

Clinton and District
Community Forest of BC Ltd.

Forest Stewardship Plan - 719

Community Forest Agreement – K4F

Pertaining to the Clinton Community Forest

100 Mile House Forest District

Draft of October 7, 2020



Plan prepared by:	Holder, Authorized Signature:
 <p><u>June 10, 2020</u> Date</p>	 <p><u>Steve Law, RPF</u> <u>June 10, 2020</u> Date</p>

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Introduction

The **Holder** of this **Forest Stewardship Plan (FSP)** is Clinton and District Community Forest of BC Ltd. The Tenure number is Community Forest Agreement K4F. The **Forest Stewardship Plan** is comprised of one Forest Development Unit (FDU). FDU 1 covers an area of 62,374 hectares in the vicinity of Clinton within the 100 Mile Natural Resource District.

The **Forest Stewardship Plan** identifies government set objectives, including those from the **Cariboo Chilcotin Land-Use Plan (CCLUP)**, **CCLUP** Land Use Order enacted in 2010 including subsequent Amendments, and the Sustainable Resource Management Plan (**SRMP**) and provides a landscape-level view of how the **FSP Holder** intends to implement the goals and objectives contained in the various strategic land use plans that cover the area of proposed operations. The key sections of the **FSP** indicate how the **FSP Holder** will achieve consistency with government set and **CCLUP** objectives through strategies and expected results. The 100 Mile **SRMP** was considered in the creation of strategies and results.

Definitions and Acronyms

AAC - means Allowable Annual Cut.

Access Control - means a barrier located on a road which makes the road beyond the access control point impassable with a motor vehicle, excluding motorcycles, as defined under the Motor Vehicle Act. Types of access control include, but are not limited to, gates, cement blocks, deep trenches, ripping the road surface for greater than 200 meters where practicable, or the piling of debris on the road.

Adjacent to - means an area that is sufficiently close to the cutblock that the wildlife trees could directly impact on, or be directly impacted by, a forest practice carried out in the cutblock.

AUM - Animal Unit Month, unit of measure for range use.

BA - Basal area. The area of a given section of land that is occupied by the cross-section of tree trunks and stems at the base.

Backcountry - Backcountry is defined as a combination of the following Recreation Opportunity Spectrum (ROS) experiences: Semi-Primitive Motorized, Semi-Primitive Non- Motorized, and Primitive. **CCLUP** 90-Day Report p. 144.

Blowdown - Trees knocked over or uprooted by wind including boles snapped off above the roots.

BMU - or Beetle management unit - means a management area, within which a landscape level beetle management strategy, as defined by Forests, Lands, Natural Resource Operations (**FLNRORD**), is implemented.

Careful sanitation harvest practices - means harvesting with the following requirements:

- a. A mark-to-cut system must be used to target currently infested trees only for harvest.
- b. A detailed ground-based survey must be completed before harvesting.
- c. To the extent practicable, skid trails must be <5 meters (m) wide and use existing trails where they are present.
- d. No new landings can be constructed within an Old Growth Management Area (OGMA). Roads can only be constructed within an OGMA where no other practicable option exists.
- e. Within OGMAs, old attack (grey or red non-infested trees) must be left on site when they are required to be felled due to safety concerns.
- f. Excluding roads, trails and landings, limit the harvest or damage of non-infested trees to 10% of the total volume of currently infested stems to be removed.
- g. All harvesting and removal must be completed before April 1st.
- h. Stumps must be 30 centimeters (cm) or lower on the uphill side.
- i. All large fresh debris (> 2m long and > 20 cm in diameter) that could attract or harbour bark beetles must be removed, de-barked or burned, before April 1st.

CCLUP - *Cariboo Chilcotin Land-Use Plan*, declared a Higher Level Plan on Jan 23, 1996.

CDCF - Clinton and District Community Forest of BC Ltd.

Community Watershed - means a watershed:

- a) Established under section 41 (8) to (13) [approval of plans by the District Manager or designated environment official],
- b) Continued under section 180 (e) [grandparenting specified designations] of the *FRPA*, or
- c) Designated under a Government Actions Regulation.

Co-dominant - means the main layer of tree cover, composed of trees whose crowns form the upper layer of foliage; typically, the major portion of the stand composition.

CWPP - means a *Community Wildfire Protection Plan*.

Deactivation or **Deactivate** - means a road activity that includes removing bridges and stream culverts, stabilizing the road prism, and barricading the road surface width in a clearly visible manner to prevent access by motor vehicles, other than All Terrain Vehicles;

Disturbance - means a discrete event that changes the amount of resources and/or the physical environment of an ecosystem, which may be natural or human-caused;

Dominant Trees - means the dominant (tallest) trees of the main canopy, which may be veterans of one or more fires, or the tallest trees of the same age class as the main canopy; usually a minor portion of the stand composition.

Equivalent Clearcut Area (ECA) - is a forest management term used to describe the total area within a watershed which functions in a similar fashion hydrologically to a clearcut opening, accounting for a recovery factor based on the stage(s) of forest regeneration. The *QRP* determines the methodology for calculating the *ECA*, considering methodologies adopted by other *FSP Holders* who operate within the same Fisheries Sensitive Watershed. The methods to be used to

determine *ECA* are described in Appendix 2 of the Coastal Watershed Assessment Procedure Guidebook (CWAP) Interior Watershed Assessment Procedure Guidebook (IWAP) Second Edition Version 2.1 April 1999⁴, or a *QRP* defines the specific assumptions and approaches utilized in developing the *ECA* calculation. *ECA*s will be calculated using the most up to date data within the Forest Tenures Administration System and in collaboration with adjacent licensees, where practicable. The methodology will be made available upon request to *FLNRORD*.

Essential for insect control - means where harvest is essential to curtail severe damage to forest values at the landscape level in a *BMU* classified as suppression in the most recent District forest health strategy for that insect pest, and

- a. There are >75 trees in an infestation site(s) and careful sanitation harvest practices are conducted only within the infestations site(s), or
- b. There are 15-75 trees in an infestation site(s) and careful sanitation harvest practices are conducted only within the infestation site(s), after trap trees have first been used to the extent possible and where effective.

FDU - Forest Development Unit as detailed in this *Forest Stewardship Plan (FSP)*.

Fibre delivery - means the removal, by motor vehicle, of logs, chip or other products from trees, under a cutting authority or licence, to a designated scale site.

FPPR - *Forest Planning and Practices Regulation*. B.C. Reg. 124/2018 effective January 31, 2004. Consolidated to November 6, 2018.

FRPA - *Forest and Range Practices Act*. [SBC 2002] Chapter 69, 3rd Edition. Current to October 24, 2018.

FSP - referring to this Forest Stewardship Plan.

FSP Holder or “holder” - means the Forest Act agreement holders listed in this Forest Stewardship Plan (FSP), or any successor or assignee of that agreement, unless this FSP no longer applies to that agreement holder.

High Value Moose Wetland Management Zone (HVMWMZ) - is an area surrounding a High Value Moose Wetland measured from the riparian edge of the wetland and with a width of 200 meters (slope distance).

High Value Moose Wetland - is as defined in the *Cariboo-Chilcotin Land-Use Plan* Land Act Section 93.4 Ministerial Order, dated April 18, 2011, spatial data set: Cariboo-Chilcotin High Value Wetlands for Moose.

High Value Wildlife Tree - means a tree over 37.5 cm dbh among the residual conifer species or over 20 cm dbh for deciduous species, and that falls within one of the wildlife tree classes of 2 through 8 as shown in LUO table 1.

Infestation site - means a contiguous bark beetle infestation of trees which includes all currently infested trees that are separated by no more than 50m from any other currently infested tree or trees.

Interface Fuel Break – means fuel breaks where treatments are authorized by the District Manager to address protection of property and public safety by reducing the risk of ignition and spread of wildfire in key areas *adjacent to* the community.

Information Sharing process - means a process of interacting with either: a **Potentially Affected First Nation** through a referral process or through a referral system or portal as requested by a **Potentially Affected First Nation; and / or a Licensed Tenure Holder, Stake holder or Rights holder**.

Known - items communicated to CDCF from the **Designated Decision Maker (DDM)** or a District Manager through written correspondence or electronic media.

Ladder fuels - means combustible material that provide vertical continuity between the surface fuels and crown fuels in a forest stand, (e.g. tall shrubs, small-sized trees, bark flakes, tree lichens).

LUO - Land Use Order - Ministry of Agriculture and Lands, Integrated Land Management Bureau, Ministerial Order, May 2011, Land Use Objectives for the *Cariboo-Chilcotin Land Use Plan (CCLUP)* Area including subsequent Amendments current to September 2018.

LUO Map (s) - Mapping data set referenced in the **FSP** that contains the map information for the *Cariboo-Chilcotin Land Use Plan* Land Use Order as approved in May 2011, including subsequent Amendments.

M+O seral target area - means the target for the minimum amount of mature seral or older forest present in a seral assessment unit, which is determined by the applicable target % in Table 2 multiplied by the total productive forest area of the seral assessment unit.

Mature plus old seral deficit unit (M+O deficit unit) - means a seral assessment unit where, at the time of submission of proposed harvest for approval, the amount of mature seral or older forest present in a seral assessment unit is less than the M+O seral target area, based on stand age in the most current forest inventory, and accounting for all completed and approved harvesting and wildfire impacts that are not reflected in the most current forest inventory.

Mature recruitment area - means a less than mature seral aged stand in a M+O deficit unit that is designated by any **FSP Holder** and submitted to **FLNRORD** as being reserved from harvest to allow sufficient recruitment into mature seral age, until the seral assessment unit is no longer in M+O seral deficit. The sufficient amount of mature recruitment area is calculated after first accounting for all forest less than mature seral age in No-harvest areas in the seral assessment unit. Mature recruitment areas are selected from stands:

- a) in order of priority from oldest to youngest available, and
- b) displaying stand attributes most conducive to regaining mature seral condition as soon as possible, and
- c) that contribute to achieving or trending towards patch size target ranges outlined in Table 3 for the applicable NDT/BEC unit. See Table in Section 5.5.5.

Mature seral or older forest - means Mature Plus Old stand age as defined in Table 2 for the applicable BEC zone. See Table in Section 5.5.5.

MDWR - Mule Deer Winter Range. Management plans for managing Mule Deer Winter Ranges include the Management Strategy for Mule Deer Winter Ranges in the Cariboo-Chilcotin. Part 1a: Management Plan for Shallow and Moderate Snowpack Zones; Part 1b: Management Plan for Transition and Deep Snowpack Zones; Part 2: Long-term Habitat Objectives Map for Individual Winter Ranges; and Part 3: Transition Harvest Opportunities.

FLNRORD - Ministry of Forests, Lands, Natural Resource Operations and Rural Development.

Moose Management Unit (MMU) - means an area surrounding a W1, W3, W5 or shrub-carr wetland not identified as a High Value Moose Wetland. The Moose Management Unit is an area with a width of 100 metres (slope distance) applied from the riparian edge of a W1, W3, W5 or shrub-carr wetland.

No-harvest area - means an area of land other than a park, protected area or ecological reserve, where ***primary forest activities*** are not permitted unless otherwise specified in objectives in the *Cariboo-Chilcotin Land-Use Plan Land Act Section 93.4 Ministerial Order (2011)(CCLUP LUO)*.

Old seral - means forest stands which meet the required ages by BEC zone and NDT as listed in Table 1.

Table 1 – Minimum ages for old seral forest stands

BEC Zone	NDT	Age (in years)
ICH, ESSF, MS, SBS, SBPS	3	> 140
IDF(pine group), BG (pine group)	4	> 140
MH, CWH, SBS, ICH, ESSF	1+2	> 250
IDF (fir group), BG (fir group)	4	> 250

Overtopped crown classes - means trees with crowns entirely below the general level of the crown cover receiving little or no direct light from above or the sides.

Post-Harvest - means after road construction and/or harvesting activities are completed.

Potentially Affected First Nations - are those aboriginal groups, aboriginal people, and First Nations who have identified areas of interest (as defined by the Consultative Areas Database or equivalent government system or government staff direction) that overlap the proposed area where ***primary forestry activities*** under this ***FSP*** are planned to occur or occur.

Pre-Harvest - means prior to, or during, forestry activities occurring on the site;

Primary Forest Activity (ties) - as defined in the *Forest Planning and Practices Regulation*

(*FPPR*) *Section 1*, means one or more of the following:

- a. Timber harvesting (excluding Fibre delivery);
- b. Silviculture treatments;
- c. Wildlife habitat enhancement, or
- d. Road construction, maintenance and **deactivation**.

Primary Fuel Break – means a strategic landscape level fuel break outside the interface area, approved by the **FLNRORD** District Manager for the purpose of influencing wildfire behavior and facilitating fire-fighting activities.

Primary Old Seral Forest Characteristics – for the purpose of an **interface or primary fuel break**, large (>37.5 cm dbh) and very large (>57.5 cm dbh) trees, large coarse woody debris, and dead and declining trees where they do not represent a significant safety hazard.

Qualified Registered Professional (QRP) - means an individual who is a registered member in good standing of a professional association whose education, training, and experience make that member professionally competent in the relevant area of practice.

Stake-holder(s) and / or tenure holder(s) - means a group or individual that holds a tenure with the BC Government - e.g. Trapper, Guide Outfitter, Range Permittee, Water License holder.

Stand attributes - means amounts and characteristics, consistent with the BEC subzone and variant, for large living trees, standing dead trees, coarse woody debris, tree species diversity, and structural diversity, as described in Appendix 5 of the Biodiversity Guidebook (1995). The minimum ages for **Old seral** forest stands are as follows:

BEC Zone	NDT	Age (in years)
ICH, ESSF, MS, SBS, SBPS	3	>140
IDF(pine group), BG (pine group)	4	>140
MH, CWH, SBS, ICH, ESSF	1+2	>250
IDF (fir group), BG (fir group)	4	>250

Scenic area - per *CCLUP* Land Use Order Objective 26 spatial datasets.

Seral assessment unit - means an area unit generated by the overlay of:

- a) landscape units (LUs) and biodiversity emphasis objective (BEO) defined in the Cariboo- Chilcotin Land-Use Plan Land Act Order spatial data set: Cariboo-Chilcotin Landscape units, and
- b) the accompanying most current government endorsed Biogeoclimatic Ecosystem Classification (BEC), and
- c) the LU/BEC amalgamations listed at https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-region/cariboochilcotin-rlup/biogeoclimatic_unit_amalgamation_table_2007.pdf, and
- d) a current productive forest landbase dataset.

Suppression - means a bark beetle control strategy as identified in the most recent district forest health strategy that is designed to reduce or keep the outbreak to a size and distribution that can be handled by treating 80% or more of the infestations found on the most current aerial overview inventory.

Visual Screening - means vegetation and/or topography providing visual obstruction that makes it difficult to see into adjacent areas from the roadbed.

Wetland - means a swamp, marsh, or other similar area that has both:

- a) hydrophytic vegetation, characterized by the predominance of plant species that normally grow in standing water or in soils that are water-saturated for all or a major portion of their growing season; and
- b) subhydric or hydric soils, distinguished by free water or prolonged saturation, evidenced by dull gray gleyed horizons, within 30 cm of the mineral surface or by sedge or moss peat over mineral soils.

Wildlife Habitat Feature (WHF) - as established by the minister responsible for the Wildlife Act under the authority of section 11 of the Government Actions Regulation.

Under this authority the minister may identify any or all of the following as a wildlife habitat feature:

- (a) a fisheries sensitive feature;
- (c) a significant mineral lick or wallow;
- (d) a nest of
 - (i) a bald eagle
 - (ii) an osprey
 - (iii) a great blue heron
 - (iv) a category of species at risk that is limited to birds;
- (e) any other localized feature that the minister responsible for the Wildlife Act considers to be a wildlife habitat feature.

Windfirm - a single or stand of trees that retains the ability to withstand strong winds and thus resist overturning (i.e. to resist windthrow, windrocking, and major breakage).

Wildlife Tree Retention Area (WTRA) - means an area occupied by wildlife trees that is:

- a) Representative of the *pre-Harvest* stand condition based on vegetation inventory information or group of trees that provide wildlife habitat.
- b) In a cutblock, or
- c) In an area that is contiguous to a cutblock, or
- d) In an area that is sufficiently close to the cutblock that the wildlife trees could directly impact on, or be directly impacted by, a forest practice carried out in the cutblock.
- e) A Wildlife Tree Retention Area;
- f) The area of wildlife trees retained within a Cutting Permit or cutblock based on the following formula:

$$\text{Area} = \frac{(\text{Gross Block Area of the CP/Cutblock}) * (\text{Basal Area Reserved from Harvesting})}{(\text{Original Basal Area of the CP/Cutblock})}$$

WUI - Wildland Urban Interface. Any area where combustible wildland fuels (vegetation) are found *adjacent to* homes, farm structures, other outbuildings or infrastructure. This may occur in the interface where development and fuels meet at a well-defined boundary or the intermix, where development and fuels intermingle and have no clearly defined boundary. In B.C. the **WUI** is the area within 2 kilometers of a community with a minimum density of 6 structures per square kilometer. Fire hazard reduction, fuel mitigation planning and FireSmart activities will be focused primarily within the **WUI**, consistent with fire behavior principles.

Wildland Urban Interface area - Wildland Urban Interface zones spatially defined by *FLNRORD* and in the Cariboo-Chilcotin Regional Investment Plan 2017.

Acronyms

Acronyms used in this Forest Stewardship Plan:

- AUM – Animal Unit Month
- BEC - Biogeoclimatic Ecosystem Classification
- BMU – Beetle Management Unit
- CCLUP – Cariboo-Chilcotin Land Use Plan
- CP - Cutting Permit
- CDCF - Clinton and District Community Forest of BC Ltd.
- DBH – Diameter at Breast Height
- DDM – Delegated Decision Maker
- Development Plan FDU – Forest Development Unit
- FDP – Forest Development Plan
- FLNRORD – Ministry of Forests, Lands, Natural Resource Operations and Rural Development
- FPC - Forest Practices Code of British Columbia Act R.S.B.C. 1996, c. 159 and all regulations there under.
- FPPR – Forest Practices and Planning Regulation
- FRPA – Forest and Range Practices Act
- FSP – Forest Stewardship Plan
- GAR - Government Actions Regulation B.C. Reg. 582/2004
- GWM – General Wildlife Measure
- LAO (LUO) – Ministry of Agriculture and Lands, Integrated Land Management Bureau 93.4 Land Act Ministerial Order, Land Use Objectives for the Cariboo-Chilcotin Land Use Plan (CCLUP) Area dated April 18, 2011 and signed May 24, 2011
- MA - Ministry of Agriculture.
- MoE - Ministry of Environment.
- NDT – Natural Disturbance Type
- NSR – Not Satisfactorily Restocked
- OGMA – Old Growth Management Area
- RESULTS – Reporting Silviculture Updates and Land Status Tracking System
- RP - Road Permit
- RRZ – Riparian Reserve Zone
- RMZ – Riparian Management Zone

RMA – Riparian Management Area
SRMP – Sustainable Resource Management Plan
TSA - Timber Supply Area
VQO – Visual Quality Objective
WHA – Wildlife Habitat Area
IWMS – Identified Wildlife Management Strategy
LMZ – Lakeshore Management Zone
LU – Landscape Unit

Administration

3.1 Plan Dates

Commencement date.

The plan commencement date is the date of approval of the *FSP*.

3.1.1 Term of Plan.

The requested term of the plan is five (5) years from the commencement date.

3.1.2 Holder of Plan.

The *Holder* of the Plan is Clinton and District Community Forest of BC Ltd.

3.2 Application

3.2.1 Tenure

This *Forest Stewardship Plan* applies to the following tenure held by Clinton and District Community Forest of BC Ltd.:

- 1) Community Forest Agreement K4F (100 Mile House Forest District) - AAC of 20,000 m³ for 25 years.

3.2.2 Forest Development Units (FDU)

There is one Forest Development Unit (FDU) proposed under this *FSP* on the date of submission.

The outer boundary of this FDU is shown on the map referenced in Appendix 1. FDU 1 is located within the 100 Mile House Natural Resource District.

FDU 1 excludes all private land, federal land, woodlot licences, other Community Forest Agreement areas, ecological reserves and all other areas where harvesting under the authority of the tenure listed in 3.2.1 is forbidden, whether or not these areas are indicated on maps available for this *FSP*. The following table identifies the *CCLUP* zone which is overlapped by the FDU proposed under this *FSP*.

Table 3.2.2: Development Zones and Landscape Units included within FDU 1:

CCLUP – ERDZ*	CCLUP – IRMZ*	CCLUP – SRDZ*
E10 Gustafson	I-G Clinton	I Marble Range
E11 Loon		

* ERDZ – Enhanced Resource Development Zone; IRMZ – Integrated Resource Management Zone; SRDZ – Special Resource Development Zone.

Development Zone:	Landscape Units:
Marble Range SRDZ	Big Bar, Chasm, Clinton, Kelly Lake.
Clinton IRMZ	Chasm, Clinton, Kelly Lake, Loon.
Gustafson ERDZ	Big Bar, Chasm, Clinton.
Loon ERDZ	Chasm, Loon.

3.2.3 Transition

No Transitional *FSP* was submitted.

3.2.3.1 Forest Development Plans.

No forest development plan existed for the Community Forest Agreement tenure listed in section 3.2.1.

Objectives Prescribed by Government in the *FPPR*.

Objectives come from the *Forest and Range Practices Act*, *Forest Planning Practice Regulation*, the *Cariboo-Chilcotin Land Use Plan*, the 2005 summary of *CCLUP* Legal Requirements, Land Act Order - *CCLUP* May 2011 Implementation Direction, the 100 Mile *SRMP* and *DDM* Expectation documents.

The definition of a result and strategy are:

Strategy means a description of:

- a) measurable or verifiable steps or practices that will be carried out in respect of a particular established objective, and
- b) the situations or circumstances that determine where in a forest development unit the steps or practices will be applied.

