this FSP the FSP Holder will undertake to comply with FPPR sections 47, 48, 49, 50(1),

51(1), 51(3), 52(2), 53, 55, 56, & 57. The FSP holder will notify each holder of a timber sale licence or road permit that FPPR sections 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56, & 57 apply to the holder`s primary forest activities carried out during the period of the plan.

2.4.1.2 STRATEGY FOR WATER AND RIPARIAN AREAS

During the period of this FSP the FSP Holder will:

1) Prior to road and block development, utilize a QP to undertake the watershed assessment activities identified under the 'Required Licensee Assessments' column (Column C) for the corresponding 'Watershed' (Column A) of the Watershed Integrity Matrix (Appendix VI) and identified on the map in Appendix VII 4th Order Watersheds in the Kispiox TSA; and,

2) Will undertake actions to address recommendations that result from the assessments completed in (1); and,

3) Where 'Riparian Reserves' are identified under the 'Required Licensee Assessments' column (Column C) for the corresponding 'Watershed' (Column A) of the Watershed Integrity Matrix (Appendix VII) and identified on the map in Appendix VII 4th Order Watersheds in the Kispiox TSA, maintain a minimum 10-metre riparian reserve zone on either side of all S4 streams.

2.4.1.3 RESULT FOR BASAL AREA RETENTION IN RIPARIAN MANAGEMENT ZONES

During the period of this FSP the FSP Holder will ensure that the basal area to be retained within Riparian Management Zones, will be:

- a minimum of 20% on S1, S2 and S3 streams; and,
- a minimum of 10% on all Wetlands and Lakes.

2.4.1.4 STRATEGY FOR S4, S5, AND S6 STREAM AND RIPARIAN MANAGEMENT

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

1) Retention levels associated with S4, S5, and S6 streams are:

    a) determined by a qualified professional through the utilization of the *Stream and Riparian Management Decision Key –S4, S5, and S6 Streams* found in Appendix VIII; and,
    b) documented in the Site Plan.

2) Primary forest activities comply with the prescribed retention levels determined in 2.4.1.4 (1). The prescribing forester may vary from the retention levels identified by the *Stream and Riparian Management Decision Key – S4, S5, and S6 Streams* 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.

2.4.1.5 STRATEGY FOR SENSITIVE FISH HABITAT

During the period of this FSP the FSP Holder will:

1) Refer to known and available information identifying sensitive fish habitat, including:
    a. The Kispiox and Cranberry TSA Critical Stream Reach Inventory (Triton 2006);
    b. Bull trout staging areas made known by the MOE; and,
    c. Stream and lake riparian classifications and inventory information;

2) Develop site specific plans and mitigation measures to limit the potential for adverse impacts to sensitive fish habitat;

3) Ensure that each cutblock or road authorized by the FSP Holder is designed in a manner that is consistent with 2.4.1.5 (2) above;

4) Carry our forest practices only if the forest practices are consistent with the design for the cutblock or road referred to in section 2.4.1.5 (3) above; and,

5) Enter into a timber sale licence or grant a road permit only if the licence or permit is consistent with the design for the cutblock or road referred to in section 2.4.1.5 (3) above.

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: N/A 3.Land Use Objectives: N/A	
Effective Date of Objective	1. January 31, 2004 2. N/A 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

2.5.1 Objective: Community Watersheds

FPPR s. 8.2: The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in:

(a) a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or
(b) the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under
(i) an enactment, or
(ii) the license pertaining to the waterworks.

(3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.

2.5.1.1 RESULT FOR COMMUNITY WATERSHEDS

The community watersheds in the Kispiox FDU are identified as:

- Chicago Creek
- Dale Creek
- Juniper Creek
- Kits Creek
- Quinmass Creek
- Sikedakh Creek

- Station Creek
- Two Mile Creek; and,

as established at the Legislated Planning Date of this FSP, unless after that date the designation of the area as a community watershed is:

a. amended to reduce the area it covers, in which case this definition applies to the area of the watershed as reduced; or,
b. cancelled, in which case it will no longer fall within this definition of Community Watershed.

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

2.5.1.2 STRATEGY FOR COMMUNITY WATERSHEDS

During the period of this FSP the FSP Holder will:

1) Before carrying out or authorizing a primary forest activity in a cutblock within a community watershed:
   a. monitor the following environmental indicators for cumulative hydrological effects on Crown land:
      I. the area and percent of the watershed and/or sub-basin harvested, by important elevation bands, adjusted for Equivalent Clearcut Area (ECA) %; and,
      II. the road density (km / km^2), by important elevation bands or soil sensitivity class;
   b. determine, in consultation with a QP, scores and risk thresholds for each environmental indicator under section 2.5.1.2 (1)(a); and,
   c. authorize or carry out forest practices to a cumulative low to moderate risk threshold for adverse hydrological effects, in accordance with the resulting indicator scores under section 2.5.1.2 (1)(b);
2) Inform holders of major licences operating within the Cranberry FDU of the resultant scores and risk thresholds;
3) Design cutblocks and roads in a manner that is consistent with a cumulative low to moderate risk threshold for material adverse hydrologic effects, in accordance with the resulting environmental indicator scores;
4) Carry out a primary forest activity only if the activity is consistent with the design for the cutblock or road referred to in section 2.5.1.2 (3) above; and,
5) Enter into a timber sale licence or grant a road permit only if the licence or permit is consistent with the design for the cutblock or road referred to in section 2.5.1.2 (3) above.

2.6 Fish

Reference Information		
Type of Objective	1. Objectives set in regulation: FPPR s. 8.1	
	2. Objectives enabled by regulation: Gar 14 and 15	
	3. Land Use Objectives: N/A	
Effective Date of Objective	1.January 31, 2004	
	2. N/A	
	3. N/A	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 55, 56, & 57.	Decision Adopt: 55, 56, & 57.

2.6.1 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.

(3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.

2.6.1.1 Result For Fish Habitat In Fisheries Sensitive Watersheds

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 FSP Holder will notify each holder of a timber sale licence or road permit to which the plan related that FPPR sections 55, 56, and 57 apply to the holder's primary forest activities carried out during the term of the plan.

2.7 Biodiversity

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR ss. 9, 9.1 2. Objectives enabled by regulation: N/A 3. Land-Use Objectives: (1) Kispiox LRMP; (2) Kispiox HLPO
Effective Date of Objective	1. January 31, 2004 2. N/A 3.(1) April 25, 1996, Amended March, 2001 (2) February, 2006
Mandatory Practice Requirements from the FPPR	FPPR ss. 68
Practice Requirement(s) Eligible for Exemption	FPPR ss. 64, 65, 66 & 67
	Decision: Adopt FPPR ss. 67 Exempt FPPR ss. 64, 65, & 66

2.7.1 Objective: Patch Size Distribution, Seral Stage Condition and OGMA

Kispiox HLPO- Section 1.0: To maintain a distribution of old, mature, and early seral forest reflective of the natural disturbance regime, while maintaining the structural and functional features of old forest ecosystems.

Kispiox HLPO- Section 2.0: To attain a landscape pattern of patchiness that, over the long term, reflects the natural disturbance pattern.

FPPR s. 9: The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.

2.7.1.1 Result For Patch Size Distribution and Seral Stage Condition

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 FDU area.

2) Areas harvested by the FSP Holder within the FDU will maintain or move towards the patch size distribution target threshold/measures listed in Table 2-3 and the seral stage condition target threshold/measures identified in Table 2-4 and will be calculated in accordance with the process outlined in the Kispiox/Cranberry Objectives Set By Government Indicator Monitoring and Assessment Working Group (KOMA) document entitled Kispiox/Cranberry Patch Size Distribution Analysis (February 6, 2013).

2.7.1.2 STRATEGY FOR PATCH SIZE DISTRIBUTION AND SERAL STAGE CONDITION

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

1) Every three years, by June 1st, the FSP Holder completes a report summarizing the status of the patch and seral distribution within the FDU area. 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 threshold/measures identified in Tables 2-3 and 2-4, a rationale will be prepared that describes management direction for moving towards the target levels.

2) Within a specified period after the approval of this FSP, harvest activities under this FSP are shown to be consistent with the management direction. This specified period shall be five (5) years for each Landscape Unit, unless otherwise determined by mutual agreement between the FSP Holder and the District Manager.

Table 2-3: Landscape Unit Indicators and Threshold/Measures for Biodiversity-Patch Size Distribution in the Kispiox FDU

Indicator(s)	Threshold/Measures	
Distribution and range of patch sizes by natural disturbance type, within each landscape unit as indicated on the Map 1 of the Kipsiox HLPO.	Patch Sizes Within Natural Disturbance Type	Contributing Forested Area Within Each NDT by Landscape Unit (% of Total)
	NDT 1	
	Small Patches (less than 40 ha)	30-40%
	Medium Patches (>40 and <80 ha)	30-40%
	Large Patches (>80 and <250)	20-40%
	NDT 2	
	Small Patches (<40 ha)	30-40%
	Medium Patches (>40 and <80 ha)	30-40%
	Large Patches (>80 and <250)	20-40%
	NDT 3	
	Small Patches (<40 ha)	20-30%
	Medium and Large Patches (>40 and <250 ha)	10-20%
	Extra Large Patches (>250 and <1000)	60-80%

2.7.1.3 STRATEGY FOR OLD GROWTH MANAGEMENT AREAS

During the period of the FSP the FSP Holder will digitally and spatially report to the District Manager the extent and location of a planned disturbance in OGMAs by the FSP Holder and will report and reserve an alternate area from harvesting according to provisions of Table 2-4,Indicator (4), Thresholds/Measures.

Natural processes (e.g., fire, insects) will be allowed to occur within OGMAs in the Kispiox FDU. In the event natural processes threaten resource values outside the OGMAs, the OGMAs may be subject to harvest and replacement by the FSP Holder. Replacement of OGMAs impacted by natural process will not be undertaken by the FSP Holder.

The FSP Holder will ensure that proposed amendments are completed in a manner consistent with the approved *Old Growth Management Area (OGMA) Amendment Policy – Skeena Region (February 9, 2011)* and as may be amended from time to time.

Table 2-4: Landscape Unit Indicators and Threshold/Measures for Biodiversity-Seral Stages and Old Growth Management Areas

Indicator(s)	Threshold/Measures
1) Amount of mature and old seral forest retained in each landscape unit by BEC subzone as indicated on Map 2 of the Kispiox HLPO.	Percent (%) retention of mature and old seral forest by Biogeoclimatic Ecosystem Classification (BEC) subzone for each landscape unit: **NDT 1** ESSFwv >36% MHmm2 >36% **NDT 2** CWHws2 >34% ESSFmc >28% ICHmc1 >31% ICHmc2 >31% **NDT 3** SBSmc2 >23%
2) Amount of early seral forest at any one time in each landscape unit by BEC subzone as indicated on Map 2 of the Kispiox HLPO.	Maximum amount of early seral forest (< 40 years) by BEC subzone for each landscape unit: **NDT 1** ESSFwv <22% MHmm2 <22% **NDT 2** CWHws2 <36% ESSFmc <36% ICHmc1 <36%
3) Amount of old seral forest at any one time in the Suskwa and Hazelton watersheds as indicated on Map 3 of the Kispiox HLPO.	**NDT 2** ICHmc2 >9%
4) Amount of harvesting in OGMAs as indicated on Map 4 of the Kispiox HLPO.	Up to 10% within a BEC subzone, within a watershed (Map 4 of the Kispiox HLPO), for the purposes of road development, improved harvest boundary alignment and for otherwise improving the location of the OGMAs provided that an alternate area or areas

Indicator(s)	Threshold/Measures
	in the same ecological unit (BEC Subzone, within a watershed) are identified and reserved from harvesting, and the area is of equal or greater extent than the area to be disturbed, and of equal or greater value for biodiversity conservation than the area to be disturbed. Botrychium Basin[10] is to be maintained in OGMA and is not eligible for harvesting.

2.7.2 Objective: Wildlife Tree Retention Areas

FPPR s. 9.1: *The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.*

Kispiox HLPO- Section 1.0: To maintain the range of structural attributes of old forest ecosystems within forest stands throughout the rotation.

2.7.2.1 Result For Wildlife Tree Retention Areas

During the period of this FSP the FSP Holder will:

1) Maintain the range of structural attributes[11] of old forest by ensuring that proposed blocks, aggregated on an annual basis by landscape unit and BEC subzone, retain at least the "Cutblock Area Required as Wildlife Tree Patches (%)" values identified in Table 2-5 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 range of structural attributes[11] consistent with (1) above or a suitable replacement WTRA will be located.
3) Not harvest timber from a WTRA unless trees in 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 harvesting is required to access timber that otherwise would be isolated from harvest beyond the WTRA area.
4) Where 2.7.2.1 (3) applies, prior to harvesting within a WTRA, the FSP Holder will identify and establish a replacement area with similar stand characteristics to the WTRA planned for harvest, and will amend the associated Site Plan to add the replacement area to the block.

2.7.2.2 Strategy for Wildlife Tree Retention Areas

During the period of this FSP the FSP Holder will monitor, annually track, and if requested report to the District Manager the proportion of Landscape Unit area covered by WTRAs resulting from forest related activities of the FSP Holder on completed harvest areas by April 30th of each calendar year.

[10] The *Botrychium Basin Sensetive Area Plan (Williston, 2002) contains* a site description for the area and contains maps of the areas two management zones.
[11] Structural attributes include, but are not limited to: diversity of tree species, tree diameter, and tree heights, living and dead standing trees, coarse woody debris, opening size, range of layers, above and below ground flora and fauna.

Table 2-5: Landscape Unit Indicators and Threshold/Measures for Biodiversity-Wildlife Tree Retention

Indicator(s)	Threshold/Measures		
Area of wildlife tree retention having the structural characteristics of older forests.	The proportion of cutblock area to be retained in wildlife tree retention patches (WTRAs) over the rotation per Landscape Unit/BEC subzone designation is:		
	Landscape Unit	BEC Subzone	Cutblock Area Required as Wildlife Tree Retention Patches (%)
	Babine	ESSFmc	3
		ESSFwv	0.5
		ICHmc	3
		SBSmc	1
	Kispiox North	ESSFwv	0
		ICHmc	1
	Kispiox South	ESSFwv	2
		ICHmc	6
	Upper Skeena	ESSFwv	0.5
		ICHmc	1
		SBSmc	2
	Middle Skeena North	ESSFwv	0.5
		ICHmc	3
	Middle Skeena South	CWHws	8
		ESSFwv	2
		ICHmc	3
	Lower Skeena	MHmm	0
		ICHmc	4
		CWHws	0.5
		ESSFwv	0.5
	Suskwa	ESSFwv	0.5
		ICHmc	4
	Gitsegukla	CWHws	4
		ICHmc	3
Distance between wildlife tree patches.	Less than 500 m from mature timber.		

2.7.2.3 RESULT FOR WILDLIFE TREE RETENTION AREAS

During the period of this FSP the FSP Holder will undertake to comply with section 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 67 applies to the holder's primary forest activities carried out during the term of the plan.

2.7.3 Objective: Floodplain Ecosystem Integrity

Kispiox HLPO- Section 1.0: Maintain the integrity of floodplain ecosystems.

2.7.3.1 Result For Floodplain Ecosystem Integrity

During the period of this FSP the FSP Holder will adopt the Indicators and Threshold/Measures in Table 2-6 as a result for Objective 2.7.3.

Table 2-6: Landscape Unit Indicators and Threshold/Measures for Biodiversity-Floodplain Ecosystems[12]

Indicator(s)	Threshold/Measures
Amount of harvesting in low bench floodplain ecosystems[12].	No alteration within low bench ecosystems except: i. to manage natural processes that threaten resources outside of the floodplain, or ii. to build a road to access timber or other resources outside of the low bench ecosystem.
Amount of harvesting in middle bench floodplain ecosystems[12].	No alteration within midbench ecosystems except: i. to manage natural processes that threaten resources outside of the midbench ecosystem; ii. to access timber or other resources outside of the low bench ecosystem; or, iii. to provide for moose and grizzly bear habitat.

2.7.4 Objective: Rare Ecosystems

Kispiox LRMP Section 6.1:

- *To maintain rare or threatened plant and animal species and communities.*
- *To maintain rare ecosystems and environmentally sensitive areas such as wetlands (e.g., upper Shelagyote valley), floodplains and riparian.*

2.7.4.1 Result For Rare Ecosystems

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 [13] and blue-listed[14] plant communities[15] and will map identifiable occurrences:
    a. For pure site series, larger than 0.50 hectares in size; or,

[12] The current extent of floodplain mapping is shown on Map 5 of the Kispiox HLPO.
[13] Red-listed plant communities are as described on the Conservation Data Center website when accessed on the day the original Site Plan is signed.
[14] Blue-listed plant communities are as described on the Conservation Data Center website when accessed on the day the original Site Plan is signed.
[15] the required minimum size of a red or blue listed ecological community is 0.50 ha. Where the community exists as the dominant (at least 50%) component of a complex, the minimum size of the complex is 1 ha.

b. For site series complexes, larger than 1.0 hectare in size with a dominant component (at least 50%) of one or more rare plant communities.

2) 100% of the area and basal area of each occurrence of a red-listed ecological community is to be retained unless disturbance is required to access timber that otherwise would be isolated from harvest beyond the core area.

3) At least 70% of the area or basal area of each occurrence of blue-listed ecological community is retained unless disturbance is required to access timber that otherwise would be isolated from harvest beyond the core area.

4) A windfirm forested buffer will be placed around identified red listed ecological communities. The buffer will be designed to maintain the conditions of soil chemistry, moisture, temperature, and light that define and sustain the ecosystem except for the instance listed in 2.7.4.1(2).

5) A minimum buffer of 15 metres, designed to promote or maintain the windfirmness of the retained stand, will be maintained around the margin of each identified blue listed ecological community.

2.8 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), and 17 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31, 2004 2. Order to Establish Scenic Areas in the Kispiox TSA, Feb.1, 2006, Order to Establish the Kispiox Landscape Unites and Objectives, June 1, 2004, GAR Order, December, 2004, Scenic Areas Made known (1999). 3. April 25, 1996; Amended March, 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

2.8.1 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.

Kispiox HLPO Section 2.0:
1) To maintain visual quality in scenic areas including:
a) Highways 16 and 37 corridors;
b) Babine River;

c) Seven Sisters area;
d) Kispiox River valley;
e) Skeena River valley;
f) Swan Lake area;
g) Hazelton area;
h) Adjacent to Ross Lake and Seeley Lake Provincial Parks;
i) Recreation Sites and Trails (identified in Table 2.7 as Recreational Trails and in Table 2-9 as Recreational Sites); and,
j) Important recreational fishing areas (identified in Table 2-8); and,

2) To maintain visual quality as seen from Highway 16 and 37, Sedan Creek Recreation Site and Cedarvale back road.

2.8.1.1 STRATEGY FOR VISUAL QUALITY

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 (https://www.for.gov.bc.ca/TASB/LEGSREGS/FPC/FPCGUIDE/visual/httoc.htm#cont) and will be attached or referred to in the Site Plan for their planned blocks and roads that are located within known scenic areas and that are identified with a Visual Quality Objective (VQO) of Preservation (P), Retention (R), Partial Retention (PR), or Modification (M).
2) The visual impact assessment will :
    a. review the visual landscape from identified viewpoints (see below for viewpoint selection and criteria)
    b. describe how the visual design conforms with the VQO.
3) The road and block design, at the date of TSL issuance, will reflect the visual design as described in the visual assessment.
4) Viewpoints are identified as follows:
    a. As shown on the FSP maps, or
    b. At a point along a travel corridor that allows for an extended viewing experience.

    For the purpose of 4 (b) “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.
5) The FSP Holder may request an exemption from the District Manager where road construction, required to access isolated wood, or catastrophic damage such as wind-throw, fire, disease, or pest damage occurs and any timber harvest or road construction 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).

2.8.1.2 RESULT FOR VISUAL QUALITY

During the period of this FSP the FSP Holder will ensure that road construction and / or timber harvesting carried out or authorized by the FSP Holder will be consistent with established VQOs.

2.9 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: N/A
Effective Date of Objective	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

2.9.1 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.

Kispiox LRMP Section 6.6:

- *To maintain cultural heritage resources including archaeological sites, traditional use sites and trails, and structural features. A specific objective is to protect features at Kispiox, Hazelton/Hagwilget,Kitwancool, Cedarvale, Kitseguecla, Kisgegas and Kuldo;*

- *To recognize the significance of house territories and associated resources to First Nations.*

Kispiox LRMP Section 6.16: To maintain sites that are important for production of traditional medicinal plants (e.g., lily roots, devil's club).

2.9.1.1 Strategy For Cultural Heritage Resources

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

1) A Cultural Heritage Resource Evaluation (CHRE) has been completed on their planned blocks and roads before harvesting or construction activities are authorized or mechanical site preparation activities are prescribed. A CHRE is defined as a process conducted by field and office persons, consisting of the following steps:

    a. Complete an initial review of all proposed blocks and roads in relation to known information regarding the location, nature and extent of cultural heritage resources and document the results.

    b. Provide the results of the initial review to potentially affected First Nations identified through the Consultative Areas Database (CAD). Request of the First Nations any additional information regarding cultural heritage resources that may be present and potentially affected by the proposed blocks and roads or mechanical site preparation activities.

c. Complete a field evaluation for the presence of cultural heritage resources and record information related to the location, nature and extent of any cultural heritage resources that are identified.

d. Evaluate the direct impact of the planned development on the cultural heritage resources identified, if any.

e. If a cultural heritage resource feature is found, following consultation with the affected First Nation(s), prepare recommendations in order to conserve, mitigate impacts, or, as required, protect the cultural heritage resource at the location, considering:

   i. the relative value or importance of the cultural heritage resource to a traditional use by an aboriginal people;

   ii. if the cultural heritage resource is of continuing importance to the First Nations;

   iii. historical extent of the traditional use of the cultural heritage resource; and,

   iv. the impact on the FSP holders government granted timber harvesting rights of conserving or protecting the cultural heritage resource.

2) The FSP Holder's harvesting, road construction, and mechanical site preparation activities will follow the recommendations given in the Cultural Heritage Resource Evaluation referred to in (1) above, that are practicable and are required to conserve, mitigate impacts, or, if necessary, protect a cultural heritage resource if it is of continuing importance to the First Nations.

3) For previously unidentified cultural heritage resources encountered during harvesting, road construction, or mechanical site preparation activities, the FSP Holder will:

   a. stop the activity to the extent necessary to protect the cultural heritage resource until a Cultural Heritage Resource Evaluation (with respect to the previously unidentified feature)is carried out; and,

   b. ensure that the FSP Holder's harvesting, road construction, or mechanical site preparation activities continue in a manner that follows the recommendations given in the Cultural Heritage Resource Evaluation referred to in (a) above, 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.

2.9.2 Objective: Other Cultural Heritage Resources

Kispiox LRMP Section 6.6: To protect historic features associated with river boat traffic on the Skeena River, the Dominion Telegraph Trail and early mineral exploration.

2.9.2.1 Result For Other Cultural Heritage Resources

Consistent with the Dominion Telegraph Trail Management Plan, May 2000 (DTTMP), for harvesting or road construction activities planned within the trail corridor, the FSP Holder will, during the period of this FSP:

1) Make application for a site alteration permit under the Heritage Conservation Act for any activities planned within the 200 meter trail corridor along the telegraph trail;
2) Duly consider the Guidelines for Resource Development (DTTMP, section 4.0 - 4.9) in the preparation of any site alteration permit application;
3) Carry out a *Cultural Heritage Resource Evaluation (as per Strategy 2.9.1.1)* as part of the site alteration permit application process; and,
4) Conduct all harvesting, road construction, and mechanical site preparation activities consistent with recommendations given in the *Cultural Heritage Resource Evaluation* referred to in (c) above, that are practicable and are required to protect historical features associated with the Dominion Telegraph Trail.

2.9.2.2 RESULT FOR OTHER CULTURAL HERITAGE RESOURCES

During the period of this FSP, in respect of the protection of historic features associated with Skeena River boat traffic and early mineral exploration areas, results and strategies pertaining to:

1) Section 2.8 - Visual Quality;
2) Section 2.10 - Recreation and Special Management Zones; and,
3) Section 2.4 - For Water and Riparian Areas

are adopted by the FSP Holder as general results and strategies under this FSP.

In addition, if historic features associated with Skeena River boat traffic and early mineral exploration are identified in the field by field staff or contractors, or made known to the FSP Holder through consultation or stakeholder referral activities, the FSP Holder will, during the period of this FSP, adopt the following process to conserve, or, if necessary, protect such historic features:

1) Record the location of the cultural heritage resource;
2) Evaluate the direct impact of the planned development on the historic feature;
3) Incorporate the historic feature 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; or,

4) If avoiding alteration of the historic feature may potentially affect the timber supply or create significant impact on the Licence holder's government granted timber harvesting rights, consider alternative silviculture systems or other forest management solutions to minimize the impact to the historic feature as a result of forest related activities.

2.10 Recreation

Reference Information	
Type of Objective	1. Objective set in regulation: FRPA ss. 56, 180 & 181 2. Objectives enabled by regulation:, GAR s. 5(f), 5(g) 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31 2004 2. Order to Establish Scenic Areas in the Kispiox TSA (Feb 1, 2006). 3. April 25, 1996; Amended March, 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

2.10.1 Objective: Recreation

Kispiox LRMP Section 6.9: To maintain recreational values and opportunities (i.e. landscapes, rivers, lakes, trails and recreation sites)

Kispiox LRMP Section 6.9: To maintain public access to recreational opportunities and established recreational features.

Kispiox LRMP Section 6.9: To protect the following important recreational features:

a) Kispiox, Babine, Bulkley, Suskwa, Kitseguecla, and Skeena river corridors for fishing and

boating;

b) Upper Skeena River for rafting;
c) Hagwilget and Bulkley Canyons on the Bulkley River;
d) Dominion Telegraph Trail; and Babine River Valley.

2.10.1.1 STRATEGY FOR RECREATION

During the period of this FSP the FSP Holder will not control access within the Kispiox FDU except as required to meet other objectives/elements of this FSP. Any access control that is considered to be required will not be carried out without prior consultation with the District Manager.

2.10.1.2 STRATEGY FOR RECREATION

With the exception of the Dominion Telegraph Trail, which will be managed through Result 2.9.2.1, during the period of this FSP the FSP Holder will ensure that on the Recreation Trails identified in Tables 2-7 and 2-9:

1) No disturbance[16] to natural vegetation occurs within 10 m of the 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 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 comply with the conditions 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.
5) A trail crossing is deactivated once it is no longer required.

Table 2-7: Recreation Trails Established as Scenic Areas in the Kispiox FDU

Trails
Blue Lake Trail
Coyote Creek Trail
Kispiox Mountain (Moonlit) Trail
Rossvale Lake cross country ski trail
Sidina Mountain Trail
Dominion Telegraph Trail (this trail will be managed through Result 2.9.2.1)
Station Creek Trail
Thoen Basin Tail

2.10.1.3 STRATEGY FOR RECREATION

During the period of this FSP the FSP Holder will ensure that, for the Recreation Areas identified in Tables 2-8 and 2-9, there will be no disturbance[16] to areas within 10 m of lake shorelines, rivers, streams,

[16] From activities related to FSP Holder's road construction, harvesting or silviculture activities.

or creek banks where an RRZ is not currently in existence. The remainder of the area within the recreation areas will be reserved from disturbance other than where the FSP Holder 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.

Table 2-8: Recreation Areas Related to Scenic Areas

Recreation Areas	Important Recreational Fishing Areas/ Provincial Parks
Elizabeth Lake	Footsore Lake
Keynton Lake	Gunanoot Lake
Sweetin River Upper Kispiox	Hodder Lake
Little Fish Lake	Sicintine Lake
Mitten Lake	Babine River
Pentz Lake	Bulkley River
Sedan Creek	Kispiox River
Suskwa River	Ross Lake Provincial Park
	Seeley Lake Provincial Park
	Skeena River
	Swan Lake / Kispiox River

Table 2-9: Other Recreation Sites and Trails from the KLRMP not Established as Scenic Areas

Recreation Areas	Recreation Trails
Watson Lake	Boulder Creek
	Whiskey Creek
	Cedarvale
	Watson Lake
	Oliver Creek

2.10.2 Objective: Special Management Zones – East Kispiox / Kuldo

Kispiox LRMP Section 7.2: SMZ East Kispiox / Kuldo – To maintain provincially significant scenic resources, backcountry recreation opportunities and habitat for grizzly bears and mountain goats.

2.10.2.1 Result For East Kispiox/Kuldo SMZ

During the period of this FSP the FSP Holder adopts results 2.3.2.1 (Grizzly Bear), 2.3.3.1 (Moose Winter Range), 2.3.3.2 (Moderate and High Value Moose Winter Range), 2.7.1.1 (Patch Size Distribution and Seral Stage Condition), and 2.8.1.2 (Visual Quality) as results for Objective 2.10.2.

2.10.2.2 Strategy For East Kispiox/Kuldo SMZ

During the period of this FSP the FSP Holder adopts strategies 2.3.2.2 (Grizzly Bear), 2.8.1.1 (Visual Quality), 2.7.1.3 (Old Growth Management Areas), 2.7.1.2 (Patch Size Distribution and Seral Stage Condition), 2.10.1.1 (Recreation), 2.10.1.2 (Recreation) 2.10.1.3 (Recreation) as strategies for Objective 2.10.2.

2.10.3 Objective: Special Management Zones – Atna / Shelagyote

Kispiox LRMP Section 7.2: SMZ Atna / Shelagyote - To maintain provincially significant scenic resources, backcountry recreation opportunities, grizzly bear denning habitat, mountain goat habitat and extensive wetlands in the upper Sicintine and Shelagyote valleys.

2.10.3.1 RESULT FOR ATNA/SHELAGYOTE SMZ

During the period of this FSP the FSP Holder adopts results 2.3.2.1 (Grizzly Bear), 2.3.3.1 (Moose Winter Range), 2.3.3.2 (Moderate and High Moose Winter Range), 2.4.1.1 (Water and Riparian Areas), 2.4.1.3 (Basal Area Retention in Riparian Management Areas), 2.7.1.1 (Patch Size Distribution and Seral Stage Condition), and 2.8.1.2 (Visual Quality) as results for Objective 2.10.3.

2.10.3.2 STRATEGY FOR ATNA/SHELAGYOTE SMZ

During the period of this FSP the FSP Holder adopts strategies 2.3.2.2 (Grizzly Bear),, 2.4.1.2 (Water and Riparian Areas), 2.8.1.1 (Visual Quality), 2.7.1.3 (Old Growth Management Areas), 2.7.1.2 (Patch Size Distribution and Seral Stage Condition), 2.10.1.1 (Recreation), 2.10.1.2 (Recreation) and 2.10.1.3 (Recreation) as strategies for Objective 2.10.3.

2.10.4 Objective: Special Management Zones – Rocher Deboule

Kispiox LRMP Section 7.2: SMZ Rocher Deboule - To maintain provincially significant scenic resources, backcountry recreation opportunities and wildlife habitat.

2.10.4.1 RESULT FOR ROCHER DEBOULE

During the period of this FSP the FSP Holder adopts results, 2.3.2.1 (Grizzly Bear), 2.3.3.1 (Moose Winter Range), 2.3.3.2 (Moderate and High Moose Winter Range),2.7.1.1 (Patch Size Distribution and Seral Stage Condition), and 2.8.1.2 (Visual Quality) as results for Objective 2.10.4.

2.10.4.2 STRATEGY FOR ROCHER DEBOULE

During the period of this FSP the FSP Holder adopts Strategies 2.3.2.2 (Grizzly Bear), 2.8.1.1 (Visual Quality), 2.7.1.3 (Old Growth Management Areas), 2.7.1.2 (Patch Size Distribution and Seral Stage Condition),2.10.1.1 (Recreation), 2.10.1.2 (Recreation), 2.10.1.3 (Recreation) as results for Objective 2.10.4.

2.10.5 Objective: Special Management Zones – Community Watersheds

Kispiox LRMP Section 7.2: SMZ Community Watersheds – To maintain water quality and flow regime (quantity and timing) to ensure adequate potable water is available for domestic use.

2.10.5.1 STRATEGY FOR COMMUNITY WATERSHEDS SMZ

During the period of this FSP the FSP Holder adopts strategy 2.5.1.2 (Community Watersheds) as a strategy for Objective 2.10.5.

2.10.5.2 RESULT FOR COMMUNITY WATERSHEDS SMZ

During the period of this FSP the FSP Holder adopts result 2.5.1.1(Community Watersheds) as a result for Objective 2.10.5.

2.10.6 Objective: Special Management Zones – Andimaul Lookout

Kispiox LRMP Section 7.2: SMZ Andimaul Lookout - To maintain a rocky mountain juniper community, deciduous forest and a recreational trail.

2.10.6.1 STRATEGY FOR ANDIMAUL LOOKOUT SMZ

During the period of this FSP the FSP Holder will not plan or authorize harvesting or road construction in the Andimaul Lookout SMZ, as shown on Figure 10 of the Kispiox LRMP.

2.10.7 Objective: Special Management Zones – Upper Kispiox

Kispiox LRMP Section 7.2: SMZ Upper Kispiox –

a. manage so that important grizzly bear habitat receives special emphasis

b. manage so that important wildlife habitat and important connective corridors receive special emphasis

c. maintain biological diversity and natural ecosystem functions

d. maintain natural water quality regimes

e. maintain important fish habitat

f. protect cultural sites and protect heritage sites and trails

g. maintain specified, small-scale areas for the non-commercial harvest of traditionally used plants (i.e. devil's club, berry patches) by Gitxsan house groups

h. maintain the Swan Lake Plan retention VQOs

i. manage access to minimize human-bear interactions, minimize road density, minimize total road footprint/impact, and minimize road access to alpine areas

2.10.7.1 RESULT FOR UPPER KISPIOX SMZ

During the period of this FSP the FSP Holder adopts results:

a) 2.3.2.1 (Grizzly Bear), 2.3.3.1 (Moose Winter Range), 2.3.3.2 (Moderate and High Moose Winter Range) and 2.7.1.1 (Patch Size Distribution and Seral Stage Condition) for Objective 2.10.7 (a), (b) and (c);
b) 2.4.1.1 (Water and Riparian), 2.4.1.3 (Basal Area Retention in Riparian Management Zones) for Objective 2.10.7 (d) and (e);
c) 2.11.1.1 (Wild Berries), 2.11.2.1 (Pine Mushrooms), 2.9.1.2 (Other Cultural Heritage Resources), 2.9.2.1 (Other Cultural Heritage Resources) for Objective 2.10.7 (f) and (g);
d) 2.8.1.2 (Visual Quality) for Objective 2.10.7 (h).

2.10.7.2 STRATEGY FOR UPPER KISPIOX SMZ

During the period of this FSP the FSP Holder adopts strategies:

a) 2.3.2.2 (Grizzly Bear), 2.7.1.3 (Old Growth Management Areas), and 2.7.1.2(Patch Size Distribution and Seral Stage Condition)for Objective 2.10.7 (a), (b) and (c);
b) 2.4.1.2 (Water and Riparian Areas) for Objective 2.10.7 (d) and (e);

c) 2.9.1.1(Cultural Heritage Resources) and 2.11.1.2 (Wild Berries)for Objective 2.10.7 (f) and (g);
e) 2.8.1.1 (Visual Quality) for Objective 2.10.7 (h).

2.10.7.3 STRATEGY FOR UPPER KISPIOX SMZ

With respect to Objective 2.10.7 (i), during the period of this FSP the FSP Holder may authorize the design and construction of a road or the design and harvest of a cutblock within the Upper Kispiox Special Management Zone of the Kispiox FDU where and to the extent the road or harvesting:

1) In the case of a road:
   a) it is necessary to access timber that would otherwise be inaccessible;
   b) maintains a maximum density of roads open to timber harvesting activity at one time of less than 0.6km/km^2 density over 80% of the Upper Kispiox Special Management Zone of the Kispiox FDU;
   c) maintains a maximum sight line of 300 metres; and,
   d) it is temporary unless no other alternative is practicable for ecological or economic reasons; and,

2) In the case of harvesting:
   a) includes fluvial units in retention areas;
   b) authorizes harvesting operations during the winter only;
   c) plans for predominantly small openings with a maximum sight line of 300 metres, consistent with the Kispiox LRMP access management considerations; and,
   d) will not be located within 500 metres of alpine areas.

2.10.8 Objective: General Resource Development Zone –Price Boulder

Kispiox LRMP Section 7.2: General Resource Development Zone Price Boulder –

a. To maintain visual quality as seen from Highway 16 and 37,Sedan Creek recreation site and Cedarvale back road.

b. To maintain access to traditional use, including recreation day use, trapping, hunting, fishing and camping.

c. To provide for continued industrial resource development, primarily timber harvesting, in an area with above average timber quality ***(this objective is addressed as an outcome of this FSP and does not require further address).***

2.10.8.1 STRATEGY FOR PRICE BOULDER SMZ

During the period of this FSP the FSP Holder adopts strategies 2.3.2.2 (Grizzly Bear), 2.4.1.2 (Water and Riparian Areas) 2.7.1.2 (Patch Size Distribution and Seral Stage Condition) 2.8.1.1 (Visual Quality), 2.9.1.1 (Cultural Heritage Resources, 2.10.1.1(Recreation), as strategies for Objective 2.10.8.

2.10.8.2 RESULT FOR PRICE BOULDER SMZ

During the period of this FSP the FSP Holder adopts results 2.3.2.1 (Grizzly Bear), 2.3.3.1 (Moose Winter Range), 2.3.3.2 (Moderate and High Moose Winter Range), 2.4.1.1 (Water and Riparian Areas), 2.4.1.3 (Basal Area Retention in Riparian Management Zones), 2.7.1.1 (Patch Size Distribution and Seral Stage Condition), 2.8.1.2 (Visual Quality), 2.9.2.1 (Other Cultural Heritage Resources), 2.9.2.2 (Other Cultural Heritage Resources) as results for Objective 2.10.8.

2.10.9 Objective: General Resource Development Zone– Hells Bells

Kispiox LRMP Section 7.2: General Resource Development Zone Hells Bells -

a. *To maintain visual quality as seen from Highway 16 and 37,Sedan Creek recreation site and Cedarvale back road.*

b. *To minimize disturbance to the migration patterns of mountain goats that use the higher elevation areas to move between northern and southern ranges (**this objective addressed by UWR Order #U-6-006).***

c. *To maintain access to traditional use, including recreation day use, trapping, hunting, fishing and camping.*

d. *To provide for continued industrial resource development, primarily timber harvesting, in an area with above average timber quality (**this objective is addressed as an outcome of this FSP and does not require further address**).*

2.10.9.1 STRATEGY FOR HELLS BELLS SMZ

During the period of this FSP the FSP Holder adopts strategies 2.3.2.2 (Grizzly Bear), 2.4.1.2 (Water and Riparian Areas) 2.7.1.2 (Patch Size Distribution and Seral Stage Condition) 2.8.1.1 (Visual Quality), 2.9.1.1 (Cultural Heritage Resources), 2.10.1.1(Recreation) as strategies for Objective 2.10.9.

2.10.9.2 RESULT FOR HELLS BELLS SMZ

During the period of this FSP the FSP Holder adopts results 2.3.2.1 (Grizzly Bear), 2.3.3.1 (Moose Winter Range), 2.3.3.2 (Moderate and High Moose Winter Range), 2.4.1.1 (Water and Riparian), 2.4.1.3 (Basal Area Retention in Riparian Management Zones), 2.7.1.1 (Patch Size Distribution and Seral Stage Condition), 2.8.1.2 (Visual Quality), , 2.9.2.1 (Other Cultural Heritage Resources), 2.9.2.2 (Other Cultural Heritage Resources) as results for Objective 2.10.9.

2.11 Botanical Forest Products

Reference Information	
Type of Objective	1. Objective set in regulation: FPPR s. 10 2. Objectives enabled by regulation: 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31 2004 2. N/A 3. April 25, 1996; Amended March, 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

2.11.1 Objective Wild Berries

Kispiox LRMP Section 6.16: To maintain and use botanical forest products including wild berries.

2.11.1.1 RESULT FOR WILD BERRIES

During the period of this FSP the FSP Holder will adopt result 2.7.1.1(Patch Size Distribution and Seral Stage Condition) as a result for Objective 2.11.1.

2.11.1.2 STRATEGY FOR WILD BERRIES

During the period of this FSP the FSP Holder will adopt strategy 2.7.1.2(Patch Size Distribution and Seral Stage Condition) as a strategy for Objective 2.11.1.

2.11.2 Objective Pine Mushrooms

Kispiox LRMP Section 6.16: To maintain mushroom resources and provide opportunities for sustainable harvesting of mushrooms.

2.11.2.1 RESULT PINE MUSHROOMS

During the period of this FSP the FSP Holder will adopt result 2.7.1.1 (Patch Size Distribution and Seral Stage Condition) as a result for Objective 2.11.2.

2.11.2.2 STRATEGY FOR PINE MUSHROOMS

During the period of this FSP the FSP Holder will adopt strategy 2.7.1.2 (Patch Size Distribution and Seral Stage Condition) as a strategy for Objective 2.11.2.

2.11.2.3 STRATEGY FOR PINE MUSHROOMS

This strategy applies to productive pine mushroom sites only. During the period of this FSP the FSP Holder will ensure that identified productive pine mushroom sites are managed at the site level as follows:

1) Productive pine mushroom sites are defined as:
   a) sites that are generally 80-160 year old, pine- or hemlock-leading stands below 800 metres elevation in the following site series: ICHmc1/01b, ICHmc2/01b and CWHws1/03,
   b) sites characterized by pure site series that are a minimum of 0.5 hectare in size; and,
   c) sites characterized by site series complexes that are a minimum of 1.0 ha in size with at least 50% of one or more of the defined productive pine mushroom sites,

   will be identified and mapped at the stand level during the ecological site mapping stage of operational planning.

2) The FSP Holder may authorize the design and construction of a road or the design and harvest of a cutblock within productive pine mushroom sites where and to the extent that the road or harvesting is:
   a) in the case of roads and harvest areas, in sites with a stand age of 160 years or greater; and,
   b) in the case of sites less than 160 years old, for roads only, necessary to access timber that would otherwise be inaccessible; and,

3) Productive pine mushroom sites less than 160 years old that are located in harvest areas will be included in stand level retention areas and will include a buffer of minimum 15 metres, designed to promote or maintain the wind firmness of the retained stand, around the outer margin of each site.

2.12 Agriculture and Range

Reference Information	
Type of Objective	1. Objective set in regulation: 2. Objectives enabled by regulation: 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31 2004 2. N/A 3. April 25, 1996; Amended March, 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

2.12.1 Objective: Range Resources

Kispiox LRMP 6.8:

- *To protect and conserve range resources.*

- *To maintain the health and productivity of range resources by providing protection from fire, insects and disease.*

- *To maintain and enhance use of Crown land, water and range resources by domestic livestock.*

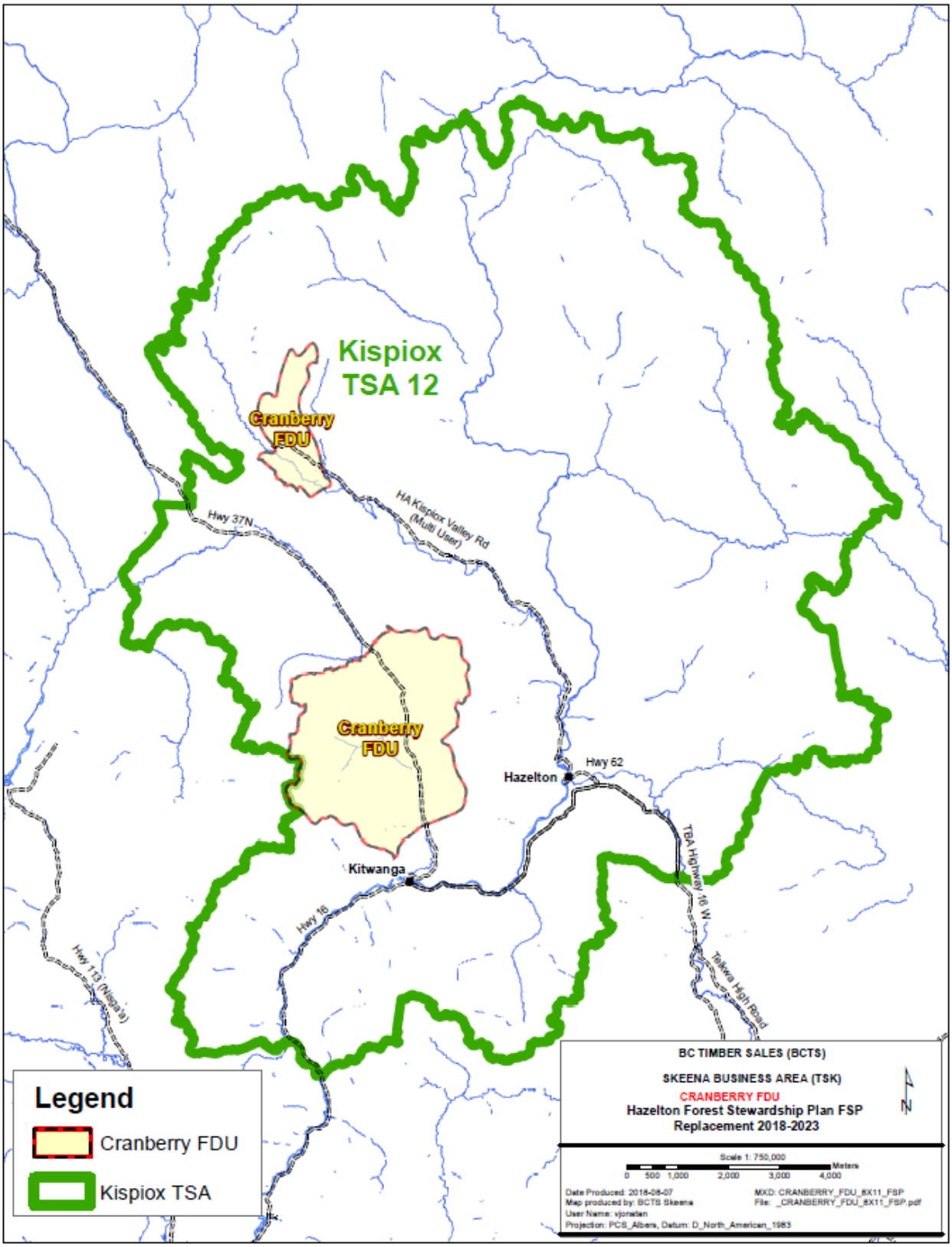
- *To maintain and enhance agricultural use of Crown land within the ALR consistent with the Agricultural Land Commission Act.*

- *To preserve and maintain soil quality within the ALR.*

2.12.1.1 RESULT FOR RANGE RESOURCES

During the period of this FSP the FSP Holder will, in the carrying out of primary forest activities on land to which an agreement under the Range Act applies, be consistent with the measures specified in section 5 of this FSP.

Figure 3: Cranberry FDU Key Map



3 CRANBERRY FDU

The Cranberry Forest Development Unit (FDU) encompasses parts of the geographical boundary of the Cranberry Landscape Unit which was established on June 1, 2006. The Cranberry FDU covers the operations of the BCTS Skeena Business Area including Timber Sale Licences (TSLs) issued by the Timber Sales Manager. The objectives, results and strategies in this chapter apply to the area within the Cranberry FDU (Figure 3).

Objectives for the Cranberry FDU derive from the FRPA, the Kispiox LRMP, and the Cranberry SRMP LUOR Order. The Kispiox HLPO does not apply within the FDU.

3.1 Soils

Reference Information		
Type of Objective	1. Objectives set in regulation: FPPR s.5	
	2. Objectives enabled by regulation: N/A	
	3. Land Use Objectives: Kispiox LRMP	
Effective Date of Objective	1. January 31, 2004 2. N/A 3. April 25, 1996; Amended March 2001	
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: Soil Productivity and Hydrologic Function

FPPR s.5: The objective set by government for soils is, without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and the hydrologic function of soils.

Kispiox LRMP Section 6.5: To provide appropriate road development within the planning area.

Cranberry 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.

3.1.1.1 RESULT FOR SOIL PRODUCTIVITY AND HYDROLOGIC FUNCTION

During the period of this FSP the FSP Holder will undertake to comply with sections 35 and 36 of the FPPR. The FSP Holder will notify each holder of a timber sale licence 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 period of the plan.

3.1.1.2 RESULT FOR GROUND WATER

During the period of this FSP the FSP Holder will ensure that drainage structures that are adequate to conduct groundwater to natural groundwater receiving sites[17] are installed on new roads and trails.

3.1.1.3 STRATEGY FOR SOIL PRODUCTIVITY AND HYDROLOGIC FUNCTION

During the period of this FSP the FSP Holder adopts Strategy 3.4.2.2 as a strategy for Objective 3.1.1.

[17] Natural groundwater drainage patterns can be maintained with adequate cross drains in roads (taken form page 24 of the Cranberry Sustainable Resource Management Plan, 2012).

3.2 Timber

Reference Information		
Type of Objective	1. Objective set in regulation: FPPR s.6	
	2. Objectives enabled by regulation: N/A	
	3. Land –Use Objectives: Kispiox LRMP	
Effective Date of Objective	1. January 31, 2004	
	2. N/A	
	3. April 25, 1996; Amended March 2001	
Mandatory Practice Requirements from the FPPR	FPPR ss. 41,42, 43, 44, 45 & 46	
Practice Requirement(s) Eligible for Exemption	N/A	N/A

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,

(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.

Kispiox LRMP Section 6.11: To maintain the health and productivity of forest resources by providing protection from fire, insects and diseases, and through reforestation.

3.2.1.1 Result For Timber

During the period of this FSP the FSP Holder will ensure that 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 For Timber

During the period of this FSP the FSP Holder will ensure that it does not carry out any timber harvesting or road building activities within the proposed Gitanyow treaty settlement lands (as shown on Cranberry SRMP Map 8) unless otherwise agreed to by Gitanyow.

3.2.1.3 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) Make known to the appropriate FLNRORD staff whenever any unidentified permanent sample plots or research installations are found during the course of operational planning and resource development; and,

3) 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;

4) 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.

5) Notify a timber sale license 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.

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: (a)Cranberry SRMP LUOR Order, (b)Kispiox LRMP, (c) Cranberry SRMP
Effective Date of Objective	1. a) January 31, 2004 b) *Notice- Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Ungulate Species in the Cranberry Timber Supply Area* (December 30, 2004) c) *Notice- Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Skeena Stikine Forest District.*(December 30, 2004*)* 2. Order- *Ungulate Winter Range – #U-6-006 (Kispiox and Cranberry TSAs Effective Date June 20, 2007 (Amended September 17, 2014).* 3. (a) March 3, 2016, (b) April 25, 1996, Amended March 2001, (c) June 22, 2012
Mandatory Practice Requirements for the FPPR	FPPR ss. 69 & 70

Reference Information	
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, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for

(a) the survival of species at risk,
(b) the survival of regionally important wildlife, and
(c) the winter survival of specified ungulate species.

Kispiox LRMP Section 6.13:

- *To maintain natural ecosystems and habitat to sustain viable populations of all native wildlife within their natural ranges.*

- *To protect or enhance populations and habitat of rare or endangered and regionally significant species.*

3.3.1.1 Strategy For Marbled Murrelet

During the period of this FSP the FSP Holder adopts strategies 3.7.1.2 (Patch Size Distribution and Seral Stage Condition), 3.7.6.1 (Old Growth Management Areas), 3.7.7.1 (Ecosystem Network), 3.7.8.1 (Ecosystem Network – Structural Connectivity), and 3.7.9.1 (Ecosystem Network – Buffers) as a strategy for Objective 3.3.1.

3.3.1.2 Result For Marbled Murrelet

During the period of this FSP the FSP Holder adopts result 3.7.1.1 (Patch Size Distribution and Seral Stage Condition) as a result for Objective 3.3.1.

3.3.1.3 Result FOR Mule Deer

During the period of this FSP the FSP Holder adopts Indicators and Threshold/Measures for Mule Deer outlined in Table 3-1 as a result for Objective 3.3.1.

Table 3-1: Landscape Unit Objectives, Indicators and Threshold/Measures for Mule Deer

Indicator	Threshold/Measure
Amount of area managed for a rotation age >150 years.	Greater than 15% of the mule deer winter range identified in *Map 10* [of the Kispiox HLPO] will be managed at a rotation age of 150 years. Greater than 40% of this area will be older than 150 years at any one time.

3.3.1.4 Result For Moose Winter Range

1) During the period of this FSP, within the moose winter range identified on Map 12: Moose Winter Range of the Cranberry SRMP, the FSP Holder will:

a. adopt the targets for biodiversity identified in Result 3.7.1.2;

b. adopt Result 3.7.2.1 for wildlife tree retention;.

c. not carry out harvesting operations within willow and red-osier dogwood complexes[18];
d. retain security cover[21],where it exists, within 50 m of subhygric to subhydric[19] sites that are large enough to be considered a silvicultural treatable unit[20] that contain willow and red osier dogwood as the dominant shrub species ;
e. ensure that greater than 30% of mature and old forest canopy of each Moose Winter Range polygon will be retained for snow interception ;
f. ensure that less than 20% of any given cutblock will be more than 100 metres away from adjacent mature forest cover ;
g. retain security cover[21], where it exists within or adjacent to a cutblock, and will ensure that at least 80% of the security cover[21] is separated by no greater than 200 meters;
h. ensure that all roads that are the responsibility of the FSP Holder, excluding mainlines[23], are deactivated[22] following achievement of regeneration delay.
i. ensure that all roads that are the responsibility of the FSP Holder, excluding mainlines[23], within 500 meters of a moose winter range polygon are deactivated following achievement of regeneration delay.
j. for the purpose of maintaining visual screening, to the extent practicable retain all deciduous trees and brush cover within 10 m of roads during silvicultural stand tending treatments unless the deciduous tree or brush has a deleterious effect on the ability of a crop tree (subject to stocking standards) to achieve the stocking standards, in which case the deciduous trees or brush will be removed to the extent necessary to meet the stocking standards.

2) Where moose ungulate winter ranges are established through an Order under the Government Actions Regulation, the General Wildlife Measures stated in the Order will be adhered to and the FSP Holder is exempt from Result 3.3.1.4.

3) Variances to points 3.3.1.4(1) a-j above are permitted under a moose winter range plan prepared by a QP and FSP Holder operational activities are consistent with the recommendations of the plan.

3.3.1.5 RESULT FOR GRIZZLY BEAR

During the period of this FSP the FSP Holder adopts the Indicators / Measures in Table 3-2 as a result for Objective 3.3.1.

[18] The minimum size for a willow or red-osier dogwood complex is:
- One hectare for pure willow and/or red-osier dogwood sites;
- Two hectares of noncontiguous willow and/or red-osier dogwood [sites] within ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex area.

[19] For definitions of "subhygric" to "subhydric", see "moisture regime" in the Cranberry SRMP glossary.
[20] The minimum size for a silvicultural treatable unit is:
- One hectare for pure subhygric to subhydric sites;
- Two hectares of noncontiguous subhygric to subhydric sites within ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex area

[21] Security Cover is defined as sufficient vegetation cover and/or terrain features that provides a reasonable opportunity to prevent displacement or disturbance behavior in moose, despite adjacent activities or predator movement that might otherwise elicit these behaviors.
[22] Deactivated: refers to the FRPA definition of deactivate.
[23] A mainline road is usually a long-term permanent road that may be used continuously or intermittently.

Table 3-2: Grizzly Bear Objectives, Measures/Indicators

Objectives	Measure/Indicators
1) Preserve the highest value grizzly bear habitat identified on Map 14: Grizzly Bear Habitat Complexes [of the Cranberry SRMP] • Class 1: Very High; provincially significant value • Class 2: High value	When conducting primary forestry activities, the FSP Holder will ensure that within 100 m of critical habitat types[24] occurring within Grizzly Bear Habitat Complexes identified on Map 14 [of the Cranberry SRMP], ensure 100% of the forested area of each polygon identified and retained as functional thermal or security cover in mature and old growth condition, except for the following cases: • access; • operational safety considerations; or • to minimize impacts on adjacent environmental values.
2) Maintain the Quality and effectiveness of grizzly bear foraging habitat [listed in Table 10 of the Cranberry SRMP].	When conducting primary forestry activities the FSP Holder will ensure that: 1) 100% of foraging habitat listed in Table 10 [of the Cranberry SRMP) occupying greater than 1 ha within a cutblock maintains herbaceous and woody forage supply for grizzly bears through to stand rotation, as assessed at the achievement of free-growing status for regenerated stands. 2) In instances where functional thermal and security cover exists directly adjacent[25] to the non-forested forage areas greater than 2 ha in size identified in Table 10 High Value Grizzly Bear Habitat in the Cranberry SRMP Area, functional thermal and security cover is retained.
3) Minimize long-term displacement of grizzly bears as a result of industrial access development.	When conducting primary forestry activities the FSP Holder will not build permanent[26] roads within 150 m (where practicable) of high value grizzly bear habitat identified on Map 14 [of the Cranberry SRMP] Grizzly Bear Habitat Complexes.

3.3.2 Objective: Goshawk

a. Cranberry 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.

b. Cranberry SRMP LUOR Order Objective 25: Maintain all known goshawk nest and post-fledging areas.

c. Cranberry SRMP LUOR Order Objective 28: Maintain foraging habitat around known goshawk nest and post-fledging areas.

[24] Critical habitat types include Sitka alder-spiny wood fern seepage sites; south aspect Trembling aspen-Douglas maple sites (minimum 5% cover of Douglas maple); Sitka alder-cow parsnip avalanche chutes; Spruce-black twinberry floodplain (ICHmc2/05); trembling aspen-beaked hazelnut sites (ICHmc2/51); paper birch-red osier dogwood fans (ICHmc2/03); south aspect Paper birch-falsebox sites; black cottonwood-red osier dogwood floodplains (CWHws2/08); Spruce-Salmonberry floodplains (CWHws2/07); Cottonwood-Willow Floodplains (CWHws2/09); thimbleberry-cow parsnip moist meadows; willow swamps and willow-sedge wetlands (where willow is the dominant woody vegetation and exceeds 20% cover); Skunk cabbage sites (CWHws2/11; ICHmc2/07; ICHmc1/06).
[25] Adjacent areas should be approximately 100 metres in width and fully surround the forage area where possible.
[26] Permanent roads have a planned life span greater than 5 years.

d. Cranberry 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.

e. Cranberry 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.

f. Cranberry 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.

g. Cranberry 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.

3.3.2.1 STRATEGY FOR GOSHAWK

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

1) When operations are planned to occur within 2 km of known goshawk nest sites:
    a. a written assessment of the breeding and foraging area associated with the nest site is completed by a QP; and,
    b. the QP will provide the FSP Holder with a report containing recommended mitigative actions that are consistent with the Objectives contained in 3.3.2.a, 3.3.2.b, 3.3.2.c, 3.3.2.d, 3.3.2.e; and,
    c. the FSP Holder will ensure that recommendations outlined in the report are implemented.
2) When road construction and timber harvesting/mechanized silviculture activities are planned to occur within 500 m of a known nest site between February 15 and August 15:
    a. a written assessment of the nest site will be completed by a QP to determine if the nest is active; and,
    b. if the assessment indicates that the nest is active, the FSP Holder will not carry out any road construction and timber harvesting/mechanized silviculture activities within 500 metres of the active nest between February 15 and August 15 or alternative dates if specified by the QP in the written assessment.
3) If forestry related human activities (log hauling and activities not identified as mechanized) are planned to occur within 200 m of a known nest site between February 15 and August 15:
    a. a written assessment of the nest will be completed by a QP to determine if the nest is active; and,
    b. if the assessment indicates that the nest is active, the FSP Holder will not carry out any forestry related human activities (log hauling and those activities not identified as mechanized activities) within 200 metres of the active nest between February 15 and August 15.

3.3.3 Objective: Special Habitats for General Wildlife

Cranberry SRMP LUOR Order Objective 31: *Maintain effectiveness*[27] *of riparian habitats adjacent to wetlands in polygons identified as Special Habitats for General Wildlife on Schedule J* [of the Cranberry SRMP LUOR Order].

3.3.3.1 Result For Special Habitats For General Wildlife

During the period of this FSP the FSP Holder will ensure that operations retain 100% of the forested area of the hydroriparian zone[37] for each polygon identified as Special Habitats for General Wildlife on Cranberry SRMP LUOR Order Schedule J, except where no practicable alternative exists to:

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

3.3.4 Objective: Special Habitats for General Wildlife

Cranberry SRMP LUOR Order Objective 32: *Retain 100% of the forested area of the hydroriparian zone*[37] *for each polygon identified as Special Habitats for General Wildlife on Schedule* J [of the Cranberry 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 For Special Habitats For General Wildlife

During the period of this FSP the FSP Holder adopts result 3.3.3.1 (Result for Special Habitats for General Wildlife) as a result for Objective 3.3.4.