Result means a description of:

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

4.4 Cultural Heritage Resources.

Objective 4	Source of Objective
<p>The objective set by government for cultural heritage resources “CHRs” is to conserve, or, if necessary, protect cultural heritage resources that are:</p> <p>(a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and</p> <p>(b) not regulated under the <i>Heritage Conservation Act</i>.</p>	<p><i>FPPR Sec 10.</i></p>
<p><u>Definitions:</u></p> <p>“Affected Cultural Heritage Resource (Affected CHR)” means a <i>CHR</i> to which the objective set by government in Section 10 of the <i>FPPR</i> pertains.</p> <p>“CHR” as defined in the Forest Act Definitions, means an object, a site or the location of a traditional societal practice that is of historical, cultural, or archaeological significance to British Columbia, a community or an aboriginal people.</p> <p>“CHR Evaluation” means a process conducted by an authorized member of the <i>potentially affected First Nation</i> or <i>QRP</i> to assess the existence and significance of an affected <i>CHR</i>.</p> <p>“CHR Mitigation Strategy (CHR Mitigation Strategy)” means a plan to mitigate the direct impact of primary forest activities on a <i>CHR</i>, based on:</p> <ul style="list-style-type: none"> • The relative value or importance of a particular <i>CHR</i> to a traditional use by an aboriginal people, • The relative abundance or scarcity of a <i>CHR</i> that is the focus of a traditional use by an aboriginal people, • The historical extent of a traditional use by an aboriginal people of a <i>CHR</i>, • The impact on government granted timber harvesting rights of conserving or protecting a <i>CHR</i> that is the focus of a traditional use by an aboriginal people, • Options for mitigating the impact that a forest practice might have on a <i>CHR</i> that is the focus of a traditional use by an aboriginal people. <p>“Information Sharing Checklist” means a checklist of information prepared in response to the request of a <i>Potentially Affected First Nation</i> to start the engagement of an Information Sharing process.</p> <p>“Information Sharing process” means a process of interacting with a <i>Potentially Affected First Nation</i> through a referral process or through a referral system or portal as requested by a <i>Potentially Affected First Nation</i>.</p> <p>“Information Sharing Summary” means a summary report describing communications with <i>Potentially Affected First Nations</i>, recommendations from <i>CHR Evaluations</i>, and proposed <i>CHR Mitigation Strategy</i>.</p> <p>“Potentially Affected First Nations” are those aboriginal groups, aboriginal people, and First Nations who have identified areas of interest (as defined by the Consultative Areas Database or equivalent government system or government staff direction) that overlap the proposed area where <i>primary forest activities</i> under this <i>FSP</i> are planned to occur or occur.</p>	

Applicable area
FDU 1.
Result or Strategy
<ol style="list-style-type: none"> 1. The FSP Holder” will: <ol style="list-style-type: none"> a. Develop relationships and protocols with aboriginal groups, aboriginal people and First Nations, <i>Potentially Affected First Nations</i>; b. Determine potential impacts of <i>primary forest activities</i> carried out by the <i>FSP Holder</i> under this plan, in the context of traditional and contemporary use by <i>Potentially Affected First Nations</i>, through; <ol style="list-style-type: none"> i. Comments made by <i>Potentially Affected First Nations</i> in accordance with Section 21 of the <i>FPPR in response to an Information Sharing process, a CHR Evaluation</i>, or a proposed <i>CHR Mitigation Strategy</i> and, subsequently confirmed by government in consultation with the <i>Potentially Affected First Nation</i>; or ii. Comments made by <i>Potentially Affected First Nations</i> during information meetings with the <i>FSP Holder</i> regarding <i>Information Sharing Summary</i> responses during the term of this plan, c. Conserve or, if necessary, protect <i>CHR’s</i> that are: <ol style="list-style-type: none"> i. Referred to in Section 10 of the <i>FPPR</i>, as of the date of submission of this plan or as designated to be resource features; ii. Not conserved or protected by other arrangements; iii. Likely to be adversely impacted by actions of the <i>Holder</i> carried out under this plan; iv. Capable of being addressed in the context of this plan; and d. Comply with the timber harvesting requirements in the Community Forest Agreement tenure and/or Management Plan. 2. The <i>FSP Holder</i> will abide by agreements made with <i>Potentially Affected First Nations</i>. 3. The <i>FSP Holder</i> will refer proposed <i>primary forest activities</i> to <i>Potentially Affected First Nations</i> within their asserted Traditional Territory within the FDU that are overlapped by a proposed <i>primary forest activity</i> during the initial planning stages of a Cutting Permit area for a minimum of 60 calendar days. 4. Where comments are received by the <i>FSP Holder</i> as a result of a referral of proposed forest management activity, the <i>FSP Holder</i> will: <ol style="list-style-type: none"> e. Keep a written record of such correspondence; f. Implement recommendations received from <i>Potentially Affected First Nations</i> prior to CP application to the extent practicable; and, g. Communicate the proposed actions resulting from the recommendations received from <i>Potentially Affected First Nations</i> to the person(s) that provided the comment prior to Cutting Permit application and copy said comments, recommendations and actions to the District Manager. 5. The <i>FSP Holder</i> will submit the <i>Information Sharing Summary</i> to the District Manager as part of the CP application process. 6. Where the <i>FSP Holder</i> identifies or is advised of previously un-identified <i>CHRs</i> that are discovered while preparing for or conducting <i>primary forest activities</i>, the <i>FSP Holder</i> will modify or stop work to the extent necessary to protect the potentially affected <i>CHRs</i>.

7. Any ***CHR Mitigation Strategy*** proposed by the ***FSP Holder*** will be shared with the Potentially Affected First Nations who provided comments during the Information Sharing process.
8. The ***FSP Holder*** will implement the ***CHR Mitigation Strategy***.

Objectives Specified in the Cariboo-Chilcotin Land Use Plan, FPPR and CCLUP Land Use Order (May 2011).

5.1 Grazing

Objective 5	Source of Objective										
<p>1. To maintain the current authorized level of (see below) AUMs in the polygon.</p> <table border="1" data-bbox="256 447 1109 632"> <thead> <tr> <th data-bbox="256 447 537 478">Polygon</th> <th data-bbox="537 447 1109 478">Current Authorized AUMs</th> </tr> </thead> <tbody> <tr> <td data-bbox="256 478 537 516">1. Marble Range</td> <td data-bbox="537 478 1109 516">4,363</td> </tr> <tr> <td data-bbox="256 516 537 554">2. Clinton</td> <td data-bbox="537 516 1109 554">5,890</td> </tr> <tr> <td data-bbox="256 554 537 592">3. Gustafson</td> <td data-bbox="537 554 1109 592">37,538</td> </tr> <tr> <td data-bbox="256 592 537 632">4. Loon</td> <td data-bbox="537 592 1109 632">9,636</td> </tr> </tbody> </table> <p>2. To maintain the existing proportion of AUMs by Range Unit.</p> <p>3. Planning and managing forest development activities to avoid, minimize or mitigate impacts to significant other commercial and non-commercial values and opportunities that occur in association with forest lands, including wildlife, fish, water, range, recreation and tourism.</p>	Polygon	Current Authorized AUMs	1. Marble Range	4,363	2. Clinton	5,890	3. Gustafson	37,538	4. Loon	9,636	<p>CCLUP 90-Day Report Pg. Pg. 76, 104, 124, 126, 179.</p>
Polygon	Current Authorized AUMs										
1. Marble Range	4,363										
2. Clinton	5,890										
3. Gustafson	37,538										
4. Loon	9,636										
Applicable area											
FDU 1.											
Result or Strategy											
<p>1. The FSP Holder will seek information from affected grazing tenure holders of the location of proposed cutblocks and roads a minimum of 60 days prior to the submission of a cutting permit application.</p> <p>2. Where a concern is raised by FLNRORD or an affected grazing tenure holder that either the designated AUM level (as at February 15, 1995) for the polygon is not sustainable or achievable as a direct result of harvesting or silviculture practices conducted by the FSP Holder, or the existing proportion of AUMs by range unit (on February 15, 1995) has been or will be decreased below these levels by specific harvesting and/or silviculture activities, the FSP Holder will discuss measures with the grazing tenure holder and/or government with the intent of modifying harvesting and silviculture activities to, at minimum, maintain the levels of AUM and proportion of AUM by range unit as at February 15, 1995.</p> <p>The FSP Holder will:</p> <ul style="list-style-type: none"> (a) ensure that an assessment is carried out by a qualified resource professional, (b) that the assessment will provide recommendations for maintaining AUM levels and, (c) that where practicable, the FSP Holder will implement the recommendations within six months of meeting with FLNRORD District Agrologists to review therecommendations. <p>3. The FSP Holder, when conducting primary forest activities, will plan and manage these activities so as to avoid, minimize or mitigate impacts to range infrastructure such as trails, water developments or timing of range use.</p>											

4. Where concerns are raised in points 3 above, a **QRP** will prepare a plan to incorporate the concerns, and where practicable, mitigate the impacts of the proposed **primary forest activities**. The **FSP Holder** will share the plan with the applicable licensed grazing tenure holders to seek agreement.
5. If agreement cannot be reached between the **FSP Holder** and the grazing tenure holder, the **FSP Holder** will conduct a meeting with **FLNRORD** and the affected grazing tenure holder to reach an agreement. If agreement is not reached, the decision will be at the sole discretion of the District Manager and the **FSP Holder** will implement the decision.

5.2 Wildcraft

5.2.1 Maintain Roded Access/Coordinate Access with Mineral Exploration.

Objective 6	Source of Objective
<ol style="list-style-type: none"> 1. Marble Range SRDZ: To maintain roded access to 50% of the polygon. Access to the rest of the polygon will be walk-in off permanent main roads. 2. Clinton IRMZ: To maintain roded access to 80% of the polygon. Access to the rest of the polygon will be walk-in off permanent main roads, or temporary in conjunction with any forest industry development or mineral exploration. 3. Gustafson ERDZ: To maintain roded access to 90% of the polygon. Access to the rest of the polygon will be walk-in off permanent main roads, or temporary in conjunction with any forest industry development or mineral exploration. 4. Loon ERDZ: To maintain roded access to 85% of the polygon. Access to the rest of the polygon will be walk-in off permanent main roads, or temporary in conjunction with any forest industry development or mineral exploration. 	<p><i>CCLUP</i> 90-Day Report Pg. 76, 104, 124, 126.</p>
Applicable area	
FDU 1.	
Result or Strategy	
<ol style="list-style-type: none"> 1. Where the FSP Holder constructs access to approved harvesting locations with an expected use of more than five years, the access may remain open until the cutblocks accessed by the roads are considered satisfactorily restocked or as required for other primary forest activities. 2. The FSP Holder will comply with Sections 4.4 (Cultural Heritage) and 5.4 (Tourism). 3. The FSP Holder, when proposing to deactivate access that has been in place for 5 or more years, or install access controls, will, a minimum of 60 days before any deactivation action is carried out: <ol style="list-style-type: none"> a) post notices of the intended actions on the Clinton Community Forest Website and place an advertisement in the 100 Mile House, Clinton and Ashcroft papers. b) notify Potentially Affected First Nations, and c) notify Stakeholders who have the potential to be impacted due to the proposed access control actions. 4. The FSP Holder will have a QRP prepare a plan to incorporate concerns expressed as a result of actions carried out in 3. above, and where practicable, mitigate the impacts of the proposed access changes. The FSP Holder will share the plan with the any Potentially Affected First Nations and Stakeholders. 	

5. If agreement cannot be reached between the **FSP holder** and the affected parties, conduct a meeting with **FLNRORD**, the **FSP holder** and the affected parties to reach an agreement. If agreement is not reached the direction will be the sole discretion of the District Manager and the **FSP holder** will implement the direction.
6. When **primary forest activities** are conducted, the **FSP holder** will apply the results and strategies for Recreation (5.3), Tourism (5.4) and Access Mgmt. (Section 5.22).
7. The **FSP holder** will participate in access management planning exercises sanctioned by the 100 Mile House Natural Resource District and implement their direction.
8. Where requested by mineral exploration companies, the **FSP Holder** will meet with staff and discuss forest management access development coordination with mineral interests within 60 days of receiving said request.
9. The **FSP Holder** will undertake to comply with any **SDM** endorsed recommendations of Regional or Local Access Management Plans in regards to road location, density and use. See also Section 5.3.1.

5.3 Recreation

5.3.1 Backcountry, Access and Trails

Objective 7	Source of Objective
<ol style="list-style-type: none"> 1. Marble Range SRDZ: To maintain 40% of the polygon in a backcountry condition. In order to be compatible with the timber targets, this includes high elevation portions of the Marble Range and the area adjacent to the Fraser River. 2. Clinton IRMZ: N/A. 3. Gustafson ERDZ: To maintain 2% of the polygon in a backcountry condition, south of Green Lake. 4. Loon ERDZ: To maintain 5% of the polygon in a backcountry condition, adjacent to Loon and Hihium Lakes. 5. In order for the forest industry to operate in or near important tourism areas, their operations should incorporate tourism needs for high quality environments, including: <ul style="list-style-type: none"> ▪ Tranquil Settings - forest operations in the mid and especially the back country should be conducted outside of the peak tourism season, to reduce the impact of noise. 	<p>CCLUP 90-Day Report Pg. 76, 104, 124, 126.</p> <p>CCLUP 90-Day Report Pg. 140.</p>
<p>LUO - Trails</p> <p>30 For the buffered trails shown on <i>map 10</i>, maintain 50-meter management zones on either side, with the treed area inside the management zones managed to the combined minimum <i>basal area</i> retention of 85 percent, except where roads cross trails.</p> <p>31 Despite objective 30, primary forest activities that remove more than 15 percent of the <i>basal area</i> within the management zones are permitted for any of the following reasons:</p> <ol style="list-style-type: none"> (a) Where harvesting is essential for insect control and all identified <i>infestation sites</i> on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, (b) Where harvesting is necessary to manage for blowdown where that helps to maintain the recreational value of the trail. 	<p>CCLUP Land Use Order, May 2011.</p>
<p>Definitions:</p> <p>“Backcountry Polygon” means Backcountry recreation areas defined for sub-regional planning and CCLUP planning and analysis.</p> <p>“Backcountry Operator” means guide outfitters, registered trappers, resort/Tourism Operators, <i>known</i> clubs or associations who have interests in maintaining backcountry conditions.</p>	
<p>Applicable area</p>	
<p>FDU 1 within Back-country polygons.</p>	
<p>Result or Strategy</p>	
<ol style="list-style-type: none"> 1. The <i>FSP Holder</i> commits to maintain the percentage of the polygons in a back country 	

condition as stated in Objective 7 above.

2. The **FSP Holder** will adhere to the requirements for road density, use and location as specified in an access management plan or sub-regional plan that has been endorsed by MFLNRORD.
3. Where no endorsed plan exists, the **FSP Holder** will refer proposed Cutting Permit and Road Permit applications to applicable **Backcountry Operators** within 2 kilometers of their tenure or operation, and provide these parties a minimum of 60 days (or less as approved by the applicable **FLNRORD** District Manager) to identify any issues or concerns they may have in the vicinity of the proposed **primary forest activities**.
4. The **FSP Holder** will, prior to making application for the related cutting and/or road permits:
 - a) Post referral information on the Clinton **FSP** web site a minimum of 60 calendar days prior to implementing any proposed **primary forest activities** and request input on or the identification of any issues or concerns **Backcountry operators** or back country users in the applicable area may have.
 - b) Request input from applicable **Backcountry operators** within 2 kilometers of their tenure or operation to identify any issues or concerns they may have on the impact that timing of **primary forest activities** may have on **Backcountry Operators**.
 - c) Implement methods as and when determined through discussion with affected **Backcountry Operators** to minimize impacts on and/or conflicts with back country use including the use of modified harvest systems, road **deactivation**, buffers and alternate access control measures.
5. Where concerns are raised in points 3 or 4 above, a **QRP** will prepare a plan to incorporate the concerns, and where practicable, mitigate the impacts of the proposed **primary forestry activities**. The **FSP Holder** will share the plan with the applicable **Backcountry Operators** to seek agreement.
6. If agreement cannot be reached between the **FSP Holder** and the **Backcountry Operator(s)**, the **FSP Holder** will conduct a meeting with **FLNRORD** and the affected **Backcountry Operator(s)** to reach an agreement. If agreement is not reached, the decision will be at the sole discretion of the District Manager and the **FSP Holder** will implement the decision.

Applicable area

FDU 1 - Land Use Order Designated Trails.

Result or Strategy

1. Buffered Trails: For the buffered trails, as shown on LUO *map10* and defined by the spatial dataset Cariboo-Chilcotin Buffered Trails, the **FSP Holder** will, within a proposed cut block, maintain 50 meter management zones on either side, with the treed area inside the management zones managed to the combined minimum **basal area** retention of 85 percent, except where roads cross trails.
2. The **FSP Holder** will incorporate input received from trail users collected through a minimum 60-day referral process from other objectives including Recreation and Tourism into the CP Planning process.
3. Designated trail locations must be visible in the field and will be verified on the ground before buffering actions are implemented. Where the **FSP Holder** deems a trail does not exist where the buffered trail map indicates a trail, a written rationale of how the trail location was verified and what actions the **FSP Holder** wishes to take will be prepared and submitted to the District Manager for verification prior to Cutting Permit application.
4. These strategies will not apply where:
 - a. a trail crosses an existing road;
 - b. roads are required to cross the trail buffer where no other practicable crossing

is available.

5. Buffer width will be measured from the center of the actual trail location.
6. The **FSP Holder** may propose **primary forest activities** that remove more than 15 percent of the **basal area** within the management zones for any of the following reasons:
 - (a) Where harvesting is for **essential insect control** and all identified **infestation sites** on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level. **Primary forest activities** may be proposed to access and remove green and/or red attack trees based on an assessment and recommendation prepared by a **qualified resource professional**. The recommended actions will be planned and conducted in a manner consistent with achieving the assessment recommendations, prescription and associated Objective.
 - (b) Where harvesting is necessary to remove **blowdown**, or trees that are likely to blow down and block the trail, within 50 m of a Trail, where that action contributes to maintaining the recreational value of the trail.
 - (c) Where harvesting is necessary to remove fire damaged stems within 50 m of a Trail, where that action contributes to maintaining the recreational value of the trail.
7. The **FSP Holder** may propose **primary forest activities** within **Primary and Interface fuel breaks**, in an approved community or regional wildfire plan, where the recreational value of the trail is maintained, using the following methods:
 - (a) reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes, and
 - (b) separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

5.3.2 Visual Quality

Objective 8	Source of Objective
<p>1. Marble Range SRDZ: To maintain the visual quality in the low elevation portions of the Marble Range and the Fraser River valley.</p> <p>2. Clinton IRMZ: To maintain the visual quality in the viewshed from Highway 97, the Kelly Lake Road and adjacent to the Protected Areas.</p> <p>3. Gustafson ERDZ: To maintain the visual quality in the viewshed of highway corridors and key lakes.</p> <p>4. Loon ERDZ: To maintain the visual quality in the viewshed of key lakes.</p> <p>Recreation</p> <ul style="list-style-type: none"> ▪ management for the retention of visual qualities over key recreation resources, including key lakes. <p>3. LUO - Scenic Areas</p> <p>26 Maintain the visual quality objectives for scenic areas as shown on map 9a and defined by the spatial dataset, Cariboo-Chilcotin Scenic Areas.</p> <p>27 Despite objective 26, harvesting is permitted where it is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest.</p> <p>28 Along the scenic corridors shown on map 9b and defined by the spatial dataset, Cariboo-Chilcotin Scenic Corridors, design harvest areas to mimic existing natural openings, vegetation patterns and natural features.</p> <p>29 Design harvest areas to mimic existing natural openings, vegetation patterns, and natural features when viewed from the high elevation viewpoints shown on map 9c and defined by the spatial dataset, Cariboo-Chilcotin High Elevation Viewpoints.</p>	<p><i>CCLUP</i> 90-Day Report Pg. 76, 104, 124, 126.</p> <p><i>CCLUP</i> 90-Day Report Pg. 10.</p> <p><i>CCLUP</i> Land Use Order, May 2011.</p>
<p>Definitions:</p> <p>Severely Burned areas - are areas where at least 75% of the trees have crowns that are at least 75% scorched brown or black.</p> <p>Categories of visually altered forest landscape</p> <p>FPPR 1.1 For the purposes of paragraph (c) of the definition of "altered forest landscape" in section 1, the following categories are prescribed, each according to the extent of alteration resulting from the size, shape and location of cutblocks and roads:</p> <p>(a) <i>preservation</i>: consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is</p> <ul style="list-style-type: none"> (i) very small in scale, and (ii) not easily distinguishable from the pre-harvest landscape; <p>(b) <i>retention</i>: consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is</p> <ul style="list-style-type: none"> (i) difficult to see, (ii) small in scale, and (iii) natural in appearance; <p>(c) <i>partial retention</i>: consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is</p>	

- (i) easy to see,
- (ii) small to medium in scale, and
- (iii) natural and not rectilinear or geometric in shape;
- (d) *modification*: consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint,
 - (i) is very easy to see, and
 - (ii) is
 - (A) large in scale and natural in its appearance, or
 - (B) small to medium in scale but with some angular characteristics;
- (e) *maximum modification*: consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint,
 - (i) is very easy to see, and
 - (ii) is
 - (A) very large in scale,
 - (B) rectilinear and geometric in shape, or
 - (C) both.

Applicable area

VQO polygons within FDU 1.

Result or Strategy

1. Any visual alteration resulting from *primary forest activities* carried out by the *FSP Holder* will be consistent with *FPPR* Section 1.1 Categories of *Visually Altered Forest Landscapes*.
2. The *FSP Holder* will maintain the visual quality objectives for scenic areas as shown on the LUO Scenic Areas map and defined by the spatial dataset, Cariboo-Chilcotin Scenic Areas map 9a, as noted in the Land Use Order - May 2011.

3. The **FSP Holder** may propose **primary forest activities** that do not meet R/S # 2:
 - a) for **essential for insect control** and all identified **infestation sites** on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level where all identified infestation sites within 500m of the infested scenic area have been addressed prior to or in conjunction with harvest entries into **scenic areas**.
 - b) to access and remove green and/or red attack trees based on an assessment and recommendation prepared by a **qualified resource professional**. The recommended actions will be planned and conducted in a manner consistent with achieving the assessment recommendations or prescription and associated Objective.
 - c) within modification, partial retention, retention and preservation polygons, primary and interface fuel breaks in an approved community or regional wildfire plan, where impacts to Visual Quality Objectives are minimized for:
 - i. the reduction of fine surface debris, **ladder fuels** and **small diameter trees in intermediate and overtopped crown classes**.
 - ii. The separation of tree crowns among individual trees or clumps within the **dominant** and **co-dominant** layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
 - d) Within a designated **Wildland Urban Interface area**, for the reduction of fine surface debris, windthrown trees, **ladder fuels** and small diameter trees in intermediate and **overtopped crown classes** and to achieve crown separation of up to 6 m in the dominant tree canopy to reduce the likelihood of crown fires.
4. The **FSP Holder** will design harvesting and road access to mimic existing natural openings, vegetation patterns and natural features along scenic corridors as shown on LUO Scenic Corridors *map 9b* and defined by the spatial dataset, *Cariboo-Chilcotin Scenic Corridors*.
5. The **FSP Holder** will design harvesting to mimic existing natural openings, vegetation patterns and natural features in the viewshed of the proposed primary forest activities when viewed from High Elevation viewpoints as shown on *map 9c* and defined by the spatial dataset, *Cariboo-Chilcotin High Elevation viewpoints*.
6. Before conducting primary forest activities in **severely burned areas**, the **FSP Holder** will:
 - (a) direct a **QRP** to prepare a harvest design in the form of a Visual Impact Assessment carried out according to approved standards that will include a description of the visual design measures taken to mitigate visual impacts.
 - (b) prepare a reforestation plan that demonstrates a net benefit to visual green-up recovery resulting from exceeding the VQO through salvage harvesting.
 - (c) post referral information on the Clinton **FSP** web site a minimum of 60 calendar days prior to implementing any proposed harvesting, road building or silviculture activities and request input on or the identification of any issues or concerns that may arise from the proposed actions within the applicable area.
 - (d) complete a Notification process for a minimum of 60 calendar days with **Potentially Affected First Nations** and other Tenure holders that may be impacted by the proposed **primary forest activities**.

7. Where the *FSP Holder* proposes *primary forest activities* in *severely burned areas* under HRA Section 17 (FPPR S. 27.1), where salvage harvesting will exceed the alteration allowed for under the established VQO's for partial retention and modification, the activities will:
- a) not be applied to *Preservation or Retention* VQO polygons.
 - b) apply to *severely burned* scenic polygons from the perspective of the viewpoints used to determine the visual impact level.
 - c) be conducted according to a recommended harvest design that is prepared by a *QRP* in the form of a *Visual Impact Assessment* carried out according to approved standards that will include a description of the visual design measures taken to mitigate visual impacts, and, will include a reforestation plan that demonstrates a net benefit to visual green-up recovery resulting from exceeding the VQO through salvage harvesting. The *FSP Holder* will implement the harvest design in a manner that will meet the VQO Visual Impact Assessment recommendations and objectives.
 - d) result in alterations that:
 - i) are not rectilinear or geometric in shape.
 - ii) retain green trees where practicable.
 - iii) utilize multiple smaller openings vs single large openings.
 - iv) utilize basal area retention within cutblock boundaries that will lead to an expedited rehabilitation of altered VQOs from roads visible from viewpoints used to assess Visual Impact.

5.4 Tourism

Objective 9	Source of Objective
<p>1. Marble Range SRDZ: To maintain the visual quality in the viewshed surrounding existing tourism operations.</p> <p>2. Clinton IRMZ; Gustafson and Loon ERDZs: To maintain the visual quality in the viewshed surrounding existing tourism operations.</p> <p>B. Forestry Strategies (to integrate with tourism needs) In order for the forest industry to operate in or near important tourism areas, their operations should incorporate tourism needs for high quality environments, including:</p> <ol style="list-style-type: none"> 1. Tranquil Settings - forest operations in the mid and especially the back country should be conducted outside of the peak tourism season, to reduce the impact of noise. 2. Scenic Quality - forest operations should either avoid or minimize impacts on scenic quality. Any impacts that do occur must be rehabilitated within a specified time period. 3. Air Visibility Quality - smoke generation (through slash burning, etc.) should not impact tourism areas during the peak tourism season. 4. Setting Diversity - alternative silvicultural and harvesting systems should be employed to provide for a variety of forest settings. 5. Controlled Access - access management planning should precede operations in order to incorporate tourism industry needs. 	<p><i>CCLUP</i> 90-Day Report Pg. 76, 104, 124, 126.</p> <p><i>CCLUP</i> 90-Day Report Pg. 140.</p>
<p>Definitions: <i>Peak Tourism Season</i> - That part of the year indicated by <i>Registered Tourism Operators</i> within FDU 1 to be their peak time of use, as determined from responses received from Tourism business operators as part of their referral responses. The CP permit referral will request information on key periods of operations, key locations of trails and other amenities of importance to the Tourism operators operations, and key areas where access from <i>primary forest activities</i> planned by the <i>FSP Holder</i> are likely to impact negatively on a <i>Registered tourism operator</i>. <i>Registered Tourism operators</i> - Tourism operation owners who are a licensed commercial recreation tenure holder, are listed with Super, Natural BC, have local advertisements or a web presence including Guide Outfitters.</p>	
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<ol style="list-style-type: none"> 1. The <i>FSP Holder</i> commits to comply with the R/S in Section 5.3.2. 2. The <i>FSP Holder</i> will maintain a list of <i>known</i> Tourism operators within FDU 1 and what they consider their peak season to be. 3. The <i>FSP Holder</i> will check with Tourism BC on an annual basis by January 30th to update the list of <i>known</i> Tourism operators within FDU 1. 4. Before carrying out <i>primary forest activities</i> that may impact on Tourism operators within FDU 1, the <i>FSP Holder</i> will refer proposed <i>primary forest activities</i> to <i>registered Tourism operators</i> a minimum of 60 calendar days before a cutting permit is submitted for processing. The referral will request information that will identify key periods of operations, key locations of trails and other amenities of importance to the Tourism operators operations, and key areas where access from <i>primary forest activities</i> planned by the <i>FSP Holder</i> are likely to impact negatively on a tourism operator. 	