3.3.5 Objective: Fur-Bearers

Cranberry SRMP LUOR Order Objective 22: *Minimize impact to known high value fisher and wolverine habitats.*

Cranberry SRMP LUOR Order Objective 23: Maintain known fisher and wolverine denning sites.

3.3.5.1 Result For Fur-Bearers

During the period of this FSP the FSP Holder will:

1) Adopt results 3.4.3.1(Water and Riparian), 3.7.1.1 (Patch Size Distribution and Seral Stage Condition), and 3.7.2.1 (Wildlife Tree Retention Areas) as a result for Objective 3.3.5; and,

2) Provide 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 QP.

3.3.5.2 Strategy For Fur-Bearers

During the period of this FSP the FSP Holder adopts strategy 3.7.1.2 (Patch Size Distribution and Seral Stage Condition) as a strategy for Objective 3.3.5.

3.3.6 Objective: General Wildlife

Kispiox LRMP Section 6.13:

[27] "Effectiveness" means the continued use of a habitat by the species that historically utilized it.

- *To maintain natural ecosystems and habitat to sustain viable populations of all native wildlife within their natural ranges.*

- *To protect or enhance populations and habitat of rare or endangered and regionally significant species.*

3.3.6.1 STRATEGY FOR GENERAL WILDLIFE

During the period of this FSP the FSP Holder adopts Strategies 3.7.1.2(Patch Size Distribution and Seral Stage Condition), 3.7.5.1 (Natural Species Composition), 3.7.6.1(Old Growth Management Areas), 3.7.7.1(Ecosystem Network), 3.7.8.1(Ecosystem Network Structural Connectivity), 3.7.9.1(Ecosystem Network Buffers), 3.3.2.1 (Goshawk), as a strategy for Objective 3.3.6.

3.3.6.2 RESULT FOR GENERAL WILDLIFE

During the period of this FSP the FSP Holder adopts Results 3.7.1.1 (Patch Size Distribution and Seral Stage Condition), 3.7.2.1 (Wildlife Tree Retention Areas), 3.7.3.1 (Red and Blue Listed Ecological Communities), 3.3.1.3 (Mule Deer), 3.3.1.4 (Moose Winter Range), 3.3.1.5 (Grizzly Bear), 3.3.3.1 (Special Habitats for General Wildlife, 3.3.4.1 (Special Habitats for General Wildlife) as a result for Objective 3.3.6.

3.4 Water and Riparian

<table>
<tr><th colspan="3">Reference Information</th></tr>
<tr><td>Type of Objective</td><td colspan="2">1.Objectives set by regulation: FPPR s. 8, 12.3
2.Objectives enabled by regulation: GAR s. 6, 14, and 15
3.Land Use Objectives: (a) Cranberry SRMP LUOR Order
(b) Kispiox LRMP</td></tr>
<tr><td rowspan="3">Effective Date of Objective</td><td colspan="2">1. January 31, 2004</td></tr>
<tr><td colspan="2">2. N/A</td></tr>
<tr><td colspan="2">3.(a) March 3, 2016, (b) April 25, 1996; Amended March 2001</td></tr>
<tr><td>Mandatory Practice Requirements from the FPPR</td><td colspan="2">FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56, 57</td></tr>
<tr><td>Practice Requirement(s) Eligible for Exemption</td><td>FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56, & 57.</td><td>Decision: Exempt FPPR ss. 47, 48 & 49.

Adopt: FPPR ss. 50(1), 51(1), 51(3), 52(2), 53, 55, 56, & 57</td></tr>
</table>

3.4.1 Objective: Water and Riparian

Cranberry SRMP LUOR Order Objective 1: *Maintain the hydrologic stability of watersheds so that the thresholds identified in Schedule B1* [of the Cranberry 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.*

Kispiox LRMP Section 6.2: To protect the hydrological integrity of watersheds.

3.4.1.1 RESULT FOR WATER AND RIPARIAN

During the period of this FSP the FSP Holder will ensure that a Hydrologic Assessment is completed, and will ensure that Timber Sales Licences adopt the associated recommendations of a QP prior to the advertising of a Timber Sale Licence that would cause the thresholds identified in Table 3-3 to be exceeded. This result does not apply to cut blocks that: are approved under section 196(1) of the *Forest*

and Range Practices Act; are declared areas under section 14(4) of the *Forest Planning and Practices Regulation*; or have an issued Timber Sales License 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, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.*

Table 3-3: Equivalent Clearcut Area Thresholds for Watersheds

Watershed	Equivalent Clearcut Area Threshold (%)
Cranberry	27.1
Kitwancool	28.5
Lower Kitwanga	22.5
Mill	25
Moonlit	26.5
Nangeese	26.7
Upper Kitwanga	26.2
Upper Kispiox	28.1

3.4.2.1 Result For Water and Riparian

During the period of this FSP the FSP Holder will undertake to comply with sections 50(1), 51(1), 51(3), 52(2), 53, 55, 56 & 57of the FPPR. The FSP Holder will notify each holder of a timber sale license or road permit that FPPR sections 50(1), 51(1), 51(3), 52(2), 53, 55, 56, & 57 apply to the holder's primary forest activities carried out during the period of the plan.

3.4.2.2 Strategy For Water And Riparian

During the term of this FSP the FSP Holder will:

1) Prior to road and block development, utilize a QP to undertake the watershed assessment activities identified under the 'Required Licensee Assessments' column (Column C) for the corresponding 'Watershed' (Column A) of the Watershed Integrity Matrix (Appendix VI) and identified on the map in Appendix VII 4th Order Watersheds in the Kispiox TSA; and,

2) Will undertake actions to address recommendations that result from the assessments completed in (1); and,

3) Where 'Riparian Reserves' are identified under the 'Required Licensee Assessments' column (Column C) for the corresponding 'Watershed' (Column A) of the Watershed Integrity Matrix (Appendix VI) and identified on the map in Appendix VII 4th Order Watersheds in the Kispiox TSA, maintain a minimum 10-metre riparian reserve zone on either side of all S4 streams.

3.4.2.3 Result Basal Area Retention in Riparian Management Zones

During the period of this FSP the FSP Holder will ensure that the basal area to be retained within Riparian Management Zones will be:

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

3.4.3 Objective: Water and Riparian – Riparian Features

Cranberry 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.

Cranberry 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.

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

Kispiox LRMP Section 6.2: To maintain water quality and quantity for domestic, recreational, agricultural and industrial use, and for wildlife and fisheries.

3.4.3.1 Result For Water and Riparian

During the period of the FSP the FSP Holder will ensure that riparian reserves and riparian management zones around riparian features comply with the targets listed in Schedule C of the Cranberry SRMP LUOR Order.

3.4.3.2 Strategy for S4, S5, and S6 Stream and riparian Management

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

1) retention levels associated with S4, S5, and S6 streams are:

    a) determined by a qualified professional through the utilization of the *Stream and Riparian Management Decision Key –S4, S5, and S6 Streams* found in Appendix VIII; and,
    b) documented in the Site Plan.

2) Primary forest activities comply with the prescribed retention levels determined in 3.4.3.2 (1). The prescribing forester may vary from the retention levels identified by the *Stream and Riparian Management Decision Key – S4, S5, and S6 Streams* 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.

3.4.3.3 Strategy for Water and Riparian

During the period of this FSP the FSP Holder adopts Strategy 3.4.2.2 (Water and Riparian) and 3.4.3.2 (S4, S5, and S6 Stream and Riparian Management) as strategies for Objective 3.4.3.

3.4.4 Objective: Large Woody Debris

Cranberry 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.

Cranberry 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 For Large Woody Debris

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

1) Blowdown within the RRZ and RMZ will be retained as large woody debris.

2) For rivers and streams 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: Floodplains and Alluvial Fans

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

3.4.5.1 Strategy For Floodplains And Alluvial Fans

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

1) A QP is used to design/prescribe recommendations to ensure the functional integrity of all floodplains and alluvial fans within areas of their operations; and
2) The FSP Holder's operations are consistent with the provided recommendations adopt the recommendations.

3.4.6 Objective: Water Management Units

1) Cranberry SRMP LUOR Order Objective 37: *Ensure proper hydrological functioning [29] of:*
    a. *each stream, wetland and lake within a Water Management Unit identified on Schedule L* [of the Cranberry SRMP LUOR Order];

    and

    b. *each local and downstream stream receiving water from a cutblock within a Water Management Unit identified on Schedule L* [of the Cranberry SRMP LUOR Order].
2) Cranberry SRMP LUOR Order Objective 38:
    a. *Retain 100% of the forested area of the hydroriparian zone of each stream, wetland and lake within a Water Management Unit as shown on Schedule L* [of the Cranberry LUOR Order]*, unless harvesting is required to address compelling forest health issues or as set out in b).*
    b. *Cutblocks may overlap a Water Management Unit as shown on Schedule L* [of the Cranberry SRMP LUOR Order] *by no more than 200 metres 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 is maintained.*
3) Cranberry SRMP LUOR Order Objective 39:
    a. *To the extent practicable, maintain Water Management Units within the Order Area or restore them to a roadless state, including by:*
        i. *Deactivating existing roads following completion of harvesting and silviculture obligations and*
        ii. *Constructing no new roads for commercial forestry operations.*

3.4.6.1 Result For Water Management Units

During the period of this FSP the FSP Holder will:

[29] "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.

1) ensure the proper hydrological functioning of the areas described in Objectives 3.4.6 (1.a), 3.4.6 (1.b), and 3.4.6 (2.a) by ensuring that 100% of the forested area of the hydroriparian zone of each stream, wetland and lake within a Water Management Unit as shown on Cranberry SRMP LUOR Order Schedule L is retained, unless harvesting is required to address compelling forest health issues or as set out in 2).
2) ensure that, when FSP Holder cutblocks overlap a Water Management Unit as shown on Cranberry SRMP LUOR Order Schedule L, they do so by no more than 200 metres 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 is maintained.
3) To the extent practicable, within Water Management Units as shown on Cranberry SRMP LUOR Order Schedule L, the FSP Holder will:
    a. deactivate existing FSP Holder roads following completion of harvesting and silviculture obligations; and;
    b. not construct new roads for commercial forestry operations.

3.4.7 Objective: Riparian Areas

Kispiox LRMP Section 6.4: To maintain riparian areas:
a) to protecting rivers, streams and wetlands and associated recreation, cultural heritage, aboriginal, tourism and wildlife values;
b) to protect sources of large organic debris;
c) to ensure bank stability;
d) to protect water quality; and,
e) to maintain important fish and wildlife habitat.

Kispiox LRMP Section 6.3: To protect the following sensitive fish habitat:
a) Lakes and small populations of large rainbow trout;
b) Stream reaches with identified populations of bull trout;
c) Important spawning and rearing areas; and,
d) Class I and II angling waters, and their tributaries.

3.4.7.1 Result For Riparian Areas

During the period of this FSP the FSP Holder adopts Results 3.4.1.1(Water and Riparian), 3.4.2.1(Water and Riparian), 3.4.2.3 (Basal Area Retention in Riparian Management Zones), 3.4.3.1(Water and Riparian), 3.4.4.1 (Large Woody Debris), and 3.4.6.1 (Water Management Units) as the result for Objective 3.4.7.

3.4.7.2 Strategy For Riparian Areas

During the period of this FSP the FSP Holder adopts strategies 3.4.2.2 (Water and Riparian), 3.4.3.2 (S4, S5, and S6 Stream and Riparian Management), and 3.4.5.1 (Floodplains and Alluvial Fans) as strategies for Objective 3.4.7.

3.4.7.3 Strategy for Sensitive Fish Habitat

During the period of this FSP the FSP Holder will:

1) Refer to known and available information identifying sensitive fish habitat, including:
    a. The Kispiox and Cranberry TSA Critical Stream Reach Inventory (Triton 2006);
    b. Bull trout staging areas made known by the MOE; and,
    c. Stream and lake riparian classifications and inventory information;

2) Develop site specific plans and mitigation measures to limit the potential for adverse impacts to sensitive fish habitat;

3) Ensure that each cutblock or road authorized by the FSO Holder is designed in a manner that is consistent with 3.4.7.3 (2) above;

4) Carry our forest practices only if the forest practices are consistent with the design for the cutblock or road referred to in section 3.7.3.3 (3) above; and,

5) Enter into a timber sale licence or grant a road permit only if the licence or permit is consistent with the design for the cutblock or road referred to in section 3.4.7.3 (3) above.

3.4.8 Objective: Indigenous Fish Populations

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

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

3.4.8.1 Result For Indigenous Fish Populations

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), 3.4.1.1 (Water and Riparian), 3.4.2.1 (Water and Riparian), 3.4.2.3 (Basal Area Retention in Riparian Management Zones), 3.4.3.1 (Water and Riparian), 3.4.4.1 (Large Woody Debris) and 3.4.6.1 (Water Management Units) as a result for Objective 3.4.8.

3.4.8.2 Strategy For Indigenous Fish Populations

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 Strategies 3.4.2.2 (Water and Riparian), 3.4.3.2 (S4, S5, and S6 Stream and Riparian Management), 3.4.5.1 (Floodplains and Alluvial Fans), 3.7.7.1(Ecosystem Network), 3.7.8.1 (Ecosystem Network – Structural Connectivity), and 3.7.9.1 (Ecosystem Network- Buffer) as a strategy for Objective 3.4.8.

3.5 Fish

<table>
<tr><th colspan="3">Reference Information</th></tr>
<tr><td rowspan="3">Type of Objective</td><td colspan="2">1. Objectives set in regulation: FPPR s. 8, 8.1</td></tr>
<tr><td colspan="2">2. Objectives enabled by regulation: N/A</td></tr>
<tr><td colspan="2">3. Land Use Objectives:</td></tr>
<tr><td rowspan="3">Effective Date of Objective</td><td colspan="2">1.January 31, 2004</td></tr>
<tr><td colspan="2">2. N/A</td></tr>
<tr><td colspan="2">3. N/A</td></tr>
<tr><td>Practice Requirement(s) Eligible for Exemption</td><td>FPPR ss. 55, 56 & 57.</td><td>Decision Adopt: 55, 56 & 57.</td></tr>
</table>

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.

(3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.

3.5.1.1 RESULT FOR FISH HABITAT IN FISHERIES SENSITIVE WATERSHEDS

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

3.6 Community Watersheds

Reference Information		
Type of Objective	1.Objectives set in regulation: FPPR s.8.2 2.Objectives enables by regulation: N/A 3.Land Use Objectives: N/A	
Effective Date of Objective	1. January 31, 2004 2. N/A 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: 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) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.

3.6.1.1 RESULT FOR COMMUNITY WATERSHEDS

The community watersheds in the Cranberry FDU are identified as:

- Ten Link Creek; and,

as established at the Legislated Planning Date of this FSP, unless after that date the designation of the area as a community watershed is:

a. amended to reduce the area it covers, in which case this definition applies to the area of the watershed as reduced; or,
b. cancelled, in which case it will no longer fall within this definition of community watershed.

During the period of this FSP the FSP Holder will undertake to comply with sections 59, 60, and 61 of the FPPR. The FSP Holder 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.

3.6.1.2 STRATEGY FOR COMMUNITY WATERSHEDS

During the period of this FSP the FSP Holder will,

1) Before carrying out or authorizing a primary forest activity in a cutblock within a community watershed:
   a. monitor the following environmental indicators for cumulative hydrological effects on Crown land:
      i. the area and percent of the watershed and/or sub-basin harvested, by important elevation bands, adjusted for Equivalent Clearcut Area (ECA) %; and,
      ii. the road density (km / km^2), by important elevation bands or soil sensitivity class;
   b. determine, in consultation with a QP, scores and risk thresholds for each environmental indicator under subsection (1)(a); and,
   c. authorize or carry out forest practices to a cumulative low to moderate risk threshold for adverse hydrological effects, in accordance with the resulting indicator scores under subsection (1)(b);

2) Inform holders of major licences operating within the Cranberry FDU to of the resultant scores and risk thresholds;
3) Design cutblocks and roads in a manner that is consistent with a cumulative low to moderate risk threshold for material adverse hydrologic effects, in accordance with the resulting environmental indicator scores;
4) Carry out a primary forest activity only if the activity is consistent with the design for the cutblock or road referred to in subsection (3) above; and,
5) Enter into a timber sale licence or grant a road permit only if the licence or permit is consistent with the design for the cutblock or road referred to in subsection (3) above.

3.6.1.3 RESULT FOR TEN LINK CREEK COMMUNITY WATERSHED

During the period of this FSP the FSP holder will not authorize any primary forest activities within the Ten Link Creek Community Watershed unless the planned activity has received written approval from the Gitanyow Hereditary Chiefs office.

3.7 Biodiversity

Reference Information		
Type of Objective	1.Objectives set in Regulation: FPPR s. 9, 9.1	
	2. Objectives enabled by Regulation: N/A	
	3. Land Use Objectives: Cranberry SRMP LUOR Order	
Effective Date of Objective	1. January 31, 2004	
	2. N/A	
	3. (a) March 3, 2016, (b) April 25, 1996; Amended March 2001	
Mandatory Practice Requirements from the FPPR	FPPR ss.68	
Practice Requirement(s) Eligible for Exemption	FPPR ss. 64, 65, 66 & 67	**Decision**: Adopt FPPR ss. 67 Exempt FPPR ss.64, 65 & 66.

3.7.1 Objective: Patch Distribution and Seral Stage Condition

FPPR s.9: The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.

Cranberry 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 Cranberry SRMP LUOR Order].

Cranberry SRMP LUOR Order Objective 16: Maintain a range of forest seral stages as per Schedule E [of the Cranberry SRMP LUOR Order].

3.7.1.1 RESULT FOR PATCH SIZE DISTRIBUTION AND SERAL STAGE CONDITION

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 FDU area.
2) Areas harvested by the FSP Holder within the FDU will maintain or move towards the applicable patch size distribution and seral stage condition targets* and will be calculated in accordance with the process outlined in the Kispiox/Cranberry Objectives Set By Government Indicator Monitoring and Assessment Working Group (KOMA) document entitled Kispiox/Cranberry Patch Size Distribution Analysis (February 6, 2013).

3.7.1.2 STRATEGY FOR PATCH SIZE DISTRIBUTION AND SERAL STAGE CONDITION

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

1) Every three years, by June 1st, the FSP Holder completes a report summarizing the status of the patch and seral distribution within the FDU area. 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 targets*, a rationale will be prepared that describes management direction for moving towards the target levels.

2) Within a specified period after the approval of this FSP, harvest activities under this FSP are shown to be consistent with the management direction. This specified period shall be five (5) years for each Landscape Unit, unless otherwise determined by mutual agreement between the FSP Holder and the District Manager.

*The Patch Size Distribution targets and Seral Stage targets are as follows:

a. Patch Size Distribution for all Landscape Units within the Cranberry FDU are identified in Schedule D of the Cranberry SRMP LUOR Order.
b. Seral Stage Condition targets for all Landscape Units within the Cranberry FDU are identified in Schedule E1 of the Cranberry SRMP LUOR Order.

3.7.2 Objective: Wildlife Tree Retention Areas

FPPR s. 9.1: The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.

Cranberry 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 12% of proposed cutblocks aggregated on an annual basis, as wildlife tree retention areas, over the rotation.

Kispiox LRMP Section 6.1: To retain the structural diversity of managed forests.

3.7.2.1 RESULT FOR WILDLIFE TREE RETENTION AREAS

During the period of this FSP the FSP Holder will:

1) Maintain or recruit structural diversity [30] in managed stands by retaining at least 3.5% of each proposed cutblock and at least 12% 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 structural diversity[30] consistent with (1) above or a suitable replacement WTRA will be located.
3) Not harvest timber from a WTRA unless trees in 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 harvesting is required to access timber that otherwise would be isolated from harvest beyond the WTRA area.
4) Where 3.7.2.1 (3) applies, prior to harvesting within a WTRA, the FSP Holder will identify and establish a replacement area with similar stand characteristics to the WTRA planned for harvest, and will amend the associated Site Plan to add the replacement area to the block.

3.7.2.2 STRATEGY FOR WILDLIFE TREE RETENTION AREAS

During the period of this FSP the FSP Holder will monitor, annually track, and if requested report to the District Manager the proportion of Landscape Unit area covered by WTRAs resulting from forest related activities of the FSP Holder on completed harvest areas by April 30th of each calendar year.

3.7.2.3 RESULT FOR WILDLIFE TREE RETENTION AREAS

During the period of this FSP the FSP Holder will undertake to comply with section 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 67 applies to the holder's primary forest activities carried out during the term of the plan.

3.7.3 Objective: Red and Blue Listed Ecological Communities

Cranberry SRMP LUOR Order Objective 11: *Retain 100% of the area and basal area of red-listed ecological communities[31], as listed on Schedule M* [of the Cranberry 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.*

Cranberry SRMP LUOR Order Objective 12: *Retain a windfirm, forested buffer around the red-listed ecological communities[31] listed on Schedule M* [of the Cranberry 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;*

[30] Structural diversity includes , but are not limited to: diversity of tree species, tree diameter, and tree heights, living and dead standing trees, coarse woody debris, opening size, range of layers, above and belowground flora and fauna.
[31] 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.

Cranberry SRMP LUOR Order Objective 13: *Retain at least 70% of the area or basal area of each blue-listed ecological community [32] within a cutblock as listed on Schedule N* [of the Cranberry SRMP LUOR Order].

3.7.3.1 RESULT FOR RED AND BLUE LISTED ECOLOGICAL COMMUNITIES

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

1) Field development personnel review planned harvest areas (including roads) for the occurrence of red-listed [33] or blue-listed[34] plant communities and will map occurrences that meet the following size criteria:
    a. For pure site series, larger than 0.25 hectares in size; or,
    b. For site series complexes, larger than 1.0 hectare in size with a dominant component (at least 50%) of one or more rare plant communities.
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) At least 70% of the area or basal area of each occurrence of blue-listed ecological community is retained.
4) 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 3.7.3.1 (2).
5) A minimum buffer of 15 metres, designed to promote or maintain the windfirmness of the retained stand, will be maintained around the margin of each identified blue listed ecological community.

3.7.4 Objective: Natural Species Composition

Cranberry 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.*

3.7.4.1 RESULT FOR NATURAL SPECIES COMPOSITION

During the period of this FSP the FSP Holder adopts Result 3.2.1.1(Timber) for FSP Holder operations.

[32] 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.
[33] Red-listed plant communities are as described on Schedule M of the Cranberry SRMP LUOR Order.
[34] Blue-listed plant communities are as described on Schedule N of the Cranberry SRMP LUOR Order.

3.7.5 Objective: Natural Species Composition

Cranberry 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.*

Kispiox LRMP 6.1: To maintain deciduous ecosystems.

3.7.5.1 STRATEGY FOR NATURAL SPECIES COMPOSITION

During the period of this FSP the FSP Holder will reforest harvested areas that are greater than one contiguous hectare, which originally had more that 50% deciduous trees by basal area, with a similar deciduous leading stand. Broadleaf species associated with the applicable Stocking Standard for the site will be considered preferred.

3.7.6 Objective: Old Growth Management Areas

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

3.7.6.1 STRATEGY FOR OLD GROWTH MANAGEMENT AREAS

During the period of this FSP the FSP Holder will not harvest within the forested area of the Old Growth Management Areas identified on Cranberry SRMP LUOR Order Schedule F, 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.

3.7.7 Objective: Ecosystem Network

Cranberry SRMP LUOR Order Objective 18: *Retain 100% of the forested area of the hydroriparian zone*[37] *within Ecosystem Network, as identified on Schedule G* [of the Cranberry SRMP LUOR Order]. *Acceptable rationales for amending the Ecosystem Network are identified in Schedule G1* [of the Cranberry SRMP LUOR Order].

3.7.7.1 STRATEGY FOR ECOSYSTEM NETWORK

During the period of this FSP the FSP Holder will ensure that 100% of the forested area of the hydroriparian zone[37] within the Ecosystem Network identified on Cranberry SRMP LUOR Order Schedule G. maps is retained unless an amendment to the Ecosystem Network is completed in a manner consistent with an acceptable rationale as outlined in Table 3-4.

Table 3-4: Rationale for Amending the Ecosystem Network

Acceptable Rationale for Amendment	Major [35] or Minor[36] Amendment	Allowable Amendment
1. Access issues that were overlooked or unknown during the initial Ecosystem Network delineation, where no practicable alternative exists (refer to Objective 19 [of the Cranberry SRMP LUOR Order]).	Minor	• To establish an appropriate road width through the Ecosystem Network.
2. 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*; • as declared areas under section 14(4) of the *Forest Planning and Practices Regulation*; or • that have a cutting permit in place	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.
3. 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.
4. New data and information such as ground truthing of the hydroriparian zone[37], 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: • Nass River mainstream/Beverly Creek • Gitanyow Lake • Moonlit Creek mainstream • Kitwanga River mainstream • Kitwancool Creek mainstream • Cranberry River mainstream • Tsugwinselda Creek • Kispiox River mainstream • Nangeese River mainstream • Aluk Creek Minor for all other portions of the Ecosystem Network.	• 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.

[35] "**major amendment to an Ecosystem Network**" means that wherever identified as a major amendment to an Ecosystem Network in Schedule G1 (of the Cranberry SRMP LUOR Order), forest licensees must follow the amendment procedures as described for Old Growth Management Areas.

[36] "**minor amendment to an Ecosystem Network**" means that wherever identified as a minor amendment to an Ecosystem Network in Schedule G1 (of the Cranberry SRMP LUOR Order), the FSP Holder must follow the amendment procedures as described for Old Growth Management Areas.

[37] The hydroriparian zone is defined as 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:

- The stream channel, lake or wetland and adjacent riparian ecosystem, where no floodplain exists.

3.7.8 Objective: Ecosystem Network Structural Connectivity

Cranberry SRMP LUOR Order Objective 19: Maintain structural connectivity[38] *in the Ecosystem Network, as identified on Schedule G* [of the Cranberry SRMP LUOR Order] *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 the Ecosystem Network; or*
3) *no practicable alternative exists.*

3.7.8.1 Strategy For Ecosystem Network Structural Connectivity

During the period of this FSP the FSP Holder will maintain structural connectivity in the Ecosystem Network depicted on Cranberry SRMP LUOR Order Schedule G. except where:

1) Required to access timber beyond the Ecosystem Network that would otherwise be isolated from harvest; or,
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) No practicable alternative exists.

3.7.9 Objective: Ecosystem Network Buffers

Cranberry SRMP LUOR Order Objective 20: Retain a 200 m wide buffer around the Ecosystem Network as identified on Schedule G [of the Cranberry SRMP LUOR Order] *that meets the following forest conditions:*

1) Continuous forest cover
2) Small discontinuous canopy gaps
3) *≥70% structure and function*[39] *retained, including large, old trees, snags, and coarse woody debris*
4) *Multi-canopy levels, multi-aged forest*
5) *In conjunction with the forested core, maintain interior old forested conditions >or= 200 metres in width*
6) *0% permanent road access, except where, for ecological or economic reasons, no other alternative is possible.*

3.7.9.1 Strategy For Ecosystem Network Buffers

During the period of this FSP the FSP Holder will retain a 200 m wide buffer around the Ecosystem Network as depicted on Cranberry SRMP LUOR Order Schedule G. The buffer will meet the following forest conditions:

- The full width of the floodplain for streams,
- Adjacent active fluvial units,
- 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,
- 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.

[38] A continuum of relatively undisturbed habitats that possess interior forest conditions (taken from page 22 of the Cranberry Sustainable Resource Management Plan (June, 2012).

[39] 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).

1) Continuous forest cover.
2) Small discontinuous canopy gaps.
3) ≥70% structure and function[39] retained, including large, old trees, snags, and coarse woody debris.
4) Multi-canopy levels, multi-aged forest.
5) In conjunction with the forested core, maintain interior old forested conditions > 200 metres in width.
6) 0% permanent road access, except where, for ecological or economic reasons, no other alternative is possible.

3.7.10 Objective: Maintenance or Enhancement of Biodiversity

Kispiox LRMP Section 6.1: To maintain or enhance biodiversity over the planning period.

3.7.10.1 Strategy For Maintenance Or Enhancement Of Biodiversity

During the period of this FSP the FSP Holder adopts Strategies 3.7.1.2(Patch Size Distribution and Seral Stage Condition), 3.7.5.1(Natural Species Composition), 3.7.6.1(Old Growth Management Areas), 3.7.7.1(Ecosystem Network), 3.7.8.1 (Ecosystem Network- Structural Connectivity), and 3.7.9.1 (Ecosystem Network- Buffer) as the strategy for Objective 3.7.10.

3.7.10.2 Result For Maintenance Or Enhancement Of Biodiversity

During the period of this FSP the FSP Holder adopts results 3.7.1.1 (Patch Size Distribution and Seral Stage Condition), 3.7.2.1(Wildlife Tree Retention Areas) and 3.7.3.1 (Red and Blue Listed Ecological Communities) as the result for Objective 3.7.10.

3.7.11 Objective: Rare Ecosystems, Floodplains, and Riparian Areas

Kispiox LRMP Section 6.1: To maintain rare ecosystems and environmentally sensitive areas such as wetlands (e.g. Upper Shelagyote Valley) floodplains and riparian areas.

3.7.11.1 Result For Rare Ecosystems, Floodplans, And Riparian Areas

During the period of this FSP the FSP Holder adopts results 3.4.1.1 (Water and Riparian), 3.4.2.1 (Water and Riparian), 3.4.2.3 (Basal Area Retention in Riparian Management Zones), 3.4.3.1 (Water and Riparian), 3.4.4.1 (Large Woody Debris), 3.4.6.1 (Water Management Units), and 3.7.3.1(Red and Blue Listed Species) as the result for Objective 3.7.11.

3.7.11.2 Strategy For Rare Ecosystems, Floodplains, and Riparian Areas

During the period of this FSP the FSP Holder adopts strategies 3.4.5.1(Floodplains and Alluvial Fans) and 3.4.2.2 (Water and Riparian), and 3.4.3.2 (S4, S5, and S6 Stream and Riparian Management) as a strategy for Objective 3.7.11.

3.8 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) and 17
	3.Land Use Objectives: Kispiox LRMP

Effective Date of Objective	1. January 31, 2004 2. N/A 3. April 25, 1996; Amended March 2001
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
(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.