5. The **FSP Holder** will, as a means to reduce the impact of noise, limit mechanical operations to the hours between 7 a.m. and 7 p.m. where primary forest activities are conducted within 5 kms of an area described as a key operating area by a tourism operator during the peak tourism season.
6. The **FSP Holder**, as a means to reduce air visibility quality impacts, will not conduct burning of debris piles during **peak tourism season**.
7. Where concerns are raised in points 4 to 6 above, a **QRP** will prepare a plan to incorporate the concerns, and where practicable, mitigate the impacts of the proposed **primary forest activities**. The **FSP Holder** will share the plan with the applicable **registered Tourism operator known** to seek agreement.
8. If agreement cannot be reached between the **FSP Holder** and the **registered Tourism operator**, the **FSP Holder** will conduct a meeting with the **registered Tourism operator** and **FLNRORD** staff and will abide by a decision resulting either from the meeting or from an **SDM** decision.
9. The **FSP Holder** will implement/abide by the decision made by the **SDM**.

5.5 Fish and Wildlife

5.5.1 Salmon

Objective 10	Source of Objective
<p>1. Marble Range SRDZ: To manage the Bonaparte River tributaries and Fraser River mainstem banks for salmon stocks (approximately 25 % of the polygon), through riparian area protection and controls on the rate of harvest.</p> <p>2. Clinton IRMZ: To manage the Bonaparte River watershed for salmon stocks (approximately 90 % of the polygon), through riparian area protection and controls on the rate of harvest.</p> <p>3. Loon ERDZ: To manage the Bonaparte River watershed for salmon stocks (approximately 40 % of the polygon), through riparian area protection and controls on the rate of harvest.</p> <p>4. Gustafson ERDZ: To manage the Bonaparte River watershed for salmon stocks (approximately 10 % of the polygon), through riparian area protection and controls on the rate of harvest.</p> <p>Avoid irreversible man made changes to fish producing habitats. Maintain the physical and biological diversity of fish habitats. Maintain watershed and stream channel integrity and stability. Maintain and/or enhance water quality and water quantity for in-stream uses.</p>	<p><i>CCLUP</i> 90-Day Report Pg. 76, 104, 124, 126 and 168.</p>
<p>Definitions</p> <p>1. “Unstable Terrain” – Unstable terrain is defined as the following areas:</p> <ul style="list-style-type: none"> a. Polygons identified with a <u>Slope Stability Class with Roads</u> of “P” (potentially unstable) and “U” (unstable) in the spatial dataset WHSE_TERRESTRIAL_ECOLOGY.STE_TER_STABILITY_POLYS_SVW, or b. Polygons identified with a <u>Slope Stability Class with Roads</u> of Class 4R, Class 4, Class 5, Class IVR, Class IV, and Class V in the spatial dataset WHSE_TERRESTRIAL_ECOLOGY.STE_TER_STABILITY_POLYS_SVW, or c. Indicators of unstable terrain identified in the field as detailed in the Mapping and Assessing Terrain Stability Guidebook, 2nd Edition, August 1999, or d. Gentle-over-steep type of terrain feature comprised of both: (1) steep and potentially unstable slopes that are (2) located immediately down-slope of gentle terrain where forest development can potentially occur. 	
<p>Applicable area</p>	
<p>Areas specified above within FDU 1.</p>	
<p>Result or Strategy</p>	
<p>1. The FSP Holder will protect streamside and riparian areas in accordance with the riparian habitat management strategies presented in Sections 5.5.2, 5.5.3 and 5.5.4 of this FSP.</p>	

2. The **FSP Holder** commits:
 - a. to not construct roads in terrain Class IV or greater, and
 - b. to assess terrain class II or greater within 500 meters of the Fraser River, and
 - c. on slopes greater than 25%, to conduct a terrain stability assessment and implement either, or a combination of, single tree selection or small patch harvesting where patches result in areas of less than 1 ha NSR.

5.5.2 Watershed Hydrologic Stability

Objective 11	Source of Objective
<ol style="list-style-type: none"> 1. Clinton IRMZ and Loon ERDZ: To manage the Bonaparte River watershed for hydrologic stability through watershed assessment and monitoring programs. 2. Watershed Assessment: As required under the FPC when disturbance levels exceed 25% and in key watersheds, a watershed assessment should be undertaken to ensure the maintenance of critical fish and wildlife habitats and hydrological stability. 3. Development within watersheds or portions of watersheds in the SRDZ should be consistent with the Watershed Assessment prescriptions of the Forest Practices Code designed to avoid detrimental cumulative impacts. 4. Consistent with the Forest Practices Code, complete Watershed Assessments commencing with high-priority fisheries watersheds in the Special Resource Development Zone. 	<p>CCLUP 90-Day Report Pg. 105, 127.</p> <p>CCLUP 90-Day Report Pg. 160.</p> <p>CCLUP 90-Day Report Pg. 179, 180.</p>
<p>Definitions</p> <p>Key Watershed includes the Bonaparte River Watersheds.</p> <p>Disturbance Levels - for the purposes of this FSP, objectives from the CCLUP that define Disturbance Levels shall be taken to mean equivalent clearcut area (ECA).</p>	
<p>Applicable area</p>	
<p>Key Watershed areas specified above within FDU 1.</p>	
<p>Results &/or Strategy</p>	
<ol style="list-style-type: none"> 1. In the Key Watershed of the Bonaparte River where an Equivalent Clearcut Area of 25% has been exceeded due to harvesting or access activities, the FSP Holder may undertake primary forest activities if: <ol style="list-style-type: none"> a. Consultation with a qualified registered professional has occurred, and b. An assessment has been prepared by a qualified registered professional that recommends results that are consistent with maintaining these objectives: <ol style="list-style-type: none"> i. Natural hydrological conditions, ii. Natural stream bed dynamics, iii. Stream channel integrity, iv. Quality, quantity and timing of water flows, and v. Cumulative hydrological effects that would not have a materially adverse effect on fish and fish habitat, critical fish habitat and Biodiversity Targets, and c. The primary forest activities are conducted in a manner that is consistent with achieving the assessment recommendations or prescription. 	
<ol style="list-style-type: none"> 2. The FSP Holder will share assessments and utilize available development information including Cut Block information from the FLNRORD Forest Tenures Administration System and document attempts to work with other Licensees in the applicable watershed regarding the undertaking of hydrologic assessments and as a means to consider Cumulative Effects. 	

3. The **FSP Holder** will consult with other Forest Licensees and **Stake Holders** in the Bonaparte River Watershed in the form of a referral a minimum of 60 calendar days before undertaking any restoration work.
4. The **FSP Holder** will conduct **primary forest activities** operations as per the **QRP** assessment in accordance with the strategies presented in Sections 5.5.3 and 5.5.4.

5.5.3 Critical Fish Habitat

Objective 12	Source of Objective
<p>LUO - Critical Habitat for Fish</p> <p>12 Maintain critical habitat for fish shown on <i>map 4</i> and defined by the spatial dataset, <i>Cariboo-Chilcotin Critical Habitat for Fish</i> as no-harvest areas.</p> <p>13 Despite objective 12, primary forest activities are permitted in areas classified as critical habitat for fish for the following reasons:</p> <ol style="list-style-type: none"> (a) Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, (b) Road and fence construction where there is no other practicable location available. 	<p><i>CCLUP</i> Land Act Order, May 2011.</p>
Applicable area	
Areas specified within FDU 1 per Appendix 9.1.	
Strategy	
<ol style="list-style-type: none"> 1. The FSP Holder commits to not harvest within critical habitat for fish as shown on LUO <i>map 4</i> and defined by the spatial dataset, <i>Cariboo-Chilcotin Critical Habitat for Fish</i>. 2. Despite R/S #1, the FSP Holder may propose primary forest activities for the following reasons: <ol style="list-style-type: none"> (a) Where primary forest activities are proposed by the FSP Holder as essential for insect control and all identified infestation sites on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression per the District Forest Health Plan for that insect pest. Prior to proposing a primary forest activity, the FSP Holder will conduct an assessment by a qualified resource professional and recommended primary forest activities will be planned and conducted in a manner consistent with achieving the assessment recommendations, prescription, and associated Objective. (b) Road and fence construction where there is no other practicable location available. (c) To create Fuel Breaks within Wildland Urban Interface Fuel Break areas in an approved community or regional wildfire plan, where impacts to primary old seral characteristics and critical fish attributes are minimized by: <ol style="list-style-type: none"> i. reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes. 	

5.5.4 Maintain Riparian Habitats

Objective 13	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; Gustafson and Loon ERDZs:</p> <p>a. To maintain riparian habitats through the establishment of riparian management zones on all streams, lakes and wetlands as specified under the Forest Practices Code and Riparian Guidelines.</p> <p>2. Riparian Management Area</p> <p>To achieve riparian management area objectives, forest practices within the management zone should:</p> <p>a. Where a riparian management area has both a management zone and a reserve zone:</p> <ol style="list-style-type: none"> 1. reduce the risk of windthrow to the reserve zone. 2. retain important wildlife habitat attributes including wildlife trees, large trees, hiding and resting cover, nesting sites, structural diversity, coarse woody debris, and food sources characteristic of natural riparian ecosystems. <p>b. Where a riparian management area has only a management zone:</p> <ol style="list-style-type: none"> 1. retain sufficient vegetation along streams to provide shade, reduce bank microclimate changes, maintain natural channel and bank stability and, where specified, maintain important attributes for wildlife. 2. adjacent to wetlands and lakes, retain key wildlife habitat attributes characteristic of natural riparian ecosystems. 	<p><i>CCLUP</i> 90-Day Report Pg. 77, 105, 125 &127.</p> <p><i>CCLUP</i> Riparian Management Area Guidebook - Pg. 3.</p>
<p>LUO - Stream, Wetland and Lake Riparian Areas</p> <p>20. (a) Maintain riparian reserve zones as no harvest areas.</p> <p>(b) Despite objective 20(a), primary forest activities may be carried out in riparian reserve zones for the following purposes:</p> <ol style="list-style-type: none"> I. where harvesting is essential for insect control and all identified <i>infestation sites</i> on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, II. felling or modifying a tree that is a safety hazard, if there is no other practicable option for addressing the safety hazard III. constructing a stream crossing IV. creating a corridor for full suspension yarding V. creating guy line tiebacks VI. felling or modifying a tree under an occupant licence to cut, master licence to cut or free use permit issued in respect of an area that is subject to a licence permit, or other form of tenure issued under the Land Act, Geothermal Resources Act, Mines Act, Mineral Tenure Act, Mining Right of Way Act, Ministry of Lands, Parks and Housing Act or Petroleum and Natural Gas Act, if the felling or modification is for a purpose expressly authorized under that licence, permit or tenure, VII. felling or modifying a tree for the purpose of establishing or 	<p><i>CCLUP</i> Land Act Order, May 2011.</p>

maintaining an interpretive forest site, recreation site, recreation facility or recreation trail.

VIII. within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized:

- (i) reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and,
- (ii) separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns."

21 Except at road crossings, retain windfirm trees and other vegetation in riparian management zones on all S4 streams, sufficient to:

- (a) maintain streambank stability and channel processes, and
- (b) minimize adverse changes to stream shade and organic input to the stream.

22 In riparian management zones on W3 and W4 wetlands and L3 and L4 lakes retain deciduous patches, significant wildlife trees and major wildlife features.

23 For L3 lakes and selected L1 lakes shown in map 6c and defined by the spatial dataset, Cariboo-Chilcotin L3/LI Lakes, maintain a 10-meter riparian reserve zone.

Applicable area for Section 5.5.4 - Maintain Riparian Habitat

FDU 1.

Strategy

1. The **FSP Holder** undertakes to comply with LUO riparian objectives 20, 21, 22 and 23.
2. The **FSP Holder** undertakes to comply with FPPR Sections 47 (Stream and Riparian Classes), 48 (Wetland Riparian Classes) and 49 (Lake Riparian Classes), 50, 51, 52 (2), 53, 55, 56 and 57.
3. The **FSP Holder** may apply to *FLNRORD* to use an existing road and/or existing non-status road within the RMA of non-salmon bearing streams or other riparian features under road permit where there will be no introduction of deleterious material to the feature through access modification or maintenance.
4. The **FSP Holder** will retain naturally occurring shrubs, sound, well rooted trees with relatively small, open crowns, non-merchantable stems, advanced regeneration, dead stems or stubs that do not pose a safety risk within the proposed cutblock and deciduous stems to the extent practicable if present in riparian management zones on all S4 streams, to:
 - (a) maintain streambank stability and channel processes,
 - (b) retain stream shade and organic input to the stream, and
 - (c) reduce potential for windthrow within the RMZ.

Where pre-harvest vegetation stocking and distribution does not allow for the objective to be met, no attempt will be made to create conditions that do not exist at *pre-harvest*.

5. The **FSP Holder** will conduct a windthrow hazard assessment *adjacent to* streams and wetlands as part of the Cutting Permit planning process using the form in Appendix 9.7 to determine *windfirm* trees and will implement the recommendations with the intention of retaining *windfirm* trees. Non-*windfirm* trees will be removed to the extent possible given the location of the trees.

Results

1. Riparian retention will follow that shown in the following Table 5.5.4 - Riparian Management Zone Retention.
2. The **FSP Holder** will, in riparian management zones on W3 and W4 wetlands and L3 and L4 lakes, retain deciduous patches **high value wildlife trees** and major **wildlife habitat features**, to the extent practicable to the levels in the Riparian Table, Table 5.5.4.
3. The **FSP Holder** will, for L3 lakes and selected L1 lakes shown on LUO map 6c and Appendix 9.1 and defined by the spatial dataset, *Cariboo-Chilcotin L3/L1 Lakes*, maintain a 10 meter riparian reserve zone.
4. With the exception of proposed crossing locations, the **FSP Holder** will establish a 5 m Machine Free Zone on S4, 5 and 6 streams, within any **FSP Holder** proposed harvest block for the purpose of retaining ground vegetation, shrubs, non-merchantable stems, advanced regeneration and deciduous stems.
5. The **FSP Holder** may conduct **primary forest activities** within a Riparian Reserve Zone under LUO 20 (b) for the following purposes:
 - a. Felling or modifying a tree that is a safety hazard, if there is no other practicable option or addressing the safety hazard;
 - b. constructing a stream crossing;
 - c. creating a corridor for full suspension yarding;
 - d. creating guyline tiebacks;
 - e. felling or modifying a tree under an occupant licence to cut, master licence to cut or free use permit issued in respect of an area that is subject to a licence permit, or other form of tenure issued under the Land Act, Geothermal Resources Act, Mines Act, Mineral Tenure Act, Mining Right of Way Act, Ministry of Lands, Parks and Housing Act or Petroleum and Natural Gas Act, if the felling or modification is for a purpose expressly authorized under that licence, permit or tenure;
 - f. felling or modifying a tree for the purpose of establishing or maintaining an interpretive forest site, recreation site, recreation facility or recreation trail.
 - g. Carrying out vegetation management treatments required to meet a Free Growing obligation.
6. Where **primary forest activities** are proposed by the **FSP Holder** under LUO 20 (b) (I) for **essential insect control** and all identified **infestation sites** on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level, the **FSP Holder** will, prior to proposing a **primary forest activity**, conduct an assessment and recommendation using a **qualified resource professional**. The recommended **primary forest activities** will be planned and conducted in a manner consistent with achieving the assessment recommendations, prescription and associated Objective. Harvesting will only target the trees infested by the insect covered by the classification.
7. See Section 5.6 - Lakeshore Management for Lakeshore Management Zone retention.

Affected portion of RMA.

- Note: Retention percentages for the management zone for dominant and codominant trees are for the portion of the **RMA** affected by harvesting and not the entire Feature **RMA**. Affected means located **adjacent to** Cutting Authority including adjacent features which have **RMA** areas included in the Cutting Authority. The Land Use Order L1A & L1B Lakeshore Management Zone of 200 m supersedes the **FPPR** Management Zone widths.

Table 5.5.4 - Riparian Management Zone Retention Table

Riparian Class	Windthrow Risk Category	Retention Strategy within the RMZ.
S1 - A	All	Minimum 25% of the pre-harvest <i>basal area</i> or 25 % of the RMZ area.
S1 - B, S2, S3	Moderate or High	Minimum 75% of the pre-harvest <i>basal area</i> or 75 % of the RMZ area.
	Low	50% of the pre-harvest <i>basal area</i> or 50 % of the RMZ area based on <i>QRP</i> recommendation.
S4	Moderate or High	Minimum 30% of the pre-harvest <i>basal area</i> or 30 % of the RMZ area.
	Low	Minimum 30% of the pre-harvest <i>basal area</i> or 30 % of the RMZ area.
S5	All	Minimum 20% of the pre-harvest <i>basal area</i> or 20 % of the RMZ area.
S6	All	Minimum 20% of the pre-harvest <i>basal area</i> or 20 % of the RMZ area.
W1, W5	Moderate or High	Minimum 75% of the pre-harvest <i>basal area</i> or 75 % of the RMZ area.
	Low	Minimum 50% of the pre-harvest <i>basal area</i> or 50 % of the RMZ area. Retain minimum of 75% of pre-harvest deciduous stems.
W2, W3, W4	Moderate or High	Minimum 50% of the pre-harvest <i>basal area</i> or 50 % of the RMZ area. Retain minimum of 75% of pre-harvest deciduous stems.
	Low	Minimum 25% of the pre-harvest <i>basal area</i> or 25 % of the RMZ area. Retain minimum of 75% of pre-harvest deciduous stems.

Riparian Class	Windthrow Hazard	Retention Strategy within the RMZ.
L1 - (Select L1 Lakes per LUO Objective 23 & Map 6c).	All.	Per LUO Schedule 2.
L1A	All.	Per LUO Schedule 2.
L1B	All.	Per LUO Schedule 2.
Classified Lakes per LUO.	All.	Per LUO Schedule 2.
L2	All.	Minimum 50% of the pre-harvest <i>basal area</i> or 50 % of the RMZ area.
L3 & L4	All.	Minimum 50% of the pre-harvest <i>basal area</i> or 50 % of the RMZ area.

5.5.5 Wildlife and Biodiversity at the Landscape Level

Objective 14	Source of Objective
<ol style="list-style-type: none"> 1. 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. Conserve biological diversity through ... objectives for ... landscape connectivity, ... species composition, temporal distribution of cutblocks.... These targets will be applied at the Landscape Unit Level ... [and] will be based on the Biodiversity Conservation Guidelines [aka Biodiversity Guidebook published September 1995] Application of these guidelines in all zones and polygons is required Consistent with the targets, maintenance of deciduous (Aspen) and spruce components are important considerations on the Chilcotin Plateau. 3. To manage for grizzly bear, ... and other sensitive habitats within the areas identified as riparian buffers, ... and throughout the polygon under the biodiversity conservation strategy, including key leading spruce stands [or] including key leading deciduous stands [or] including key aspen stands. 4. Conserve biological diversity through the establishment of <ol style="list-style-type: none"> a. Landscape Units and b. objectives for retention of old growth, c. seral stage distribution, d. landscape connectivity, e. species composition, f. temporal distribution of cutblocks, (and at the stand level:) <ol style="list-style-type: none"> g. stand structure, h. retention of coarse woody debris and i. retention of wildlife trees. 5. Marble Range SRDZ; Clinton IRMZ; Gustafson and Loon ERDZs: Manage for the biodiversity targets that will be developed in the Regional Biodiversity Conservation Strategy. The following seral stage targets will be used in the development of the strategy: <p style="margin-left: 40px;">“old forest” category: 7% to 19% range.</p> <p style="margin-left: 40px;">“mature/old forest” category: 17% to 36% range.</p> 6. To establish Landscape units which include both the Special Resource Development Zone and adjacent Protected Area; manage in conjunction with Protected Area to maintain representational values - Marble Range SRDZ. 	<p><i>FPPR</i> Sec 9.</p> <p><i>CCLUP</i> 90 day Report.</p> <p><i>CCLUP</i> 90 Day Report, App. 3 Sub-Units Targets</p> <p><i>CCLUP</i> 90 day Report Pg. 153.</p> <p><i>CCLUP</i> 90-Day Report Pg. 77, 105, 127, 129.</p>

<p>7. To establish Landscape units which include both the Enhanced Resource Development Zone and adjacent Protected Area; manage in conjunction with Protected Area to maintain representational values – Gustafson and Loon ERDZs.</p> <p>8. To establish Landscape units which include both the Integrated Resource Management Zone and adjacent Protected Area; manage in conjunction with Protected Area to maintain representational values – Clinton IRMZ.</p> <p>9. Implementation of a range of cutblock sizes across the landscape, employing smaller cutblocks in sensitive locations and larger blocks elsewhere to maintain biodiversity and establish acceptable levels of fragmentation. Wherever possible, cutblock shapes and patterns across the landscape should resemble those of natural openings.</p> <p>10. Minimize physical and ecological barriers to wildlife movement patterns by maintaining a variety of habitat types across the landscape, giving emphasis to the availability, integrity, and connectivity of both forest interior and riparian habitats.</p>	<p><i>CCLUP 90-Day Report Pg. 179.</i></p>
<p>LUO - Landscape Units for Biodiversity Management</p> <p>8 Maintain biodiversity in accordance with the landscape units and biodiversity emphasis shown on Map 2 and defined by the spatial dataset, Cariboo-Chilcotin Landscape Units.</p> <p>LUO - Old Growth Management Areas (OGMA)</p> <p>9 Retain old forest and natural successional processes by maintaining as no- harvest area the permanent OGMA-static, permanent OGMA-rotating, and transition OGMA as shown on <i>map 3</i> and defined by the spatial dataset, <i>Cariboo-Chilcotin Old Growth Management Areas</i>.</p> <p>10 Despite objective 8, harvesting and roadbuilding are permitted in permanent OGMA-static or permanent OGMA-rotating for any of the following reasons:</p> <ul style="list-style-type: none"> (a) Harvesting incursions of 10 hectares or less that better align OGMA boundaries with intended geographic features, (b) Where harvesting is <i>essential for insect control</i> to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, (c) Road and fence construction where no other practicable location is available, (d) Thinning-from-below to enhance old forest attributes in OGMA located within Mule Deer Winter Range in the shallow and moderate snowpack zones, (e) Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized: <ul style="list-style-type: none"> i. reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and, ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns. (f) Where permanent-rotating OGMA on <i>map 3</i> have: 	<p><i>CCLUP Land Use Order - May 2011.</i></p>

<ul style="list-style-type: none"> i. mature conifer mortality exceeding 50% by <i>basal area</i> > 17.5 cm DBH or, (ii) stand age exceeding 200 years for stands with 70% or greater Lodgepole ii. Pine by <i>basal area</i> > 17.5 cm DBH. <p>11 Despite objective 8, primary forestry activities are permitted in transition old growth management areas for any the following reasons:</p> <ul style="list-style-type: none"> (a) Harvesting incursions of 10 hectares or less that better align OGMA boundaries with intended geographic features, (b) Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, (c) Road and fence construction where no other practicable location is available, (d) Thinning-from-below to enhance old forest attributes in OGMA's located within Mule Deer Winter Range in the shallow and moderate snowpack zones, (e) Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized: <ul style="list-style-type: none"> i. reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and, ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns. (f) Equivalent old forest exists in locations contributing to the permanent OGMA target in the same LU-BEC unit, (g) Conifer mortality exceeds 50% of stand basal area in the transition OGMA. (h) Changes to OGMA's resulting from harvesting or road building under objective 9 or 10 must be reported by licensees to ILMB and <i>MFLNRORD</i> upon completion. 	
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Applicable area
FDU 1.
Result or Strategy - Landscape Unit Boundaries
1. No Result or Strategy is required for this objective.
Result or Strategy - OGMA's
<u>Definitions that Apply</u>
<p>“Primary old seral forest characteristics” means, within an interface or primary fuel break, large (>37.5 cm diameter at breast height (dbh)) windfirm trees, coarse woody debris, and dead and declining trees where they do not represent a significant safety hazard.</p> <p>“Thinning from below” means a silvicultural treatment that is in compliance with the General Wildlife Measures for a designated Mule Deer Winter Range (MDWR) in the shallow or moderate snowpack zone, in which trees are removed from intermediate and <i>overtopped crown classes</i> leaving the larger trees on site.</p>

Result:

1. The ***FSP Holder*** will not conduct ***primary forest activities*** in permanent OGMA-static areas, as defined by the spatial dataset Cariboo-Chilcotin Old Growth Management Areas, unless one or more of the following criteria are met:
 - a) Harvesting incursions of 10 ha or less that better align the OGMA boundaries with intended geographic features where the OGMA boundaries were clearly intended to follow a geographic feature, which include:
 - i. creeks or existing roads that were established prior to the OGMA establishment, or
 - ii. other geographic features in consultation with appropriate *FLNRORD* staff.
 - b) Where the ***primary forest activity*** is ***essential for insect control***, and all known infestation sites on crown provincial forest land within 500m of the infested OGMA are addressed before or in conjunction with entries into the OGMA.
 - c) Road or fence construction where no other practicable location is available.
 - d) ***Thinning-from-below*** to enhance old seral stand attributes in OGMA located within designated MDWR in the shallow and moderate snowpack zones.
 - e) Within ***primary and interface fuel breaks***, in an approved community or regional wildfire plan, where impacts to primary ***old seral*** forest characteristics are minimized:
 - i. reduction of fine surface debris, ***ladder fuels and small diameter trees in intermediate and overtopped crown classes*** and,
 - ii. separation of tree crowns among individual trees or clumps within the ***dominant and co-dominant*** layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
 - f) Guy line tiebacks,
 - g) no other practicable location is available.
2. The ***FSP Holder*** will not conduct ***primary forest activities*** in a permanent OGMA-rotating area where:
 - a) mature conifer mortality is >50% by basal area for trees >17.5 cm dbh, or
 - b) stand age is >200 years and stand is >70% Lodgepole pine by ***basal area*** for trees >17.5 cm dbh.
3. The ***FSP Holder*** will not conduct ***primary forest activities*** in a Transition OGMA where:
 - a) conifer mortality is >50% of stand ***basal area***, and
 - b) equivalent old seral forest exists in locations contributing to the permanent OGMA target in the same LU-BEC unit.
4. The cutting permit and/or road permit application in conjunction with RESULTS reporting completed by the ***FSP Holder*** will serve to address the reporting requirement associated with changes to OGMA resulting from harvesting or road building conducted under Clause 1 of this strategy.
5. RESULTS reporting will be completed within one year of the completion of harvesting date.