Kispiox LRMP Section 6.10: To maintain visual quality in scenic areas including:
(a) Highway 16 corridor and 37 corridors; and,
(b) BC Forest Service recreation sites and trails and important recreational fishing areas.

3.8.1.1 Strategy For Visual Quality

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 (https://www.for.gov.bc.ca/TASB/LEGSREGS/FPC/FPCGUIDE/visual/httoc.htm#cont) and will be attached or referred to in the Site Plan for their planned blocks and roads that are located within known scenic areas and that are identified with a Visual Quality Objective (VQO) of Preservation (P), Retention (R), Partial Retention (PR), or Modification (M).
2) The visual impact assessment will :
    a. review the visual landscape from identified viewpoints (see below for viewpoint selection and criteria)
    b. describe how the visual design conforms with the VQO.
3) The road and block design, at the time of TSL issuance, will reflect the visual design as described in the visual assessment.
4) Viewpoints are identified as follows:
    a. As shown on the FSP maps, or
    b. At a point along a travel corridor that allows for an extended viewing experience.

    For the purpose of 4 (b) “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.

5) The FSP Holder may request an exemption from the District Manager where road construction, required to access isolated wood, or catastrophic damage such as wind-throw, fire, disease, or pest damage occurs and any timber harvest or road construction 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).

3.8.1.2 RESULT FOR VISUAL QUALITY

During the period of this FSP the FSP Holder will ensure that road construction and / or timber harvesting carried out or authorized by the FSP Holder will be consistent with established VQOs.

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: Cranberry SRMP LUOR Order
Effective Date of Objective	1. January 31, 2004 2. N/A 3. March 3, 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.*

Cranberry 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.

Kispiox LRMP Section 6.6:

- *To maintain cultural heritage resources including archaeological sites, traditional use sites and trails, and structural features. A specific objective is to protect features at Kispiox, Hazelton/Hagwilget, Kitwancool, Cedarvale, Kitseguecla, Kisgegas and Kuldo.*
- *To recognize the significance of house territories and associated resources to First Nations.*
- *To protect historic features associated with river boat traffic on the Skeena River, the Dominion Telegraph Trail and early mineral exploration*

Kispiox LRMP Section 6.16: To maintain sites that are important for production of traditional medicinal plants (e.g., lily roots, devil's club).

3.9.1.1 STRATEGY FOR CULTURAL HERITAGE RESOURCES

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

1) A Cultural Heritage Resource Evaluation (CHRE) has been completed on their planned blocks and roads before harvesting or construction activities are authorized or mechanical site preparation activities are prescribed. A CHRE is defined as a process conducted by field and office persons, consisting of the following steps:

    a. Complete an initial review of all proposed blocks and roads in relation to known information regarding the location, nature and extent of cultural heritage resources and document the results.

    b. Provide the results of the initial review to potentially affected First Nations identified through the Consultative Areas Database (CAD). Request of the First Nations any additional information regarding cultural heritage resources that may be present and potentially affected by the proposed blocks and roads or mechanical site preparation activities.

    c. Complete a field evaluation for the presence of cultural heritage resources and record information related to the location, nature and extent of any cultural heritage resources that are identified.

    d. Evaluate the direct impact of the planned development on the cultural heritage resources identified, if any.

    e. If a cultural heritage resource feature is found, following consultation with the affected First Nation(s), prepare recommendations in order to conserve, mitigate impacts, or, as required, protect the cultural heritage resource at the location, considering:

        i. the relative value or importance of the cultural heritage resource to a traditional use by an aboriginal people;

        ii. if the cultural heritage resource is of continuing importance to the First Nations;

        iii. historical extent of the traditional use of the cultural heritage resource; and,

        iv. the impact on the FSP holders government granted timber harvesting rights of conserving or protecting the cultural heritage resource.

2) All FSP Holder's harvesting, road construction, and mechanical site preparation activities will follow the recommendations given in the Cultural Heritage Resource Evaluation referred to in (1) above, that are practicable and are required to conserve, mitigate or, if necessary, protect a cultural heritage resource if it is of continuing importance to the First Nations.

3) For previously unidentified cultural heritage resources encountered during harvesting, road construction, or mechanical site preparation activities, the FSP Holder will:

    a. stop the activity to the extent necessary to protect the cultural heritage resource until a Cultural Heritage Resource Evaluation (with respect to the previously unidentified feature) is carried out; and,

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

3.9.1.2 RESULT FOR THE KITWANCOOL GREASE TRAIL

The Kitwancool Grease Trail is a cultural heritage feature that is regulated under the Heritage Conservation Act. During the period of this FSP the FSP Holder will ensure that any activity carried out or authorized by the FSP Holder within 100 m of the trail will be in accordance with applicable permit(s) administered through the Heritage Conservation Act, if any.

3.9.1.3 Result For Other Cultural Heritage Resources

During the period of this FSP, if historic features associated with early mineral exploration are identified or made known to the FSP Holder, the FSP Holder will, during the period of this FSP, adopt the following process to conserve, or, if necessary, protect such historic features:

1) Record the location of the cultural heritage resource;
2) Evaluate the direct impact of the planned development on the historic feature;
3) Incorporate the historic feature 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; or,

4) If avoiding alteration of the historic feature may potentially affect the timber supply or create significant impact on the Licence holder's government granted timber harvesting rights, consider alternative silviculture systems or other forest management solutions to minimize the impact to the historic feature as a result of forest related activities.

3.9.2 Objective: Cedar

Cranberry SRMP LUOR Order Objective 36: Maintain the areas identified on Schedule K [of the Cranberry SRMP LUOR Order], *as a source of cedar for the applicable First Nation to practice their traditional, cultural and subsistence uses.*

3.9.2.1 STRATEGY FOR CEDAR

During the period of this FSP the FSP Holder will not carry out any timber harvesting or road building activities within the areas identified on Cranberry SRMP LUOR Order Schedule K as Gitanyow Cedar Stand Reserve polygons unless activities are authorized through a letter of agreement between Gitanyow and the FSP Holder, with a copy to the District Manager of the Skeena Stikine Resource District.

3.10 Botanical Forest Resources

Reference Information	
Type of Objective	1. Objective set in regulation: 2. Objectives enabled by regulation: 3. Land Use Objectives: a) Kispiox LRMP, b) Cranberry SRMP LUOR ORDER
Effective Date of Objective	1. N/A 2. N/A 3. a) April 25, 1996; Amended March 2001, b) March 3, 2016
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.10.1 Objective: Botanical Forest Products

Cranberry SRMP LUOR Order Objective 21: Maintain at least 50% of the productive pine mushroom (Tricholoma magnivelare) sites, as identified in Schedule H [of the Cranberry SRMP LUOR Order] *in forest ages ranging from 80-200 years*[40]*.*

Kispiox LRMP Section 6.16:

- *To maintain and use botanical forest products including wild berries.*
- *To maintain mushroom resources and provide opportunities for sustainable harvesting of mushrooms.*

3.10.1.1 Strategy For Botanical Forest Products

During the period of this FSP the FSP Holder will maintain at least 50% of the productive pine mushroom (Tricholoma magnivelare) sites, as depicted on Cranberry SRMP LUOR Order Schedule H, in forest ages ranging from 80-200 years[40].

3.10.1.2 Result for Wild Berries

During the period of this FSP the FSP Holder will adopt result 3.7.1.1 (Patch Size Distribution and Seral Stage Condition) as a result for Objective 3.10.1.

3.10.1.3 Strategy for Wild Berries

During the period of this FSP the FSP Holder will adopt strategy 3.7.1.2 (Patch Size Distribution and Seral Stage Condition as a strategy for Objective 3.10.1.

3.11 Recreation Trails and Sites

Reference Information	
Type of Objective	1. Objective set in regulation: FRPA ss. 56, 180 & 181 2. Objectives enabled by regulation: GAR s. 7(1) 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31 2004 2. Order to 3. April 25, 1996; Amended March, 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.11.1 Objective: Public Access to Recreational Opportunities

Kispiox LRMP Section 6.9:

- *To maintain recreational values and opportunities (i.e., landscapes, rivers, lakes, trails, recreation sites).*
- *To maintain public access to recreational opportunities and established recreational features.*
- *To protect the following important recreational features:*
  - *a) Kispiox, Babine, Bulkley, Suskwa, Kitseguecla, and Skeena river corridors for fishing and boating;*

[40] 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.

b) Upper Skeena River for rafting;
c) Hagwilget and Bulkley Canyons on the Bulkley River;
d) Dominion Telegraph Trail; and Babine River Valley.

3.11.1.1 STRATEGY FOR PUBLIC ACCESS TO RECREATIONAL OPPORTUNITIES

During the period of this FSP the FSP Holder will not control access within the Cranberry FDU except as required to meet other objectives/elements of this FSP. Any access control that is considered to be required will not be carried out without prior consultation with the District Manager.

3.11.1.2 STRATEGY FOR PUBLIC ACCESS TO RECREATIONAL OPPORTUNITIES

During the period of this FSP the FSP Holder will ensure that on the Recreation Trails identified in Table 3-5:

1) No disturbance[41] by to natural vegetation occurs within 10 m of the 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 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 comply with the conditions 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.
5) A trail crossing is deactivated once it is no longer required.

3.11.1.3 STRATEGY FOR PUBLIC ACCESS TO RECREATIONAL OPPORTUNITIES

During the period of this FSP the FSP Holder will ensure that for the Recreation Areas identified in Table 3-5 that there will be no disturbance[41] to areas within 10 m of lake shorelines, river-, stream-, or creek-banks. (This only applies to areas where an RRZ is not in existence). The remainder of the area within the recreation areas will be reserved from disturbance other than where the FSP Holder 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.

Table 3-5: Recreation Areas and Trails

FDU	Recreation Area	Recreation Trail
Cranberry	Kitwancool Lake Area	Grease Trail

[41] From activities related to FSP Holder road construction, harvesting or silviculture activities.

3.11.2 Objective: Special Management Zones – East Kipsiox/Kuldo

Kispiox LRMP Section 7.2: SMZ East Kispiox / Kuldo – To maintain provincially significant scenic resources, backcountry recreation opportunities and habitat for grizzly bears and mountain goats.

3.11.2.1 STRATEGY FOR EAST KISPIOX/ KULDO SMZ

During the period of this FSP the FSP Holder adopts strategies 3.7.1.2 (Patch Size Distribution and Seral Stage Condition), 3.7.6.1 (Old Growth Management Areas), 3.7.7.1 (Ecosystem Network), 3.7.8.1 (Ecosystem Network – Structural Connectivity), 3.7.9.1 (Ecosystem Network – Buffers) and 3.8.1.1 (Visual Quality), as strategies for Objective 3.11.2.

3.11.2.2 RESULT FOR EAST KISPIOX/KULDO SMZ

During the period of this FSP the FSP Holder adopts results 3.3.1.4 (Moose Winter Range), 3.3.1.5 (Grizzly Bear), 3.3.3.1 (Special Habitats for General Wildlife), 3.3.4.1 (Special Habitats for General Wildlife) and 3.7.1.1 (Patch Size Distribution and Seral Stage Condition) as results for Objective 3.11.2.

3.11.3 Objective: Special Management Zone – Community Watersheds

Kispiox LRMP Section 7.2: SMZ Community Watersheds – To maintain water quality and flow regime (quantity and timing) to ensure adequate potable water is available for domestic use.

3.11.3.1 STRATEGY FOR COMMUNITY WATERSHEDS SMZ

During the period of this FSP the FSP Holder adopts strategy 3.6.1.2 (Community Watershed) as a strategy for Objective 3.11.3.

3.11.3.2 RESULT FOR COMMUNITY WATERSHEDS SMZ

During the period of this FSP the FSP Holder adopts result 3.6.1.1 (Community Watershed) as a result for Objective 3.11.3.

3.11.4 Objective: Special Management Zone – Upper Kispiox

Kispiox LRMP Section 7.2: SMZ Upper Kispiox –

a) manage so that important grizzly bear habitat receives special emphasis

b) manage so that important wildlife habitat and important connective corridors receive special emphasis

c) maintain biological diversity and natural ecosystem functions;

d) maintain natural water quality regimes;

e) maintain important fish habitat;

f) protect cultural sites and protect heritage sites and trails;

g) maintain specified, small-scale areas for the non-commercial harvest of traditionally used plants (i.e. devil's club, berry patches) by Gitxsan house groups;

h) maintain the Swan Lake Plan retention VQOs;

i) manage access to minimize human-bear interactions, minimize road density, minimize total road footprint/impact, and minimize road access to alpine areas (addressed in strategy 3.11.4.4); and,

j) to allow for the maintenance of existing trails.

3.11.4.1 RESULT FOR UPPER KISPIOX SMZ

During the period of this FSP the FSP Holder adopts results:

a) 3.3.1.4 (Moose Winter Range), 3.3.1.5(Grizzly Bear), 3.3.3.1 (Special Habitats for General Wildlife), 3.3.4.1 (Special Habitats for General Wildlife) and 3.7.1.1 (Patch Size Distribution and Seral Stage Condition) as results for Objective 3.11.4 (a), (b), and (c);
b) 3.4.1.1 (Water and Riparian), 3.4.2.1 (Water and Riparian), 3.4.2.3 (Basal Area Retention in Riparian Management Zones), 3.4.3.1 (Water and Riparian), 3.4.4.1 (Large Woody Debris), 3.4.6.1 (Water Management Units), 3.5.1.1 (Fish Habitat in Fisheries Sensitive Watersheds) and 3.6.1.1 (Community Watersheds) for Objective 3.11.4 (d) and (e);
c) 3.9.1.1 (Cultural Heritage Resources) for Objective 3.11.4 (f) and (g);
d) 3.8.1.2 (Visual Quality) for Objective 3.11.4 (h).

3.11.4.2 STRATEGY FOR UPPER KISPIOX SMZ

During the period of this FSP the FSP Holder adopts strategies:

a) 3.7.1.2 (Patch Size Distribution and Seral Stage Condition), 3.7.6.1 (Old Growth Management Areas), 3.7.7.1 (Ecosystem Network), 3.7.8.1 (Ecosystem Network – Structural Connectivity), 3.7.9.1 (Ecosystem Network – Buffers) for Objective 3.11.3 (a), (b) and (c);
b) 3.4.2.2 (Water and Riparian), 3.4.3.2 (S4, S5, and S6 Stream and Riparian Management), 3.4.5.1 (Floodplains and Alluvial Fans) and 3.6.1.2 (Community Watersheds) for Objective 3.11.4 (d) and (e);
c) 3.9.1.1 (Cultural Heritage Resources), 3.9.2.1 (Other Cultural Heritage Resources), 3.10.1.1 (Botanical Forest Products) for Objective 3.11.4 (f) and (g);
d) 3.8.1.1 (Visual Quality) for Objective 3.11.4 (h);
e) 3.11.1.2 (Public Access to Recreational Opportunities) for Objective 3.11.4 (j).

3.11.4.3 STRATEGY FOR UPPER KISPIOX SMZ

With respect to Objective 3.11.4 (i), during the period of this FSP the FSP Holder may authorize the design and construction of a road or the design and harvest of a cutblock within the Upper Kispiox Special Management Zone of the Kispiox FDU where and to the extent the road or harvesting:

1) In the case of a road:
   a. is necessary to access timber that would otherwise be inaccessible;
   b. maintains a maximum density of roads open to timber harvesting activity at one time of less than 0.6km/km^2 density over 80% of the Upper Kispiox Special Management Zone of the Kispiox FDU;
   c. maintains a maximum sight line of 300 metres; and,
   d. is temporary unless no other alternative is practicable for ecological or economic reasons.
2) In the case of harvesting:
   a. includes fluvial units in retention areas;
   b. authorizes harvesting operations during the winter only;
   c. plans for predominantly small openings with a maximum sight line of 300 metres, consistent with the KLRMP access management considerations; and,
   d. will not be located within 500 metres of alpine areas.

3.12 Mill Creek Sensitive Area

Reference Information	
Type of Objective	1. Objective set in regulation: 2. Objectives enabled by regulation: 3. Land Use Objectives: Mill Creek Sensitive Area Plan
Effective Date of Objective	1. N/A 2. N/A 3. December 12, 1998
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.12.1 Objective: Mill Creek Sensitive Area

Cedar Stand Zone (as shown on map 2 [of the Mill Creek Sensitive Area Plan]:

1) *Maintain old growth forest attributes in the cedar stand zone by precluding commercial timber harvesting and road construction, except where required to maintain forest health and control fires.*
2) *Retain a representative example of a rare ecosystem in old growth condition.*

Reserve Zone (as shown on map 2 [of the Mill Creek Sensitive Area Plan]:

3) *Retain the interior forest condition of the cedar stand zone by providing a reserve of at least 70 metres where the cedar stand zone is not buffered by an adjacent ecosystem as shown in Figure 1 [of the Mill Creek Sensitive Area Plan].*
4) *Protect the cedar stand zone from windthrow.*
5) *Maintain the hydrologic stability of the alluvial fan*.
Management Zone (as shown on Map 2) {of the Mill Creek Sensitive Area Plan]:
6) *Maintain the hydrologic stability of the alluvial fan in the cedar stand and reserve zones by limiting timber harvesting in the management zone to non-clearcut systems.*
7) *Protect the cedar stand and reserve zones from windthrow.*

3.12.1.1 Result For Mill Creek Sensitive Area

During the period of this FSP, the FSP Holder will not plan or authorize harvesting or road construction within the Mill Creek Sensitive Area as shown on Mill Creek Sensitive Area Plan Map 2.

3.13 Agriculture and Range

Reference Information	
Type of Objective	1. Objective set in regulation: 2. Objectives enabled by regulation: 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31 2004 2. N/A 3. April 25, 1996; Amended KLRMP March 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

3.13.1 Objective: Range Resources

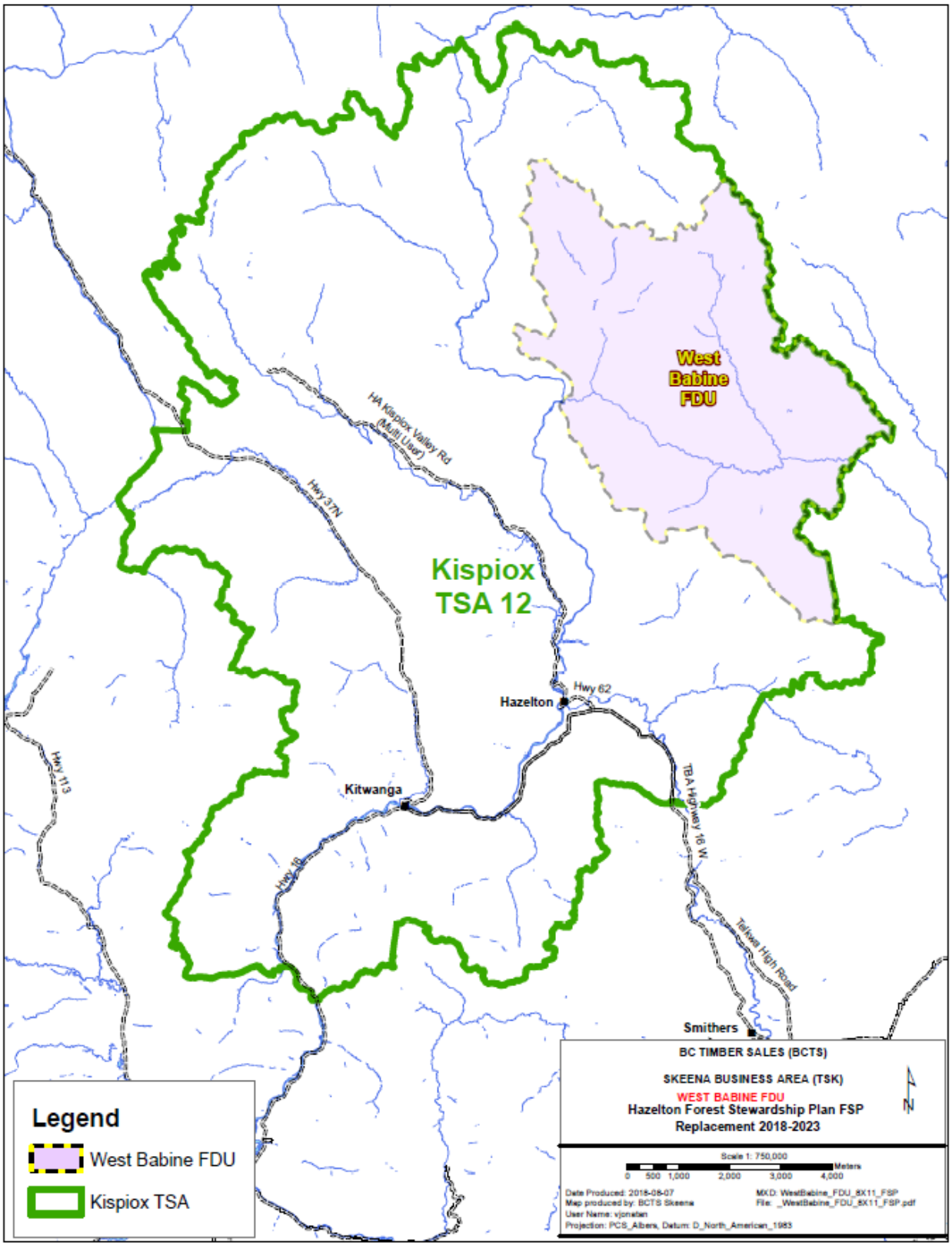
Kispiox LRMP 6.8:

- *To protect and conserve range resources.*
- *To maintain the health and productivity of range resources by providing protection from fire, insects and disease.*
- *To maintain and enhance use of Crown land, water and range resources by domestic livestock.*
- *To maintain and enhance agricultural use of Crown land within the ALR consistent with the Agricultural Land Commission Act.*
- *To preserve and maintain soil quality within the ALR.*

3.13.1.1 Result For Range Resources

During the period of this FSP the FSP Holder will, in the carrying out of primary forest activities on land in the Cranberry FDU to which an agreement under the Range Act applies, be consistent with the measures specified in Section 5 of this FSP.

Figure 4: West Babine FDU Key Map



4 WEST BABINE FDU

Objectives for the West Babine Forest Development Unit come from the following sources:

1. Xsu gwin lik'l'inswx: West Babine Sustainable Resource Management Plan, 2004 (West Babine SRMP);
2. Order to Establish the West Babine Landscape Unit and Objectives and to vary the Atna/Shelagyote and Babine River Special Management Zone Boundaries, August 1, 2004;
3. Kispiox Land and Resource Management Plan, April 1996, Amended March 2001; and,
4. **FRPA** and **FPPR** for resource values without established land use objectives from a higher-level plan.

For areas of overlap only, if any, between landscape unit boundaries established in the 'Order to establish Kispiox Landscape Units and Objectives' and the 'Order to Establish the West Babine Landscape Unit and Objectives and to vary the Atna/Shelagyote and Babine River Special Management Zone Boundaries', unless otherwise defined by ministerial order, all area within the West Babine Landscape Unit will be included in the West Babine FDU, resulting in a common boundary.

Consistent with the intent of the FRPA, results and strategies have also been developed to address the remaining applicable land use objectives from the Kispiox LRMP and FRPA objectives to the extent practicable, measurable and/or verifiable, including identification of the circumstances or situations where each objective applies and where exemptions provided for in the FRPA are appropriate.

4.1 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: Kispiox LRMP	
Effective Date of Objective	1. January 31, 2004 2. N/A 3. April 25, 1996; Amended March, 2001	
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: Soil Productivity and Hydrologic Functions

FPPR s. 5: The objective set by government for soils is, without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and hydrologic function of soils.

Kispiox LRMP Section 6.5: To provide appropriate road development within the planning area.

4.1.1.1 RESULT FOR SOILS PRODUCTIVITY AND HYDROLOGIC FUNCTIONS

During the period of this FSP the FSP Holder will undertake to comply with sections 35 and 36 of the FPPR. The FSP Holder 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 period of the plan.

4.1.1.2 STRATEGY FOR SOIL PRODUCTIVITY AND HYDROLOGIC FUNCTION

During the period of this FSP the FSP Holder adopts Strategy 4.4.2.2 as a strategy for Objective 4.1.1.

4.2 Timber

Reference Information		
Type of Objective	1. Objective set in regulation: FPPR s.6 2. Objectives enabled by regulation: N/A 3. Land-Use objectives: Kispiox LRMP	
Effective Date of Objective	1. January 31, 2004 2. N/A 3. April 25, 1996, Amended March, 2001	
Mandatory Practice Requirements from the FPPR	FPPR SS: 41, 42, 43, 44, 45, 46	
Practice Requirement(s) Eligible for Exemption	N/A	N/A

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,

(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.

Kispiox LRMP Section 6.11: To maintain the health and productivity of forest resources by providing protection from fire, insects and diseases, and through reforestation.

West Babine SRMP Table 15(1): To provide sustainable and economically viable access to timber supply.

4.2.1.1 Result For Timber

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

1) At least the minimum stocking with the 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 For Timber

During the period of this FSP the FSP Holder will:

1) Refer to available spatial data of known and existing research installations as identified on the BC Geographic Warehouse (BCGW website), at web address: http://catalogue.data.gov.bc.ca/dataset/growth-and-yield-samples-all-status
2) Make known to the appropriate FLNRORD staff whenever any unidentified permanent sample plots or research installations are found during the course of operational planning and resource development; and,

3) 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;
4) 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.
5) Notify a timber sale license 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.

4.3 Wildlife

Reference Information	
Type of Objective	1. Objective set in regulation: FPPR s.7(1) 2. Objectives enabled by regulation: GAR sections: 9, 10, 11, 12 & 13 3. Land Use Objectives: (a)Order to Establish the West Babine Landscape Unit and Objectives, (b) Kispiox LRMP
Effective Date of Objective	1. January 31, 2004 2. Order- *Ungulate Winter Range – #U-6-006 (Kispiox and Cranberry TSAs Effective Date June 20, 2007 (Amended September 17, 2014).* 3. (a) August 1, 2004, (b) April 25, 1996, Amended March, 2001
Mandatory Practice Requirements from FPPR	FPPR ss. 69 & 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, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for

(a) the survival of species at risk,
(b) the survival of regionally important wildlife, and
(c) the winter survival of specified ungulate species

Kispiox LRMP Section 6.13:

- *To maintain natural ecosystems and habitat to sustain viable populations of all native wildlife within their natural ranges.*

- *To protect or enhance populations and habitat of rare or endangered and regionally significant species.*

4.3.1.1 RESULT FOR MOOSE WINTER RANGE

1) During the period of this FSP, within the moose winter range identified on Map 9 of the Kispiox HLPO, the FSP Holder will:
   a. adopt the indicators and target/measures for biodiversity listed in Table 4-5;
   b. adopt the wildlife tree retention targets listed in Table 4-8.
   c. for the purpose of maintaining visual screening, to the extent practicable retain all deciduous trees and brush cover within 10 m of roads during silvicultural stand tending treatments unless the deciduous tree or brush has a deleterious effect on the ability of a crop tree (subject to stocking standards) to achieve the stocking standards, in which case the deciduous trees or brush will be removed to the extent necessary to meet the stocking standards.
2) Where moose ungulate winter ranges are established through an Order under the Government Actions Regulation, the General Wildlife Measures stated in the Order will be adhered to and the FSP Holder is exempt from Result 4.3.1.1.

4.3.1.2 RESULT FOR MODERATE AND HIGH VALUE MOOSE WINTER RANGE

1) During the period of this FSP, within the moderate and high value polygons identified on the moose winter range identified on Map 9 of the Kispiox HLPO, the FSP Holder will:
   a. not carry out harvesting operations within willow and red-osier dogwood complexes[42];
   b. retain existing security cover[45] ,where it exists, within 50 m of subhygric to subhydric[43] sites that are large enough to be considered a silvicultural treatable unit[44] that contain willow and red osier dogwood as the dominant shrub species ;
   c. retain security cover[45], where it exists within, or adjacent to a cutblock, and will ensure that at least 80% of the security cover[45] is separated by no greater than 200 meters;
   d. ensure that all roads that are the responsibility of the FSP Holder, excluding mainlines[47,] are deactivated[46] following achievement of regeneration delay.
   e. ensure that all roads that are the responsibility of the FSP Holder, excluding mainlines[47], within 500 meters of a moose winter range polygon are deactivated following achievement of regeneration delay.

2) Where moose ungulate winter ranges are established through an Order under the Government Actions Regulation, the General Wildlife Measures stated in the Order will be adhered to and the FSP Holder is exempt from Result 4.3.1.2(1) a-e.

3) Variances to points a-e above are permitted if a moose winter range plan for the area is prepared by a QP and operational activities are consistent with the recommendations of the plan.

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[42] The minimum size for a willow or red-osier dogwood complex is:
- One hectare for pure willow and/or red-osier dogwood sites;
- Two hectares of noncontiguous willow and/or red-osier dogwood [sites] within ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex area.

[43] For definitions of "subhygric" to "subhydric", see "moisture regime" in the Cranberry SRMP glossary.

[44] The minimum size for a silvicultural treatable unit is:
- One hectare for pure subhygric to subhydric sites;
- Two hectares of noncontiguous subhygric to subhydric sites within ecosystem complexes where the individual sites are greater than 0.25 ha and such sites comprise 20% or more of the ecosystem complex area

[45] Security Cover is defined as sufficient vegetation cover and/or terrain features that provides a reasonable opportunity to prevent displacement or disturbance behavior in moose, despite adjacent activities or predator movement that might otherwise elicit these behaviors.

[46] Deactivated: refers to the FRPA definition of deactivate.

[47] A mainline road is usually a long-term permanent road that may be used continuously or intermittently.

4.3.2 Objective: Grizzly Bear

West Babine SRMP 3.1.2.2 Table 7: The objectives for grizzly bear are:

1) *To reduce number of human bear interactions;*
2) *Minimize disruption to bear use of high value habitat within the Babine River Corridor Park and at Grizzly Drop due to forestry activities within the Big Slide Access Management Zone (see Map 12, Page 77) [of the West Babine SRMP];*
3) *Minimize the disruption to bear movement along Shenismike Creek;*
4) *Minimize the disruption to bear use of the high value habitat in the Sperry/ Rosenthal access management zone (see Map 12, Page 77) [of the West Babine SRMP].*
5) *Protect conservation values (wilderness, grizzly bear, moose, mountain goat, steelhead, bull trout) affected by increased access north of the Babine River and east of Shenismike creek;*
6) *Minimize the disruption to bear movement and the risk of human/bear interactions within the Shenismike West access management zone (see Map 12, page 77) [of the West Babine SRMP];*
7) *Maintain the integrity of and linkage amongst critical grizzly bear habitats;*
8) *To provide forest cover adjacent to non-forested critical habitats[49] in order to provide visual (security) and resting (bedding) cover;*
9) *To minimize the impact of road building and forest harvesting activities on critical habitat* [49].