Result or Strategy - Seral Stage Distribution**Definitions**

“Seral assessment unit” means an area unit generated by the overlay of:

- a) landscape units (LUs) and biodiversity emphasis objective (BEO) defined in the *Cariboo-Chilcotin Land-Use Plan* Land Act Order spatial data set: Cariboo-Chilcotin Landscape units, and
- b) the accompanying most current government endorsed Biogeoclimatic Ecosystem Classification (BEC), and
- c) the LU/BEC amalgamations listed at https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-region/cariboochilcotin-rlup/biogeoclimatic_unit_amalgamation_table_2007.pdf, and
- d) a current productive forest landbase dataset.

“M+O seral target area” means the target for the minimum amount of mature seral or older forest present in a *seral assessment unit*, which is determined by the applicable target % in Table 2 multiplied by the total productive forest area of the *seral assessment unit*.

“mature seral or older forest” means Mature Plus Old stand age as defined in Table 3 for the applicable BEC zone.

“Mature plus old seral deficit unit (M+O deficit unit)” means a *seral assessment unit* where, at the time of submission of proposed harvest for approval, the amount of *mature seral or older forest* present in a seral assessment unit is less than the *M+O seral target area*, based on stand age in the most current forest inventory, and accounting for all completed and approved harvesting and wildfire impacts that are not reflected in the most current forest inventory.

“Mature recruitment area” means a less than mature seral aged stand in a *M+O deficit unit* that is designated by any *FSP Holder* and submitted to *FLNRORD* as being reserved from harvest to allow sufficient recruitment into mature seral age, until the seral assessment unit is no longer in M+O seral deficit. The sufficient amount of *mature recruitment area* is calculated after first accounting for all forest less than mature seral age in No-harvest areas in the *seral assessment unit*. *Mature recruitment areas* are selected from stands:

- a) in order of priority from oldest to youngest available, and
- b) displaying stand attributes most conducive to regaining mature seral condition as soon as possible, and
- c) that contribute to achieving or trending towards patch size target ranges outlined in Table 3 for the applicable NDT/BEC unit.

Result:

1. The *FSP Holder* will not conduct *primary forest activities* in mature seral or older forest in a *M+O deficit unit*, or cause the amount of mature seral or older forest in a seral assessment unit to be less than the applicable M+O seral target area, unless one or more of the following criteria are met:
 - a) For the purpose of salvage where pine comprises >70% of the stand *basal area*, and >50% of the pine *basal area* is comprised of pine that is red, grey or green attacked mountain pine beetle, and sufficient mature recruitment area has been reserved from harvest, or
 - b) Where >50% of the *basal area* of the stand is dead, or red, grey or green attacked bark beetle, and sufficient *mature recruitment area* has been reserved from harvest.
 - c) For clauses (a) and (b) above, mature and older stands will not be drawn-down lower than the corresponding target as shown in Table 3.
 - d) Partial cutting harvest where the *FSP Holder* ensures that after harvest the stand volume and stand attributes are > 70% of the pre-harvest stand, and
 - i. all diameter classes and species are represented in proportion to the average natural mature or older seral condition for that site, or
 - ii. the harvesting is a thinning from below treatment that removes only intermediate

- and overtopped crown classes to a maximum of 30% of stand *basal area*.
- e) Where harvest is *essential for insect control*.
 - f) Within *primary and interface fuel breaks*, in an approved community or regional wildfire plan where impacts to mature and *older seral* stand attributes are minimized:
 - i. reduction of fine surface debris, *ladder fuels and small diameter trees in intermediate and overtopped crown classes*, and
 - ii. separation of tree crowns among individual trees or clumps within the *dominant and co-dominant* layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
 - g. Within a designated *Wildland Urban Interface area*, reduction of fine surface debris, dead trees, *ladder fuels and small diameter trees in intermediate and overtopped crown classes*.

2. The *FSP Holder* will not conduct *primary forest activities* in mature seral or older forest stand age in a *M+O deficit* unit unless sufficient mature recruitment area has been reserved from harvest.

Table 2 – Mature plus old seral stage age definitions and targets

NDT	BEC Zone	Seral Stage Age Definition (stand age in years)	Target minimum % of total productive forest area in seral assessment unit		
			Low BEO	Intermediate BEO	High BEO
			Mature + Old min.	Mature + Old min.	Mature + Old min.
1	ESSF	>120	19	36	54
1	ICH	>100	17	34	51
1	MH	>120	19	36	54
2	CWH	>80	17	34	51
2	ESSF	>120	14	28	42
2	ICH	>100	15	31	46
2	SBS	>100	15	31	46
3	ESSF	>120	14	23	34
3	MS	>100	14	26	39
3	SBPS	>100	8	17	25
3	SBS	>100	11	23	34
3	ICH	>100	14	23	34
4	IDF – Fir group	>100	22	43	65
4	IDF – Pine group	>100	11	23	34

Table 3 – Minimum mature plus old seral target drawdowns

NDT	BEC Zone	Minimum % of total productive forest in seral assessment unit that is mature or older for salvage draw-down in M+O deficit units		
		Low BEO	Intermediate BEO	High BEO
1	ESSF	19	19	28
1	ICH	13	13	19
1	MH	19	19	28
2	CWH	9	9	13
2	ESSF	9	9	13
2	ICH	9	9	13
2	SBS	9	9	13
3	ESSF	14	14	21
3	MS	14	14	21
3	SBPS	7	7	10
3	SBS	11	11	16
3	ICH	14	14	21
4	IDF – Fir group	21	21	32
4	IDF – Pine group	11	11	16

Result or Strategy - Spatial/Temporal Distribution of Cutblocks, Landscape Connectivity and Species Composition

Definitions

“Patch assessment unit” means an area generated by the overlay of:

- a. landscape units (LUs) defined in the *CCLUP* LAO spatial data set: *Cariboo-Chilcotin Landscape Units*, and
- b. the accompanying most current government endorsed Biogeoclimatic Ecosystem Classification (BEC) and Natural Disturbance Type (NDT) classification.

“Patch size assessment” means an assessment completed within the last 2 years, conducted consistent with the methodology outlined in *“Regional Biodiversity Conservation Strategy Update Note #4”*, that:

- a. calculates the amount of each seral stage currently present in the **patch assessment unit** that is in small, medium and large size patches according to the criteria in Table 4, and
- b. calculates the amount of the seral stage(s) created by the proposed harvest area that is in small, medium and large size patches according to the criteria in Table 4, and
- c. is based on the most current forest inventory, or the most recent government endorsed patch size analysis, and
- d. accounts for all completed and approved harvesting and wildfire impacts that are not reflected in the most current forest inventory or most recent government endorsed patch size analysis.

Table 4 – Patch size target ranges

NDT	BEC unit	Patch Size Class (target % range in each class)				
		0-40ha	41-80ha	80-250ha	40-250ha	>250ha
1	all	30-40	30-40	20-40	n/a	0
2	all	30-40	30-40	20-40	n/a	0
3 Douglas Fir throughout	SBSdw, SBSmh, SBSmw, ICHdk	20-30	25-40	30-50	n/a	0
3 Douglas Fir restricted or absent	all others	10-20	n/a	n/a	10-20	60-80
4	all	30-40	30-40	20-30	n/a	0

Results

1. The **FSP Holder** will, prior to the submission of proposed harvest for approval, conduct a **patch size assessment** of the proposed **primary forest activity** that demonstrates how the proposed harvest will either:
 - a. Within the **patch assessment unit**, maintain the patch size distribution of the seral stage created by the harvest consistent with the patch size target ranges outlined in Table 4, or
 - b. Within the **patch assessment unit**, trend the patch size distribution of the seral stage created by the harvest toward the patch size target ranges outlined in Table 4.
2. The **FSP Holder** will not cause the patch size distribution of the seral stage(s) created by harvest in a **patch assessment unit** to be inconsistent with, or deviate further from, the patch size target ranges outlined in Table 4, unless one or more of the following criteria are met:
 - a. For the purpose of salvage where pine comprises >70% of the stand **basal area**, and >50% of the pine **basal area** is comprised of pine that is red, grey or green attacked mountain pine beetle, or
 - b. Where >50% of the **basal area** of the stand is dead, or red, grey or green attacked bark beetle.
 - c. Within **primary and interface fuel breaks** in an approved community or regional wildfire plan, where impacts to mature and **older seral stand attributes** are minimized:
 - i. reduction of fine surface debris, **ladder fuels and small diameter trees in intermediate and overtopped crown classes** and,
 - ii. separation of tree crowns among individual trees or clumps within the **dominant and co-dominant** layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
 - d. Within a designated **Wildland Urban Interface area**, reduction of fine surface debris, dead trees, **ladder fuels and small diameter trees in intermediate and overtopped crown classes**.

3. The **FSP Holder** will, prior to the submission of proposed **primary forest activities** for approval, conduct an assessment by a **QRP** that demonstrates how the design of stand level retention has maintained the natural connectivity characteristics of mature and old forests in the area(s) of the proposed harvest, according to the Natural Connectivity Characteristics Frequency outlined in Table 5 and described in the Biodiversity Guidebook (1995).

Table 5 – Natural Connectivity Characteristics Frequency

NDT	BEC unit	Natural Connectivity Characteristics Frequency						
		upland to upland	upland to stream	upland to wetland	cross-elevational	wetland complex	stream riparian	island remnants
1	ESSFwc3, ESSFwk1, ICHwk2, ICHwk4, MHmm2	high	high	high	high	low-moderate	high	low
2	CWHds1, CWHms1, ESSFmv1, ESSFmw, ESSFxv, ICHmk3, SBSwk1	high	moderate	moderate	high	low	high	low
3	SBPSdc, SBPSmc, SBPSmk, SBPSxc, SBSdk, SBSmc3, SBSdw1, SBSdw2	low	low	low	low	high	low	high
	MSxv	moderate-high	moderate-high	moderate-high	low	high	low	moderate
	ESSFdc, ESSFxc, MSdc, MSxk, SBSmc1, SBSmc2, SBSmm, ICHdk3	low-moderate	low-moderate	high	moderate	moderate	high	moderate
4	IDFdk3, IDFdk4	moderate-high	moderate-high	moderate-high	low	high	low	moderate
	BGxh3, BGxw2, IDFmw2, IDFww, IDFxh2, IDFxm,	high	high	high	high	low-moderate	high	low

5.5.6 Biodiversity Conservation - Stand Level

<p>Objective 15</p> <p>1. Conserve biological diversity through retention of coarse woody debris and retention of wildlife trees.</p> <p>LUO - Wildlife Tree Retention Area</p> <p>6. Where harvesting removes >50 percent of the pre-harvest stand basal area or where the harvest is part of a shelterwood silvicultural system, meet or exceed the minimum areas for wildlife tree retention for each harvest area (cutblock or cutting permit) as set out in LUO Schedule 1 - Wildlife Tree Retention Targets.</p> <p>7. Where practicable, in partially cut stands, where harvesting removes <50 percent of the pre-harvest basal area, retain high-value, wildlife trees up to the limits in LUO Schedule 1 - Wildlife Tree Retention Targets.</p>	<p>Source of Objective</p> <p><i>CCLUP</i> 90 day Report Pg. 153.</p> <p><i>CCLUP</i> Land Act Order - May 2011.</p>
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Definition

High Value Wildlife Tree - means a tree over 37.5 cm DBH among the target residual conifer species or over 20 cm DBH for deciduous species, and that falls within one of the wildlife tree classes shown in the following table.

Table 5.5.6 - Wildlife Tree Classes

Class	Description	Characteristics
2	Live/unhealthy	Internal decay or growth deformities (including insect damage, broken tops) dying tree
3	Dead	Hard heartwood, needles and twigs present; roots stable
4	Dead	Hard heartwood, no needles/twigs; 50% of branches lost; loose bark; top usually broken; roots stable
5	Dead	Spongy heartwood; most branches/bark absent; internal decay; roots stable for larger trees; roots of smaller trees beginning to soften
6	Dead	Soft heartwood; no branches or bark; sapwood/heartwood sloughing from upper bole; lateral roots of larger ones softening; smaller ones unstable
7-8	Dead	Soft heartwood; stubs; extensive internal decay; outer shell may be hard; lateral roots completely decomposed, hollow or nearly hollow shells

Applicable area

FDU 1.

Result or Strategy

Wildlife Tree Retention

1. The **FSP Holder** undertakes to comply with LUO **Wildlife Tree Retention Area** Objectives 6 and 7.
2. The **FSP Holder** adopts as written on the date of **FSP** approval, the **Wildlife Tree Retention Area** Targets per the *CCLUP* Land Use Order - May 2011, Schedule 1, as shown in Appendix 9.4.
3. The **FSP Holder**, by complying with the **FSP** Results and Strategies that meet LUO Objectives 5, 6, 7, 8, 16 and 32, addresses the Stand Level Biodiversity factors set out in *FPPR* Section

9.1, those being:

- a) the size, structure, amount, location and other characteristics of trees that
 - i. make the trees suitable for wildlife habitat, and
 - ii. have ecological attributes that contribute to stand level biodiversity;
- b) the use of wildlife habitat areas, ungulate winter ranges, riparian management areas, old growth management areas, scenic areas and other areas established to manage forest resources to:
 - i. provide suitable wildlife habitat, and
 - ii. assist in the conservation of stand level biodiversity, including old growth.

4. Where *primary forest activities* remove >50 percent of the *pre-harvest* stand *basal area* or where the harvest is part of a shelterwood silvicultural system, the **FSP Holder** will meet or exceed the minimum areas for **WTRA** for each harvest area (cutblock or cutting permit) as set out in the LUO Schedule 1 - *Wildlife Tree Retention* Targets.
5. The **FSP Holder** may propose amendments or substitutions to established **WTRAs** where a **QRP** has determined that:
 - a) The retention will cause a safety issue.
 - b) The trees planned for retention represent a significant forest health risk to adjacent stands as defined by areas *essential for insect control*.
 - c) The trees planned for retention are in a location that limits future road access to successive harvest passes or locations or fence construction where no other practicable location exists.
6. If the **FSP Holder** authorizes or conducts timber harvesting within a **WTRA** for the reasons outlined in strategy 5, then the **WTRA** will be replaced with an equal area of **WTRA** with similar stand characteristics, that is within or adjacent to the existing Cutting Permit.
7. In partially cut stands, where *primary forest activities* remove < 50 percent of the *pre-harvest basal area*, the **FSP Holder** will retain *high-value wildlife trees* up to the limits in LUO Schedule 1 *Wildlife Tree Retention Area* Targets. *BA* Equivalency of single retained trees will be on a 1:1 ratio (see Appendix 9.8 for explanation). Where *high-value wildlife trees* are not present, the **FSP Holder** will leave, where practicable, trees suitable for wildlife that meet at least two of the criteria in Table 5.5.6 Column 3 - Wildlife tree class characteristics.
8. The **FSP Holder** will measure **WTRA** as either individual trees or as patches under the following specifications:
 - a) at the Cutting Permit Level, the percentage will be measured as a percentage of the Gross CP area defined as the cumulative of gross block areas under a Site Plan, or,
 - b) As the calculation of **WTRA** percentage using an estimate of the area of designated patches which may include the *basal area* equivalency in hectares of individual stems.
 - c) The percentage **WTRA** implementation will be assessed against the biogeoclimatic unit which contains the greatest proportion of area under the Net area to be reforested as noted in the Site Plan. (see Appendix 9.8 for explanation).
9. When selecting areas for **WTRA**, the **FSP Holder** will retain naturally occurring shrubs, deciduous stems - both singly and in clumps where present, sound, well rooted trees with relatively small, open crowns, non-merchantable stems, and advanced regeneration to the extent practicable if present.
10. The **FSP Holder** will, when selecting locations for **WTRA**, give preference to stands that

include:

- a) Trembling aspen (≥ 40 cm dbh) with obvious cavities, cracks, conks, or blind conks.
- b) Lodgepole pine (≥ 30 cm dbh) and Douglas-fir (≥ 50 cm dbh) with obvious signs of decay, including cavities, conks, and blind conks.
- c) Hybrid spruce with rust brooms (typically on trees ≥ 30 cm dbh).
- d) Accumulations of Coarse Woody Debris in windthrow greater than 5 m across and 1 m high.

11. The **FSP Holder** will leave felled material from a **WTRA** on site unless there are safety, significant Forest Health concerns as determined by a **QRP** assessment and recommendation, or fuel management concerns.
12. The **FSP Holder** adopts Section 91(2) with respect to replacement of **WTRA**. Within one year of the date of harvesting area within a **WTRA**, the **FSP Holder** will nominate and map a replacement of the retention area with other suitable habitat in the nearest possible location to the original **WTRA** and RESULTS reporting will be done for the **WTRA** update info within six months of completing the replacement.
13. For new access that is constructed through an established **WTRA**, the **FSP Holder**, where the area is removed from an established **WTRA**, will replace an equivalent area. A note will be included in the site plan for the CP being accessed that defines the situation (x ha of additional **WTRA** has been established to meet the y% requirement of the CP that has had the **WTRA** removed). A copy of the note will also be placed on the original CP file.
14. As fence lines are not usually associated with a cutting authority which is the only mechanism for establishing **WTRAs**, where the **FSP Holder** constructs a fence line through an existing **WTRA**, the fences line may be constructed through an established **WTRA** without replacement of equivalent area.
15. **WTRA** will be a minimum of 0.25 ha in size.
16. The **FSP Holder** adopts **FPPR** section 68 (Coarse Woody Debris) as a requirement:
 - a) An agreement holder who carries out timber harvesting must retain on a cutblock a minimum of 4 logs per ha, each being a minimum of 2 m in length and 7.5 cm in diameter at one end.
 - b) An agreement holder is exempt from strategy 1(a) if:
 - i. The holder's agreement or an enactment requires the holder to act in a manner contrary to that set out in strategy (1), or
 - ii. The holder carries out on the cutblock a controlled burn that is authorized under an enactment, or
 - iii. The holder is a fibre recovery tenure holder.

5.6 Lakes Management.

Objective 16 - Lakes Management Objective 17 - Quality Lakes for Wilderness Fisheries	Source of Objective
<p>1. Maintaining quality lake and stream fisheries through road access restrictions and visual quality management.</p> <p>LUO - Lakes Management</p> <p>16 For the lakeshore management zones shown on <i>map 6a</i> and defined by the spatial dataset, <i>Cariboo-Chilcotin Lakeshore Classes</i>, maintain the lakeshore management zones in accordance with Schedule 2.</p> <p>17 For the lakes shown on <i>map 6b</i> and defined by the spatial dataset, <i>Cariboo-Chilcotin Lake Management Classes</i>, manage the lakes in accordance with Schedule 3.</p> <p>18 Despite objectives 16 and 17, variance from the VQOs and the maximum disturbance limits in Schedule 2 and the Lake Management intent in Schedule 3 is permitted in lakeshore management zones for any of the following reasons:</p> <ul style="list-style-type: none"> (a) Where harvesting is <i>essential for insect control</i> and all identified <i>infestation sites</i> on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, (b) Road and fence construction in Class A lakeshore management classes where there is no other practicable location available, (c) Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized: <ul style="list-style-type: none"> i. reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and, ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns. <p>19 For refugia and wilderness fisheries lakes, locate new roads away from the lakeshore, sufficient to protect the existing character of the lake, unless no other practicable route exists.</p>	<p><i>CCLUP</i> 90-Day Report Pg. 13.</p> <p><i>CCLUP</i> Land Act Order - May 2011.</p>
<p>Definition</p> <p>“<i>Key Lakes</i>” are lakes that have visual objectives and other values important to the tourism industry and related recreation opportunities. They can also be classified as one of the lakes identified in LMZs (5.6) as Refugium, Wilderness Fisheries, Quality, or General Lakes.</p>	
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<ul style="list-style-type: none"> 1. The <i>FSP Holder</i> undertakes to comply with LUO Lakes Management objectives 16, 17, 18 and 19. 2. When conducting <i>Primary forestry activities adjacent to</i> lakes as shown on LUO <i>map 6b</i> 	

- and defined by the spatial dataset, *Cariboo-Chilcotin Lake Management Classes*, the *FSP Holder* will manage the lakes in accordance with Schedule 3.
3. The *FSP Holder* adopts as written on the date of *FSP* approval, the LUO Lakes Management objectives per the *CCLUP* Land Use Order - May 2011, Schedule 2 - Lakeshore Management Classes.
 4. Despite R&S 1, the *FSP Holder* may carry out *primary forestry activities* in Lakeshore Management Zones where:
 - a) *Primary forestry activities* are proposed by the *FSP Holder* for *essential insect control* and all identified *infestation sites* on crown provincial forest within 500 meters of the infested trail management zone is addressed prior to or in conjunction with primary forest activities to curtail severe damage to forest values at the landscape level. Prior to proposing a *primary forest activity*, the *FSP Holder* will conduct an assessment by a *qualified resource professional* and recommended *primary forest activities* will be planned and conducted in a manner consistent with achieving the assessment recommendations, prescription and associated Objective;
 - b) Road and fence construction are proposed, and no other practicable location is available;
 - c) Within *primary and interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to primary *old seral* forest characteristics are minimized:
 - i. for reduction of fine surface debris, *ladder fuels* and *small diameter trees in intermediate and overtopped crown* classes and,
 - ii. for separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
 5. When conducting *Primary forestry activities adjacent to* lakes as shown on LUO map 6b and defined by the spatial dataset, *Cariboo-Chilcotin Lake Management Classes*, the *FSP Holder* will conduct *primary forest activities* according to the following:
 - a) Specific to General Lakes:
 - i. With an established *LMZ*, achieve the VQO by lakeshore management class listed in Table 14 within the *LMZ*; or
 - ii. Without an established *LMZ*, achieve a VQO of partial retention within 200m of the lakeshore.
 - b) Specific to Quality Lakes:
 - i. Where practicable locate new roads outside the *LMZ* and achieve the VQO, by *LMZ* class listed in Table 14, within the *LMZ*.
 - c) Specific to Refugium Lakes:
 - i. The *LMZ* will be a no-harvest area, or
 - ii. For refugium lakes without a *LMZ*; the area within 200m of the lake will be a no harvest area.
 - d) Specific to Wilderness Fisheries Lakes:
 - i. Achieve VQO of preservation within the *LMZ*, and
 - ii. Where practicable, not construct or upgrade roads within 2km of the lakeshore; or
 - iii. Where new roads are constructed within 2km of the lakeshore, install *access controls* at the beginning of the road, or at a minimum distance of 2kms from the lakeshore following delivery of fibre from the cutblock.

6. When conducting *Primary forestry activities adjacent to* lakes as shown on LUO map 6b and defined by the spatial dataset, *Cariboo-Chilcotin Lake Management Classes*, the *FSP Holder* will follow the Retention Strategy in the following table.

Riparian Class	Riparian Reserve Zone Minimum Width (m)	Windthrow Hazard	Retention Strategy within the LMZ
L1 & L3 – per map 6c data.	Per LUO map 6c data.	All.	As per LUO Schedule 2. Retention in LMZ will be met by LUO in Section 5.6.
L3 – per map 6a data.	Per LUO map 6a data.	All.	As per LUO Schedule 2. Retention in LMZ will be met by LUO in Section 5.6.

Schedule 2 Lakeshore Management Classes

Lakeshore Management Classes	Visual Quality Objective in the Lakeshore Management Zone (LMZ)	Forest Disturbance and Retention in the Lakeshore Management Zone	
All		Conserve deciduous patches, significant wildlife trees, major wildlife features, and moist under-story habitats.	
		Partial Cutting	Clearcutting
A	Preservation	No harvest	
B	Retention	Maximum disturbed area is 20% of the lakeshore management zone every 20 years with a minimum basal area retention of 50%	Maximum disturbed area is 10% of the lakeshore management zone every 20 years with openings smaller than 5 ha.
C	Partial Retention	Maximum disturbed area is 40% of the lakeshore management zone every 20 years with a minimum basal area retention of 50%	Maximum disturbed area is 20% of the lakeshore management zone every 20 years with openings smaller than 10 ha.
D	Modification	Maximum disturbed area is 60% of the lakeshore management zone every 20 years with a minimum basal area retention of 50%	Maximum disturbed area is 30% of the lakeshore management zone every 20 years.
E	Modification	Maximum disturbed area is 100% of the lakeshore management zone every 20 years with a minimum basal area retention in the lakeshore management zone of 50%	Maximum disturbed area is 50% of the lakeshore management zone every 20 years

CCLUP Land Use Order, May 2011– Schedule 3:

Schedule 3**Lake Management Classes**

General Lake	Manage the area around the lake to maintain a predominantly rural or natural setting. Road access includes 2-wheel drive roads.
Quality Lake	Manage the area around the lake to provide quality natural features with pristine surroundings and a natural appearing environment. Minimize road access and land development.
Refugium Lake	Manage the area around the lake to conserve the special ecological or physiographic features or habitats.
Wilderness Fisheries Lake	Manage the area surrounding the lake to maintain natural features in an undisturbed, wilderness setting.

5.7 Eastern Caribou

Objective 18 Eastern Caribou	Source of Objective
<p>7. To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat and lakeshore management zones and throughout the poly-on under the biodiversity conservation strategy.</p> <p>8. To maintain habitat values for mountain caribou within the Cariboo Region.</p>	<p><i>CCLUP</i> 90-Day Report. Pg. 156, 157.</p>
Applicable area	
There are no Eastern Caribou Habitat spatial areas within FDU 1.	
Result or Strategy	
No Result & S is provided as there are no Eastern Caribou Habitat areas located within the area under the FSP.	

5.8 Grizzly Bear

Objective 19	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; Gustafson and LoonERDZs: To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p><i>CCLUP</i> 90-Day Report Pg.77, 105, 125, 127.</p>
LUO - Grizzly Bear	CCLUP Land Use Order - May 2011.
<p>33. Apart from existing Wildlife Habitat areas, retain security cover adjacent to critical grizzly bear foraging habitats which include salmon and trout spawning reaches or shoals, and herb-dominated avalanche track and run-out zones on southerly and westerly aspects, in very high, high and moderate capability grizzly bear units shown on map 12 and defined by the spatial dataset, Cariboo-Chilcotin Grizzly Bear Capability.</p> <p>34. In very high, high and moderate capability grizzly bear units shown on map 12 and defined by the spatial dataset, Cariboo-Chilcotin Grizzly Bear Capability, conduct silvicultural treatments on cutblocks to retain as much existing natural berry production as practicable.</p>	
Applicable area	
Grizzly Bear Wildlife Habitat areas, very high, high and moderate grizzly bear capability areas as defined in the LUO 2011 <i>spatial dataset Cariboo-Chilcotin Grizzly Bear Capability map 12</i> , and grizzly bear proposed Wildlife Habitat Areas within FDU 1. Note: There are no Identified Grizzly Bear Habitat zones within FDU 1. FDU-1 - Critical Fish Habitat areas.	
Result or Strategy	
<p>1. The FSP Holder will apply the Results and Strategies for the Objectives Visual Quality (Section 5.3.2), Fish and Wildlife (Section 5.5) and Species at Risk (Section 5.12).</p> <p>2. The FSP Holder will comply with Grizzly Bear Wildlife Habitat area requirements where they exist.</p>	

3. The **FSP Holder** will record and map all instances of Grizzly Bear presence observed by staff or noted by consultants working on the **FSP Holder**'s tenure. The information will be used to inform **primary forest activity** planning.
4. The **FSP Holder** will protect **known** and new active grizzly bear and black bear denning sites when proposing **primary forest activities** through application of a minimum 100 m buffer around the den site in the form of a **WTRA** unless harvesting is required to provide access and no other practicable location is available.
5. Where a **known** or new grizzly bear or black bear denning site is found to be active during **post-harvest** activities, the **FSP Holder** will establish a no work/no treatment area of a minimum 2 hectares in size, centered around the den site location, during the time the work is carried out.
6. Once **primary forest activities** are completed, the **FSP Holder** will carry out **deactivation** of access within 200 m of very high, high or moderate Grizzly Bear Habitat areas.
7. The **FSP Holder** will retain a minimum of 50% of the mature forest cover within 200 metres of critical grizzly bear foraging habitats for the provision of security cover.
8. The **FSP Holder** will retain a minimum of 50% of the mature forest cover within 100 meters of herb-dominated avalanche track and run-out zones on southerly and westerly aspects, as protection of security and thermal cover except where a **Qualified Resource Professional** has determined that:
 - a) the retention will create a public safety risk or a forest health risk to adjacent stands,
 - b) the value of the screening area has been lost due to disturbance from bark beetles, windthrow, fire or other disturbance, or
 - c) the retention will limit road construction where no other practicable location exists.
9. The **FSP Holder** will not use herbicides when conducting silviculture treatments on areas **adjacent to** suitable grizzly bear habitat as defined in the LUO *spatial dataset Map 12*.
10. The **FSP Holder** will not authorize the use of sheep, domestic goats or cattle for vegetation management in occupied grizzly bear habitat.
11. The **FSP Holder** will, in very high, high and moderate Grizzly Bear Capability Area, engage a **QRP** to assess the amount of berry forage type available to grizzly bears within the harvested area, and develop a detailed manual brushing treatment prescription that delineates and retains as much of the existing natural berry production as practicable.

5.9 Moose

Objective 20	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p> <p>2. The overall objective is to maintain habitat through maintenance of:</p> <ul style="list-style-type: none"> a) forested buffers around wetlands and riparian areas, b) Cover and early seral (shrubby) upland winter habitats, c) Other aspects of moose habitat needed on a site-specific basis, including calving areas and summer habitat protection, d) Careful access management, including limitations on permanent access, deactivation of temporary roads, and limiting road crossings of wetlands and riparian areas as much as possible. <p>3. Limitations on permanent access and deactivation of temporary roads are required. Road crossings of wetlands and riparian areas should be as limited as possible. Additional buffering of wetlands (up to 200 meters) may be required adjacent to key wetlands or riparian habitats, particularly on the Chilcotin Plateau.</p> <p>LUO - High Value Wetlands for Moose</p> <p>32. Retain sufficient vegetation to provide security and thermal cover for wintering moose adjacent to high-value wetlands shown on map 11 and defined by the spatial dataset, Cariboo-Chilcotin High Value Wetlands for Moose, and adjacent to W1, W3, or W5 wetlands including shrub-carrs.</p>	<p><i>CCLUP</i> 90-Day Report Pg.77, 105, 125, 127.</p> <p><i>CCLUP</i> 90-Day Report App. 4, Pg. 155-156.</p> <p><i>CCLUP</i> Land Use Order - May 2011.</p>
<p>Definitions</p> <p>“Access Control” means a barrier located on a <i>road</i> which makes the <i>road</i> beyond the access control point impassable with a motor vehicle, excluding motorcycles, as defined under the <i>Motor Vehicle Act</i>. Types of access control include, but are not limited to, gates, cement blocks, deep trenches, ripping the <i>road</i> surface for greater than 200 meters where practicable, or the piling of debris on the <i>road</i>.</p> <p>Adjacent” as defined in <i>FPPR</i> 65(1) means “an area that is sufficiently close to a cutblock that, due to its location, could directly impact on, or be impacted by, a forest practice carried out within the cutblock”.</p> <p>“Riparian Edge” means the wetland boundary which is determined from on-the-ground surveys by mapping the upslope extent of the following combination of conditions:</p> <ul style="list-style-type: none"> a. Predominance of plant species that normally grow in water or water-saturated soils or in peat soils (plant communities that indicate sub hydric or hydric ecological moisture regime). b. Soils that are water-saturated or show evidence of prolonged water saturation (gleying) within 30 cm of the surface or are peat soils. c. For shrub-carrs, the transition between shrub dominated and tree dominated vegetation. 	

“High Value Moose Wetland Management Zone (HVMWMZ)” is an area surrounding a *High Value Moose Wetland* measured from the *riparian edge* of the wetland and with a width of 200 meters (slope distance).

“High Value Moose Wetland” is as defined in the Cariboo-Chilcotin Land-Use Plan *Land Act* Section 93.4 Ministerial Order, dated April 18, 2011, spatial data set: *Cariboo-Chilcotin High Value Wetlands for Moose*.

“Moose Management Unit (MMU)” means an area surrounding a W1, W3, W5 or shrub-carr wetland not identified as a *High Value Moose Wetland*. The *Moose Management Unit* is an area with a width of 100 metres (slope distance) applied from the *riparian edge* of a W1, W3, W5 or *shrub-carr* wetland.

“Road” has the meaning given to it in *FPPR* s.1.

“Security cover” means sufficiently stocked live conifers averaging greater than 3 meters in height.

“Shrub-carr” means a wetland that is shrub dominated and comprised of scrub birch and willows up to 2m tall, developed on mineral soils that are periodically saturated, but rarely inundated.

“Thermal cover” means sufficiently stocked conifers greater than or equal to 15 meters tall with greater than 40% crown closure. For the SBPS, IDF or MS BEC zones, if 15-meter stands are not available then greater than or equal to 8 meter tall with greater than 40% crown closure conifer stands will be acceptable as thermal cover.

“Visual screen” means vegetation, topography, or woody debris piles that obscure $\geq 50\%$ of the view from a road surface.

Applicable area

High Value Wetlands for Moose and their applicable Riparian Management Zones within FDU 1, W1, 3, and 5 wetlands, and adjacent upland areas that provide visual and thermal security.

Result or Strategy

1. In relation to the objectives set by government for moose the *FSP Holder* will, in a cutblock that overlaps with a *HVMWMZ* or a *MMU*:
 - a. not cause the *HVMWMZ* area or a *Moose Management Unit* area to have:
 - i. within the SBPS, IDF or MS BEC zones,
 - 1) less than 30% of the area as *thermal cover*, and
 - 2) less than 40% of the area as *security cover*, in addition to the *thermal cover*.
 - ii. within the SBS BEC zone,
 - 1) less than 33% of the area as *thermal cover*, and
 - 2) less than 33% of the area as *security cover*, in addition to the *thermal cover*.
 - iii. within the ESSF BEC zone,
 - 1) less than 60% of the area as *thermal cover*, and
 - 2) less than 20% of the area as *security cover*, in addition to the *thermal cover*.
 - b. for all *thermal and security cover* retained above, ensure that the patches will:
 - i. be greater than or equal to 200 meters wide, and

- ii. greater than 4 hectares, and
 - iii. not greater than 400 meters apart where more than one patch is established.
 - c. not construct a **road** within a **HVMWMZ or Moose Management Unit** unless no practicable alternative exists for the **road** location.
2. If the wetland with a **HVMWMZ or MMU** is less than 6 hectares, then clause 1 b. does not apply.
 3. Where the **FSP Holder** harvests a cutblock within 500 metres (slope distance) of **High Value Moose Wetlands**, the **FSP Holder** will:
 - a) following delivery of the fibre from the cutblock, establish and maintain a **visual screen** for that portion of the cutblock within 500 meters of the **High Value Moose Wetland** until free growing, or
 - b) immediately following delivery of the fibre from the corresponding cutblock associated with the **High Value Moose Wetland**, establish **access control(s)** to eliminate vehicular access into the cutblock. The **access control** will be maintained until the **road** is **deactivated**.
 4. Where road densities exceed 0.6 km/km² within 1000 meters of a **high value moose wetland**, the **FSP Holder** will, immediately following delivery of the fibre from the corresponding cutblock associated with the **High Value Moose Wetland**, **deactivate** or establish **access control(s)** on all new **roads** to eliminate vehicular access within 1000 metres of the **High Value Moose Wetland**. The access control will be maintained until the **road** is **deactivated**.
 5. For those portions of a cutblock within 500 meters of a **HVMWMZ or Moose Management Unit**, the free growing damage criteria for even-aged coniferous trees as specified in the FS 660 field card, with regard to dwarf mistletoe, will not apply to retained lodgepole pine and subsequent lodgepole pine regeneration.

5.10 Furbearers (Including Fisher, Marten and Wolverine)

Objective 21	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Definitions</p> <p>“Debris pile” means an accumulation of woody debris $\geq 3\text{m}$ by $\geq 5\text{m}$ in dimension and mechanically piled $\geq 2\text{m}$ high and consisting of the largest pieces available.</p> <p>“Fisher life history components” means the key categories of fisher life history activities which are denning, resting, foraging and movement.</p> <p>“Fisher Habitat Zones” means the large areas of fisher habitat as defined in the <i>Fisher Spatial Data Set</i>, for which guidelines have been developed specific to the zone for managing fisher habitat attributes, based on the ecosystem composition, structural attributes and climate of the zone.</p> <p>“Fisher Spatial Data Set” means the GIS shapefiles for use in ArcGIS that have been developed to identify fisher habitat conditions and retention targets around proposed cutblocks for forestry operations, and which is available at <i>BC Fisher Habitat – British Columbia Fisher Habitat and Forestry Web Module</i> (https://www.bcfisherhabitat.ca/).</p> <p>“User’s guide” means the document <i>“User’s Guide – Fisher Habitat Spatial Data”</i>, which is available at <i>BC Fisher Habitat – British Columbia Fisher Habitat and Forestry Web Module</i> (https://www.bcfisherhabitat.ca/).</p> <p>“Fisher Landscape Conditions” means the relative availability of fisher habitat for a <i>fisher life history component</i> in a female fisher home range sized polygon around a proposed cutblock.</p> <p>“Fisher Stand Condition” means the type of stand being proposed for harvest in terms of <i>fisher life history components</i>:</p> <p>“Type 1 stands” are forest habitat types that support at least 75% of fishers’ use for a given <i>life history component</i>.</p> <p>“Type 2 stands” are forest habitat types that support up to 25% of fishers’ use for a given <i>life history component</i>.</p> <p>“Fisher Retention Targets” means the amount of area/structures that should be retained during forest development based on an overlay of a cutblock boundary with the <i>fisher spatial data set</i>. The <i>retention targets</i> for a cutblock vary according to the <i>Habitat Zone, Landscape Conditions</i>, and <i>Stand Conditions</i> for the cutblock.</p>	

“Near Landscape Condition Target” means, based on the results of overlaying a cutblock boundary with the *fisher spatial data set*, that the density of *Type I stands* for the specified fisher life history component (e.g. denning or resting) within a typical female fisher home range centered on the cutblock, is reduced to near a level that may not be sufficient to support fishers, as outlined in the *user’s guide*.

Applicable area

FDU 1.

Result or Strategy

1. The **FSP Holder** will comply with the Strategies presented in this **FSP** for **WTRA**, Landscape level and Stand level biodiversity and Riparian management as presented in Section 5.5
2. When selecting locations for **WTRA**, the **FSP Holder** will give preference to stands that include:
 - (a) Trembling aspen (≥ 40 cm dbh) with obvious cavities, cracks, conks, or blind conks.
 - (b) Lodgepole pine (≥ 30 cm dbh) and Douglas-fir (≥ 50 cm dbh) with obvious signs of decay, including cavities, conks, and blind conks.
 - (c) Hybrid spruce with rust brooms (on trees ≥ 30 cm dbh).
 - (d) Accumulations of CWD (windthrow) of a minimum 5 m across and 2 m high.
3. The **FSP Holder** will comply with Identified Wildlife Management Strategies (2004) Account and Measures for Managing Identified Wildlife for each species of furbearer where they exist.
4. Where harvesting removes greater than 50% of the **basal area** in contiguous areas greater than 5 hectares, The **FSP Holder** will, at the conclusion of harvesting, where practicable, retain a minimum of 1 unburnt debris pile per hectare within those portions of cutblocks located within 100 metres of riparian areas.

Fisher:

1. To maintain habitat for fisher, the **FSP Holder** will manage habitat across the landscape by:
 - (a) Prior to submission of a cutting permit or road permit, the **FSP Holder** will:
 - i. Conduct a GIS overlay of each block and associated new road access corridor, consistent with the approach outlined in the *user’s guide*, with the *fisher spatial data set* to identify the *fisher landscape condition*, *fisher stand condition*, and *fisher retention targets* for each *fisher life history component* pertaining to the cutblock to determine location of suitable **Fisher Type I and/or Type II Stand** habitat.
 - ii. Ensure a **QRP** completes an assessment with recommendations that:
 - a. Includes field verification of the actual *fisher stand condition* of the cutblock and access corridor, and whether habitat attributes for denning or resting *fisher life history components* as identified by the above GIS exercise are present in the cutblock and access corridor (e.g. large diameter trees with cavities and/or bole decay, coarse woody debris (CWD) accumulations, spruce trees with rust brooms), and
 - b. demonstrates how the information obtained in the above GIS exercise and field work was considered in the final submitted design of cutblock boundaries and road location, **WTRA**, and CWD retention for the cutblock, to retain fisher habitat in relation to the *fisher retention targets* pertaining to the cutblock. The assessment will ensure that the proposed *primary forest activities* will not decrease the area of **Type I stands** below the **“Near” Landscape Condition Target**.

2. The ***FSP Holder*** will ensure that the recommendations from the ***QRP's*** assessment in Section 1 are followed to the extent practicable when conducting ***primary forest activities*** in relation to the cutblock.

5.11 Species At Risk

<p>Objective 22</p> <p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs:</p> <p>To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>Source of Objective</p> <p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<ol style="list-style-type: none"> 1. The FSP Holder will, for red and blue listed wildlife species indicated as occurring within FDU 1, according to the CDC BC Species and Ecosystems Explorer website at http://a100.gov.bc.ca/pub/eswp/ at the time of FSP submission for approval, record the geographic location of their occurrence including the location and occurrence of key habitat features for these species, known nesting or denning sites and breeding locations. 2. The FSP Holder commits to review the BC Species and Ecosystems Explorer website at http://a100.gov.bc.ca/pub/eswp/ annually for changes in status of SAR using the most recent available version of <i>Endangered Species and Ecosystems/BC Species and Ecosystems Explorer</i> and ensure staff, consultants and contractors carrying out primary forest activities are aware of SAR changes in status and incorporate these changes into Cutting Permit planning. 3. The FSP Holder will maintain a list of red and blue listed wildlife species that are known to exist within FDU 1 and ensure all staff and consultants working on the Clinton Community Forest Agreement tenure are aware of these species. 4. The FSP Holder will make the above information available to FLNRORD upon request. 5. Where there are no General Wildlife Measures specified under FRPA, the FSP Holder will manage for Species at Risk and Sensitive Habitats consistent with Identified Wildlife Management Strategies (2004) Account and Measures for Managing Identified Wildlife, the 2005 Background Information Notices, and strategies in Grassland Benchmarks (Section 5.12). 6. If any species at risk are identified during road construction or harvesting, where the activity could impact the species at risk, activities will halt while a management plan is put in place. 	

7. For the species identified below, the **FSP Holder** will record the geographic location of the occurrence of the following attributes and features identified by the **FSP Holder** while conducting **primary forest activities**:
- a) Badger - dens or tunnels only.
 - b) Goshawk - nest sites only.
 - c) Great Blue Heron - nest sites only.
 - d) Grizzly Bear - dens only.
 - e) Lewis's Woodpecker - nest sites only.
 - f) Long-billed Curlew - nest sites only.
 - g) Fringed Myotis, Spotted bat and Long-eared Myotis - roosting sites only.
 - h) Sandhill Cranes - nest sites only.
 - i) Sharp-tailed grouse - leks only.
 - j) Wolverine - dens or tunnels only.
 - k) Prairie Falcon - nest sites and grassland areas associated with nest sites.
 - l) Short-eared Owl and Flammulated Owl - nest sites only.
 - m) Pelicans - nesting areas.
8. The **FSP Holder** adopts as a result or strategy the general wildlife measures specified in the **GAR** orders for **Mountain Caribou** (GAR orders 5-115, 5-116, 5-117), **Badger** (5-073, 5-085, 5-874, 5-883), **Spadefoot Toad** (5-884 to 897) and Data Sensitive **GAR** Order 5-073 as those orders were on the date the **FSP** was submitted for approval.
9. The **FSP Holder**, before carrying out a **primary forest activity** within 500 m of an area designated as Grassland Benchmark, will carry out an assessment by a **QRP** to determine the possible occurrence of the following species **adjacent to** the location of proposed **primary forest activities** with recommendations for retaining important habitat attributes for these species. The recommended method(s) for implementing the **primary forest activities**, including any road **deactivation** and habitat protection, will be planned, conducted and/or implemented by the **FSP Holder** in a manner consistent with achieving the **QRP** assessment recommendations and associated Objectives:
- a) Gopher Snake
 - b) North American Racer Snake
 - c) Burrowing Owl
 - d) Western Screech-owl
 - e) Short-eared Owl
 - f) Brewer's Sparrow
 - g) Yellow-breasted Chat
 - h) Long-billed Curlew
 - i) Sharp-tailed Grouse
 - j) Lewis's Woodpecker
 - k) Fringed Myotis
 - l) Spotted Bat
 - m) Flammulated Owl

5.12 Grassland Benchmarks

Objective 23	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p> <p>LUO - Grasslands 25. Implement silvicultural practices that facilitate restoration of open grassland condition when harvesting forest in the grassland benchmark area shown on map 8 and defined by the spatial dataset Cariboo-Chilcotin Grassland Benchmark Area.</p>	<p><i>CCLUP</i> 90-Day Report Pg.77, 105, 125, 127.</p> <p><i>CCLUP</i> Land Use Order - May 2011.</p>
Applicable area	
FDU 1 areas identified as Grassland Benchmark areas on LUO Map 8.	
<p>Definition “<i>Grassland benchmark areas</i>” means the areas defined by the <i>Cariboo Chilcotin Land Use Plan</i> Land Use Order spatial data set map 8: <i>Cariboo-Chilcotin Grassland Benchmark Area</i>.</p>	
Result or Strategy	
<ol style="list-style-type: none"> 1. Within <i>grassland benchmark areas</i> the FSP Holder will not: <ol style="list-style-type: none"> a. construct roads, trails or landings unless no other practicable alternative exists for accessing and/or extracting timber, or b. apply herbicide treatments, or c. conduct reforestation activities. 2. Within <i>grassland benchmark areas</i>, the FSP Holder will: <ol style="list-style-type: none"> a. limit all <i>primary forestry activities</i> to frozen ground conditions, and b. not create bladed or excavated road surfaces unless no practicable alternative exists, and c. rehabilitate disturbed sites by re-contouring and grass seeding with ecologically suitable species for the site. 3. The FSP Holder will for those portions of cutblocks within the <i>grassland benchmark areas</i>: <ol style="list-style-type: none"> d. retain all conifer stems greater than 65cm dbh except for the following: <ol style="list-style-type: none"> i. the stems containing active bark beetle and are located within a suppression BMU for that insect pest, or ii. felling or modifying a tree that is a safety hazard, if there is no other practicable option for addressing the safety hazard. e. for each stem >65cm dbh retained, retain 1 to 4 conifer stems > 12.5cm dbh targeting stems <i>adjacent to</i> the stems > 65cm dbh retained, f. retain all deciduous stems where practicable. 	