4.3.2.1 RESULT FOR GRIZZLY BEAR

During the period of this FSP the FSP Holder adopts the Indicators and Target/Measures in Table 4-1 as a result for Objective 4.3.2.

Table 4-1: Landscape Unit Objectives, Indicators and Target/Measures for Grizzly Bear Habitat

Objective	Indicator(s)	Target / Measure
1) To reduce the number of human-bear interactions.	Densities of roads by mid-sized watersheds (see Map 5, Page 70) [of the West Babine SRMP] open to timber harvesting activity at one time.	80% of the Shedin and Hanawald watersheds < 0.6 km/km^2
	Level of public awareness on reducing human-bear interactions.	None
	Level of tourism use within periods of active bear use.	None
2) To minimize disruption to bear use of high value habitat within the Babine River Corridor Park and at Grizzly Drop due to forestry activities within the Big Slide Access Management Zone (see Map 12, Page 77) [of the West Babine SRMP].	Percent of forest greater than 70 years in age.	At least 70 % of forest in the Big Slide Access Management Zone greater than 70 years old at any time.
	Amount of non-industrial motorized use within the Big Slide access management zone during operations.	Industrial motorized use only within the Big Slide access management zone during forest operations.
	Amount of motorized use of the road network within the Big Slide access management zone between operations.	No motorized use (including snowmobiles and ATVs) past access control point 3 (see Map 12, Page 77) [of the West Babine SRMP] between operations.
3) To minimize the disruption to bear movement along Shenismike Creek.	Amount of road built within the Shenismike Corridor.	No roads built within the Shenismike Corridor (see Map 7, page 72) [of the West Babine SRMP].
4) To minimize the disruption to bear use of the high value habitat in the Sperry/ Rosenthal access management zone (see Map 12, Page 77) [of the West Babine	Percent of forest > 50 years in age.	At least 50 % of forest > 50 years old.
	Duration and season of activity during operations.	Five years duration. Harvesting is to occur in the winter.

Objective	Indicator(s)	Target / Measure
SRMP].	Amount of motorized use of the road network between operations.	No motorized use past the access control point 1, as identified on Map 12, page 77 [of the West Babine SRMP] between operations.
5) To protect conservation values (wilderness, grizzly bear, moose, mountain goat, steelhead, bull trout) affected by increased access north of the Babine River and east of Shenismike ck.	Amount of public access through the "Nichyeskwa Connector."	Winter only access on the "Nichyeskwa Connector" (November 1 to April 30) except in the case of emergencies (access control point 7, see Map 12, page 77) [of the West Babine SRMP].
6) To minimize the disruption to bear movement and the risk of human/bear interactions within the Shenismike West access management zone (see Map 12, page 77) [of the West Babine SRMP].	Percent of forest > 50 years in age.	At least 50% of forest > 50 years old.
	Duration and season of activity during operations.	Five years duration. Harvesting is to occur in the winter.
	Amount of motorized use of the road network between operations.	No motorized use past access control point 2 (Map 12, page 77) [of the West Babine SRMP] between operations.
7) To maintain the integrity of and linkage amongst critical grizzly bear habitats[49].	Amount of alteration of critical habitats[49].	No alteration of critical habitats, unless no practical alternative exists.
8) To provide forest cover adjacent to non-forested critical habitats[49] in order to provide visual (security) and resting (bedding) cover.	Area of functional forest cover adjacent to non-forested critical habitats[49].	Provide a 100m buffer of windfirm, functional forest cover adjacent to non-forested critical habitats[49], unless no practical alternative exists.
9) To minimize the impact of road building and forest harvesting activities on critical habitat[49].	Distance of roads from critical habitats[49].	No permanent roads located within 150m of critical habitats[49], unless no practical alternative exists.

4.3.2.2 STRATEGY FOR GRIZZLY BEAR

During the period of this FSP in addition to Indicators and Target/Measures in Table 4-1 for critical habitats identified within or adjacent to harvest areas and access routes that require conservation, mitigation, or protection measures, the FSP Holder will, to the extent practicable:

1) Recognize critical habitats[49] for grizzly bear;
2) Incorporate critical habitats[49] 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) Identify and seed landings, trails and permanent road rights-of-way sites according to section 5.1.1; and,
4) Deactivate temporary access roads within two (2) years after harvesting is completed.

4.3.3 Objective: Bull Trout

West Babine SRMP 3.1.2.5 Table 8(1): To conserve critical bull trout habitat in the Shelagyote River and its tributaries.

4.3.3.1 RESULT FOR BULL TROUT

During the period of this FSP the FSP Holder adopts the Indicator and Target/Measures in Table 4-2 as a result for Objective 4.3.3.

[49] Critical patch habitats shall be defined as per Footnote 27 on page 29 of the West Babine SRMP.

Table 4-2: Landscape Unit Objectives, Indicators and Target/Measures for Bull Trout

Indicator(s)	Target / Measure
Location of permanent access structures in proximity to known bull trout staging areas.	No permanent bridge within 750m of known bull trout staging areas on the Shelagyote River.

4.4 Water and Riparian

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s. 8 2. Objectives enabled by regulation: N/A 3. Land-Use Objectives: (a) Order to Establish the West Babine Landscape Unit and Objectives (b) Kispiox LRMP
Effective Date of Objective	1. January 31, 2004 2. N/A 3. (a) August 1, 2004, (b) April 25, 1996, Amended March, 2001
Mandatory Practice Requirements from the FPPR	FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56 & 57.
Practice Requirement(s) Eligible for Exemption	FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56 & 57. **Decision:** Adopt FPPR ss. 47, 48, 49, 50(1), 51(1), 51(3), 52(2), 53, 55, 56 & 57.

4.4.1 Objective: Water Quality

West Babine SRMP 3.3.1 Table 9 (1): To maintain water quality and quantity within the range of natural variability.

Kispiox LRMP Section 6.2: To protect the hydrological integrity of watersheds.

4.4.1.1 Result For Water Quality

During the term of this FSP the FSP Holder adopts the Indicators and Target/Measures in Table 4-3 as a result for Objective 4.4.1.

Table 4-3 Landscape Unit Indicators and Target/Measures for Water Quality

Indicator(s)	Target / Measure		
Equivalent clearcut area (ECA) within each mid-sized watershed.	ECAs to not exceed values shown below without guidance from an independent watershed assessment.		
	Recommended Equivalent Clearcut Areas (ECAs) by Watershed		
	Watershed	**Area (Ha)**	**Recommended ECA Triggers**
	Babine River	55790	—
	Gail	25279	20%
	Hanawald	23092	30%
	Nichyeskwa[1]	35843	15%
	Shedin	61070	25%

	Shelagyote	57437	20%
Number of landslides or slope failures from forestry activities as a percentage of watershed area.	No landslides related to forest development		
Sedimentation within the Nichyeskwa, Babine Mainstem, and Shelagyote watersheds (see Map 5, page 70) [of the West Babine SRMP].	Low risk of introducing sediment at stream crossings.		

[1] Recommended ECA based on entire watershed and comes from the Bulkley's Babine Landscape Unit Plan.

4.4.2 Objective: Water and Riparian Areas

FPPR s8: The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.

Kispiox LRMP Section 6.4: To maintain riparian areas:

a) to protect rivers, streams, and wetlands, and associated recreation, cultural heritage, aboriginal, tourism and wildlife values
b) to protect sources of large organic debris
c) to ensure bank stability
d) to protect water quality and
e) to maintain important fish and wildlife habitat.

Kispiox LRMP Section 6.3: To protect the following sensitive fish habitat:

a) lakes with small populations of large rainbow trout;
b) stream reaches with identified populations of bull trout;
c) important spawning and rearing areas; and
d) Class I and II angling waters, and their tributaries.

4.4.2.1 RESULT FOR WATER AND RIPARIAN

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

4.4.2.2 STRATEGY FOR WATER AND RIPARIAN

During the term of this FSP the FSP Holder will:

1) Prior to road and block development, utilize a QP to undertake the watershed assessment activities identified under the 'Required Licensee Assessments' column (Column C) for the corresponding 'Watershed' (Column A) of the Watershed Integrity Matrix (Appendix VI) and identified on the map in Appendix VI 4th Order Watersheds in the Kispiox TSA; and,
2) Will undertake actions to address recommendations that result from the assessments completed in (1); and,
3) Where 'Riparian Reserves' are identified under the 'Required Licensee Assessments' column (Column C) for the corresponding 'Watershed' (Column A) of the Watershed Integrity Matrix (Appendix VI) and identified on the map in Appendix VII 4th Order Watersheds in the Kispiox TSA, maintain a minimum 10-metre riparian reserve zone on either side of all S4 streams.

4.4.2.3 RESULT FOR BASAL AREA RETENTION IN RIPARIAN MANAGEMENT ZONES

During the period of this FSP the FSP Holder will ensure that the basal area to be retained within Riparian Management Zones for blocks, will be:

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

4.4.2.4 STRATEGY FOR S4, S5, AND S6 STREAM AND RIPARIAN MANAGEMENT

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

1) Retention levels associated with S4, S5, and S6 streams are:

    a) determined by a qualified professional through the utilization of the *Stream and Riparian Management Decision Key –S4, S5, and S6 Streams* found in Appendix VIII: and,
    b) documented in the Site Plan.

2) Primary forest activities comply with the prescribed retention levels determined in 4.4.2.4 (1). The prescribing forester may vary from the retention levels identified by the *Stream and Riparian Management Decision Key – S4, S5, and S6 Streams* 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.

4.4.2.5 STRATEGY FOR SENSITIVE FISH HABITAT

During the period of this FSP the FSP Holder will:

1) Refer to known and available information identifying sensitive fish habitat, including:
    a. The Kispiox and Cranberry TSA Critical Stream Reach Inventory (Triton 2006);
    b. Bull trout staging areas made known by the MOE; and,
    c. Stream and lake riparian classifications and inventory information;

2) Develop site specific plans and mitigation measures to limit the potential for adverse impacts to sensitive fish habitat;

3) Ensure that each cutblock or road authorized by the FSP Holder is designed in a manner that is consistent with 4.4.2.5 (2) above;

4) Carry our forest practices only if the forest practices are consistent with the design for the cutblock or road referred to in section 4.4.2.5 (3) above; and,

5) Enter into a timber sale licence or grant a road permit only if the licence or permit is consistent with the design for the cutblock or road referred to in section 4.4.2.5 (3) above.

4.5 Community Watersheds

Reference Information	
Type of Objective	1.Objectives set in regulation: FPPR s. 8.2
	2.Objectives enabled by regulation: N/A
	3.Land Use Objectives: N/A
Effective Date of Objective	1. January 31, 2004 2. N/A
	3. N/A

Reference Information		
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

4.5.1 Objective: Community Watersheds

FPPR s. 8.2: 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) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.

4.5.1.1 Result For Community Watersheds

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 and 61 of the FPPR. The FSP Holder 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 Fish

Reference Information		
Type of Objective	1. Objectives set in regulation: FPPR s. 8, 8.1	
	2. Objectives enabled by regulation: N/A	
	3. Land Use Objectives: N/A	
Effective Date of Objective	1.January 31, 2004	
	2. N/A	
	3. N/A	
Practice Requirement(s) Eligible for Exemption	FPPR ss., 55, 56 & 57.	Decision Adopt: 55, 56, 57

4.6.1 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.

(3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.

4.6.1.1 RESULT FOR FISH HABITAT IN FISHERIES SENSITIVE WATERSHEDS

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 FSP Holder will notify each holder of a timber sale licence 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.

4.7 Biodiversity

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR ss. 9, 9.1 2. Objectives enabled by regulation: N/A 3. Land-Use Objectives: (a) Order to Establish the West Babine Landscape Unit and Objectives
Effective Date of Objective	1. FPPR: January 31, 2004 2. N/A 3. N/A
Mandatory Practice Requirements from the FPPR	FPPR ss.68
Practice Requirement(s) Eligible for Exemption	FPPR ss. 64, 65, 66 & 67
	Decision: Adopt FPPR ss. 67. Exempt FPPR ss.64, 65, & 66

4.7.1 Objective: Biodiversity – Core Ecosystems

West Babine SRMP Table 2 (1): To maintain the structural and functional features of old forest ecosystems within Core Ecosystems (see Map 6, page 71) [of the West Babine SRMP].

4.7.1.1 RESULT FOR CORE ECOSYSTEMS

During the period of this FSP, the FSP Holder adopts the Indicator and Target/Measure in Table 4-4 as a result for Objective 4.7.1.

4.7.1.2 STRATEGY FOR CORE ECOSYSTEMS

During the period of this FSP, in accordance with Table 4-4, the FSP Holder may authorize the design and construction of a road or the design of a cutblock within the core ecosystem where and to the extent the road harvesting is to:

1) manage natural processes that threaten resources outside of the Core Ecosystem; or,
2) to access timber that would otherwise be inaccessible.

Table 4-4 Landscape Unit Indicators and Target/Measures for Core Ecosystems

Indicator	Target / Measure
Amount of alteration within Core Ecosystems.	No alteration within Core Ecosystems, except to manage natural processes that threaten resources outside of the zone.

4.7.2 Objective: Biodiversity – Patch Size Distribution and Seral Stage Condition

FPPR s. 9: The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.

West Babine SRMP Table 2 (2): To maintain a distribution of mature, old and early seral forest reflective of the natural disturbance regime.

West Babine SRMP Table 2(4): To attain a landscape pattern of patchiness that, over the long term, reflects the natural disturbance pattern and minimizes fragmentation.

4.7.2.1 RESULT FOR PATCH SIZE DISTRIBUTION AND SERAL STAGE CONDITION

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

1) Areas harvested by the FSP Holder will be of a distribution that emulates the historical temporal and spatial distribution of the Natural Disturbance Types (NDTs) for the forests within the FDU area.

2) Areas harvested by the FSP Holder within the FDU will maintain or move towards the distribution and range of patch sizes listed in Table 4-6 and the seral stage condition targets identified in Table 4-5 and will be calculated in accordance with the process outlined in the Kispiox/Cranberry Objectives Set By Government Indicator Monitoring and Assessment Working Group (KOMA) document entitled Kispiox/Cranberry Patch Size Distribution Analysis (February 6, 2013).

Table 4-5 Landscape Unit Indicators and Target/Measures for Biodiversity – Seral Stage Condition

Indicator(s)	Target / Measure
1) Amount of mature and old seral forest retained by BEC subzone (see Map 5, page 70) [of the West Babine SRMP].	Percent (%) retention of mature and old seral forest[50] by Biogeoclimatic Ecosystem Classification (BEC) subzone: ESSFwv >61% ESSFmc >44% ICHmc >46% SBSmc >35%
2) Amount of early seral forest at any one time by BEC subzone (see Map 5, page 70) [of the West Babine SRMP].	Maximum amount of early seral forest (< 40 years) by BEC subzone: ESSFwv <11% ESSFmc <26% ICHmc <27% SBSmc <39%
3) Amount of old seral forest at any one time, by BEC subzone (see Map 5, page 70) [of the West Babine SRMP].	Percent (%) retention of old seral forest[50] by BEC subzone: ESSFwv >39% ESSFmc >15% ICHmc >13 % SBSmc >17%

3) The FSP Holder will plan for predominantly (greater than 50% of the area) small patches (< 3 ha) within Landscape Riparian Corridors
4) The FSP Holder will plan for predominantly (greater than 50% of the area) medium patches (< 15 ha) within the Babine River SMZ and high value grizzly bear habitat
5) The FSP Holder will plan for predominantly mid-sized patches (> 15 ha) across the remainder of the landbase, including locating very large patches (>250 ha) outside of the Shelagyote and Babine River watersheds to help maintain the integrity of the park.

[50] Much of the % retention required for old seral forest has been spatially identified in Core Ecosystems, non-operable forest, Special Management Zones, and the Babine River Corridor Park.

Table 4-6 Percent of Forested Area Logged (or naturally disturbed by fire) in Each 10 Year Period - Patch Size Distribution:

Watershed	Small Gaps (0.1-3 ha)	Medium Gaps (1-80 ha)	Large Gaps (80-250 ha)	Very Large Gaps (>250 ha)
Shedin	15%	35%	20%	30%
Babine/Shelagyote	10%	60%	30%	
Hanawald Gail/Thomlinson Nichyeskwa	5%	10%	30%	55%

4.7.2.2 STRATEGY FOR PATCH SIZE DISTRIBUTION AND SERAL STAGE CONDITION

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

1) Every three years, by June 1st, the FSP Holder completes a report summarizing the status of the patch and seral distribution within the FDU area. 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 targets identified in Tables 4-5 (seral stage condition) and 4-6 (patch size distribution), a rationale will be prepared that describes management direction for moving towards the target levels.

2) Within a specified period after the approval of this FSP, harvest activities under this FSP are shown to be consistent with the management direction. This specified period shall be five (5) years for each Landscape Unit, unless otherwise determined by mutual agreement between the BC Timber Sales Manager and the District Manager.

4.7.3 Objective: Biodiversity – Forest Connectivity

West Babine SRMP Table 2 (3): *To maintain connectivity of old and mature forest cover within Landscape Riparian Corridors (See Map 6, page 71)* [of the West Babine SRMP].

4.7.3.1 RESULT FOR FOREST CONNECTIVITY

During the period of this FSP the FSP Holder adopts the Target/Measures in Table 4-7 as a result for Objective 4.7.3.

Table 4-7 Landscape Unit Indicators and Threshold/Measures for Forest Connectivity

Indicator(s)	Target / Measure
1) Amount and quality of old and mature forest cover within Landscape Riparian Corridors (Map 6 of the West Babine SRMP).	At least 70% retention of structure within Landscape Riparian Corridors. No alteration of fluvial or floodplain ecosystems that may be subject to frequent or infrequent flooding.
2) Timing of harvest activities within Landscape Riparian Corridors	Winter only harvesting.
3) Road density within Landscape Riparian Corridors	Road building is not permitted in Landscape Riparian Corridors, except to access areas that would otherwise be inaccessible.

4.7.3.2 STRATEGY FOR FOREST CONNECTIVITY

During the period of this FSP, in accordance with Table 4-7, the FSP Holder may authorize the design and construction of a road or the design and harvest of a cutblock within Landscape Riparian Corridors in the West Babine FDU where and to the extent the road or harvesting:

1) In the case of a road:
    a. is necessary to access timber that would otherwise be inaccessible;

b. complies with the target/measure in Table 4-7 for density of roads open to timber harvesting activity at one time of less than 0.6km/km^2 density over 80% in the Shedin and Hanawald watersheds; and,

c. is temporary unless no other alternative is practicable for ecological or economic reasons.

2) In the case of harvesting:

a. includes fluvial units in retention areas;

b. authorizes harvesting operations during the winter only;

c. plans for predominantly small patches (less than 3.0 ha); and,

d. achieves 70% retention of stand structure at the stand level, utilizing silviculture systems as follow:

i. single tree or group selection, and irregular shelterwood systems in stands with sapling or pole size timber in the understory suitable for release and timber production following harvesting; and,

ii. clearcut with reserves and patch cuts in stands without sapling or pole size timber in the understory suitable for release and timber production following harvesting.

4.7.4 Objective: Biodiversity – Wildlife Tree Retention

FPPR s.9.1: The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.

West Babine SRMP Table 2(5): To maintain the range of structural attributes of old forest ecosystems within forest stands throughout the rotation.

4.7.4.1 RESULT FOR WILDLIFE TREE RETENTION

During the period of this FSP the FSP Holder will:

1) Maintain the range of structural attributes[51] of old forest throughout the rotation by ensuring that proposed blocks, aggregated on an annual basis by landscape unit and BEC subzone, retain at least the "Cutblock Area Required as Wildlife Tree Patches (%)" values identified in Table 4-8 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 range of structural attributes[51] consistent with (1) above or a suitable replacement WTRA will be located.

3) Not harvest timber from a WTRA unless trees in 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 harvesting is required to access timber that otherwise would be isolated from harvest beyond the WTRA area.

4) Where 4.7.4.1 (3) applies, prior to harvesting within a WTRA, the FSP Holder will identify and establish a replacement area with similar stand characteristics to the WTRA planned for harvest, and will amend the associated Site Plan to add the replacement area to the block.

[51] Structural attributes include , but are not limited to: diversity of tree species, tree diameter, and tree heights, living and dead standing trees, coarse woody debris, opening size, range of layers, above and belowground flora and fauna.

4.7.4.2 STRATEGY FOR WILDLIFE TREE RETENTION AREAS

During the period of this FSP the FSP Holder will monitor, annually track, and if requested report to the District Manager the proportion of Landscape Unit area covered by WTRAs resulting from forest related activities of the FSP Holder on completed harvest areas by April 30th of each calendar year.

Table 4-8 Landscape Unit Indicators and Target/Measures for Biodiversity – Wildlife Tree Retention Area Targets

Indicator(s)	Target / Measure			
1) Area of wildlife tree retention having the structural characteristics of older forests .	The proportion of cutblock area to be retained in wildlife tree retention areas (WTRAs) over the rotation is:			
	Wildlife Tree Retention Area Targets			
			% of Cutblock Area Required as Wildlife Tree Patches	
	Watershed	**BEC subzone**	**For Blocks ≤ 80 ha**	**For Blocks > 80 ha**
	1. Shelagyote	ESSFmc	4	6 – 8%
		ESSFwv	1%	1.5 – 2%
		SBSmc	1	1.5 – 2%
	2. Babine River	ESSFmc	7%	10.5 – 14%
		ESSFwv	4	6 – 8%
		ICHmc	1%	1.5 – 2%
		SBSmc	3%	4.5 – 6%
	3. Gail-Thomlinson	ESSFmc	5	7.5 – 10%
		ESSFwv	1%	1.5 – 2%
		SBSmc	3	4.5 – 6%
	4. Nichyeskwa[1]	ESSFmc	5%	7.5 – 10%
		ESSFwv	4	6 – 8%
		SBSmc	3%	4.5 – 6%
	5. Shedin	ESSFwv	1%	1.5 – 2%
		ICHmc	4	6 – 8%
	6. Hanawald	ESSFmc	7%	10.5 – 14%
		ICHmc	3%	4.5 – 6%
		SBSmc	5%	7.5 – 10%
2) Distance between wildlife tree patches.	< 500m between wildlife tree patches.			
3) Amount of coarse woody debris left on cutblocks.	No limits provided			
4) Amount of structural features retained throughout the cutblock, outside of WTRAs.	No limits provided			

[1] Part of the Nichyeskwa watershed is in the Bulkley TSA. Targets for wildlife tree retention are based on the entire watershed.

4.7.4.3 RESULT FOR WILDLIFE TREE RETENTION

During the period of this FSP the FSP Holder will undertake to comply with section 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 67 applies to the holder's primary forest activities carried out during the term of the plan.

4.7.5 Objective Red and Blue Listed Plant Communities

West Babine SRMP 3.1.1.2: To maintain the structural and functional integrity of red and blue listed plant communities.

4.7.5.1 RESULT FOR RED AND BLUE LISTED PLANT COMMUNITIES

During the period of this FSP the FSP Holder adopts Indicators and Target/Measures in Table 4-9 as a result for Objective 4.7.5.

Table 4-9 Landscape Unit Indicators and Target/Measures for Biodiversity – Red and Blue Listed Plan Communities

Indicator(s)	Target / Measure
Area of red-listed and blue-listed ecosystems.	No reduction in the functional area (ha) of known red- and blue-listed ecosystem polygons over time.

4.7.5.2 RESULT FOR RED AND BLUE LISTED COMMUNITIES

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[52] or blue-listed[53] ecosystems and will map any readily identifiable occurrences:
    a. For pure site series, larger than 0.50 hectares in size; or,
    b. For site series complexes larger than 1.0 hectare in size with a dominant component (at least 50%) of one or more rare ecosystems.
2) 95% of the functional area (area and basal area) of each occurrence of a red-listed and blue-listed ecological community is retained unless disturbance is required to access timber that otherwise would be isolated from harvest beyond the core area.
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 as stated in 4.7.5.2 (2).
4) A minimum buffer of 15 metres, designed to promote or maintain the windfirmness of the retained stand, will be maintained around the margin of each identified blue listed ecological community.

4.8 Visual Quality

Reference Information	
Type of Objective	1. Objectives set in regulation: FPPR s. 9.2(2) 2. Objectives enabled by regulation: GAR 7(1), 7(2) and 17 3. Land-Use objectives: Order to Establish the West Babine Landscape Unit and Objectives
Effective Date of Objective	1. January 31, 2004 2. May 18, 2006 3. August 1, 2004
Practice Requirement(s) Eligible for Exemption	N/A
Mandatory Practice Requirements from the FPPR	N/A

[52] Red-listed plant communities are as described on the Conservation Data Center website when accessed on the day the original Site Plan is signed.
[53] Blue-listed plant communities are as described on the Conservation Data Center website when accessed on the day the original Site Plan is signed.

4.8.1 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
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.

West Babine SRMP Table 11(1): to manage viewscapes zoned with a retention visual quality objective as so that alterations are not visually apparent (see Map 8, Page 73) [of the West Babine SRMP];

West Babine SRMP Table 11(2): to manage viewscapes zoned with a partial retention visual quality objective so that alterations remain visually subordinate to the characteristic landscape and blend with the dominant landscape elements (see Map 8, page 73) [of the West Babine SRMP]; and,

West Babine SRMP Table 11(3): to manage viewscapes zoned with a modification visual quality objectives so that alterations borrow from natural line and form to such an extent that they are comparable to natural occurrences (see Map 8, page 73) [of the West Babine SRMP].

4.8.1.1 Strategy For Visual Quality

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 (https://www.for.gov.bc.ca/TASB/LEGSREGS/FPC/FPCGUIDE/visual/httoc.htm#cont) and will be attached or referred to in the Site Plan for their planned blocks and roads that are located within known scenic areas and that are identified with a Visual Quality Objective (VQO).
2) The visual impact assessment will :
    a. review the visual landscape from identified viewpoints (see below for viewpoint selection and criteria)
    b. describe how the visual design conforms with the VQO.
3) The road and block design, at the date of TSL issuance, will reflect the visual design as described in the visual assessment.
4) Viewpoints are identified 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.

    For the purpose of 4 (b) “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.
5) The FSP Holder may request an exemption from the District Manager where road construction, required to access isolated wood, or catastrophic damage such as wind-throw, fire, disease, or pest damage occurs and any timber harvest or road construction 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).

4.8.1.2 RESULT FOR VISUAL QUALITY

During the period of this FSP the FSP Holder will ensure that road construction and / or timber harvesting carried out or authorized by the FSP Holder will be consistent with established VQOs.

4.9 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: Kispiox LRMP
Effective Date of Objective	1. January 31, 2004 2. NA 3. April 25, 1996, Amended March, 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

4.9.1 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.

Kispiox LRMP Section 6.6:

- *To maintain cultural heritage resources including archaeological sites, traditional use sites and trails, and structural features. A specific objective is to protect features at Kispiox, Hazelton/Hagwilget, Kitwancool, Cedarvale, Kitseguecla, Kisgegas and Kuldo.*
- *To recognize the significance of house territories and associated resources to First Nations.*
- *To protect historic features associated with river boat traffic on the Skeena River, the Dominion Telegraph Trail and early mineral exploration.*

Kispiox LRMP Section 6.16: To maintain sites that are important for production of traditional medicinal plants (e.g., lily roots, devil's club).

4.9.1.1 STRATEGY FOR CULTURAL HERITAGE RESOURCES

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

1) A Cultural Heritage Resource Evaluation (CHRE) has been completed on their planned blocks and roads before harvesting or construction activities are authorized or mechanical site preparation activities are prescribed. A CHRE is defined as a process conducted by field and office persons, consisting of the following steps:
    a. Complete an initial review of all proposed blocks and roads in relation to known information regarding the location, nature and extent of cultural heritage resources and document the results.

b. Provide the results of the initial review to potentially affected First Nations identified through the Consultative Areas Database (CAD). Request of the First Nations any additional information regarding cultural heritage resources that may be present and potentially affected by the proposed blocks and roads or mechanical site preparation activities.

c. Complete a field evaluation for the presence of cultural heritage resources and record information related to the location, nature and extent of any cultural heritage resources that are identified.

d. Evaluate the direct impact of the planned development on the cultural heritage resources identified, if any.

e. If a cultural heritage resource feature is found, following consultation with the affected First Nation(s), prepare recommendations in order to conserve, mitigate impacts, or, as required, protect the cultural heritage resource at the location, considering:

i. the relative value or importance of the cultural heritage resource to a traditional use by an aboriginal people;

ii. if the cultural heritage resource is of continuing importance to the First Nations;

iii. historical extent of the traditional use of the cultural heritage resource; and,

iv. the impact on the FSP holders government granted timber harvesting rights of conserving or protecting the cultural heritage resource.

2) The FSP Holder's harvesting, road construction, and mechanical site preparation activities will follow the recommendations given in the Cultural Heritage Resource Evaluation referred to in (1) above, that are practicable and are required to conserve, mitigate impacts, or, if necessary, protect a cultural heritage resource if it is of continuing importance to the First Nations.

3) For previously unidentified cultural heritage resources encountered during harvesting, road construction, or mechanical site preparation activities, the FSP Holder will:

a. stop the activity to the extent necessary to protect the cultural heritage resource until a Cultural Heritage Resource Evaluation (with respect to the previously unidentified feature)is carried out; and,

b. ensure that the FSP Holder's harvesting, road construction, or mechanical site preparation activities continue in a manner that follows the recommendations given in the Cultural Heritage Resource Evaluation referred to in (a) above, 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.

4.9.1.2 RESULT FOR OTHER CULTURAL HERITAGE RESOURCES

During the period of this FSP, if historic features associated with early mineral exploration are identified or made known to the FSP Holder, the FSP Holder will, during the period of this FSP, adopt the following process to conserve, or, if necessary, protect such historic features:

1) Record the location of the cultural heritage resource;
2) Evaluate the direct impact of the planned development on the historic feature;
3) Incorporate the historic feature 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; or,

4) If avoiding alteration of the historic feature may potentially affect the timber supply or create significant impact on the Licence holder's government granted timber harvesting rights, consider alternative silviculture systems or other forest management solutions to minimize the impact to the historic feature as a result of forest related activities.

4.10 Recreation and Tourism

Reference Information	
Type of Objective	1. Objectives set in regulation: FRPA ss 56, 180 & 181 2. Objectives enabled by regulation: N/A 3. Land-Use Objectives: Order to Establish the West Babine Landscape Unit and Objectives Effective Date August 1, 2004, and FPC s. 1(1) Order per KLRMP
Effective Date of Objective	1. January 31, 2004 2. N/A 3. August 1, 2004
Practice Requirement(s) Eligible for Exemption	N/A
Mandatory Practice Requirements from the FPPR	N/A

4.10.1 Objective: Recreation

Kispiox LRMP Section 6.9:

1) *to maintain recreational values and opportunities (i.e. landscapes, rivers, lakes, trails and recreationsites);*
2) *to maintain public access to recreational opportunities and established recreational features;*
3) *to protect the following important recreational features:*
    a) *Kispiox, Babine, Bulkley, Suskwa, Kitseguecla, and Skeena river corridors for fishing and boating;*
    b) *Upper Skeena River for rafting;*
    c) *Hagwilget and Bulkley Canyons on the Bulkley River;*
    d) *Dominion Telegraph Trail.*

West Babine SRMP Table 14:

1) *to provide a wilderness experience on the Babine River by maintaining a single access point to the Babine River Corridor Provincial Park;*
2) *to maintain visual quality and aesthetics from the Babine River;*
3) *to maintain high-value grizzly bear habitat and the remote access associated with the Babine River Corridor Park and the existing tourism facility around the confluence of the Shelagyote and Babine Rivers;*
4) *to maintain a wilderness setting for Gunanoot Lake;*
5) *to maintain or enhance the abundance of fish and wildlife within the range of natural variability; and,*
6) *to maintain cultural heritage features.*

4.10.1.1 Strategy For Recreation

During the period of this FSP the FSP Holder will not control access within the West Babine FDU except as required to meet other objectives/elements of this FSP. Any access control that is considered to be required will not be carried out without prior consultation with the District Manager.

4.10.1.2 Result For Recreation

During the period of this FSP the FSP Holder adopts the Indicators and Target/Measures in Table 4-10 as a result for Objective 4.10.1.

Table 4-10: Landscape Unit Objectives, Indicators and Target/Measures for Tourism-West Babine FDU

Objective	Indicator(s)	Target / Measure
1) To provide a wilderness experience on the Babine River by maintaining a single access point to the Babine River Corridor Provincial Park.	Type and location of roads within the Babine River SMZ.	No temporary access within 300 m of the boundary with Babine River Corridor Park. No permanent access within the SMZ.
2) To maintain visual quality and aesthetics from the Babine River	Quality of viewscapes within visually sensitive areas.	Cutblocks to be < 15ha within the Babine River SMZ.
	Visual quality from the Babine River around the Shelagyote/ Babine confluence.	No commercial logging within the area identified as the Shelagyote/ Babine Tourism Node (see map 8, page 73) [of the West Babine SRMP] with the exception of draft cutting permit 991-201 and a single road built through the zone to access timber between the Shelagyote River and Shenismike Creek. Shelagyote Road and CP 991-201 to be built to retention VQO as viewed from the existing tourism facilities. Alterations should not be readily visible.
	Amount of perceptible industrial activity in the Babine River SMZ during times of peak tourism activity (August – October).	No perceptible industrial activity (e.g., noise or dust pollution due to harvesting or road building) within the SMZ during peak months (August – October).
3) To maintain high-value grizzly bear habitat and the remote access associated with the Babine River Corridor Park and the existing tourism facility around the confluence of the Shelagyote and Babine Rivers.	Amount of non-industrial motorized use across the Shelagyote Bridge in the Shenismike Shelagyote Access Management Zone (see Map 12, page 77) [of the West Babine SRMP] during or between operations.	No non-industrial motorized use across the Shelagyote Bridge (sees access control point 4, Map 12, page 77) [of the West Babine SRMP].
	i. Season of operations across the Shelagyote bridge.	No operational activity (except for road building) between July 31st and November 15th across the Shelagyote bridge.
4) To maintain a wilderness setting for Gunanoot Lake	ii. Amount of permanent roads within 1km.	No permanent roads within 1 km of Gunanoot Lake
	iii. Width of right-of-way for temporary roads within 1 km.	20 metres or less
5) To maintain or enhance the abundance of fish and wildlife within the range of natural variability	No Indicators provided	No limits provided. See sections 4.6.1 and 4.3.3. of this FSP.
6) To maintain cultural heritage features	No indicators provided	No limits provided. See section 4.9 of this FSP.

4.11 Special Management Zones and Babine River Corridor Wilderness Protected Area

Reference Information	
Type of Objective	1. Objectives set in regulation: N/A 2. Objectives enabled by regulation: N/A 3. Land-Use Objectives: 1. Order to Establish the West Babine Landscape Unit and Objectives 2. Kispiox LRMP
Effective Date of Objective	1. January 31, 2004 2. N/A 3. Land Use Objectives:

	1. August 1, 2004 2. April 25, 1996, Amended, March 2001
Practice Requirement(s) Eligible for Exemption	N/A
Mandatory Practice Requirements from the FPPR	N/A

4.11.1 Objective: Babine River Valley SMZ

West Babine SRMP Table 12 (1): to maintain a single point for motorized road access to the Babine River Corridor Park, located at Nilkitkwa Forest Service Road, so wilderness values can be protected.

West Babine SRMP Table 12 (2): to maintain:

a. the aesthetic (visual and auditory) quality of the Babine River Corridor; and,
b. habitat quality within the SMZ for grizzly bears.

West Babine SRMP Table 12 (3): to minimize potential for human-bear interaction.

West Babine SRMP Table 12 (4): to respect and preserve First Nations cultural heritage resources and uses within the SMZ.

4.11.1.1 RESULT FOR THE BABINE RIVER VALLEY SMZ

During the period of this FSP the FSP Holder adopts the Indicators and Target/Measures from Table 4-11 as a result for Objective 4.11.1 in the West Babine FDU. Monitoring and analysis of age class distribution will be carried out in conjunction with result 4.7.2.1.

Table 4-11: Landscape Unit Objectives, Indicators and Target/Measures for the Babine River Valley SMZ

Indicator(s)	Target / Measure
1) Type and location of roads	i. No permanent motorized access within the SMZ. ii. All temporary access will remain at least 300 m from the Park boundary. iii. Access Control Points 5 and 6 will be established prior to entering the SMZ for the Thomlinson Road and Shelagyote Crossing (see Map 12, Page 77) [of the West Babine SRMP].
2) Season and method of timber harvesting.	i. Winter harvest only. ii. Openings < 15 ha in size.
Age class distribution.	More than 30% of forest stands to be greater than 140 years in age.
3) Type and location of roads within the Babine River SMZ.	Sight distance < 300m along roads.
4) To respect and preserve First Nations cultural heritage resources and uses within the SMZ.	See section 4.9.

4.11.2 Objective: Atna-Shelagyote SMZ

West Babine SRMP Table 13 (1): to maintain:

a. provincially significant ecological values;
b. provincially significant scenic resources; and,
c. backcountry recreation opportunities in the SMZ.

4.11.2.1 RESULT FOR THE ATNA-SHELAGYOTE SMZ

During the period of this FSP the FSP Holder adopts the Indicators and Target/Measures from Table 4-12 as a result for Objective 4.11.2. Reference to the threshold / measure from Result 4.10.1.2, Table 4-12,

Objective 2, in reference to making an allowance for road development within the SMZ to serve timber development purposes beyond the SMZ also applies to this result.

Table 4-12: Landscape Unit Indicators and Target/Measures for the Atna-Shelagyote SMZ

Indicator(s)	Target / Measure
Amount of resource development activity in the Atna-Shelagyote SMZ.	No commercial logging within the SMZ, except where required for mineral exploration or mine development.

4.12 Botanical Forest Products

Reference Information	
Type of Objective	1. Objective set in regulation: N/A 2. Objectives enabled by regulation: N/A 3. Land Use Objectives: Order to Establish the West Babine Landscape Unit and Objectives
Effective Date of Objective	1. N/A 2. N/A 3. August 1, 2004
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

4.12.1 Objective Wild Berries

West Babine SRMP Table 18(1): To maintain and enhance the productivity of berry habitat within berry management areas (see Map 11, Page 7) [of the West Babine SRMP].

4.12.1.1 Strategy For Wild Berries

During the period of this FSP the FSP Holder will ensure that, when operating within the Berry Gathering Area polygons identified on Map 11 of the West Babine SRMP, the FSP Holder adopts Indicators and Target/Measures in Table 4-13 as a strategy for Objective 4.12.1.

Table 4-13: Landscape Unit Objectives, Indicators and Threshold/Measures for Berries

Indicator(s)	Target / Measure
Amount of full sunlight available on harvested sites within mapped berry management areas.	Where harvesting occurs, remove sufficient forest cover to provide at least 60% exposure to sunlight.
Amount of impact on soils and understory vegetation.	Result 4.1.1.1 applies.
Productivity of berry shrubs.	During brushing and spacing treatments carried out in the achievement of free growing obligations, avoid cutting berry plants that are not directly impeding the survival or growth of commercial trees included as well-spaced crop trees.

4.12.2 Objective: Pine Mushrooms

West Babine SRMP Table 17(1): To maintain high value pine mushroom sites ICHmc1(01b) and ICHmc2(01b) through time (see Map 11, Page 7) [of the West Babine SRMP].

4.12.2.1 Result For Pine Mushrooms

During the period of this FSP the FSP Holder adopts Indicators and Target/Measures in Table 4-14 as a result for Objective 4.12.2.

Table 4-14: Landscape Unit Objectives, Indicators and Threshold/Measures for Pine Mushrooms

Indicator(s)	Target / Measure
Age class distribution of ICHmc1 (01b) and ICHmc2 (01b) sites greater than 3 ha.	Greater than 60% of site series ICHmc1 (01b) and ICHmc2 (01b) to be maintained at stand age greater than 80 yrs.

4.12.2.2 STRATEGY FOR MUSHROOMS

During the period of this FSP the FSP Holder will ensure that, when operating within the Pine Mushroom Area polygons identified on Map 11 of the West Babine SRMP, productive pine mushroom sites associated with FSP Holder operations are maintained through the following actions:

1) The FSP Holder will identify and map high value pine mushroom sites[54] 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.

4.13 Agriculture and Range

Reference Information	
Type of Objective	1. Objective set in regulation: 2. Objectives enabled by regulation: 3. Land Use Objectives: Kispiox LRMP
Effective Date of Objective	1. January 31 2004 2. N/A 3. April 25, 1996; Amended KLRMP March 2001
Mandatory Practice Requirements from the FPPR	N/A
Practice Requirement(s) Eligible for Exemption	N/A

4.13.1 Objective: Range Resources

Kispiox LRMP 6.8:

- *To protect and conserve range resources.*
- *To maintain the health and productivity of range resources by providing protection from fire, insects and disease.*
- *To maintain and enhance use of Crown land, water and range resources by domestic livestock.*
- *To maintain and enhance agricultural use of Crown land within the ALR consistent with the Agricultural Land Commission Act.*
- *To preserve and maintain soil quality within the ALR.*

[54] High Value Pine Mushroom Sites: Management applies to the submesic ICHmc1 (01b) and ICH mc2 (01b) sites within the polygons identified on Map 11, page 76 {of the West Babine SRMP].

4.13.1.1 RESULT FOR RANGE RESOURCES

During the period of this FSP the FSP Holder will, in the carrying out of primary forest activities on land in the West Babine FDU to which an agreement under the Range Act applies, be consistent with the measures specified in section 5 of this FSP.

5 MEASURES

5.1.1 Measures for 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:*

In relation to Section 17 of the FPPR, during the period of this FSP the FSP Holder will:

1) Consult the Invasive Alien Plan Program (IAPP)[55] application database to determine known invasive plant sites within or adjacent to proposed operations.
2) Where primary forest activities will be occurring within known invasive plant sites, document and review the invasive plant list and any recommended plans and /or treatments with the LPC (licensee, permittee, or contractor) , and advise the LPC to:
    a. inspect for and remove any seed or propagules from clothing, vehicles and equipment, both before and after any work is done on site, controlling any dislodged soil, mud or water on site or at sites that may be designated as suitable for control purposes,
    b. refrain from transporting soil known to contain invasive alien plants. Maintain soil subgrade and surfacing material that is being transported (e.g. during road construction) as free as practicable of invasive weed plants or seeds.
    c. follow the BC Timber Sales Skeena Standard Operating Procedures for Invasive Plants Document (FSP Holder to provide a copy of the SOP to the LPC) which provides further information related to the identification and management of invasive plants.
3) Ensure that if, as a result of primary forest activities authorized by the FSP Holder, contiguous areas of disturbed soil greater than or equal to 0.10 contiguous hectares are created, and such disturbance is likely[56] to result in the introduction or spread of invasive plants, the portions of the area occupied by ditch-lines, cut-or fill slopes, and deactivated roads (which are not reforested and not including active road running surfaces) will be seeded using seed or forage mixture that meets or exceeds Canada Common Number 1 Forage Mixture as defined by the Canada Seeds Act and regulation within one year of completion of primary forest activities.
4) Inspect all sites that have been seeded in (3) within 24 months to ensure the establishment of the seeding treatment and to determine if reseeding is necessary[57].
5) Complete at least one additional seeding of the sites deemed necessary in (4).
6) Ensure field personnel, in the course of their duties, make note of occurrences of invasive plants, and will report new occurrences of invasive plant species through the on-line *Report a Weed* function found at: http://maps.gov.bc.ca/ess/hm/iapp/.

[55] http://maps.gov.bc.ca/ess/hm/iapp/.
[56] Likelihood will be assessed by a QP based on a review of among other information sources, known occurrences listed on the IAPP website, field derived information, and the known dispersion characteristics of the invasive plant species.

[57] The necessity to reseed will be determined by a QP based on proximity of the subject area to known IAPP occurrences.

5.1.2 Measures for Natural Range Barriers

In relation to Section 18 of the FPPR, during the period of this FSP the FSP Holder will:

1) At least180 days before harvesting a cutblock or constructing a road that is located within an area subject to a range agreement, provide written[58] notification to the holder of that range agreement that will include:
    a. a map of the proposed cutblock/road construction in relation to their range tenure;
    b. a description of the planned cutblock or road construction activities,
    c. a request that the tenure holder provide the FSP Holder, within 30 days of receipt of the written[58] notification, information on:
        i. the presence of, location and nature of any natural range barriers[59] that may be partially or fully rendered ineffective due to the proposed cutblock/road constructing; and,
        ii. preferred mitigation actions.
    d. an offer to meet with the tenure holder to discuss the planned operations and any potential impacts to natural range barriers.
2) In the event that a response is not received from the tenure holder within 30 days, the FSP Holder will attempt to contact the tenure holder via phone utilizing the contact information provided by the District Range Officer.
3) If the tenure holder and the FSP Holder agree that that a natural range barrier, within the area covered by a range agreement, will be partially or fully rendered ineffective as a result of the activities of the FSP Holder, the FSP Holder will develop a plan with the tenure holder that will specify:
    a. required mitigation measures;
    b. who will implement the required mitigations measures,
    c. where the required mitigation measures will be implemented,
    d. the timeframe for the implementation of the mitigation measures.
    e. the timeframe for reviewing the completed mitigation measures to verify their effectiveness.

    and, the FSP Holder will implement the plan.
4) In the event that agreement cannot be reached, the FSP Holder will provide written[58] notification to the tenure holder and District Range Officer of the planned mitigation measures, developed by a QP, that will be undertaken by the FSP Holder in response to the potential impact.

[58] Written communication / notification may be provided through a mailed letter or via email.
[59] Natural Range Barriers are defined as: a river, rock face, dense timber or any other naturally occurring feature that stops or significantly impedes livestock movement to and from an adjacent area..

6 ADDITIONAL FSP INFORMATION

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

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

The FSP maps and Appendices III and IV indicate the blocks and roads that are currently issued under a Timber Sales Licence (TSL), Forest Service Roads (FSR), or Road Permit (RP) that are under the control of BC Timber Sales.

6.1.2 Stocking Standards

Standards to reforest areas harvested under this Forest Stewardship Plan are prescribed to standards units to ensure site specific criteria are applied for establishment of healthy, valuable, and ecologically suited forests.

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: Stocking Standards

Table A2: Uneven-aged Stocking Targets

Table A3: Footnotes; footnotes apply to Tables A1 and A2

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 by the FSP Holder within this FSP.

6.1.3 Application of Stocking Standards

General applications are as follows:

1) Stocking standards are applicable across all FDU's unless otherwise stated.
2) The late free growing date is 20 years for all standards units.
3) Free Growing can be declared no earlier than 12 months after completion of harvest.
4) 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.
5) For the purposes of FPPR s 46.11(2), for an area to be considered mappable its minimum dimension must be at least 35 metres.

6.1.4 Even-aged Stocking Standards

Even-aged management stocking standards set out in Appendix I Table A1 apply to silviculture systems when the following criteria are met;

- two or less distinct age classes of crop trees will be created within a stand,
- the basal area of layer 1 and layer 2 trees are 10m2 or less, and
- opening patches must be 0.25 ha or larger with a minimum width of 50m.

If a single subsequent harvest entry on the stand is planned within 20 years, even-aged management will apply. This option would be utilized when implementing seed tree systems or similar management regimes.

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

For the purposes of FPPR 16(3), for each area to which this FSP applies where the FSP Holder is required to establish a free growing stand:

1) the applicable regeneration date and applicable stocking standards referred to in FPPR 44(1); and,
2) the applicable free growing date, free growing height and applicable stocking standards referred to in FPPR 44(1),

are as set out in Appendix 1 – Table A1 Stocking Standards, opposite the Biogeoclimatic Ecosystem Classification (BEC) site series that occupies the largest portion of the standards unit, subject to the site-specific circumstances specified in section 6.1.10 and the upper density limits outlined in section 6.1.11.

6.1.5 Multi-Storey Stocking Standards

Multi-storey stocking standards set out in Appendix 1 Table A1 apply to uneven-aged silvicultural systems when;

- Layer 1 + Layer 2 basal area is >10m^2/ha, and
- Crop trees consist of three or more distinct age classes.

Multi-storey stocking standards set out in Table A1 may apply to even-aged silvicultural systems when;

- Layer 1 + Layer 2 basal area is $\leq$ 10m^2/ha, and

Crop trees consist of two distinct age classes where one of the layers must be either layer 1 or 2.

For all blocks being managed as multi-layer stands and for the purposes of FPPR 16(4), where the FSP Holder must ensure that, for a period of 12 months after completion of harvesting the area on which timber harvesting was carried out conforms to the stocking standards specified in section 16(4) for the area:

1) the applicable regeneration date and applicable stocking standards referred to in FPPR 44(4); and,

2) the applicable free growing date, free growing height and applicable stocking standards referred to in FPPR 44(4),

are, as set out in Appendix I Table A1 and are identified as Multi-layer opposite the BEC site series classification that occupies the largest portion of the standards unit, subject to the site-specific circumstances specified in section 6.1.10. Target and minimum stocking standards are indicated for the four layers (L1 – Mature, L2 – Pole, L3 – Sapling, and L4 – Regeneration) by preferred and acceptable species in columns 7 to 9 in Table A1.

6.1.6 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. Crop trees may be utilized in the future as sources of lumber, veneer, or fibre.

Trees must be in good health, and of good form and vigour.

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

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

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

Appendix I Table A5-1 and Figures A5-1 to A5-4 in the Establishment to Free Growing Guidebook - Prince Rupert Forest Region, version 2.3, May 2000, with the following exception:

For Pine that is infected by Dothistroma: the "Defoliation Free Growing Damage Standard for Determinate Growth Conifers" March 2, 2005.

6.1.7 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 a Site Plan as any one of the following:

- 1.6 metres immediately adjacent to any stream or riparian area, natural non-productive area or unplantable slash,
- 1.6 metres on hygric or sub-hygric sites,
- 1.6 metres where trees are less than 10 metres from a permanent access structure,
- 1.6 metres where cluster planting is required to avoid planting within 5 metres of infected stumps in areas that have root disease (e.g. Inonotus tomentosus),
- 1.0 metres for Layer 4 in multi-layer 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 prepared sites, and
- 0.0 metres between layer 1 trees in multi storey stands.

6.1.8 Height Above Competing Brush

In addition to meeting the minimum height in Appendix I Table A1, free growing trees must:

1) meet the tree height over deleterious competition within a 1 metre radius around the tree by:
    a. 125 % for the Biogeoclimatic zones of ESSF, IDF, MH, MS, PP ; and,
    b. 150% for all other Biogeoclimatic zones; or,
2) in circumstances where a standards unit does not meet the tree height over deleterious competition in subsection 1, above:
    a. deleterious competition at the time of free growing will be assessed using Appendix 9 of the *Establishment to Free Growing Guidebook: Prince Rupert Forest Region*, (version 2.3, May 2000, Appendix 9, Revised October 2007);
    b. the individual tree free growing assessment method (quadrant method) in Appendix 9 will apply to all BEC subzones subject to these FSP stocking standards; and,
    c. the definition of upland cottonwood in Appendix 9 will be applied to mean any cottonwood not growing on a floodplain or fluvial site.

6.1.9 Acceptability Criteria for Health, Form, and Vigour

1) For the purposes of this FSP and the stocking standards referred to in FPPR 16(3) and 44(1) a well-spaced tree must meet the criteria for health, form and vigour, as described in the following:
    - Appendix 9 (Table A9-1 and Figures A9-1 to A9-4) in the *Establishment to Free Growing Guidebook: Prince Rupert Forest Region*, (version 2.3, May 2000, Appendix 9, Revised October 2007);

- Appendix 10 of the *Establishment to Free Growing Guidebook: Prince Rupert Forest Region* (version 2.3, May 2000, Appendix 9, Revised October 2007) for advanced regeneration and residual mature and pole layer crop trees;
- Prince Rupert Forest Region, Regional Operating Standards # 1, Acceptability Criteria for Balsam Advanced Regeneration, July 22, 1997; and,
- Defoliation Free Growing Damage Standards for Determinate Growth Conifers, Forest Practices Branch, 2005/03/02.

6.1.10 Site Specific Circumstances

The site-specific circumstances referred to in sections 6.1.4 and 6.1.5 are as follows:

1) aspen , birch, and cottonwood are not considered deleterious competition when in the riparian management area of a stream, lake or wetland;
2) herbaceous vegetation within 5 m of a S4, S5 or S6 stream is not considered to be deleterious competition when conducting a free growing survey;
3) for a standards unit comprised of more than one BEC site series (mosaics / complexes):
    a. the preferred and acceptable species for the standards unit include all of the preferred and acceptable species for all of the BEC site series comprising the standards unit; and
    b. the potential crop trees will only be considered preferred or acceptable where they are ecologically suited within the standards unit; and,
    c. the Target Stocking Standards, Minimum Preferred and Acceptable, Minimum Preferred, Minimum inter-tree distance and Minimum Height will be those of the dominant site series; or,
4) for a standards unit that is on transitional site occurring between two BEC subzones, the standard that applies will be that of the dominant BEC subzone. This standard can be modified with the inclusion of components of the standard associated with the sub-dominant BEC subzone. These additional components to the standard will be supported by a documented rationale that will be incorporated in to the Site Plan.

6.1.11 Upper Density Limit

The upper density limit is 10,000 countable stems per hectare for all species with the exception of Lodgepole Pine leading stands (defined as those stands where pine is greater than or equal to 80 % of the inventory), for which the upper density limit is 20,000 countable stems per hectare.

For a coniferous tree to be considered as a countable conifer for purposes of determining upper density limit, it must be:

1) taller than 50% of the median height of the preferred and acceptable well-spaced trees selected in the plot if the median height is 2.0 m or greater; or,
2) taller than 30% of the median height of the preferred and acceptable well-spaced trees selected in the plot if the median height is less than 2.0 m.

The Holder of this FSP will, more than one year before the free growing date, reduce stocking in stands exceeding the upper density limit to a post-spacing density range between 800 and 1600 stems per hectare

6.1.12 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 A
- 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 A.

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 broadleave management areas must be ≥ 30%.

6.1.13 Extension of Regeneration Delay Date

The regeneration delay period for a Standards Unit may be extended:

1) 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,
2) 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.

6.1.14 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 and MHmm2 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% (Larch) and 5% (Douglas-fir) collectively across the landscape.

Table A1 – Stocking Standards, in Appendix I includes Climate Change Stocking Standards for the ICH mc 2 and MHmm2 that are listed in the *Update to the Reference Guide for FDP Stocking Standards (2014): Climate-Change Related Stocking Standards*. Site-specific modifications will be supported by a rationale documented in the Site Plan.

6.1.15 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. Additionally, periodic updates to the *Reference Guide for FDP Stocking Standards* may result in the identification of new species options for high risk ecosystems that have been deemed to require different (climate-sensitive) management practices.

Where changes occur as described above, they may be incorporated into the prescribed stocking standards as an acceptable species/standard on a site-specific basis within the limitations set out in the *Chief Forester's Standards for Seed Use* and *Reference Guide to FDP Stocking Standards*.

Such site-specific modifications to the stocking standards will be supported by a rationale documented in the Site Plan.

6.1.16 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 (1) and 196(2) blocks under the FRPA.

In accordance with FRPA section 197(5), the FSP Holder specifies 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 cutblocks or roads in cutting authorities issued by the Timber Sales Manager and identified in Appendices III and IV.

6.1.17 Cumulative Effect of Multiple FSPs

The FSP must address the cumulative effect of multiple FSPs in an area (FPPR s. 19).The following list identifies FSPs that overlap with the Hazelton Forest Stewardship Plan Replacement FDUs at the time of FSP submission:

West Babine FDU:
Kispiox River Timber Ltd.
Gitxsan Forest Inc.

Kispiox FDU:
Kispiox River Timber Ltd.
Gitxsan Forest Inc.

Cranberry FDU:
Kispiox River Timber Ltd.
Gitxsan Forest Inc.

The results and strategies contained within the listed FSPs have been reviewed and it has been determined that the activities under the FSPs are consistent with each other.

6.1.18 Referral and Public Review Summary

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

6.1.19 Maps

The Forest Stewardship Plan maps are provided separately from the Forest Stewardship Plan text. The FSP maps are provided at a scale of 1:50,000. The maps show the critical content requirements as described in section 5(1) (a) of the *Forest and Range Practices Act,* and section 14 of the *Forest Planning and Practices Regulation*.

The three Forest Development Units in this FSP are shown on the maps and are identified as:

- **Cranberry FDU**
- **Kispiox FDU**
- **West Babine FDU**

All three FDUs are located within the Kispiox Timber Supply Area.

The FDUs were chosen primarily to align with the four Land Use Orders that have been established within the Kispiox Timber Supply Area. These orders are:

- The Land Use Objectives from the *Cranberry Sustainable Resource Management Plan LUOR Order* (March 3, 2016)

- The Land Use Objectives from the *Kispiox LRMP Higher Level Plan Objectives for Biodiversity, Visual Quality, and Wildlife*, January 2006 (Kispiox HLPO), which included the following two orders:
    a. *Order to establish Kispiox Landscape Units and Objectives* (June 1, 2006); and,
    b. *Order to Establish Scenic Areas in the Kispiox TSA* (Feb.1, 2006).

The Land Use Objectives from the Order to Establish the West Babine Landscape Unit and Objectives and to vary the Atna/Shelagyote and Babine River Special Management Zone Boundaries (August 1, 2004).

The information provided on the FSP maps is current as of March 3, 2017. Where a discrepancy exists between

the spatial information provided on the FSP maps, and that which is available via the primary information source

(LRDW, Higher Level Plans, GAR orders, etc), the primary source information will take precedent.