5.13 Mule Deer.

Objective 24	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To maintain Mule Deer winter range values through modified harvest regimes over approximately X% of the forest in this polygon. Marble Range - 18, SRDZ; Clinton - 7, IRMZ; and Gustafson - 11, and Loon - 4, ERDZs.</p>	<p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Applicable area</p>	
<p>Mule Deer Winter Ranges (MDWRs) within FDU 1.</p>	
<p>Result or Strategy</p>	
<p>1. The <i>FSP Holder</i> adopts as a Result or Strategy the <i>GAR(s)</i> - Ungulate Winter Range No. u-5-003 as that order was on the date the <i>FSP</i> was submitted for approval.</p>	

5.14 California Bighorn Sheep

Objective 25	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for <u>bighorn sheep</u>, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<p>1. To manage for Bighorn Sheep, the <i>FSP holder</i> adopts the results or strategies listed in Visual Quality (5.3.2), Riparian Areas (5.5.4), and Species at Risk – General (5.11) of this <i>FSP</i>.</p> <p>2. The <i>FSP Holder</i> will maintain an occurrence map showing locations of Bighorn sheep occurrence within FDU 1.</p> <p>3. The <i>FSP Holder</i>, where Bighorn Sheep are noted or observed in an area being considered for a <i>primary forest activity</i>, will conduct an assessment using a <i>QRP</i>. The assessment will make recommendations to achieve the required objectives, including for winter range, summer range, lambing areas, rutting areas, and the migration corridor between the low elevation winter ranges and high elevation summer ranges. The assessment will specify situations or circumstances and procedures for implementing measure for access management and timing of <i>primary forest activities</i> that sufficiently mitigate impacts on bighorn sheep.</p> <p>4. The recommended method(s) for implementing the <i>primary forest activities</i>, including any road <i>deactivation</i> and habitat protection, will be planned, conducted and/or implemented by the <i>FSP Holder</i> in a manner consistent with achieving the <i>QRP</i> assessment recommendations and associated Objectives.</p>	
<p>5. The <i>FSP Holder</i> commits to restrict the <i>FSP Holder</i> use of aircraft to limit aircraft</p>	

disturbance to bighorn sheep occupying winter range or natal areas within areas of <i>known</i> occurrence and areas identified as California Bighorn Sheep Winter Range.
6. The <i>FSP Holder</i> will follow procedures outlined in the Identified Wildlife Management Strategy (2004) on <i>known</i> and identified California Bighorn Sheep winter ranges.

5.15 Limestone Plant Associations

Objective 26	Source of Objective
1. Marble Range SRDZ: To inventory and manage for rare limestone plant associations.	<i>CCLUP</i> 90-Day Report Pg. 77.
Applicable area	
FDU 1 areas within the Marble Range SRDZ.	
Strategy	
1. No Strategy is presented as government has exempted the <i>FSP Holder</i> from the requirement to prepare a strategy for this objective.	

5.16 Water Resources.

Objective 27	Source of Objective
Specific Objectives	<i>CCLUP</i> 90-Day Report Pg. 178.
1. As part of the development planning process, there will be identification and assessment of sensitive resource values that could be impacted by development, including cultural heritage values, specified wildlife values, water resources , recreation features and values, aesthetic values and sensitive areas. As part of this work, it is appropriate that the key resource agencies identify and notify the potentially affected <i>stakeholders</i> of the initiation of the planning process.	
Applicable area	
FDU 1.	
Strategy/Result	
<ol style="list-style-type: none"> Where <i>primary harvest activities</i> are proposed, the <i>FSP Holder</i> will refer proposed Road Permit and or Cutting Permit information to Licensed Water Rights <i>Stakeholders</i> in the potentially affected area. Input from this process will be used to inform <i>primary forest activity</i> development. The <i>FSP Holder</i> will post, on the Clinton Community Forest web site, a minimum of 60 days prior to Cutting Permit submission, any proposed <i>primary forest activity</i> that could affect unlicensed water users in the potentially affected area. Input from this process will be used to inform <i>primary forest activity</i> development. See Section 5.22 Access Management. 	

5.17 Prairie Falcon

Objective 28	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for bighorn sheep, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Definition Prairie falcon <i>nest sites</i> - Nest sites, as defined by the IWMS, are located in cliff faces with an overhang over the nest, ranging from 15 to 138 m from the base of the cliff, and most often on rocky substrates. Sites <i>adjacent to</i> extensive open areas (i.e. grasslands, sage-brush steppe habitat) with abundant prey are important breeding habitats. IWMS access at: http://www.env.gov.bc.ca/wld/frpa/iwms/documents/Birds/b_prairiefalcon.pdf</p>	
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<ol style="list-style-type: none"> 1. To manage for Prairie Falcons, the FSP holder adopts the results or strategies listed in Visual Quality (5.3.2), Riparian Areas (5.5.4), and Species at Risk – General (5.11) of this FSP. 2. The FSP Holder, where an active nest site is made known or identified, will at the time the nest site is made known or identified, protect the active nest site by including it within a WTRA of minimum 2 ha size centered around the colony nest where practicable, and establish a no-work zone of 300 m around the active nest site during the periods between March 15 and July 30. 3. The FSP Holder adopts as a result or strategy the general wildlife measures specified in the GAR order for Prairie Falcons - Data Sensitive GAR Orders as those orders were on the date the FSP was submitted for approval. 4. The FSP Holder, where a Prairie Falcon is noted or observed in an area being considered for a primary forest activity, will conduct an assessment using a QRP. 5. The QRP assessment will make recommendations to achieve the required objectives. 6. The FSP Holder will implement the plan. 7. The FSP Holder will review Wildlife Habitat Areas (WHAs) annually for additions or changes to the list and will adopt as a result or strategy the general wildlife measures specified for Prairie Falcon. 	

5.18 White Pelicans

<p>Objective 29</p> <p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for bighorn sheep, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>Source of Objective</p> <p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Applicable area</p> <p>FDU 1.</p>	
<p>Result or Strategy</p> <ol style="list-style-type: none"> 1. To manage for White Pelicans, the FSP holder adopts the results or strategies listed in Visual Quality (5.3.2), Riparian Areas (5.5.4), and Species at Risk – General (5.11) of this FSP. 2. Where a White Pelican is observed in an area being considered for primary forest activities, the FSP Holder will conduct an assessment using a QRP that considers the important habitat attributes for White Pelicans, including for nesting colony sites and feeding habitats. The assessment will specify situations or circumstances and procedures for implementing measure for access management and timing of primary forest activities. 3. The recommended method(s) for implementing the primary forest activities, including any road deactivation and habitat protection, will be planned, conducted and/or implemented by the FSP Holder in a manner consistent with achieving the QRP assessment recommendations and associated Objectives. 4. The FSP Holder will review Wildlife Habitat Areas (WHAs) annually for additions or changes to the list and will adopt as a result or strategy the general wildlife measures specified for White Pelicans. 	

5.19 Great Blue Heron

<p>Objective 30</p> <p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for bighorn sheep, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>Source of Objective</p> <p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Applicable area</p> <p>FDU 1.</p>	
<p>Result or Strategy</p> <ol style="list-style-type: none"> 1. To manage for Great Blue Heron, the FSP holder adopts the results or strategies listed in Visual Quality (5.3.2), Riparian Areas (5.5.4), and Species at Risk – General (5.11) of this FSP. 2. Where Great Blue Heron are observed in an area being considered for primary forest activities, the FSP Holder will conduct an assessment using a QRP of important habitat attributes for Great Blue Heron, including for nesting colony sites and feeding habitats. 	

<p>The QRP assessment will specify situations or circumstances and procedures for implementing measure for access management and timing of primary forest activities.</p>
<p>3. The recommended method(s) for implementing the primary forest activities, including any road deactivation and habitat protection, will be planned, conducted and/or implemented by the FSP Holder in a manner consistent with achieving the QRP assessment recommendations and associated Objectives.</p> <p>4. The FSP Holder will review Wildlife Habitat Areas (WHAs) annually for additions or changes to the list and will adopt as a result or strategy the general wildlife measures specified for Great Blue Herons.</p>

5.20 Sandhill Crane

Objective 31	Source of Objective
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs: To manage for bighorn sheep, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
Applicable area	
FDU 1.	
Result or Strategy	
<p>1. To manage for Sandhill Cranes, the FSP holder adopts the results or strategies listed in Visual Quality (5.3.2), Riparian Areas (5.5.4), and Species at Risk – General (5.11) of this FSP.</p> <p>2. Where a Sandhill Crane is observed on an area being considered for primary forest activities, the FSP Holder will conduct an assessment using a QRP of important habitat attributes for Sandhill Crane, including for nesting and feeding habitats. The assessment will specify situations or circumstances and procedures for implementing measures for access management and timing of primary forest activities.</p> <p>3. The recommended method(s) for implementing the primary forest activities, including any road deactivation and habitat protection, will be planned, conducted and/or implemented by the FSP Holder in a manner consistent with achieving the assessment recommendations and associated Objectives.</p> <p>4. The FSP Holder will review Wildlife Habitat Areas (WHAs) annually for additions or changes to the list and will adopt as a result or strategy the general wildlife measures specified for Sandhill Cranes.</p>	

5.21 Bull Trout (Dolly Varden)

<p>Objective 32</p>	<p>Source of Objective</p>
<p>1. Marble Range SRDZ; Clinton IRMZ; and Gustafson and Loon ERDZs:</p> <p>To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.</p>	<p>CCLUP 90-Day Report Pg.77, 105, 125, 127.</p>
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<ol style="list-style-type: none"> 1. Before conducting a <i>primary forest activity</i>, for sub-basin drainages with <i>known</i> occurrence of Bull Trout, the <i>FSP Holder</i> will conduct an assessment using a <i>QRP</i>. The assessment will, at a minimum, identify measures for retaining important habitat attributes for Bull Trout, including maintenance of cold water temperatures, stream channel and bank stability, large woody debris recruitment, low sedimentation, and minimizing access to Bull Trout congregations. 2. The recommended method(s) for implementing the <i>primary forest activities</i>, including any road <i>deactivation</i> and habitat protection, will be planned, conducted and/or implemented by the <i>FSP Holder</i> in a manner consistent with achieving the <i>QRP</i> assessment recommendations and associated Objectives. 3. The <i>FSP Holder</i> will review Approved Wildlife Habitat Areas (WHAs) annually for additions or changes to the list and will adopt as a result or strategy the general wildlife measures specified for Bull Trout. 	

5.22 Access Management

<p>Objective 33</p> <p>1. Marble Range SRDZ Planning and managing <u>forest development activities</u> so as to avoid, minimize or mitigate impacts to significant other commercial and non-commercial values and opportunities that occur in association with forest lands, including wildlife, fish, water, range, recreation and tourism.</p>	<p>Source of Objective</p> <p>CCLUP 90-Day Report Pg. 178.</p>
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Result or Strategy</p>	
<ol style="list-style-type: none"> 1. The FSP Holder will maintain an annually updated map and list of all status and operational roads within FDU 1. 2. The FSP Holder commits to publish annually, before the AGM, on the Clinton and District Community Forest web page, the proposed locations of primary forest activities (planned roads and cut blocks) for the coming calendar year. 3. The FSP Holder will present proposed block and road development at the Annual General Meeting. 4. The FSP Holder will document and track comments received as a result of the review process and from the web site in a digital data base format. The FSP Holder will respond to received comments and keep digital copies of the response. The FSP Holder will make a practicable attempt to accommodate requests. 5. The FSP Holder will minimize the overall increase of net roaded area as practicable. 6. Where the FSP Holder proposes to carry out primary forest activities, the Holder will apply the results and strategies for Wildcraft (5.2), Recreation (5.3), Fish and Wildlife (5.5), LMZs (5.6), Grizzly Bear (5.8), Moose (5.9) and Mule Deer (5.13). 7. The FSP Holder will participate in specific access management planning exercises sanctioned by the 100 Mile House Natural Resource District and implement their direction. 8. See Appendix 9.6 for background information on Cumulative Effects. 	

Other

5.23 Recreation Sites and Trails, Features, Values.

Objective 34	Source of Objective
<p>1. Manage established recreation sites, trails and interpretive forests in accordance with established objectives. (Interpretive forest sites, recreation sites and recreation trails that were legally designated under FPC per FRPA section 180. Where objectives for these interpretive forest sites, recreation sites and recreation trails were legally established under FPC per FRPA 181.)</p> <p>2. Grand-parented objectives for various specific Recreation Sites and Trails are shown in Appendix 5.</p> <p>1. Specific Objectives As part of the development planning process, there will be identification and assessment of sensitive resource values that could be impacted by development, including cultural heritage values, specified wildlife values, water resources, <u>recreation features and values</u>, aesthetic values and sensitive areas. As part of this work, it is appropriate that the key resource agencies identify and notify the potentially affected stakeholders of the initiation of the planning process.</p>	<p><i>FRPA</i> s. 180 <i>FRPA</i> s. 181.</p> <p><i>CCLUP</i> 90-Day Report Pg. 178.</p>
<p><u>Definitions</u></p> <p><i>Recreation Sites, Recreation Trails and Interpretive Forests</i> - are areas of Crown land within or outside of Provincial Forests that area established by the Minister under section 56 (1) of the FRPA [or previously under section 6(1) of the FPC] for managing their recreation values.</p> <p><i>Objective</i> - means the legally established objective(s) for Recreation Sites and Trails within the 100 Mile House Natural Resource District.</p>	
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Strategy</p>	
<p>1. To manage for <i>Recreation Sites, Recreation Trails and Interpretive Forests</i>, the <i>FSP holder</i> adopts the results or strategies listed in Wildcraft (5.2) and Recreation (5.3) of this <i>FSP</i>.</p>	
<p>2. The <i>FSP Holder</i> will:</p> <ul style="list-style-type: none"> a) a minimum of 60 days before submitting a Cutting Permit or Road Permit application, where <i>primary forest activities</i> are proposed <i>adjacent to</i> or over <i>Recreation Sites, Recreation Trails or Interpretive Forests</i> (see Appendix 9.5 for list of Sites and Trails), refer proposed Road Permit and or Cutting Permit information to <i>FLNRORD</i> Recreation Sites and Trails BC Staff. b) Where the Ministry representative responsible for recreation provides input on the activity, develop a management strategy that incorporates the input into the development of harvesting and road construction to the extent practicable, and 	

<ul style="list-style-type: none">c) Communicate the management strategy to the Ministry responsible for recreation, andd) Carry out <i>primary forest activities</i> consistent with the management strategy, ande) Apply for Section 16 Authorization as requested by <i>FLNRORD</i> Recreation Sites and Trails BC.
<ul style="list-style-type: none">3. The <i>FSP Holder</i> will, a minimum of 60 days before submitting a Cutting Permit or Road Permit application, where <i>primary forest activities</i> are proposed <i>adjacent to</i> or over a Recreation Site or Trail, complete an <i>Information Sharing process</i> with <i>Stake holders</i> and non-tenured recreation user groups as determined from the Clinton and District Community Forest CFA web site and referral lists of groups that have expressed interest in recreational use of crown land.4. When the <i>FSP holder</i> retains maintenance responsibility for a Forest Service Road that is the only access to an established <i>Recreation Site or Trail</i>, the <i>FSP holder</i> will ensure that summer access is not restricted except for temporary closures to repair or replace roads and stream crossings.5. Within <i>backcountry</i> areas identified in Appendix B – FSP Maps, and Appendix D – Objectives for Recreation Sites, Trails and Interpretive Forest Sites of this <i>FSP</i>, and for those recreation features not listed in Appendix D – Objectives for Recreation Sites, Trails and Interpretive Forest Sites of this <i>FSP</i>, where trails are <i>made known</i> or identified, the <i>FSP holder</i> will, in consultation with those persons who brought the trail to the attention of the <i>FSP holder</i> maintain the integrity and location of the identified trails through practices that include but are not limited to:<ul style="list-style-type: none">i. No-harvest buffer zones,ii. <i>Basal area</i> retention or stubbing <i>adjacent to</i> trails,iii. Not locating roads on trails,iv. Crossing trails at right angles to the extent practicable,v. Not using trails as skid trails, and.vi. Cleaning trails <i>post-harvest</i>.

5.24 Community Areas of Special Concern

Objective 35	Source of Objective
<p>LUO - Community Areas of Special Concern</p> <p>14 Maintain community areas of special concern (CASC) shown on <i>map 5</i>, and defined by the spatial dataset, <i>Cariboo-Chilcotin CASC</i> as no-harvest areas.</p> <p>15 Despite objective 14, primary forest activities are permitted in community areas of special concern for the following reasons:</p> <ul style="list-style-type: none"> (a) Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest, (b) Road and fence construction where there is no other practicable location available, (c) Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized: <ul style="list-style-type: none"> a) reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and, b) separation of tree crowns among individual trees or clumps within the dominant and c) co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns. 	<p><i>CCLUP</i> Land Use Order - May 2011.</p>
<p>Applicable area</p>	
<p>Specified Community Areas of Special Concern identified within FDU 1, per <i>CCLUP</i> Land Use Order - May 2011 mapping, shown on <i>map 5</i>, and defined by the spatial dataset, <i>Cariboo-Chilcotin CASC</i> as no-harvest areas.</p>	
<p>Strategy</p>	
<p>1. No Results or Strategies are shown as there are no Specified Community Areas of Special Concern within FDU 1.</p>	

Measures

6.1 Invasive plants.

Requirement.	Source of requirement.
<p>1. For the purpose of Section 47 [<i>Invasive Plants</i>] of the Act, a person who prepares a forest stewardship plan must specify measures in the plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person's forest practices.</p>	<p><i>FPPR</i> Sec 17.</p>
Applicable area	
FDU 1.	
Measure.	
<ol style="list-style-type: none"> 1. Where <i>primary forest activities</i> carried out by the FSP Holder result in disturbed areas exceeding 0.2 ha not subject to reforestation activities, the FSP Holder will broadcast seed that meets or exceeds Common No. 1 Forage or Ground Cover Mixture (Specifications as defined by the <i>Canada Seeds Act</i>) within one year of construction or deactivation exclusive of Maintained running surface or area. 2. The FSP Holder will revegetate disturbed areas that have exposed mineral soil within one year of disturbance by forage seeding using Common #1 Forage Mixture or better. The FSP Holder will request the certificate of seed analysis and reject lots of seed that contain weed seeds of listed invasive plants and/or invasive plants that are high priority to the area. Seeding will occur: <ol style="list-style-type: none"> i. as part of road and landing construction, maintenance, or site preparation; ii. after woody debris piles are burned, and iii. following timber harvesting of fence or fence-line clearing by the FSP Holder. iv. See Measure 1 for explanation of 1-year timing for completion of seeding. 3. Equipment being brought in from areas with known populations of Invasive Plants will be pressure washed, in a location conducive to controlling the potential spread of suspected plants, before being used within the FDU when practicable (E.g. - not during periods of sub- zero temperatures). 4. The FSP Holder will report invasive plant sightings to applicable government agencies on a regular basis (early spring and early winter). 5. The FSP Holder will check the most recent IAPP posted known locations of invasive plants prior to any site or soil disturbance when conducting <i>primary forest activities</i> and will: <ol style="list-style-type: none"> a. determine priority invasive plant species within the proposed plan area by conducting an invasive plant survey prior to conducting <i>primary forest activities</i> (using the Invasive Alien Plant Program (IAPP) application) and will include the survey results in the site plan. b. on an annual basis, determine Regional priority invasive plant species and sites within the plan area through discussions with <i>FLNRORD</i> Invasive Plant Specialists and regional invasive plant committee(s). Identified sites will be included in the site plan. 	

6. The **FSP Holder** will, on an annual basis, conduct training for staff and contractors to identify priority invasive plants that exist or threaten to establish within the plan area. All staff and contractors will be trained before commencing operations to recognize a minimum of five priority invasive plant species located within the plan area.
7. The **FSP Holder** will Report new infestations of priority invasive plant species annually.
 - a. All **FSP Holder** staff and contractors will report new invasive plant infestations through the Report-A- Weed app (www.gov.bc.ca/invasive-species).
8. The **FSP Holder** will minimize the establishment and spread of invasive plants through the following actions:
 - a. **FSP Holder** and contractor equipment yards and storage areas will be kept free of invasive plants using appropriate treatment methods.
 - b. **FSP Holder** and contractor equipment and vehicles will not be parked on invasive plant infestations.
 - c. Work will begin in un-infested areas before moving to infested locations.
 - d. Clothing and vehicle/equipment undercarriages will be regularly inspected for plant parts or propagules if working in an area **known** to contain invasive plants.
 - e. Prior to moving to a new work site or region, mud and invasive plant parts will be removed from clothing and/or equipment by dislodging and containing dirt, mud, and/or associated water on-site or at designated cleaning stations.
 - f. Infested sites will be avoided for staging, parking, and log sorting, both in the bush and storage yards.
9. The **FSP Holder** will implement effective invasive plant treatment plans should invasive plants establish and spread as a result of forest or range practices.
 - a. The **FSP Holder** will develop an invasive plant treatment plan with assistance from the **FLNRORD** Invasive Plant Specialist and implement it on invasive plant sites that become established or spread as a direct result of the **primary forest activity**.
 - b. The **FSP Holder** will monitor the revegetated areas a minimum of once annually in the spring, repeating revegetation as necessary until exposed soil is less than 50% of the initial disturbed area.
10. The **FSP Holder** will enter monitoring and invasive plant treatment information into the IAPP application annually.