7 SUPPORTING DOCUMENTATION

Information that supports or was used in the development of this FSP is contained in a separate document entitled Supporting Document for the Hazelton Forest Stewardship Plan Replacement 2018-2023 and contains such information as:

- 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

Table A1: Stocking Standards

Table A2: Uneven-aged Stocking Specifications

Table A3: Footnotes; footnotes apply to Tables A1 and A2

Table A1. Stocking Standards

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
			Species			Stocking (well-spaced/ha)			Regen Delay	Latest Assessment	Min. Height	
	Subzone	Site Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Target (p&a) Col 7	Minimum (p&a) Col 8	(p) Col 9	(max yrs)	(yrs)	Species	Ht (m)
CWHws2												
1018519		01	Sxs[30] Hw[30] Ba Cw[14]	Bl[12] Pl	Dr[b]	900	500	400	6	20	Pl Hw Others	2.00 1.30 1.00
1018527		02*	Pl Hw[30]	Cw Hm[13,30]		600	400	400	6	20	Pl Others	1.40 0.80
1020377	Dothistroma	02	Hw[30] Cw Hm[13,30]	Pl		600	400	400	10	20	Pl Others	1.40 0.80
1018528		03	Hw Pl	Hm[13,30] Cw	Dr[b]	900	500	400	6	20	Pl Hw Others	2.00 1.30 1.00
1020381	Dothistroma	03	Hw Hm[13,30] Cw	Pl	Dr[b]	900	500	400	10	20	Pl Hw Others	2.00 1.30 1.00
1018529		04	Sxs[30] Hw[30] Ba Cw[14]	Bl[12]Hm[13,30]	Act[b] Dr[b]	900	500	400	3	20	Hw Others	1.30 1.00
1018530		05	Sxs[7,30] Hw[30] Ba Cw[14]	Bl[12]	Dr[b]	900	500	400	6	20	Hw Others	1.30 1.00
1018531		06	Sxs[30] Hw[30] Ba Cw[14]	Bl[12]	Act[b] Dr[b]	900	500	400	3	20	Hw Others	1.30 1.00
1018532		07	Sxs[30] Hw[30] Ba[1] Cw	Bl[12]	Act[a] Dr[a]	900	500	400	3	20	Hw Others	1.30 1.00
1018533		08	Sxs[30] Hw[30] Ba[1] Cw[1]	Bl[12]	Act[a] Dr[a]	900	500	400	3	20	All	1.00
1018535		10*	Pl[1]	Cw[1] Hm[30] Hw[30]		400	200	200	3	20	Pl Others	1.40 0.80
1018536		11	Cw[1] Sxs[1,30]	Hw[1,30] Ba[1]	Act[b] Dr[b]	800	400	400	3	20	All	0.80
1018638	Multi-layer	01	Sxs[30] Hw[30] Ba Cw[14]	Bl[12] Pl	Dr[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	Pl Hw Others	2.00 1.30 1.00
1018640	Multi-layer Dothistroma	02	Hw[30] Cw Hm[13,30]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	600 500 400 300	400 300 200 150	400 300 200 150	7	20	Pl Others	1.40 0.80
1018647	Multi-layer Dothistroma	03	Hw Hm[13,30] Cw	Pl	Dr[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	Pl Hw Others	2.00 1.30 1.00
1018639	Multi-layer	04	Sxs[30] Hw[30] Ba Cw[14]	Bl[12]Hm[13,30]	Act[b] Dr[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	Hw Others	1.30 1.00
Stocking Standards Footnotes are listed in Appendix A1 – Table A2												

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
	Subzone	Site Series	Species Preferred (p)	Species Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Stocking (well-spaced/ha) Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	Regen Delay (max yrs)	Latest Assessment (yrs)	Min. Height Species	Min. Height Ht (m)
CWHws2												
1018641	Multi-layer	05	Sxs[7,30] Hw[30] Ba Cw[14]	Bl[12]	Dr[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	Hw Others	1.30 1.00
1018642	Multi-layer	06	Sxs[30] Hw[30] Ba Cw[14]	Bl[12]	Act[b] Dr[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	Hw Others	1.30 1.00
1018643	Multi-layer	07	Sxs[30] Hw[30] Ba[1] Cw	Bl[12]	Act[a] Dr[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	Hw Others	1.30 1.00
1018644	Multi-layer	08	Sxs[30] Hw[30] Ba[1] Cw[1]	Bl[12]	Act[a] Dr[a] L4 regen L3 sapling L2 pole L1 Mature	 900 700 500 400	 500 400 300 200	 400 300 250 200	7	20	All	1.00
1018645	Multi-layer	10	Pl[1]	Cw[1] Hm[30] Hw[30]	L4 Regen L3 Sapling L2 Pole L1 Mature	400 300 300 200	200 150 125 100	200 150 125 100	7	20	Pl Others	1.40 0.80
1018646	Multi-layer	11	Cw[1] Sxs[1,30]	Hw[1,30] Ba[1]	Act[b] Dr[b] L4 regen L3 sapling L2 pole L1 Mature	 800 600 400 300	 400 300 200 150	 400 300 200 150	7	20	All	0.80
ESSFmc												
1018725		01	Bl Sx	Pl[34,71]		1200	700	600	7	20	Pl Others	1.60 0.80
1018728		02*	Pl	Bl[50]Sx[50]		1000	500	400	7	20	Pl Others	1.20 0.60
1020065	Dothistroma	02*	Bl[50]Sx[50]	Pl		1000	500	400	7	20	Pl Others	1.20 0.60
1018730		03*	Pl	Bl[50]Sx[50]		1000	500	400	7	20	Pl Others	1.20 0.60
1020066	Dothistroma	03*	Bl[50]Sx[50]	Pl		1000	500	400	7	20	Pl Others	1.20 0.60
1018732		04	Pl Bl Sx			1200	700	600	7	20	Pl Others	1.60 0.80
1020067	Dothistroma	04	Bl Sx	Pl		1200	700	600	7	20	Pl Others	1.60 0.80
1018733		05	Bl Sx	Pl[34,71]		1200	700	600	4	20	Pl Others	1.60 0.80
1018735		06	Bl Sx	Pl[34,71]		1200	700	600	4	20	Pl Others	1.60 0.80
1018736		07	Bl Sx[32]			1200	700	600	4	20	Pl Others	1.60 0.80
1018737		08*	Bl Sx[32]			1000	500	400	4	20	All	0.60
1018738		09	Bl[1] Sx[1,32]			1000	500	400	4	20	All	0.60
1018740		10	Bl[1] Sx[1,32]			1000	500	400	4	20	All	0.60

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
			Species			Stocking (well-spaced/ha)			Regen Delay	Latest Assessment	Min. Height	
	Subzone	Site Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	(max yrs)	(yrs)	Species	Ht (m)
ESSFmc												
1018745	Multi-layer	01	Bl Sx	Pl[34,71]	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018747	Multi-layer	02*	Pl	Bl[50]Sx[50]	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	Pl Others	1.20 0.60
1018749	Multi-layer	03*	Pl	Bl[50]Sx[50]	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	Pl Others	1.20 0.60
1018750	Multi-layer	04	Pl Bl Sx		L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018760	Multi-layer	05	Bl Sx	Pl[34,71]	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018761	Multi-layer	06	Bl Sx	Pl[34,71]	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018762	Multi-layer	07	Bl Sx[32]		L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018763	Multi-layer	08*	Bl Sx[32]		L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	All	0.60
1018764	Multi-layer	09	Bl[1] Sx[1,32]		L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	All	0.60
1018766	Multi-layer	10	Bl[1] Sx[1,32]		L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	All	0.60
ESSFwv												
1018768		01	Bl Se	Hm Hw Pl[34]		1200	700	600	7	20	Pl Others	1.60 0.80
1018770		02*	Pl	Hm Bl[50]Se[50]		1000	500	400	7	20	Pl Others	1.20 0.60
1020068	Dothistroma	02*	Hm Bl[50]Se[50]	Pl		1000	500	400	7	20	Pl Others	1.20 0.60
1018772		03*	Pl	Bl[50]Se[50]Hm Hw		1200	700	600	7	20	Pl Others	1.60 0.80

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
			Species			Stocking (well-spaced/ha)			Regen Delay	Latest Assessment	Min. Height	
	Subzone	Site Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	(max yrs)	(yrs)	Species	Ht (m)
ESSFwv												
1020069	Dothistroma	03*	Bl[50]Se[50]Hm Hw	Pl		1200	700	600	7	20	Pl Others	1.60 0.80
1018773		04	Pl Bl	Se[50]Hm		1200	700	600	7	20	Pl Others	1.60 0.80
1020070	Dothistroma	04	Se[50]Hm Bl	Pl		1200	700	600	7	20	Pl Others	1.60 0.80
1018775		05	Bl Se	Hm Hw Pl[34]		1200	700	600	4	20	Pl Others	1.60 0.80
1018777		06	Bl Se[32]	Hm Hw		1200	700	600	4	20	Pl Others	1.60 0.80
1018778		07*	Bl Se[32]	Hm Hw		1000	500	400	4	20	All	0.60
1018780		08	Bl[1] Se[1,32]			1000	500	400	4	20	All	0.60
1018781		09	Bl[1] Se[1,32]			1000	500	400	4	20	All	0.60
1018785	Multi-layer	01	Bl Se	Hm Hw Pl[34]	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018786	Multi-layer	02*	Pl	Hm Bl[50]Se[50]	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	Pl Others	1.20 0.60
1018787	Multi-layer	03*	Pl	Bl[50]Se[50]Hm Hw	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018788	Multi-layer	04	Pl Bl	Se[50]Hm	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018789	Multi-layer	05	Bl Se	Hm Hw Pl[34]	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018791	Multi-layer	06	Bl Se[32]	Hm Hw	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1018792	Multi-layer	07*	Bl Se[32]	Hm Hw	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	All	0.60
1018793	Multi-layer	08	Bl[1] Se[1,32]		L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	All	0.60
1018794	Multi-layer	09	Bl[1] Se[1,32]		L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	All	0.60

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
	Subzone	Site Series	Preferred (p)	Species Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Stocking (well-spaced/ha) Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	Regen Delay (max yrs)	Latest Assessment (yrs)	Min. Height Species	Min. Height Ht (m)
ICHmc1												
1018956		01	Bl[29] Ba[50] Sx[56] Hw[32]	Pl	At[b] Ep[b]	1200	700	600	4	20	Pl Others	2.00 1.00
1018957		02*	Pl	Bl Hw[32]	At[b]	1000	500	400	7	20	Pl Others	1.40 0.80
1019072	Dothistroma	02*	Bl Hw[32] At[b]	Pl		1000	500	400	10	20	Pl Others	1.40 0.80
1018958		03	Bl[29] Ba[50] Sx[35,56] Hw[32]	Pl	Act[b] At[a] Ep[a]	1200	700	600	4	20	Pl Others	2.00 1.00
1018959		04	Bl[29] Ba[50] Sx[35,56] Hw[32]	Pl	Act[b] At[a] Ep[a]	1200	700	600	4	20	Pl Others	2.00 1.00
1018960		05	Ba[50] Sx[1,35,56] Bl[1,29]		Act[a] At[a] Ep[a]	1200	700	600	4	20	Pl Others	2.00 1.00
1018961		06	Ba[50] Sx[1,56] Bl[1,29]	Hw[1,32]	Act[b]	1000	500	400	4	20	All	0.80
1018963	Multi-layer	01	Bl[29] Ba[50] Sx[56] Hw[32]	Pl	At[b] Ep[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1018964	Multi-layer	02*	Bl Hw[32]	Pl	At[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 1000 800 600 400	 500 400 300 200	 400 300 250 200	7	20	Pl Others	1.40 0.80
1018965	Multi-layer	03	Bl[29] Ba[50] Sx[35,56] Hw[32]	Pl	Act[b] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1018966	Multi-layer	04	Bl[29] Ba[50] Sx[35,56] Hw[32]	Pl	Act[b] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1018967	Multi-layer	05	Ba[50] Sx[1,35,56] Bl[1,29]		Act[a] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1018968	Multi-layer	06	Ba[50] Sx[1,56] Bl[1,29]	Hw[1,32]	Act[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 1000 800 600 400	 500 400 300 200	 400 300 250 200	7	20	All	0.80
ICHmc1a												
1019055		01	Ba[7] Hw[32] Sx[56]	Bl[50]Pl	At[b] Ep[b]	1200	700	600	4	20	Pl Others	2.00 1.00
1019058		02	Hw[32] Ba Sx[35,56]	Bl[50]Pl	Act[b] At[a] Ep[a]	1200	700	600	4	20	Pl Others	2.00 1.00
1019061		03	Hw[32] Ba Sx[35,56]	Bl[50]Pl		1200	700	600	4	20	Pl Others	2.00 1.00

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide						Regen Delay	Free Growing Guide		
	Subzone	Site Series	Preferred (p)	Species Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Stocking (well-spaced/ha) Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	(max yrs)	Latest Assessment (yrs)	Min. Height Species	Min. Height Ht (m)
1019067	Multi-layer	01	Ba^{7} Hw^{32} Sx^{56}	$Bl^{50}Pl$	At^{b} Ep^{b} L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019064	Multi-layer	02	Hw^{32} Ba $Sx^{35,56}$	$Bl^{50}Pl$	Act^{b} At^{a} Ep^{a} L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019068	Multi-layer	03	Hw^{32} Ba $Sx^{35,56}$	$Bl^{50}Pl$	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	2.00 1.00
ICHmc2												
1019069		01	Hw^{32} Sx^{56} Cw^{32}	$Bl^{29}Ba^{50}$ Pl	At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1059901	Climate Change	1a	Hw^{32} Sx^{56} Cw^{32} $Fd^{9},^{32}Lw^{9},^{32}$	Ba^{50} Pl Bl^{29}	At^{a} Ep^{a}	1200	700	600	4	20	PL Others	2.00 1.00
1059902	Climate Change	1b	Hw^{32} Sx^{56} Cw^{32} $Fd^{9,32}$	Ba^{50} Pl Bl^{29}	At^{a} Ep^{a}	1200	700	600	4	20	PL Others	2.00 1.00
1019070		02*	Pl	Bl Hw Ba^{50}	At^{b}	1000	500	400	7	20	Pl Others	1.40 0.80
1019071	Dothistroma	02	Bl Hw Ba^{50} At^{b}	Pl		1000	500	400	10	20	Pl Others	1.40 0.80
1019073		03	Cw^{32} Hw^{32} $Sx^{35,56}$	$Bl^{29}Pl$ Ba^{50}	Act^{b} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1059903	Climate Change	03	Cw^{32} Hw^{32} $Sx^{35,56}$ $Fd^{9,32}$ $Lw^{9,32}$	Bl^{29} Pl Ba^{50}	Act^{b} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1019074		04	Cw^{32} $Sx^{35,56}$	$Bl^{29}Hw^{32}$ Pl Ba^{50}	Act^{b} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1059904	Climate Change	04	Cw^{32} $Sx^{35,56}$ $Fd^{9,32}$ $Lw^{9,32}$	Bl^{29} Hw^{32} Pl Ba^{50}	Act^{b} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1019075		05	$Cw^{1,32}$ $Sx^{1,35,56}$	$Bl^{1,29}$ Ba^{50} $Hw^{1,32}$ Pl^{1}	Act^{b} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1020305		06	$Cw^{1,32}$ $Sx^{1,35,56}$	Ba^{50} $Bl^{1,29}$ $Hw^{1,32}$	Act^{a} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00
1019076		07	Ba^{50} $Bl^{1,29}$ $Sx^{1,56}$ $Cw^{1,32}$	$Hw^{1,32}$	Act^{b} At^{b} Ep^{b}	1000	500	400	4	20	Pl Others	1.40 1.00
1019077		08*	Sb^{1} $Sx^{1,32,56}$	Pl^{1}		400	200	200	4	20	Pl Others	1.40 0.80
1019080		51	Pl Hw	$Bl^{28,29}Sx^{28,56}$ Ba^{50}	At^{b} Ep^{b}	1200	700	600	4	20	Pl Others	2.00 1.00
1019081	Dothistroma	51	Hw $Bl^{28,29}Sx^{28,56}$ Ba^{50}	Pl	At^{b} Ep^{b}	1200	700	600	10	20	Pl Others	2.00 1.00
1019082		52	Hw^{32} Sx^{56} Cw^{32}	Bl^{29} Pl Ba^{50}	Act^{b} At^{a} Ep^{a}	1200	700	600	4	20	Pl Others	2.00 1.00

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
			Species			Stocking (well-spaced/ha)			Regen Delay	Latest Assessment	Min. Height	
	Subzone	Site Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	(max yrs)	(yrs)	Species	Ht (m)
ICHmc2												
1019083		53	Hw[32] Sx[56] Cw[32]	Bl[29] Pl Ba[50]	Act[b] At[a] Ep[a]	1200	700	600	4	20	Pl Others	2.00 1.00
1019084		54	Cw[32] Sx[56]	Bl[29] Hw[32] Pl Ba[50]	Act[b] At[a] Ep[a]	1200	700	600	4	20	Pl Others	2.00 1.00
1019085	Multi-layer	01	Hw[32] Sx[56] Cw[32]	Bl[29] Ba[50] Pl	At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019086	Multi-layer Dothistroma	02	Bl Hw Ba[50] At[b]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	Pl Others	1.40 0.80
1019087	Multi-layer	03	Cw[32] Hw[32] Sx[35,56]	Bl[29] Pl Ba[50]	Act[b] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019088	Multi-layer	04	Cw[32] Sx[35,56]	Bl[29] Hw[32] Pl Ba[50]	Act[b] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019089	Multi-layer	05	Cw[1,32] Sx[1,35,56]	Bl[1,29] Ba[50] Hw[1,32] Pl[1]	Act[b] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019090	Multi-layer	06	Cw[1,32] Sx[1,35,56]	Ba[50] Bl[1,29] Hw[1,32]	Act[a] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00
1019091	Multi-layer	07	Ba[50] Bl[1,29] Sx[1,56] Cw[1,32]	Hw[1,32]	Act[b] At[b] Ep[b] L4 Regen L3 Sapling L2 Pole L1 Mature	 1000 800 600 400	 500 400 300 200	 400 300 250 200	7	20	Pl Others	1.40 1.00
1019092	Multi-layer	08*	Sb[1] Sx[1,32,56]	Pl[1]	L4 Regen L3 Sapling L2 Pole L1 Mature	400 300 300 200	200 150 125 100	200 150 125 100	7	20	Pl Others	1.40 0.80
1019094	Multi-layer Dothistroma	51	Hw At[b] Ep[b] Bl[28,29] Sx[28,56] Ba[50]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	2.00 1.00
1019096	Multi-layer	52	Hw[32] Sx[56] Cw[32]	Bl[29] Pl Ba[50]	Act[b] At[a] Ep[a] L4 Regen L3 Sapling L2 Pole L1 Mature	 1200 1000 800 600	 700 500 400 300	 600 400 300 250	7	20	Pl Others	2.00 1.00

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide						Regen Delay	Free Growing Guide		
	Subzone	Site Series	Species Preferred (p)	Species Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Stocking (well-spaced/ha) Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	(max yrs)	Latest Assessment (yrs)	Min. Height Species	Min. Height Ht (m)
1019098	Multi-layer	53	Hw[32] Sx[56] Cw[32]	Bl[29] Pl Ba[50]	Act[b] At[a] Ep[a]				7	20		
					L4 Regen	1200	700	600			Pl	2.00
					L3 Sapling	1000	500	400			Others	1.00
					L2 Pole	800	400	300				
					L1 Mature	600	300	250				
1019099	Multi-layer	54	Cw[32] Sx[56]	Bl[29] Hw[32] Pl Ba[50]	Act[b] At[a] Ep[a]				7	20		
					L4 Regen	1200	700	600			Pl	2.00
					L3 Sapling	1000	500	400			Others	1.00
					L2 Pole	800	400	300				
					L1 Mature	600	300	250				
MHmm2												
1020065		01	Ba Hm	Yc[17,50] Bl[50]		900	500	400	7	20	All	1.00
1059905	Climate Change	01	Ba Hm	Yc[13,17,50] Bl[13,50] Hw Cw[14] HW CH		900	500	400	7	20	All	1.00
1020066		02*	Hm	Yc[17,50] Ba Bl[50]		800	400	400	4	20	All	0.80
1020067		03	Ba Hm	Yc[17,50] Bl[50]		900	500	400	4	20	All	1.00
1020068		04	Ba Hm	Yc[17,50] Bl[50]		900	500	400	7	20	All	1.00
1020069		05	Ba Hm	Yc[17,50] Bl[50]		900	500	400	4	20	All	1.00
1020070		06*	Hm[1]	Yc[17,50]		800	400	400	7	20	All	1.00
1020071		07*	Ba[1]	Yc[1,17,50] Hm[1]		900	500	400	4	20	All	1.00
1020072		08*	Hm[1]	Ba Bl[1,50] Yc[1,17,50]		400	200	200	4	20	All	0.80
1020073		09*	Hm[1]	Ba[1] Yc[1,17,50]		800	400	400	4	20	All	0.80
SBSmc2												
1020021		01	Pl Sx	Bl[29]	At[a]	1200	700	600	7	20		
											Pl	1.60
											Others	0.80
1059906	Climate Change	01	Bl,Sx, Fdi,Lw	Pl	At	1200	700	600	7	20	Pl Others	1.60 0.80
1020057	Dothistroma	01	Sx Bl[29] At[a]	Pl		1200	700	600	7	20		
											Pl	1.60
											Others	0.80
1020023		02*	Pl	Bl Sx[32]	At[b]	1000	500	400	7	20		
											Pl	1.20
											Others	0.60
1020058	Dothistroma	02*	Bl Sx[32] At[b]	Pl		1000	500	400	7	20		
											Pl	1.20
											Others	0.60
1020022		03	Pl Sx[32]	Bl[29] Sb	At[b]	1200	700	600	7	20		
											Pl	1.60
											Others	0.80
1020059	Dothistroma	03	Sx[32] Bl[29] Sb At[b]	Pl		1200	700	600	7	20		
											Pl	1.60
											Others	0.80
1059907	Climate Change	03	Bl Sx[32]	Pl[29] Sb Fdi, Lw	At[b]	1200	700	600	7	20	Pl Others	1.60 0.80
1020025		05	Pl Sx	Bl[29]	Act[a] At[a]	1200	700	600	4	20		
											Pl	1.60
											Others	0.80
1059908	Climate Change	05	Bl,Sx,Fdi Lw	Pl	Act,At	1200	700	600	4	20	Pl Others	1.60 0.80
1020061	Dothistroma	05	Sx Bl[29] Act[a] At[a]	Pl		1200	700	600	4	20		
											Pl	1.60
											Others	0.80
1020026		06	Pl Sx	Bl[29]	Act[b] At[a]	1200	700	600	4	20		
											Pl	1.60
											Others	0.80

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
	Subzone	Site Series	Species Preferred (p)	Species Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Stocking (well-spaced/ha) Target (p&a) Col 7	Minimum (p&a) Col 8	Minimum (p) Col 9	Regen Delay (max yrs)	Latest Assessment (yrs)	Min. Height Species	Min. Height Ht (m)
1020062	Dothistroma	06	Sx Bl[29] Act[b] At[a]	Pl		1200	700	600	4	20	Pl Others	1.60 0.80
1059910	Climate Change	06	Bl Sx, Fdi Lw	Pl[29]	Act[b] At[a]	1200	700	600	4	20	Pl Others	1.60 0.80
1020027		07*	Pl Sb Sx[32]	Bl	At[b]	1000	500	400	4	20	Pl Others	1.20 0.60
1020063	Dothistroma	07*	Sb Sx[32] Bl At[b]	Pl		1000	500	400	4	20	Pl Others	1.20 0.60
1020028		08	Pl Sx	Bl[29]	Act[b] At[a]	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2												
1020064	Dothistroma	08	Sx Bl[29] Act[b] At[a]	Pl		1200	700	600	4	20	Pl Others	1.60 0.80
1020029		09	Sx Bl[29]	Pl	Act[b] At[a]	1200	700	600	4	20	Pl Others	1.60 0.80
1020031		10	Sx[1,32] Bl[1,29]	Pl[1]	Act[b] At[b]	1000	500	400	4	20	Pl Others	1.20 0.60
1020032		12*	Sb[1] Sx[1,32]	Pl[1] Bl[1]		400	200	200	4	20	Pl Others	1.20 0.60
1020039	Multi-layer Dothistroma	01	Sx Bl[29] At[a]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1020045	Multi-layer Dothistroma	02*	Bl Sx[32] At[b]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	Pl Others	1.20 0.60
1020050	Multi-layer Dothistroma	03	Sx[32] Bl[29] Sb At[b]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1020051	Multi-layer Dothistroma	05	Sx Bl[29] Act[a] At[a]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1020052	Multi-layer Dothistroma	06	Sx Bl[29] Act[b] At[a]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1020053	Multi-layer Dothistroma	07*	Sb Sx[32] Bl At[b]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1000 800 600 400	500 400 300 200	400 300 250 200	7	20	Pl Others	1.20 0.60
1020054	Multi-layer Dothistroma	08	Sx Bl[29] Act[b] At[a]	Pl	L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80
1020055	Multi-layer	09	Sx Bl[29]	Pl	Act[b] At[a] L4 Regen L3 Sapling L2 Pole L1 Mature	1200 1000 800 600	700 500 400 300	600 400 300 250	7	20	Pl Others	1.60 0.80

I.D. #	Biogeoclimatic Ecosystem Classification		Regeneration Guide							Free Growing Guide		
			Species			Stocking (well-spaced/ha)			Regen Delay	Latest Assessment	Min. Height	
	Subzone	Site Series	Preferred (p)	Acceptable (a)	Broadleaf (p) or (a) per footnotes /Tree Layers	Target (p&a) Col 7	Minimum (p&a) Col 8	(p) Col 9	(max yrs)	(yrs)	Species	Ht (m)
1020056	Multi-layer	10	Sx[1,32] Bl[1,29]	Pl[1]	Act[b] At[b]							
					L4 Regen	1000	500	400	7	20	Pl	1.20
					L3 Sapling	800	400	300			Others	0.60
					L2 Pole	600	300	250				
					L1 Mature	400	200	200				
Stocking Standards Footnotes are listed in Appendix A1 – Table A2												

- Ecologically based climate change stocking standard recommendations from the *Updates to the Reference Guide for FDP Stocking Standards (2014): Climate-Change Related Stocking Standards* document have been added to Table A1 and are highlighted in green under the associated BEC Subzone and Site Series.

Table A2: Uneven-aged Stocking Targets

Target From Table A1 Standards[2] Stems/ha	**Layer**[1]	**STOCKING (**well spaced stems/ha**)**		
		Target (p&a)[2] Preferred and Acceptable	**Minimum (p&a)**[2] Preferred and Acceptable	**Minimum (p)**[2] Preferred
1200	1	600	300	250
	2	800	400	300
	3	1000	500	400
	4	1200	700	600
1000	1	400	200	200
	2	600	300	250
	3	800	400	300
	4	1000	500	400
900	1	400	200	200
	2	500	300	250
	3	700	400	300
	4	900	500	400
800	1	300	150	150
	2	400	200	200
	3	600	300	300
	4	800	400	400
600	1	300	150	150
	2	400	200	200
	3	500	300	300
	4	600	400	400
400	1	200	100	100
	2	300	125	125
	3	300	150	150
	4	400	200	200

Footnotes:

[1] Stand Layer Definitions for Uneven-aged stocking standards are as follows:

Layer 1 – Mature trees >= 12.5 cm dbh

Layer 2 – Pole trees 7.5 cm to 12.4 cm dbh

Layer 3 – Sapling trees >= 1.3 m height to 7.4 cm dbh

Layer 4 – Regeneration trees < 1.3 m height

[2] "Preferred and Acceptable" species and "Target from Table A1" standards are as specified in Table A1 by BEC site series classification.

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

Table A3: Footnotes for Stocking Standards

Reference	Description
Footnotes to "Broadleaf" species in Table A1	
a	Species constitutes a productive, reliable, and feasible regeneration option, and subject to section 6 of this FSP, may be considered as "preferred" for regeneration in managed stands.
b	Species is limited in productivity, reliability and/or feasibility, and subject to section 6 of this FSP, may only be considered as "acceptable" for regeneration in managed stands.
Advisory footnotes to "Preferred" or "Acceptable" species in Table A1 and Table A2	
1	elevated microsites are preferred
7	restricted to nutrient-medium sites
9	restricted to southerly aspects
12	suitable on cold air drainage sites
13	restricted to upper elevations of biogeoclimatic unit
14	restricted to lower elevations of biogeoclimatic unit
17	restricted to western portion of biogeoclimatic unit in region
28	limited by moisture deficit
29	risk of heavy browsing by moose
30	risk of porcupine damage
32	limited by growing-season frosts
34	risk of snow damage
35	risk of weevil damage
50	restricted to those sites and site series where the species occurs as a major species (> 20 % of dominant and co-dominant sph) in the pre-harvest, natural stand.
56	Kalum forest district - spruce content restricted to < 20% well- spaced and free growing trees on a standards unit due to leader weevil.
71	Pl is a preferred species up to 1200m elevation, otherwise acceptable.
Application of Dothistroma Stocking Standards in Table A1	
Dothistroma	This stocking standard should only be used where there is risk of negative regeneration impacts due to Dothistroma infection on planted or natural lodgepole pine regeneration.
Biogeoclimatic Ecosystem Classification (BEC) Subzones in the Kispiox TSA	
CWHws2	Coastal Western Hemlock zone, wet submaritime subzone – montane variant
ESSFmc	Engelmann Spruce – Subalpine Fir zone, moist cold subzone
ESSFwv	Engelmann Spruce – Subalpine Fir zone, wet very cold subzone
ICHmc1	Interior Cedar – Hemlock zone, moist cold subzone, Nass variant
ICHmc1a	Interior Cedar – Hemlock zone, moist cold subzone – Nass variant, Amabilis Fir phase
ICHmc2	Interior Cedar – Hemlock zone, moist cold subzone – Hazelton variant
MHmm2	Mountain Hemlock zone, moist maritime subzone – Leeward variant
SBSmc2	Sub-Boreal Spruce zone, moist cold subzone – Babine variant

Conifer Tree Species		
"Ba" means amabalis fir	"Hm" means mountain hemlock	"Sb" means black spruce
"Bl" means sub-alpine fir	"Hw" means western hemlock	"Sx" or "Sxs" means hybrid or interior spruce
"Cw" means western red cedar	"Pl" means lodgepole pine	"Yc" means yellow cedar
	"Se" means Engelmann spruce	
Broadleaf Tree Species		
"Act" means black cottonwood	"Dr" means red alder	
"At" means trembling aspen	"Ep" means paper birch	

Appendix II – FRPA Declared 14(4) and Section 196 Areas

Status	Licence	Block	Operating Area	Mapsheet
196(1) Approved	!Planningb	59165_A	Deadhorse	093M071
196(1) Approved	!Planningb	59166_A	Deadhorse	093M071
196(1) Approved	!Planningb	59168_A	Deadhorse	093M071
196(1) Approved	!Planningb	53569_A	Deadhorse	093M071
196(1) Approved	!Planningb	59167_A	Deadhorse	093M071
196(1) Approved	!Planningb	60084_A	Itzul	093M033
196(1) Approved	!Planningb	CB	Gail	093M054
196(1) Approved	!Planningb	CC	Gail	093M054
196(1) Approved	!Planningb	CA	Gail	093M054
196(1) Approved	!Planningb	A65336-A	Suskwa	093M024
196(1) Approved	A53607	A	Gail	093M055
196(1) Approved	A53610	1	Suskwa	093M055
196(1) Approved	A53611	1	Suskwa	093M056
196(1) Approved	A53612	1	Suskwa	093M056
196(1) Approved	A53630	1	Helen	103P060
196(1) Approved	A56813	A	Gail	093M054
196(1) Approved	A56819	1	Gail	093M055
196(1) Approved	A59174	A	Gail	093M045

Status	Licence	Block	Operating Area	Mapsheet
196(1) Approved	A59183	A	Helen	103P060
196(1) Approved	A61407	A	Suskwa	093M055
196(1) Approved	A61413	B	Gail	093M056
196(1) Approved	A61413	C	Gail	093M056
196(1) Approved	A61413	A	Gail	093M056
196(1) Approved	A61416	A	Deadhorse	093M071
196(1) Approved	A61418	A	Deadhorse	103P080
196(1) Approved	A61419	A	Deadhorse	103P080
196(1) Approved	A61423	A	Helen	103P060
196(1) Approved	A61425	A	Nangeese	103P079
196(1) Approved	A64579	A	Gail	093M045
196(1) Approved	A64580	1	Gail	093M046
196(1) Approved	A64581	A	Gail	093M054
196(1) Approved	A64582	A	Gail	093M054
196(1) Approved	A64596	A	Nangeese	103P079
196(1) Approved	A66980	A	Suskwa	093M024
196(1) Approved	A66981	A	Suskwa	093M024
196(1) Approved	A66984	A	Itzul	093M034
196(1) Approved	A66987	A	Gail	093M054
196(1) Approved	A66988	A	Gail	093M056
196(1) Approved	A66992	A	Helen	103P060

Status	Licence	Block	Operating Area	Mapsheet
196(1) Approved	A66993	A	Helen	103P060
196(1) Approved	A66995	1	Deadhorse	103P080
196(1) Approved	A66995	2	Deadhorse	103P080
196(1) Approved	A66998	A	Deadhorse	103P080
196(1) Approved	A67414	A	Itzul	093M034
196(1) Approved	A69339	A	Itzul	093M033/034
196(1) Approved	A69340	1	Itzul	093M033
196(1) Approved	A69991	1	Helen	103P060
196(1) Approved	A69993	A	Helen	103P060
196(1) Approved	A69999	A	Date	093M041
196(1) Approved	A70000	A	Date	093M041
196(1) Approved	A70001	1	Itzul	093M033
196(1) Approved	A72368	A	Deadhorse	103P080
196(1) Approved	A73061	1	Gail	093M054
196(1) Approved	A73063	A	Gail	093M054
196(1) Approved	A73064	A	Gail	093M054
196(1) Approved	A89679	1	Nangeese	103P079
196(1) Approved	A79829	B	Gail	093M056
196(1) Approved	A79829	A	Gail	093M056
196(1) Approved	A87913	1	Date	93M032
196(1) Approved	A88505	D	Nangeese	103P079

Status	Licence	Block	Operating Area	Mapsheet
196(1) Approved	A88505	C	Nangeese	103P079
196(1) Approved	A88505	B	Nangeese	103P079
196(1) Approved	A88505	A	Nangeese	103P079
196(2) Approved	!Planningb	ZZZ_1_87987	Cranberry	103P067
196(2) Approved	!Planningb	D228	Deadhorse	103P080
196(2) Approved	!Planningb	D250	Deadhorse	103P080
196(2) Approved	!Planningb	D246	Deadhorse	103P080
196(2) Approved	!Planningb	HAde329	Deadhorse	103P080/093M071
196(2) Approved	!Planningb	D190	Deadhorse	093M071
196(2) Approved	!Planningb	D181	Deadhorse	093M071
196(2) Approved	!Planningb	D291	Deadhorse	103P080
196(2) Approved	!Planningb	NG139	Nangeese	103P078
196(2) Approved	!Planningb	NG88	Nangeese	103P078
196(2) Approved	!Planningb	NG87	Nangeese	103P078
196(2) Approved	!Planningb	NG60	Nangeese	103P078
196(2) Approved	!Planningb	K3	Kitwancool	103P030
196(2) Approved	!Planningb	K7	Kitwancool	103P040
196(2) Approved	!Planningb	HAmu017	Muldoe	103P067
196(2) Approved	!Planningb	HAmu012	Muldoe	093M042
196(2) Approved	!Planningb	H38	Helen	103P060
196(2) Approved	!Planningb	H215	Helen	103P060

Status	Licence	Block	Operating Area	Mapsheet
196(2) Approved	!Planningb	H295	Helen	103P050
196(2) Approved	!Planningb	H306	Helen	103P050
196(2) Approved	!Planningb	DA383	Date	093M041
196(2) Approved	!Planningb	DA376	Date	093M031/093M041
196(2) Approved	!Planningb	HAda365	Date	093M031
196(2) Approved	!Planningb	DA99	Date	093M032
196(2) Approved	!Planningb	DA197	Date	093M031
196(2) Approved	!Planningb	DA219	Date	093M031
196(2) Approved	!Planningb	K6	Kitwancool	103P040
196(2) Approved	!Planningb	NY17	Nash-Y	093M011
196(2) Approved	!Planningb	DA774	Date	093M041
196(2) Approved	!Planningb	J134	Juniper	093M002
196(2) Approved	!Planningb	R4	Miscellaneous Hazelton Area	093M013
196(2) Approved	!Planningb	R2	Miscellaneous Hazelton Area	093M013
196(2) Approved	!Planningb	R1	Miscellaneous Hazelton Area	093M013
196(2) Approved	!Planningb	R3	Miscellaneous Hazelton Area	093M013
196(2) Approved	!Planningb	SK10	Suskwa	093M024
196(2) Approved	!Planningb	SK9	Suskwa	093M024
196(2) Approved	!Planningb	SK8	Suskwa	093M024
196(2) Approved	!Planningb	SK7	Suskwa	093M024
196(2) Approved	!Planningb	SK6	Suskwa	093M024

Status	Licence	Block	Operating Area	Mapsheet
196(2) Approved	!Planningb	SK5	Suskwa	093M024
196(2) Approved	!Planningb	SK1	Suskwa	093M024/093M023
196(2) Approved	!Planningb	SK3	Suskwa	093M024
196(2) Approved	!Planningb	SK23	Suskwa	093M024
196(2) Approved	!Planningb	SK4	Suskwa	093M024
196(2) Approved	!Planningb	SK2	Suskwa	093M024
196(2) Approved	!Planningb	HAil008	Itzul	093M034
196(2) Approved	!Planningb	HAil051	Itzul	093M034
196(2) Approved	!Planningb	HAil045	Itzul	093M033
196(2) Approved	!Planningb	HAil041	Itzul	093M033
196(2) Approved	!Planningb	HAil028	Itzul	093M033
196(2) Approved	!Planningb	SC134	Sicintine	094D013
196(2) Approved	!Planningb	SC136	Sicintine	094D013
196(2) Approved	!Planningb	SC132	Sicintine	094D013
196(2) Approved	!Planningb	SC106	Sicintine	094D013
196(2) Approved	!Planningb	SC126	Sicintine	094D013
196(2) Approved	!Planningb	SC128	Sicintine	094D013
196(2) Approved	!Planningb	SC130	Sicintine	094D013/094D012
196(2) Approved	!Planningb	SC105	Sicintine	094D013
196(2) Approved	!Planningb	SC104	Sicintine	094D012/094D013
196(2) Approved	!Planningb	SC202	Sicintine	094D012/094D013

Status	Licence	Block	Operating Area	Mapsheet
196(2) Approved	!Planningb	SC138	Sicintine	094D012/094D013
196(2) Approved	!Planningb	SC57	Sicintine	094D012
196(2) Approved	!Planningb	SC103	Sicintine	094D012/094D013
196(2) Approved	!Planningb	SC216	Sicintine	094D012
196(2) Approved	!Planningb	SC220	Sicintine	094D012
196(2) Approved	!Planningb	SC2269	Sicintine	094D012
196(2) Approved	!Planningb	SC2235	Sicintine	094D012
196(2) Approved	!Planningb	SC2259	Sicintine	094D012
196(2) Approved	!Planningb	SC2263	Sicintine	094D012
196(2) Approved	!Planningb	SC157	Sicintine	094D012
196(2) Approved	!Planningb	SC140	Sicintine	094D012
196(2) Approved	!Planningb	SC145	Sicintine	094D012
196(2) Approved	!Planningb	TJ99	Sicintine	094D012
196(2) Approved	!Planningb	TJ82	Sicintine	094D012
196(2) Approved	!Planningb	TJ89	Sicintine	094D012
196(2) Approved	!Planningb	TJ100	Sicintine	094D012
196(2) Approved	!Planningb	TJ93	Sicintine	094D012
196(2) Approved	!Planningb	TJ88	Sicintine	094D012
196(2) Approved	!Planningb	TJ90	Sicintine	094D012
196(2) Approved	!Planningb	TJ91	Sicintine	094D012
196(2) Approved	!Planningb	TJ35	Sicintine	094D012

Status	Licence	Block	Operating Area	Mapsheet
196(2) Approved	!Planningb	TJ37	Sicintine	094D012
196(2) Approved	!Planningb	TJ21	Sicintine	094D012
196(2) Approved	!Planningb	TJ25	Sicintine	094D012
196(2) Approved	!Planningb	TJ23	Sicintine	094D012
196(2) Approved	!Planningb	TJ18	Sicintine	094D012
196(2) Approved	!Planningb	TJ19	Sicintine	094D012
196(2) Approved	!Planningb	SCI754_10	Sicintine	094D013
196(2) Approved	!Planningb	SCI754_9	Sicintine	094D013
196(2) Approved	!Planningb	SCI754_8	Sicintine	094D012\094D013
196(2) Approved	!Planningb	SCI753_7	Sicintine	094D012
196(2) Approved	!Planningb	SCI753_6	Sicintine	094D012
196(2) Approved	!Planningb	SCI753_5	Sicintine	094D012
196(2) Approved	!Planningb	SCI753_4	Sicintine	094D012
196(2) Approved	!Planningb	SCI752_3	Sicintine	094D012/094D002
196(2) Approved	!Planningb	SCI752_2	Sicintine	094D002
196(2) Approved	!Planningb	SCI752_1	Sicintine	094D002
196(2) Approved	!Planningb	TJ1	Sicintine	093M092
196(2) Approved	!Planningb	TJ16	Sicintine	094D002
196(2) Approved	!Planningb	TJ12	Sicintine	094D002
196(2) Approved	!Planningb	BA5	Gail	093M054
196(2) Approved	!Planningb	BA4	Gail	093M054

Status	Licence	Block	Operating Area	Mapsheet
196(2) Approved	!Planningb	BA3	Gail	093M064
196(2) Approved	!Planningb	BA2	Gail	093M054
196(2) Approved	!Planningb	BA1	Gail	093M054
196(2) Approved	!Planningb	T96	Gail	093M054
196(2) Approved	!Planningb	T95	Gail	093M054
196(2) Approved	!Planningb	T94	Gail	093M054
196(2) Approved	!Planningb	T24	Gail	093M054
196(2) Approved	!Planningb	G222	Gail	093M054
196(2) Approved	!Planningb	G214	Gail	093M054
196(2) Approved	!Planningb	N510	Gail	093M046
196(2) Approved	!Planningb	N507	Gail	093M045
196(2) Approved	!Planningb	N500	Gail	093M045
196(2) Approved	!Planningb	N505	Gail	093M045
196(2) Approved	!Planningb	N1	Suskwa	093M045
196(2) Approved	!Planningb	T46	Gail	093M055/093M054
196(2) Approved	!Planningb	T39	Gail	093M055
196(2) Approved	!Planningb	T36	Gail	093M055
196(2) Approved	!Planningb	T333	Gail	093M055
196(2) Approved	!Planningb	GS27	Gail	093M055
196(2) Approved	!Planningb	GS70	Gail	093M055
196(2) Approved	!Planningb	GS25	Gail	093M055

Status	Licence	Block	Operating Area	Mapsheet
196(2) Approved	!Planningb	A36514_1	Kitwancool	103P039
196(2) Approved	A43430	1	Kitwancool	103P040
196(2) Approved	A50630	1	Kitwancool	103P040
196(2) Approved	A60102	A	Cranberry	103P067
196(2) Approved	A61907	A	Date	093M042
196(2) Approved	A70004	A	Miscellaneous Hazelton Area	103I098/99
196(2) Approved	A82734	1	Gail	093M045
196(2) Approved	A82735	1	Gail	093M055
196(2) Approved	A82736	A	Nangeese	103P079
196(2) Approved	A82737	B	Nangeese	103P078
196(2) Approved	A82738	A	Nangeese	103P078
196(2) Approved	A82739	A	Nangeese	103P078
196(2) Approved	A90463	1	Cranberry	103P067
196(2) Approved	A90551	1	Cranberry	103P067
196(2) Approved	HA Date 2300C PL		Date	Not reported
196(2) Approved	HA A53610 Access PL		Date	Not reported
196(2) Approved	HA A60102 Access Rd		Cranberry	Not reported
196(2) Approved	HA A61413 Access PL		Suskwa	Not reported
196(2) Approved	HA A70326 RP Spur A		Helen	Not reported
196(2) Approved	HA A80630 Access PL		Helen	Not reported
196(2) Approved	HA C2 Access PL		Cranberry	Not reported

196(2) Approved	HA Damsumlo PL		Sicintine	Not reported
196(2) Approved	HA DATE 1200-800		Date	Not reported
196(2) Approved	HA Date 2300 PL		Date	Not reported
196(2) Approved	HA Date 400-1500		Date	Not reported
196(2) Approved	HA Date 400-1600		Date	Not reported
196(2) Approved	HA Date Creek - 09		Date	Not reported
196(2) Approved	HA Date Creek - 09A		Date	Not reported
196(2) Approved	HA Gail 1100 PL		Gail	Not reported
196(2) Approved	HA Gail 3100		Gail	Not reported
196(2) Approved	HA Gail 750 PL		Gail	Not reported
196(2) Approved	HA Gail 850 PL		Gail	Not reported
196(2) Approved	HA Gail 900 PL		Gail	Not reported
196(2) Approved	HA Gail Creek PL		Gail	Not reported
196(2) Approved	HA Helen 2000 PL		Helen	Not reported
196(2) Approved	HA Helen 2000C PL		Helen	Not reported
196(2) Approved	HA Helen 2000E PL		Helen	Not reported
196(2) Approved	HA Helen 2100 PL		Helen	Not reported
196(2) Approved	HA Helen A69991_Spur A		Helen	Not reported
196(2) Approved	HA Moricetown-Suskwa 350 PL		Suskwa	Not reported
196(2) Approved	HA Nangeese A77985 Spur A		Nangees	Not reported
196(2) Approved	HA PLga001		FSR 4985.02 2km	Not reported

196(2) Approved	HA PLki001		FSR 8687.01 Kitwancool 16km	Not reported
196(2) Approved	HA PLny001		Kitwanga Backroad 22.3km	Not reported
196(2) Approved	HA PLro001		HA Rocher South 1.8km, R1 Access	Not reported
196(2) Approved	HA PLro002		HA Rocher North 3.1km, R3 Access	Not reported
196(2) Approved	HA PLsi001		FSR 09537.02 Damsumlo 42.8km	Not reported
196(2) Approved	HA PLsi002		HA PLsi001 4.3km	Not reported
196(2) Approved	HA PLsi003		FSR 09537.02 Damsumlo 55km	Not reported
196(2) Approved	HA PLsi004		HA PLsi003 1.1km	Not reported
196(2) Approved	HA PLsi005		HA PLsi004 2.1km	Not reported
196(2) Approved	HA PLsi006		FSR 09537.02 Damsumlo 57km	Not reported
196(2) Approved	HA PLsi007		HA PLsi006 1.8km	Not reported
196(2) Approved	HA PLsi008		D291 Access, Bridge Main ext	Not reported
196(2) Approved	HA PLsi009		D246 Access R02415.16 ext	Not reported
196(2) Approved	HA RP access A53641		Road permit road A53641	Not reported
Block Declared	A53645	1	Miscellaneous Hazelton Area	093M032
Block Declared	A53645	2	Miscellaneous Hazelton Area	093M032
Block Declared	A53647	1	Cranberry	103P057
Block Declared	A53648	1	Juniper	093M002
Block Declared	A53659	1	Date Creek	093M041
Block Declared	A55764	1	Date Creek	093M031
Block Declared	A56709	1	Date Creek	093M041

Block Declared	A56824	1	Date Creek	93M041
Block Declared	A56885	1	Date Creek	093M031
Block Declared	A59463	1	Helen Lake	093M051
Block Declared	A59757	1	Helen Lake	093M041
Block Declared	A59758	1	Muldoe	093M061
Block Declared	A59760	1	Muldoe	093M062
Block Declared	A60103	1	Muldoe	093M062
Block Declared	A61414	1	Date	093M032
Block Declared	A61415	1	Date	093M042
Block Declared	A64007	1	Cranberry	103P057
Block Declared	A67001	1	Dennison	093M035
Block Declared	A67702	A	Nash-Y	093M011
Block Declared	A67762	1	Date	93M031
Block Declared	A69880	2	Muldoe	093M052
Block Declared	A69880	1	Muldoe	093M052
Block Declared	A69992	1	Helen	103P060
Block Declared	A69996	A	Helen	103P060
Block Declared	A81855	1	Date	093M041
Block Declared	A82166	B	Helen	103P060
Block Declared	A82166	1	Helen	103P060
Block Declared	A82729	1	Dennison	093M034

Block Declared	A82730	1	Dennison	093M034/044/045
Block Declared	A84408	001	Dennison	093M034
Block Declared	A84420	001	Dennison	093M045
Block Declared	A84943	1	Helen	093M041
Block Declared	A84945	1	Date	93M042
Block Declared	A86212	1	Date	093M041
Block Declared	A88763	1	Muldoe	093M052

Appendix III – Issued Road Permits

Permit ID	Section ID
R21543	1,2,3
R21542	1
R21250	A,B
R21005	1
R20770	A,B
R20564	1
R18100	A

Appendix IV – Issued Timber Sale Licences

Licence ID	Management Unit
A67702	Kispiox TSA
A67762	Kispiox TSA
A59760	Kispiox TSA
A61414	Kispiox TSA
A61415	Kispiox TSA
A69880	Kispiox TSA
A64007	Kispiox TSA
A59758	Kispiox TSA
A75288	Kispiox TSA
A91529	Kispiox TSA

Appendix V – FSP Maps (1:50,000 scale)

Maps are attached

Appendix VI – Watershed Integrity Matrix

Watershed Integrity Matrix (modified from KEWP recommendations)

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
15 Mile	▪ Mass Wasting ▪ Temperature		▪ Channel Assessment (15 mile road) ▪ Assess Bridge Removal ▪ WQEE
Aluk	▪ Surface Erosion ▪ Temperature	▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves ▪ Road Review
Andi	▪ Peak Flow ▪ Riparian ▪ Surface Erosion	▪ Watershed Assessment ▪ ECA (22.1%)	▪ Fish inventory ▪ WQEE ▪ Road Review
Atna	▪ Surface Erosion		▪ WQEE
Babine E	▪ Temp	▪ Riparian Reserves	▪ Riparian Assessment/Reserves
Babine N	▪ Temp	▪ Riparian Reserves	▪ Riparian Assessment/Reserves
Babine S	▪ Surface Erosion	▪ Gentle-Over-Steep Report	▪ WQEE
Babine SW	▪ Not evident		▪ Review gentle over steep risk factors, sedimentation
Big Slide			▪ WQEE ▪ Review gentle over steep risk factors – eastern sub-basin,
Blackstock	▪ Surface Erosion ▪ Peak Flow ▪ Mass Wasting		
Borden	▪ Peak Flow ▪ Surface Erosion	▪ Terrain Stability ▪ Riparian Reserves ▪ ECA (21.7%)	▪ Riparian Assessment/Reserves ▪ WQEE ▪ Review gentle over steep risk factors – block in center of unit
Boulder	▪ Surface Erosion ▪ Mass Wasting	▪ Maintain Riparian Reserves between Price and Boulder ck	
Bretson	▪ Surface Erosion ▪ Temperature	▪ Riparian Reserves	▪ Riparian Assessment/Reserves ▪ WQEE
Brown Paint	▪ Surface Erosion ▪ Riparian	Riparian Reserves	▪ Riparian Assessment/Reserves ▪ WQEE
Burdick	▪ Surface Erosion ▪ Riparian	▪ Watershed Assessment ▪ Riparian Reserves	▪ WQEE ▪ Road Deactivation
Calamity		▪ Terrain Stability	
Carrigan	▪ Surface Erosion ▪ Riparian	▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
Cataline	▪ Peak Flow ▪ Surface Erosion ▪ Riparian Buffer	▪ Riparian Reserves ▪ Gentle-Over-Steep Report	▪ Road Review ▪ WQEE ▪ Fish Inventory. ▪ Riparian Assessment/Reserves
Chicago	▪ Surface Erosion ▪ Riparian Buffer	▪ Fan Assessment	
Clifford	▪ Riparian Buffers ▪ Surface Erosion ▪ Peak Flow ▪ Temperature	▪ ECA (22.5%) ▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves
Corral	▪ Surface erosion ▪ Riparian ▪ Peak Flow ▪ Temperature	▪ ECA (25.4%) ▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves
Cranberry	▪ Mass Wasting	▪ Riparian Reserves	▪ WQEE ▪ Road Deactivation ▪ Riparian Assessment/Reserves
Cranberry West	▪ Riparian Buffers ▪ Surface Erosion ▪ Peak Flow ▪ Mass Wasting	▪ Terrain Stability Assessment.	
Cranberry East	▪ Riparian Buffers ▪ Surface Erosion ▪ Peak Flow ▪ Mass Wasting	▪ Gentle-Over-Steep Report	▪ Road Deactivation (as per WRP)
Cullon	▪ Surface erosion ▪ Riparian Buffers ▪ Peak Flow ▪ Temperature	▪ Riparian Reserves	▪ CAP (Cullon Creek main-stem). ▪ Riparian Assessment/Reserves ▪ WQEE
Cutoff	▪ Riparian Buffer	▪ Gentle-Over-Steep Report	▪ WQEE ▪ Road Review
Damsumlo	▪ Surface Erosion		▪ Road Review
Date	▪ Riparian Buffers ▪ Mass Wasting	▪ Gentle-Over-Steep Report ▪ Riparian Reserves	▪ Riparian Assessment/Reserves
Deep Canoe	▪ Surface	▪ Gentle-Over-Steep	▪ WQEE

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
	Erosion	Report	▪ Stream Temperature Assessment
Deep Canyon	▪ Surface Erosion	▪ Terrain Stability Assessment	▪ WQEE ▪ CAP
Denison	▪ Surface Erosion ▪ Riparian Buffer ▪ Mass Wasting		▪ Road Review
Derrick	▪ Surface Erosion ▪ Riparian Buffers		▪ WQEE ▪ Road deactivation
Douse	▪ Surface Erosion ▪ Riparian Buffers	▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves
East Kispiox			
East Kuldo		▪ Gentle-Over-Steep Report	▪ Road Review
Flint	▪ Surface Erosion ▪ Riparian Buffer ▪ Mass Wasting	▪ Gentle-Over-Steep Report	▪ WQEE ▪ Road Review
Gail			▪ Fish inventory ▪ Road review of upper crossing.
Ginmiltkun			▪ Road Review
Goathead	▪ Mass Wasting		▪ Road Review (mid-watershed spur off Shedin FSR. Assess stream crossing and sediments).
Hanawald			
Hazelton	▪ Surface Erosion ▪ Riparian Buffer	▪ Watershed Assessment ▪ Terrain Stability Assessment ▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves ▪ Road Deactivation
Hazelton East	▪ Peak Flow ▪ Surface Erosion ▪ Mass Wasting ▪ Riparian Buffer		
Hevenor	▪ Peak Flow ▪ Surface Erosion	▪ Gentle-Over-Steep Report	▪ Road Review
Iltzul	▪ Surface Erosion ▪ Mass Wasting	▪ Watershed Assessment	▪ WQEE
Insect			▪ WQEE

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
Ironside	▪ Surface erosion ▪ Riparian Buffers ▪ Peak Flow ▪ Temperature	▪ ECA (23.6%) ▪ Riparian Reserves	▪ Riparian Assessment/Reserves ▪ WQEE
Java	▪ Mass Wasting ▪ Surface Erosion	▪ Terrain Stability Assessment	▪ WQEE ▪ Review gentle over steep risk factors
Juniper	▪		▪ Road Review
Kiteen	▪ Surface Erosion ▪ Riparian Buffers	▪ Terrain Stability Assessment	▪ CAP ▪ Road Deactivation ▪ WQEE
Kits	▪ Peak Flow ▪ Surface Erosion ▪ Mass Wasting ▪ Riparian Buffer		
Kitsegeukla	▪ Riparian Buffers ▪ Surface Erosion ▪ Peak Flow	▪ Terrain Stability Assessment ▪ ECA (24.1%)	
Kitsegeukla East	▪ Riparian Buffers ▪ Peak Flow	▪ Gentle-Over-Steep Report	▪ WRP review ▪ Review gentle over steep risk factors – harvesting below road
Kitsuns	▪ Mass Wasting	▪ Gentle-Over-Steep Report	▪ Gulley Assessment
Kitwancool		▪ Terrain Stability Assessment	▪ CAP
Kuldo Mountain	▪ Surface Erosion		▪ Road Review ▪ WQEE
Kuldo North			
Larkworthy			▪ Road Review
Laura			▪ Review of Class IV that has been logged or roaded.
Leclair	▪ Surface Erosion ▪ Mass Wasting	▪ Detailed (Site Level) Drainage Plan	▪ Road Review
Lorne		▪ Terrain Stability Assessment ▪ Gentle-Over-Steep Report	
Lower Kispiox	▪ Surface erosion ▪ Riparian Buffers		▪ WQEE ▪ Road Review

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
	▪ Peak Flow ▪ Temperature		
Lower Kitwanga	▪ Peak Flow ▪ Surface Erosion ▪ Riparian Buffer		▪ Review WRP. ▪ CAP
Lower Kuldo	▪		▪ Road Review
Lower Shedin			▪ Long term access review ▪ Road Review ▪ WQEE
Lower Shelagyote		▪ Detailed (Site Level) Drainage Plan	▪ WQEE
Lower Sicintine	▪ Mass Wasting	▪ Detailed (Site Level) Drainage Plan ▪ Terrain Stability Assessment	▪ Fish Inventory ▪ Road Review
Lower Suskwa	▪ Surface Erosion ▪ Riparian Buffers ▪ Mass Wasting	▪ Fan Assessment (Skilokis Creek)	▪ CAP on mainstem ▪ Road Review
Luno	▪ Surface Erosion ▪ Riparian	▪ Riparian Reserves	▪ WQEE ▪ Riparian Assessment/Reserves
Madii Lii	▪ Peak Flow ▪ Surface Erosion ▪ Riparian Buffer ▪ Mass Wasting		▪ WQEE ▪ Road Deactivation (Parker Mainline)
McCully	▪ Mass Wasting		▪ Review gentle over steep risk factors
McKnight	▪ Riparian Buffers ▪ Surface Erosion		▪ Road Review ▪ WQEE
Mill	▪ Riparian Buffer	▪ Riparian Reserves	▪ WQEE ▪ Road Review ▪ Riparian Assessment/Reserves
Moonlit	▪ Riparian Buffer	▪ Fan Assessment	▪ CAP ▪ Review gentle over steep risk factors
Nangeese	▪ Mass Wasting ▪ Riparian Buffers	▪ Riparian Reserves	▪ CAP ▪ Fish Inventory
Natlan	▪ Surface Erosion ▪ Mass Wasting	▪ Terrain Stability Assessment	▪ WQEE ▪ CAP
Nine mile	▪ Mass Wasting ▪ Temperature	▪ Terrain Stability Assessment	

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
O'dwyer			
Oliver		▪ Detailed (Site Level) Drainage Plan	▪ Road Review
Poison			
Porphyry	▪ Riparian Buffer	▪ Terrain Stability Assessment	
Price	▪ Mass Wasting		▪ Road review ▪ Review gentle over steep risk factors
Quill		▪ Gentle-Over-Steep Report	
Roche	▪ Surface erosion		▪ WQEE
Rosenthal		▪ Detailed (Site Level) Drainage Plan	▪ Road Review ▪ WQEE ▪ Review gentle over steep risk factors
Sam Green			▪ Review gentle over steep risk factors
Sedan		▪ Terrain Stability Assessment	
Sediesh	▪ Mass Wasting	▪ Terrain Stability Assessment.	
Shahnagh	▪ Riparian Buffer		
Shandilla	▪ Surface Erosion ▪ Riparian Buffer ▪ Mass Wasting	▪ Gulley Assessment	▪ WQEE
Shedin East			▪ Road Review. ▪ WQEE
Shegisic			▪ Road Review. ▪ WQEE ▪ Review gentle over steep risk factors
Shegunia	▪ Mass Wasting		▪ Fish Habitat Review
Sheladamus		▪ Terrain Stability Assessment	
Shelly East			
Shelly West			
Shewililba	▪ Surface Erosion	▪ Terrain Stability Assessment	
Sidina	▪ Riparian Buffer ▪ Mass Wasting	▪ Terrain Stability Assessment	
Sik-E-Dak	▪ Surface Erosion ▪ Riparian Buffer ▪ Mass Wasting		
Smokee	▪ Surface		▪ Road Review

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
	Erosion		
Sperry	▪ Riparian Buffer	▪ Detailed (Site Level) Drainage Plan – see comments	▪ Road Review ▪ WQEE ▪ Review gentle over steep risk factors
Steep Canyon	▪ Riparian Buffers	▪ Riparian Reserves	▪ Riparian Assessment/Reserves
Sterritt	▪ Surface Erosion ▪ Riparian Buffers ▪ Mass Wasting	▪ Terrain Stability Assessment	
Swan Lake			
Sweetin			▪ CAP (lower portion)
Tea	▪ Peak Flow ▪ Surface Erosion ▪ Riparian Buffer	▪ Riparian Reserves	▪ WQEE ▪ CAP ▪ Riparian Assessment/Reserves ▪ Road Review
Thomlinson	▪ Mass Wasting		▪ WQEE ▪ Road Review
Tommy Jack	▪ Mass Wasting ▪ Surface Erosion	▪ Detailed (Site Level) Drainage Plan ▪ Terrain Stability Assessment	▪ Fish Inventory
Tsugwinselda	▪ Surface Erosion		▪ WQEE ▪ Road Deactivation
U. Suskwa	▪ Channel Stability	▪ Fan Assessment	▪ CAP
Upper Kispiox			
Upper Kitwanga	▪ Temperature ▪ Surface Erosion		▪ WQEE ▪ Road Deactivation ▪ WAP for upper Kitwanga mainstem above lower fan.
Upper Kuldo	▪ Mass Wasting		
Upper Nichyeskwa	▪ Surface erosion		▪ WQEE
Upper Shedin	▪ Surface erosion	▪ Detailed (Site Level) Drainage Plan	▪ Road Review
Upper Shelagyote		▪ Detailed (Site Level) Drainage Plan	▪ Road Review ▪ WQEE
Upper Sicintine	▪ Mass Wasting	▪ Detailed (Site Level) Drainage Plan	▪ Fish Inventory ▪
Upper Skeena			
Utsun	▪ Riparian	▪ Terrain Stability	

Watershed (Column A)	Risk Indicators (Column B)	Required Licensee Assessments (Column C)	Referred to Watershed Management Working Group (Column D)
	Buffer	Assessment	
Weber	▪ Mass Wasting	▪ Terrain Stability Assessment ▪ Fan assessment.	
West Kitsuns	▪ Mass Wasting	▪ Terrain Stability Assessment	▪ Road Deactivation
Willow Flat			▪ Road Review
Wilson	▪ Surface Erosion ▪ Riparian Buffer ▪ Mass Wasting	▪ Terrain Stability Assessment	▪
Xsan	▪ Peak Flow ▪ Surface Erosion ▪ Riparian Buffer		

Appendix VII – Fourth (4th) Order Watersheds in the Kispiox TSA

Appendix VIII – Stream and Riparian Management Decision Key – S4, S5, and S6 Streams