Invasive Plants Regulation

Weed Species	Scientific name
Anchusa	<i>Anchusa officinalis</i>
Baby's breath	<i>Gypsophila paniculata</i>
Black knapweed	<i>Centaurea nigra</i>
Blueweed	<i>Echium vulgare</i>
Brown knapweed	<i>Centaurea jacea</i>
Bull thistle	<i>Cirsium vulgare</i>
Canada thistle	<i>Cirsium arvense</i>
Common burdock	<i>Arctium minus</i>
Common tansy	<i>Tanacetum vulgare</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Field scabious	<i>Knautia arvensis</i>
Giant knotweed	<i>Polygonum sachalinense</i>
Gorse	<i>Ulex europaeus</i>
Hoary alyssum	<i>Berteroa incana</i>
Hoary cress	<i>Cardaria draba</i>
Hound's-tongue	<i>Cynoglossum officinale</i>
Japanese knotweed	<i>Polygonum cuspidatum</i>
Leafy spurge	<i>Euphorbia esula</i>
Marsh thistle	<i>Cirsium palustre</i>
Meadow hawkweed	<i>Hieracium pilosella.</i>
Meadow knapweed	<i>Centaurea pratensis</i>
Nodding thistle	<i>Carduus nutans</i>
Orange hawkweed	<i>Hieracium aurantiacum</i>
Oxeye daisy	<i>Chrysanthemum leucanthemem</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Plumeless thistle	<i>Carduus acanthoides</i>
Puncture vine	<i>Tribulus terrestris</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Rush skeletonweed	<i>Chondrilla juncea</i>
Russian knapweed	<i>Acroptilon repens</i>
Scentless chamomile	<i>Matricaria maritima</i>
Scotch broom	<i>Cytisus scoparius</i>
Scotch thistle	<i>Onopordum acanthium</i>
Spotted knapweed	<i>Centaurea maculosa</i>
St. John's wort	<i>Hypericum perforatum</i>

Sulphur cinquefoil	<i>Potentilla recta</i>
Tansy ragwort	<i>Senecio jacobaea</i>
Teasel	<i>Dipsacus fullonum</i>
Yellow Iris	<i>Iris pseudacorus</i>
Yellow starthistle	<i>Centaurea solstitialis</i>
Yellow toadflax	<i>Linaria vulgaris</i>

6.2 Natural Range Barriers.

Requirement.	Source of requirement.
<p>1. For the purpose of Section 48 [<i>natural range barriers</i>] of the Act, a person who prepares a forest stewardship plan must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.</p> <p>2. Other Management Strategies <i>1. Range Management</i> improved management of cattle particularly with respect to riparian, alpine, and grasslands; much of this would be accomplished through the application of the FPC and the Biodiversity and Riparian Guidelines (see also Grassland targets) and through the Grazing Enhancement Fund. The Biodiversity and other guidelines should provide the guidance for protecting environmental and conservation values. These values should be protected in any case. all range (and Highways) fences should be wildlife safe including top rails and appropriate wire spacing.</p>	<p><i>FPPR</i> Sec 18.</p> <p><i>CCLUP</i> 90-Day Report Pg. 159.</p>
Applicable area	
FDU 1.	
Measure.	
<p>1. The <i>FSP Holder</i> commits to an <i>Information Sharing process</i> with Range/Grazing Tenure holders and/or to consult with the District Range Agrologist, a minimum of 60 calendar days prior to CP or Road Permit application and will make practicable efforts to incorporate requests, if received, into <i>primary forest activity</i> development.</p> <p>2. Where the grazing tenure holder indicates that a natural range barrier will be removed or made ineffective, the <i>FSP Holder</i> will make practicable efforts to reach an agreement with the grazing tenure holder and the <i>FLNRORD</i> Agrologist staff on mitigative measures, and</p> <p>3. Where the <i>FSP Holder</i> and grazing Permittee cannot come to an understanding, the <i>FSP Holder</i> will discuss the issue with <i>FLNRORD</i> Agrologist staff and will utilize arbitration with a mutually agreed party as a means of resolution.</p> <p>4. The <i>FSP Holder</i> will implement the decision.</p> <p>5. The <i>FSP Holder</i> will adhere to the District fence specification guideline document when constructing new fencing.</p>	

Silviculture

7.1 Stocking Standards.

The *FSP Holder* commits to comply with the Cariboo Region Stocking Standards - July 24, 2018, as amended from time-to-time, except where stated otherwise in Section 8.

Stocking standards are presented in Appendix 2, Section 9.2.

7.2 Variances from Stocking Standards.

7.2.1 Dwarf Mistletoe - Lodgepole Pine

Where dwarf mistletoe control treatments are conducted by July 1st of the third growing season *post-harvest*, Lodgepole Pine dwarf mistletoe will not be considered to be deleterious at the time of free-growing evaluation.

7.2.2 Post Spacing Densities

Post-spacing minimum density is 2200 countable stems per hectare and maximum density is 5000 countable stems per hectare unless an exception is requested as determined on a site specific basis through a *QRP* evaluation that will consider a number of factors including crop tree species, health and vigour, site characteristics, site series and target timber product.

7.3 Incorporation of Wildfire / Fire Management Stocking Standards

(Chief Forester Guidelines - Fire Management Stocking Standards Guidance Document - v1 - February 2016 and Chief Forester Guidance Memo - Reference # NRS 216955 - May 2016). (Note: These guidance documents will be utilized in the formation of revised stocking standards but are not attached to this document. They can be found at this web site:

https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/land-based-investment/forests-for-tomorrow/fire_management_stocking_standards_guidance_document_march_2016.pdf?bcgovtm=buffer

7.3.1 Fire Management Stocking Standards.

Current Fire Management Stocking Standards may be incorporated into the regeneration plan for a harvested area where that area falls within an approved Fire Management Plan and reduced stocking is determined to be a desired outcome by the *FSP Holder* or under direction from a *Statutory* Decision Maker.

7.3.2 Stocking Standards on Fireguards or other areas impacted by wildfire.

Areas created for fireguards, Fuel Breaks and other disturbed areas as part of a fire management process for controlling wildfires or creating back burns may be targeted for reduced stocking to achieve desired fuel management strategic objectives.

7.3.3 Stocking Standards within Wildland Urban Interface areas or Community

Wildfire Protection Planning areas.

Wildland Urban Interface (WUI) areas will be assessed during harvest planning to determine if a reduced stocking component or targeted stocking reduction during harvest or post-harvest is desired to meet Fuel Management Guidelines, a reduced Wildfire Threat Rating or Community Wildfire Protection Planning interests.

7.4 Incorporation of Climate Change Principles & Actions.

7.4.1 Species Shift.

Given the location of the community forest and the *BEC* zones encompassed by it, Ponderosa Pine is likely to increase its range within the community forest. The dry conditions experienced in the BG & IDF xm/dk 3 are unlikely to support larch.

The *FSP Holder* will review silviculture species shift material on an annual basis to keep current with *FLNRORD* policy guidance on the issue of species shift and will implement changes to the stocking standards as practicable.

Appendices

1. Detail Maps: LUO 2011 Maps and Spatial Data sets.
2. Stocking Standards Tables.

The following *BEC* zones/series are located within FDU 1: Stocking Standards have been included for those *BEC* Zones with posted Standards.

ZONE	SUBZONE	VARIANT	NDT	MAP_LABEL	BGC_LABEL	ZONE_NAME
ESSF	xc	3	NDT3	ESSFxc3	ESSFxc 3	Engelmann Spruce -- Subalpine Fir
IDF	dk	3	NDT4	IDFdk3	IDF dk 3	Interior Douglas-fir
IDF	xm		NDT4	IDFxm	IDF xm	Interior Douglas-fir
IDF	xw		NDT4	IDFw	IDF xw	Interior Douglas-fir
MS	xk	3	NDT3	MSxk3	MS xk 3	Montane Spruce

3. Minimum Mature + Old and Old Seral Stage Targets.
4. Wildlife Tree Retention Targets.
5. Interpretive Forest Sites, Recreation Sites and Recreation Trails Objectives.
6. Management of Cumulative Effects.
7. Windthrow assessment form & process.
8. Basal Area Wildlife Tree Retention equivalency explanation.

8.1 Appendix 1 - Maps

The following maps are available with this FSP.

A 1: 50,000 map is available separately that shows the following information:

1. Forest Range Units.
2. Trap Line Boundaries (and Trapline numbers); Guide Outfitter Areas (and names).
3. Private Land and Woodlot areas.

The following data sets are the LUO 2011 data available from the Clinton & District Community Forest or at the following url: ftp://ftp.geobc.gov.bc.ca/publish/Regional/WilliamsLake/Cariboo-Chilcotin_LUOR_Order/

- Map 02-Cariboo-Chilcotin Landscape Units.
- Map 03-Cariboo-Chilcotin Old Growth Management Areas.
- Map 04-Critical Habitat for Fish - Salmon and Others.
- Map 05-Cariboo-Chilcotin CASC.
- Map 6a-Cariboo-Chilcotin Lakeshore Management Classes.
- Map 06b-Cariboo-Chilcotin Lake Management Classes.
- Map 06c-Cariboo-Chilcotin L3Lakes.
- Map 08-Cariboo-Chilcotin Grassland Benchmark areas.
- Map 09a-Cariboo-Chilcotin Scenic Areas.
- Map 09b-Cariboo-Chilcotin Scenic Corridors.
- Map 10-Cariboo-Chilcotin Buffered Trails.
- Map 11-Cariboo-Chilcotin High Value Wetlands For Moose.
- Map 12-Cariboo-Chilcotin Grizzly Bear Habitat Capability.

8.2 Appendix 2 - Stocking Standards

Cariboo Region Stocking Standards (July 24, 2018)

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060270	ESSF	dc	2	1	Sx(.8) BI(.8)	PI(1.6)	I	1200	700	600	2.0	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060271	ESSF	dc	2	2	PI(1.2)	Sx(.6) BI (.6)	I	1000	500	400	1.6	7	20	
1060272	ESSF	dc	2	3	PI(1.2) Sx (0.6) BI(.6)		I	1000	500	400	1.6	7	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060273	ESSF	dc	2	5	PI(1.2) Sx(.6) BI(.6)		I	1000	500	400	1.6	7	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060274	ESSF	dc	2	6	Sx(.8) BI(.8)	PI(1.6)	I	1200	700	600	2.0	4	20	
1060275	ESSF	dc	2	7	Sx(.8) BI(.8)	PI(1.6)	I	1200	700	600	1.6	4	20	
1060276	ESSF	dc	2	8	Sx(.6) BI(.6)		I	1000	500	400	1.6	4	20	
1060277	ESSF	mv	1	1	Sx(.8) BI(.8)	PI(1.6)	I	1200	700	600	2.0	4	20	
1060278	ESSF	mv	1	2	PI(1.2)	BI(.6)	I	1000	500	400	1.6	7	20	
1060279	ESSF	mv	1	3	PI(1.2) Sx(.6) BI(.6)		I	1000	500	400	1.6	7	20	
1060280	ESSF	mv	1	4	Sx(.6) BI(.6)	PI(1.2)	I	1000	500	400	1.6	7	20	
1060281	ESSF	mv	1	5	Sx(.6) BI(.6)	PI(1.2)	I	1000	500	400	1.6	4	20	
1060282	ESSF	wc	3	1	Sx(.8) BI(.8)	PI(1.6)	I	1200	700	600	2.0	4	20	
1060284	ESSF	wc	3	2	PI(1.2) Sx(.6) BI(.6)		I	1000	500	400	2.0	7	20	
1060285	ESSF	wc	3	3	Sx(.6) BI(.6)		I	600	400	300	1.6	7	20	
1060286	ESSF	wk	1	1	PI(2.0)Sx(1.0) BI(1.0)		I	1200	700	600	2.0	4	20	
1060288	ESSF	wk	1	2	PI(1.4) Sx(.8) BI(.8)	Lw(2.0)	I	1000	500	400	2.0	7	20	
1060289	ESSF	wk	1	3	PI(2.0) Sx(1.0) BI(1.0)	Lw(2.0)	I	1200	700	600	2.0	4	20	
1060291	ESSF	wk	1	4	Sx(1.0) BI(1.0)	PI(2.0)	I	1200	700	600	2.0	4	20	
1060293	ESSF	wk	1	5	Sx(1.0) BI(1.0)	PI(2.0)	I	1200	700	600	2.0	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060295	ESSF	wk	1	6	Sx(.8) BI(.8)		I	1000	500	400	1.6	4	20	
1060296	ESSF	wk	1	7	Sx(.8) BI(.8)		I	1000	500	400	1.6	4	20	
1060297	ESSF	xc		1	Pl(1.6) Sx(.8) BI(.8)		I	1200	700	600	2.0	7	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060298	ESSF	xc		2	Pl(1.2) Pa (.6)	Sx(.6) BI(.6) Fd (.8) Lw (1.2)	I	600	400	300	1.6	7	20	Whitebark pine (Pa) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060299	ESSF	xc		5	Pl(1.2) Pa (.6)	Sx(.6) BI(.6) Fd (.8) Lw (1.2)	I	1000	500	400	2.0	7	20	Whitebark pine (Pa) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060300	ESSF	xc		6	Pl(1.6) Sx(.8) BI(.8)	Pa(.6)	I	1200	700	600	2.0	7	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060301	ESSF	xc		7	Sx(.6) BI(.6)	Pl(1.2)	I	1200	700	600	2.0	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060302	ESSF	xc		8	Sx(.6) BI(.6)	Pl(1.2)	I	1200	700	600	1.6	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060303	ESSF	xv	1	1	Pl(1.0) Sx(.8) BI(.8)	Pa(0.8)	I	1200	700	600	2.0	7	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060304	ESSF	xv	1	2	Pl(.8) Pa(.6)	BI(.6)	I	800	500	400	1.6	7	20	
1060305	ESSF	xv	1	3	Pl(.8) Pa(.6)		I	800	500	400	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species			Stocking				Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060306	ESSF	xv	1	4	PI(.8) Pa(.6)	Sx(.6) Bl(.6)	I	1000	600	500	2.0	7	20	
1060307	ESSF	xv	1	5	PI(1.0) Pa(.8)	Sx(.8) Bl(.8)	I	1200	700	600	2.0	7	20	
1060308	ESSF	xv	1	6	PI(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060309	ESSF	xv	1	7	PI(1.0) Sx(.8) Bl(.8)		I	1200	700	600	2.0	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060310	ESSF	xv	1	8	PI(.8) Sx(.6) Bl(.6)		I	600	400	300	1.6	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060311	ESSF	xv	1	9	Sx(.6) Bl(.6)	PI(.8)	I	800	500	400	1.6	4	20	
1060312	ESSF	xv	2	1	PI(1.0) Sx(.8)	Pa(.8) Bl(.8)	I	1200	700	600	2.0	7	20	
1060313	ESSF	xv	2	2	PI(.8) Pa(.6)	Bl(.6)	I	800	500	400	1.6	7	20	
1060314	ESSF	xv	2	3	PI(.8)	Pa(.6)	I	600	400	300	2.0	7	20	
1060315	ESSF	xv	2	4	PI(1.0)	Bl(.8) Pa(.8)	I	1200	700	600	2.0	7	20	
1060316	ESSF	xv	2	5	PI(1.0) Sx(.8)	Bl(.8) Pa(.8)	I	1200	700	600	2.0	7	20	
1060317	ESSF	xv	2	6	PI(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060318	ESSF	xv	2	7	PI(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060319	ESSF	xv	2	8	Sx(.6) Bl(.6)	PI(.8)	I	600	400	300	1.6	4	20	
1060320	ESSF	xv	2	9	Sx(.6) Bl(.6)	PI(.8)	I	600	400	300	1.6	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060321	ESSF	xv	2	10	Sx(.6) Bl(.6)	PI(.8)	I	600	400	300	1.6	4	20	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060322	ICH	dk		1	Fd(1.4) PI(2.0) Sx(1.0)	Bl(1.0) Cw(1.0) Pw(2.0) Lw(2.0)	I	1200	700	600	2.0	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Layer	Stocking				Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)		Target	MIN p+a	MIN p	MITD			
1060323	ICH	dk		2	Fd(1.0) Pl(1.4)	Cw(.8) Sx(.8)	I	1000	500	400	1.6	7	20	
1060324	ICH	dk		3	Fd(1.4) Pl(2.0)	Cw(1.0) Sx(1.0)	I	1200	700	600	2.0	7	20	
1060325	ICH	dk		4	Fd(1.4) Pl(2.0) Sx(1.0)	Cw(1.0) Bl(1.0) Pw(2.0) Lw(2.0)	I	1200	700	600	2.0	4	20	
1060326	ICH	dk		5	Fd(1.4) Pl(2.0) Sx(1.0)	Cw(1.0) Bl(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060327	ICH	dk		6	Fd(1.4) Pl(2.0) Sx(1.0)	Cw(1.0) Bl(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060328	ICH	dk		7	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060329	ICH	dk		8	Fd(1.0) Sx(.8) Bl(.8)	Pl(1.4) Cw(.8) Pw(1.4)	I	1000	500	400	1.6	4	20	
1060330	ICH	dk		9	Sx(.8)	Pl(1.4) Bl(.8)	I	1000	500	400	1.6	4	20	
1060331	ICH	mk	3	1	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0) Cw(1.0) Lw(2.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060333	ICH	mk	3	2	Fd(1.0) Pl(1.4)	Sx(.8), Lw(1.4)	I	1000	500	400	2.0	7	20	
1060334	ICH	mk	3	3	Fd(1.0) Pl(1.4)	Sx(.8) Cw(.8) Lw(1.4)	I	1000	500	400	2.0	7	20	
1060335	ICH	mk	3	4	Fd(1.4) Sx(1.0)	Bl(1.0) Cw(1.0) Pl(2.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060337	ICH	mk	3	5	Sx(1.0) Pl(2.0)	Bl(1.0) Cw(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060339	ICH	mk	3	6	Fd(1.4) Sx(1.0) Cw(1.0)	Bl(1.0) Pl(2.0) Pw(2.0)	I	1200	700	600	1.6	4	20	
1060341	ICH	mk	3	7	Sx(.8) Cw(.8)	Pw(1.4) Bl(.8) Pl(1.4)	I	1000	500	400	1.6	4	20	
1060342	ICH	mw	3	1	Fd(1.4) Sx(1.0) Cw(1.0) Pw(2.0)	Pl(2.0) Hw(1.0) Bl(1.0) Lw(2.0)	I	1200	700	600	2.0	4	20	
1060343	ICH	mw	3	2	Fd(1.0) Pl(1.4)	Pw(1.4) Py(1.4) Lw(1.4)	I	1000	500	400	1.6	4	20	
1060344	ICH	mw	3	3	Fd(1.0) Pl(1.4)	Pw(1.4) Py(1.4) Lw(1.4)	I	1000	500	400	2.0	7	20	
1060345	ICH	mw	3	4	Fd(1.4) Pl(2.0) Pw(2.0) Cw(1.0)	Lw(2.0) Sx(1.0)	I	1200	700	600	2.0	7	20	
1060346	ICH	mw	3	5	Fd(1.4) Pl(2.0) Pw(2.0) Cw(1.0)	Lw(2.0) Sx(1.0)	I	1200	700	600	2.0	7	20	

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	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060347	ICH	mw	3	6	Cw(1.0) Hw(1.0) Sx(1.0)	Fd(1.4) Pw(2.0) Bl(1.0) Lw(2.0)	I	1200	700	600	2.0	4	20	Western Hemlock (Hw) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060348	ICH	mw	3	7	Cw(1.0) Hw(1.0) Sx(1.0)	Fd(1.4) Pw(2.0) Bl(1.0) Lw(2.0)	I	1200	700	600	2.0	4	20	Western Hemlock (Hw) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060349	ICH	mw	3	8	Cw(1.0) Hw(1.0) Sx(08)	Bl(.8)	I	1000	500	400	1.6	4	20	
1060350	ICH	wk	2	1	Sx(1.0) Pl(2.0) Fd(1.4)	Bl(1.0) Cw(1.0) Hw(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060352	ICH	wk	2	2	Fd(1.0) Pl(1.4)	Bl(.8) Hw(.8)	I	1000	500	400	1.6	7	20	
1060353	ICH	wk	2	3	Fd(1.0) Pl(1.4)	Bl(.8) Lw(1.4)	I	1000	500	400	2.0	7	20	
1060354	ICH	wk	2	4	Fd(1.4) Pl(2.0)	Hw(1.0) Cw(1.0) Lw(2.0)	I	1200	700	600	2.0	4	20	
1060356	ICH	wk	2	5	Pl(2.0) Sx(1.0)	Bl(1.0) Cw(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060358	ICH	wk	2	6	Pl(2.0) Sx(1.0)	Bl(1.0) Hw(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060360	ICH	wk	2	7	Sx(1.0) Fd(1.4) Cw(1.0)	Bl(1.0) Hw(1.0) Pl(1.4)	I	1200	700	600	2.0	4	20	
1060362	ICH	wk	2	8	Sx(.8) Cw(.8)	Bl(.8)	I	1000	500	400	1.6	4	20	
1060363	ICH	wk	4	1	Sx(1.0) Pl(2.0) Fd(1.4)	Bl(1.0) Cw(1.0) Hw(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060365	ICH	wk	4	2	Fd(1.0) Pl(1.4)	Bl(.8) Hw(.8)	I	1000	500	400	2.0	7	20	
1060366	ICH	wk	4	3	Fd(1.0) Pl(1.4)	Hw(1.0) Lw(1.4) Sx(1.0)	I	1000	500	400	2.0	7	20	
1060367	ICH	wk	4	4	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0) Hw(1.0)	I	1200	700	600	2.0	4	20	
1060369	ICH	wk	4	5	Fd(1.4) Pl(2.0)	Bl(1.0) Hw(1.0) Lw(2.0)	I	1200	700	600	2.0	4	20	
1060371	ICH	wk	4	6	Pl(2.0) Sx(1.0)	Bl(1.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060373	ICH	wk	4	7	Sx(1.0) Fd(1.4) Cw(1.0)	Hw(1.0) Bl(1.0) Pl(2.0) Pw(2.0)	I	1200	700	600	2.0	4	20	
1060375	ICH	wk	4	8	Sx(.8) Cw(.8)	Bl(.8) Pl(1.4)	I	1000	500	400	1.6	4	20	

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	Classification				Species			Stocking				Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060376	IDF	dk	1	1	Fd(.8) PI(1.0)	Sx(.6) Py(.6) Lw(1.0)	1	1000	500	400	2.0	7	20	
	IDF	dk	1	1	Fd(.4)	Sx(.6) PI(1.0) Py(.6) Lw(1.0)	4	1000	500	400	2.0	7	20	
	IDF	dk	1	1	Fd	Sx PI Py Lw	3	800	400	300	2.0	7	20	
	IDF	dk	1	1	Fd	Sx PI Py Lw	2	600	300	250	2.0	7	20	
	IDF	dk	1	1	Fd	Sx PI Py Lw	1	400	200	200	0.0	7	20	
1060378	IDF	dk	1	2	Fd(.8) Py(.6)	PI(1.0)	1	600	400	300	2.0	7	20	
	IDF	dk	1	2	Fd(.4)	PI(1.0) Py(.6)	4	600	400	400	2.0	7	20	
	IDF	dk	1	2	Fd	PI Py	3	500	300	300	2.0	7	20	
	IDF	dk	1	2	Fd	PI Py	2	400	200	200	2.0	7	20	
	IDF	dk	1	2	Fd	PI Py	1	300	150	150	0.0	7	20	
1060380	IDF	dk	1	3	Fd(.8) PL(1.0)	Py(.6)	1	600	400	300	2.0	7	20	
	IDF	dk	1	3	Fd(.4)	PI(1.0) Py(.6)	4	600	400	400	2.0	7	20	
	IDF	dk	1	3	Fd	PI Py	3	500	300	300	2.0	7	20	
	IDF	dk	1	3	Fd	PI Py	2	400	200	200	2.0	7	20	
	IDF	dk	1	3	Fd	PI Py	1	300	150	150	0.0	7	20	
1060382	IDF	dk	1	4	Fd(.8) PI(1.0)	Sx(.6) Py(.6) Lw(1.0)	1	1000	500	400	2.0	7	20	
	IDF	dk	1	4	Fd(.4)	Sx(.6) PI(1.0) Py(.6) Lw(1.0)	4	1000	500	400	2.0	7	20	
	IDF	dk	1	4	Fd	Sx PI Py Lw	3	800	400	300	2.0	7	20	
	IDF	dk	1	4	Fd	Sx PI Py Lw	2	600	300	250	2.0	7	20	
	IDF	dk	1	4	Fd	Sx PI Py Lw	1	400	200	200	0.0	7	20	
1060384	IDF	dk	1	5	Fd(.8) Sx(.6)	Lw(1.0) PI(1.0) BI(.6)	1	1000	500	400	2.0	7	20	
	IDF	dk	1	5	Fd(.4) Sx(0.6)	PI(1.0) Lw(1.0) BI(.6)	4	1000	500	400	2.0	7	20	
	IDF	dk	1	5	Fd Sx	PI Lw BI	3	800	400	300	2.0	7	20	
	IDF	dk	1	5	Fd Sx	PI Lw BI	2	600	300	250	2.0	7	20	
	IDF	dk	1	5	Fd Sx	PI Lw BI	1	400	200	200	0.0	7	20	
1060386	IDF	dk	1	6	PI(1.0) Sx(.6)	BI(.6)	1	1000	500	400	2.0	4	20	
1060387	IDF	dk	3	1	Fd(1.0) PI(1.4)	Sx(.8) Py(1.0) Lw(2.0)	1	1200	700	600	2.0	7	20	

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	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
	IDF	dk	3	1	Fd(.4)	Sx(.8) PI(1.0) Py(1.0)	4	1200	700	600	2.0	7	20	
	IDF	dk	3	1	Fd	Sx PI Py	3	1000	500	400	2.0	7	20	
	IDF	dk	3	1	Fd	Sx PI Py	2	800	400	300	2.0	7	20	
	IDF	dk	3	1	Fd	Sx PI Py	1	600	300	250	0.0	7	20	
1060390	IDF	dk	3	2	Fd(.8) PI(1.0)	Py(.8)	I	800	500	400	2.0	7	20	
	IDF	dk	3	2	Fd(.4)	PI(1.0) Py(.8)	4	800	400	400	2.0	7	20	
	IDF	dk	3	2	Fd	PI Py	3	600	300	300	2.0	7	20	
	IDF	dk	3	2	Fd	PI Py	2	400	200	200	2.0	7	20	
	IDF	dk	3	2	Fd	PI Py	1	300	150	150	0.0	7	20	
1060392	IDF	dk	3	3	Fd(.8) PI(1.0)	Py(.8)	I	800	500	400	2.0	7	20	
	IDF	dk	3	3	Fd(.4)	PI(1.0) Py(.8)	4	800	400	400	2.0	7	20	
	IDF	dk	3	3	Fd	PI Py	3	600	300	300	2.0	7	20	
	IDF	dk	3	3	Fd	PI Py	2	400	200	200	2.0	7	20	
	IDF	dk	3	3	Fd	PI Py	1	300	150	150	0.0	7	20	
1060394	IDF	dk	3	4	Fd(.8) PI(1.0)	Py(1.0)	I	1000	500	400	2.0	7	20	
	IDF	dk	3	4	Fd(.4)	PI(1.0) Py(1.0)	4	1000	500	400	2.0	7	20	
	IDF	dk	3	4	Fd	PI Py	3	800	400	300	2.0	7	20	
	IDF	dk	3	4	Fd	PI Py	2	600	300	250	2.0	7	20	
	IDF	dk	3	4	Fd	PI Py	1	400	200	200	0.0	7	20	
1060396	IDF	dk	3	5	Fd(1.0) PI(1.4)	Py(.8)	I	1200	700	600	2.0	7	20	
	IDF	dk	3	5	Fd(.4)	PI(1.4) Py(.8)	4	1200	700	600	2.0	7	20	
	IDF	dk	3	5	Fd	PI Py	3	1000	500	400	2.0	7	20	
	IDF	dk	3	5	Fd	PI Py	2	800	400	300	2.0	7	20	
	IDF	dk	3	5	Fd	PI Py	1	600	300	250	0.0	7	20	
1060398	IDF	dk	3	6	Fd(1.0) PI(1.4)	Py(.8)	I	1200	700	600	2.0	7	20	
	IDF	dk	3	6	Fd(.4)	PI(1.4) Py(.8)	4	1200	700	600	2.0	7	20	
	IDF	dk	3	6	Fd	PI Py	3	1000	500	400	2.0	7	20	
	IDF	dk	3	6	Fd	PI Py	2	800	400	300	2.0	7	20	
	IDF	dk	3	6	Fd	PI Py	1	600	300	250	0.0	7	20	
1060400	IDF	dk	3	7	Fd(1.0) PI(1.4) Sx(.8)		I	1200	700	600	2.0	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p)	Acceptable (a)	Layer	Target	MIN p+a	MIN p	MITD			
					minimum height (m)	minimum height (m)		Well-spaced/ha			(m)	(yrs)	(yrs)	
	IDF	dk	3	7	Fd(.4) Sx(.8)	PI(1.4)	4	1200	700	600	2.0	7	20	
	IDF	dk	3	7	Fd Sx	PI	3	1000	500	400	2.0	7	20	
	IDF	dk	3	7	Fd Sx	PI	2	800	400	300	2.0	7	20	
	IDF	dk	3	7	Fd Sx	PI	1	600	300	250	0.0	7	20	
1060402	IDF	dk	3	8	Fd(1.0) PI(1.4) Sx(.8)		I	1200	700	600	2.0	4	20	
	IDF	dk	3	8	Fd(.4) Sx(.8)	PI(1.4)	4	1200	700	600	2.0	7	20	
	IDF	dk	3	8	Fd Sx	PI	3	1000	500	400	2.0	7	20	
	IDF	dk	3	8	Fd Sx	PI	2	800	400	300	2.0	7	20	
	IDF	dk	3	8	Fd Sx	PI	1	600	300	250	0.0	7	20	
1060404	IDF	dk	3	9	Sx(.6)	PI(1.0)	I	1000	500	400	1.6	4	20	
1060405	IDF	dk	4	1	Fd(1.0) PI(1.0)	Sx(.8) Py (1.0) Lw(1.0)	I	1200	700	600	2.0	7	20	
	IDF	dk	4	1	Fd(.4)	PI(1.0) Sx(.8) Py(1.0)	4	1200	700	600	2.0	7	20	
	IDF	dk	4	1	Fd	PI Sx Py	3	1000	500	400	2.0	7	20	
	IDF	dk	4	1	Fd	PI Sx Py	2	800	400	300	2.0	7	20	
	IDF	dk	4	1	Fd	PI Sx Py	1	600	300	250	0.0	7	20	
1060407	IDF	dk	4	2	Fd(.8) PI(1.0)	Py(1.0)	I	800	500	400	2.0	7	20	
	IDF	dk	4	2	Fd(.4)	PI(1.0) Py(1.0)	4	800	400	400	2.0	7	20	
	IDF	dk	4	2	Fd	PI Py	3	600	300	300	2.0	7	20	
	IDF	dk	4	2	Fd	PI Py	2	400	200	200	2.0	7	20	
	IDF	dk	4	2	Fd	PI Py	1	300	150	150	0.0	7	20	
1060409	IDF	dk	4	3	Fd(.8)	Py(1.0)	I	800	500	400	2.0	7	20	
	IDF	dk	4	3	Fd(.4)	Py(1.0)	4	800	400	400	2.0	7	20	
	IDF	dk	4	3	Fd	Py	3	600	300	300	2.0	7	20	
	IDF	dk	4	3	Fd	Py	2	400	200	200	2.0	7	20	
	IDF	dk	4	3	Fd	Py	1	300	150	150	0.0	7	20	
1060411	IDF	dk	4	4	Fd(.8) PI(1.0)	Py(1.0)	I	1000	500	400	2.0	7	20	
	IDF	dk	4	4	Fd(.4)	PI(1.0) Py(1.0)	4	1000	500	400	2.0	7	20	
	IDF	dk	4	4	Fd	PI Py	3	800	400	300	2.0	7	20	
	IDF	dk	4	4	Fd	PI Py	2	600	300	200	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
	IDF	dk	4	4	Fd	PI Py	1	400	200	200	0.0	7	20	
1060413	IDF	dk	4	5	Fd(1.0) PI(1.0)	Py(1.0)	1	1200	700	600	2.0	7	20	
	IDF	dk	4	5	Fd(.4)	PI(1.0) Py(1.0)	4	1200	700	600	2.0	7	20	
	IDF	dk	4	5	Fd	PI Py	3	1000	500	400	2.0	7	20	
	IDF	dk	4	5	Fd	PI Py	2	800	400	300	2.0	7	20	
	IDF	dk	4	5	Fd	PI Py	1	600	300	250	0.0	7	20	
1060415	IDF	dk	4	6	PI(1.0)	Sx(.6) Py(1.0)	1	1000	500	400	2.0	7	20	
1060416	IDF	dk	4	7	Fd(1.0) PI(1.0)		1	1200	700	600	2.0	7	20	
	IDF	dk	4	7	Fd(.4)	PI(1.0)	4	1200	700	600	2.0	7	20	
	IDF	dk	4	7	Fd	PI	3	1000	500	400	2.0	7	20	
	IDF	dk	4	7	Fd	PI	2	800	400	300	2.0	7	20	
	IDF	dk	4	7	Fd	PI	1	600	300	250	0.0	7	20	
1060418	IDF	dk	4	8	PI(1.4) Sx(.6)		1	1000	500	400	2.0	4	20	
1060419	IDF	dk	4	9	PI(1.4) Fd(1.0) Sx(.8)		1	1200	700	600	2.0	4	20	
	IDF	dk	4	9	Fd(.4) Sx(.8)	PI(1.0)	4	1200	700	600	2.0	7	20	
	IDF	dk	4	9	Fd Sx	PI	3	1000	500	400	2.0	7	20	
	IDF	dk	4	9	Fd Sx	PI	2	800	400	300	2.0	7	20	
	IDF	dk	4	9	Fd Sx	PI	1	600	300	250	0.0	7	20	
1060421	IDF	dk	4	10	Sx(.6)	PI(1.0)	1	1000	500	400	1.6	4	20	
1060422	IDF	mw	2	1	Fd(1.0) Cw(.8) Pw(1.6)	Sx(.8) PI(1.6) Lw(1.6)	1	1200	700	600	2.0	4	20	
1060423	IDF	mw	2	2	Fd(.8) PI(1.2)	Py(1.2) Pw(1.2)	1	600	400	300	1.6	4	20	
1060424	IDF	mw	2	3	Fd(1.0)	Lw(1.6) Pw(1.6) Py(1.6) PI(1.6)	1	1000	500	400	1.6	7	20	
1060425	IDF	mw	2	4	Fd(1.0) Sx(.8) Cw(0.8)	Pw(1.6) Lw(1.6) Hw (1.6)	1	1200	700	600	2.0	4	20	
1060426	IDF	mw	2	5	Cw (.6) Sx(.6) Hw(.6)	BI(.6)	1	400	200	150	1.6	4	20	
1060427	IDF	xm		1a	Fd(.8)	Py(.8)	1	1200	700	600	2.0	7	20	
	IDF	xm		1a	Fd(.4)	Py(.8)	4	1200	700	600	2.0	7	20	
	IDF	xm		1a	Fd	Py	3	1000	500	400	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
	IDF	xm		1a	Fd	Py	2	800	400	300	2.0	7	20	
	IDF	xm		1a	Fd	Py	1	600	300	250	0.0	7	20	
1060429	IDF	xm		1b	Fd(.8) Pl(.8)	Py(.8)	1	1200	700	600	2.0	7	20	
	IDF	xm		1b	Fd(.4)	Pl(.8) Py(.8)	4	1200	700	600	2.0	7	20	
	IDF	xm		1b	Fd	Pl Py	3	1000	500	400	2.0	7	20	
	IDF	xm		1b	Fd	Pl Py	2	800	400	300	2.0	7	20	
	IDF	xm		1b	Fd	Pl Py	1	600	300	250	0.0	7	20	
1060431	IDF	xm		2	Fd(.6)	Py(.8)	1	1000	500	400	2.0	7	20	
	IDF	xm		2	Fd(.4)		4	1000	500	400	2.0	7	20	
	IDF	xm		2	Fd		3	800	400	300	2.0	7	20	
	IDF	xm		2	Fd		2	600	300	250	2.0	7	20	
	IDF	xm		2	Fd		1	400	200	200	0.0	7	20	
1060433	IDF	xm		3	Fd(.6) Pl(.8)	Py(.8)	1	1000	500	400	2.0	7	20	
	IDF	xm		3	Fd(.4)	Pl(.8)	4	1000	500	400	2.0	7	20	
	IDF	xm		3	Fd	Pl	3	800	400	300	2.0	7	20	
	IDF	xm		3	Fd	Pl	2	600	300	250	2.0	7	20	
	IDF	xm		3	Fd	Pl	1	400	200	200	0.0	7	20	
1060435	IDF	xm		4	Fd(.6)	Py(.8)	1	1000	500	400	2.0	7	20	
	IDF	xm		4	Fd(.4)		4	1000	500	400	2.0	7	20	
	IDF	xm		4	Fd		3	800	400	300	2.0	7	20	
	IDF	xm		4	Fd		2	600	300	250	2.0	7	20	
	IDF	xm		4	Fd		1	400	200	200	0.0	7	20	
1060437	IDF	xm		5	Fd(.8)	Py(.8)	1	1200	700	600	2.0	7	20	
	IDF	xm		5	Fd(.4)		4	1200	700	600	2.0	7	20	
	IDF	xm		5	Fd		3	1000	500	400	2.0	7	20	
	IDF	xm		5	Fd		2	800	400	300	2.0	7	20	
	IDF	xm		5	Fd		1	600	300	250	0.0	7	20	
1060439	IDF	xm		6	Fd(.8)	Pl(1.0) Py(1.0) Lw(1.0)	1	1200	700	600	2.0	7	20	
	IDF	xm		6	Fd(.8)		4	1200	700	600	2.0	7	20	
	IDF	xm		6	Fd		3	1000	500	400	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p)	Acceptable (a)	Layer	Target	MIN p+a	MIN p	MITD			
					minimum height (m)	minimum height (m)		Well-spaced/ha			(m)	(yrs)	(yrs)	
	IDF	xm		6	Fd		2	800	400	300	2.0	7	20	
	IDF	xm		6	Fd		1	600	300	250	0.0	7	20	
1060441	IDF	xm		7	Fd(.8)	PI(1.0)	I	1200	700	600	2.0	7	20	
	IDF	xm		7	Fd(.4)		4	1200	700	600	2.0	7	20	
	IDF	xm		7	Fd		3	1000	500	400	2.0	7	20	
	IDF	xm		7	Fd		2	800	400	300	2.0	7	20	
	IDF	xm		7	Fd		1	600	300	250	0.0	7	20	
1060443	IDF	xm		8	Fd(.8) Sx(.8)	PI(.8)	I	1200	700	600	1.6	4	20	
	IDF	xm		8	Fd(.4) Sx(.8)	PI(.8)	4	1200	700	600	1.6	7	20	
	IDF	xm		8	Fd Sx	PI	3	1000	500	400	1.6	7	20	
	IDF	xm		8	Fd Sx	PI	2	800	400	300	1.6	7	20	
	IDF	xm		8	Fd Sx	PI	1	600	300	250	0.0	7	20	
1060445	IDF	xm		9	Sx(.6) PI(.8)		I	1000	500	400	1.6	4	20	
1060446	IDF	xw		1	Fd(.8) Py(.8)		I	1200	700	600	2.0	7	20	
	IDF	xw		1	Fd(.4)	Py(0.8)	4	1200	700	600	2.0	7	20	
	IDF	xw		1	Fd	Py	3	1000	500	400	2.0	7	20	
	IDF	xw		1	Fd	Py	2	800	400	300	2.0	7	20	
	IDF	xw		1	Fd	Py	1	600	300	250	0.0	7	20	
1060447	IDF	xw		2	Fd(.6) Py(.6)		I	600	400	300	2.0	7	20	
	IDF	xw		2	Fd(.4)	Py(0.8)	4	600	400	400	2.0	7	20	
	IDF	xw		2	Fd	Py	3	500	300	300	2.0	7	20	
	IDF	xw		2	Fd	Py	2	400	200	200	2.0	7	20	
	IDF	xw		2	Fd	Py	1	300	150	150	0.0	7	20	
1060448	IDF	xw		3	Fd(.6) Py(.6)		I	600	400	300	2.0	7	20	
	IDF	xw		3	Fd(.4)	Py(0.8)	4	600	400	400	2.0	7	20	
	IDF	xw		3	Fd	Py	3	500	300	300	2.0	7	20	
	IDF	xw		3	Fd	Py	2	400	200	200	2.0	7	20	
	IDF	xw		3	Fd	Py	1	300	150	150	0.0	7	20	
1060449	IDF	xw		4	Fd(.6) Py(.6)		I	800	500	400	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Layer	Stocking				Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p)	Acceptable (a)		Target	MIN p+a	MIN p	MITD			
					minimum height (m)	minimum height (m)		Well-spaced/ha			(m)	(yrs)	(yrs)	
	IDF	xw		4	Fd(.4)	Py(1.0)	4	800	400	400	2.0	7	20	
	IDF	xw		4	Fd	Py	3	600	300	300	2.0	7	20	
	IDF	xw		4	Fd	Py	2	400	200	200	2.0	7	20	
	IDF	xw		4	Fd	Py	1	300	150	150	0.0	7	20	
1060450	IDF	xw		5	Fd(.8)		I	1200	700	600	2.0	7	20	
	IDF	xw		5	Fd(.4)		4	1200	700	600	2.0	7	20	
	IDF	xw		5	Fd		3	1000	500	400	2.0	7	20	
	IDF	xw		5	Fd		2	800	400	300	2.0	7	20	
	IDF	xw		5	Fd		1	600	300	250	0.0	7	20	
1060451	IDF	xw		6	Fd(.6) Sx(.6)		I	1200	700	600	2.0	4	20	
	IDF	xw		6	Fd(.4) Sx(0.6)		4	1200	700	600	2.0	7	20	
	IDF	xw		6	Fd Sx		3	1000	500	400	2.0	7	20	
	IDF	xw		6	Fd Sx		2	800	400	300	2.0	7	20	
	IDF	xw		6	Fd Sx		1	600	300	250	0.0	7	20	
1060452	IDF	xw		7	Fd(.6) Sx(.6)		I	1000	500	400	1.6	4	20	
	IDF	xw		7	Fd(.4) Sx(0.6)		4	1000	500	400	2.0	7	20	
	IDF	xw		7	Fd Sx		3	800	400	300	2.0	7	20	
	IDF	xw		7	Fd Sx		2	600	300	250	2.0	7	20	
	IDF	xw		7	Fd Sx		1	400	200	200	0.0	7	20	
1060453	MS	dc	2	1	Pl(1.0) Sx(.8)	Fd(.8) Bl(.8)	I	1200	700	600	2.0	7	20	
1060454	MS	dc	2	2	Fd(.6) Pl(.8)	Bl(.6) Pa(.6)	I	1000	500	400	1.6	7	20	
1060455	MS	dc	2	3	Fd(.6) Pl(.8)	Bl(.6) Pa(.6)	I	1000	500	400	2.0	7	20	
1060456	MS	dc	2	4	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060457	MS	dc	2	5	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060458	MS	dc	2	6	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060459	MS	dc	2	7	Sx(.8) Bl(.8)	Pl(1.0)	I	1200	700	600	2.0	4	20	
1060460	MS	dc	2	8	Sx(.6)	Bl(.6) Pl(.8)	I	1000	500	400	1.6	4	20	
1060461	MS	dv		1	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060462	MS	dv		2	PI(.8)		I	1000	500	400	2.0	7	20	
1060463	MS	dv		3	PI(1.0)	Sx(.8) Bl(.8)	I	1200	700	600	2.0	7	20	
1060464	MS	dv		4	PI(1.0)	Sx(.8) Bl(.8)	I	1200	700	600	2.0	7	20	
1060465	MS	dv		5	PI(1.0)	Sx(.8) Bl(.8)	I	1200	700	600	2.0	7	20	
1060466	MS	dv		6	PI(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060467	MS	dv		7	PI(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060468	MS	dv		8	Sx(.6) PI(.8)	Bl(.6)	I	1000	500	400	1.6	4	20	
1060469	MS	dv		9	Sx(.6)	PI(.8) Bl(.6)	I	1000	500	400	1.6	4	20	
1060470	MS	xk		1	Fd(.8) PI(1.4) Sx(.8)	Bl(.8) Lw(1.4)	I	1200	700	600	2.0	7	20	
	MS	xk		1	Fd(.8) PI(1.4) Sx(.8)	Bl(.8) Lw(1.4)	4	1200	700	600	2.0	7	20	
	MS	xk		1	Fd PI Sx	Bl Lw	3	1000	500	400	2.0	7	20	
	MS	xk		1	Fd PI Sx	Bl Lw	2	800	400	300	2.0	7	20	
	MS	xk		1	Fd PI Sx	Bl Lw	1	600	300	250	0.0	7	20	
1060471	MS	xk		2	Fd(.6) PI(1.0)	Sx(.6) Bl(.6)	I	1000	500	400	1.6	7	20	
	MS	xk		2	Fd(.6) PI(1.0)	Sx(.6) Bl(.6)	4	1000	500	400	2.0	7	20	
	MS	xk		2	Fd PI	Sx Bl	3	800	400	300	2.0	7	20	
	MS	xk		2	Fd PI	Sx Bl	2	600	300	250	2.0	7	20	
	MS	xk		2	Fd PI	Sx Bl	1	400	200	200	0.0	7	20	
1060472	MS	xk		5a	Fd(.6) PI(1.0)	Py(1.0) Lw(1.0)	I	1000	500	400	2.0	7	20	
	MS	xk		5a	Fd(.6) PI(1.0)	Py(1.0) Lw(1.0)	4	1000	500	400	2.0	7	20	
	MS	xk		5a	Fd PI	Py Lw	3	800	400	300	2.0	7	20	
	MS	xk		5a	Fd PI	Py Lw	2	600	300	250	2.0	7	20	
	MS	xk		5a	Fd PI	Py Lw	1	400	200	200	0.0	7	20	
1060473	MS	xk		5b	PI(1.0)	Sx(.6) Lw(1.0) Fd(.6)	I	1000	500	400	2.0	7	20	
1060474	MS	xk		6	PI(1.4) Sx(.8) Bl(.8)	Fd(.8)	I	1200	700	600	2.0	7	20	Balsam (Bl) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060475	MS	xk		8	PI(1.4) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060476	MS	xk		9	Sx(.6)	Bl(.6) PL(1.0)	I	1000	500	400	1.6	4	20	
1060477	MS	xv		1	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060478	MS	xv		2	Pl(.8)		I	1000	500	400	2.0	7	20	
1060479	MS	xv		3	Pl(.8)		I	1000	500	400	2.0	7	20	
1060480	MS	xv		4	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060481	MS	xv		5	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060482	MS	xv		6	Pl(1.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060483	MS	xv		7	Pl(.8) Sx(.6)	Bl(.6)	I	1000	500	400	2.0	4	20	
1060484	MS	xv		8	Sx(.6)	Pl(.8) Bl(.6)	I	1000	500	400	1.6	4	20	
1060485	MS	xv		9	Sx(.6)	Bl(.6) Pl(.8)	I	400	200	150	1.6	4	20	
1060486	SBPS	dc		1	Pl(1.4) Sx(.8)	Fd(.8) SB(.8) Lw(1.4)	I	1200	700	600	2.0	7	20	
1060487	SBPS	dc		2	Pl(1.0)	Fd(.8)	I	1000	400	300	2.0	7	20	
1060488	SBPS	dc		3	Pl(1.4)	SB(.8) Sx(.8) Fd(.8) Lw(1.4)	I	1200	700	600	2.0	7	20	
1060489	SBPS	dc		4	Pl(1.4) Sx(.8)	SB(.8)	I	1200	700	600	2.0	7	20	
1060490	SBPS	dc		5	Pl(1.0) Sx(.6)	SB(.6)	I	1000	500	400	2.0	4	20	
1060491	SBPS	dc		6	Pl(1.0) Sx(.6)	SB(.6)	I	1000	500	400	1.6	4	20	
1060492	SBPS	dc		7	Pl(1.0) Sx(.6)	SB(.6)	I	400	200	150	1.6	4	20	
1060493	SBPS	dc		8	Sx(.6)	Pl(1.0) SB(.6)	I	1000	500	400	1.6	4	20	
1060494	SBPS	mc		1	Pl(1.6)	Sx(.8) SB(.8)	I	1200	700	600	2.0	7	20	
1060495	SBPS	mc		2	Pl(1.2)	Sx(.6) SB(.6)	I	1000	500	400	2.0	7	20	
1060496	SBPS	mc		3	Pl(1.6)	Sx(.8) SB(.8)	I	1200	700	600	2.0	7	20	
1060497	SBPS	mc		4	Pl(1.2) Sx(.6)	SB(.6)	I	1000	500	400	1.6	4	20	
1060498	SBPS	mc		5	Sx(.6)	Pl(1.2) SB(.6)	I	1000	500	400	2.0	4	20	
1060499	SBPS	mc		6	Pl(1.2) Sx(.6)	Sb(.6)	I	1000	500	400	1.6	4	20	
1060500	SBPS	mc		7	Pl(1.2) Sx(.6)	Sb(.6)	I	400	200	150	1.6	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060501	SBPS	mk		1	Fd(1.0) PI(1.6) Sx(.8)	Lw(1.6)	I	1200	700	600	2.0	7	20	
1060503	SBPS	mk		2	Fd(.8) PI(1.2)	Sx(.6) Py(1.2)	I	1000	500	400	2.0	7	20	
1060504	SBPS	mk		3	Fd(1.0) PI(1.6)		I	1200	700	600	2.0	7	20	
1060506	SBPS	mk		4	Fd(1.0) PI(1.6) Sx(.8)	Lw(1.6)	I	1200	700	600	2.0	7	20	
1060508	SBPS	mk		5	Fd(1.0) PI(1.6) Sx(.8)	Lw(1.6)	I	1200	700	600	2.0	7	20	
1060510	SBPS	mk		6	PI(1.6) Sx(.8)		I	1200	700	600	2.0	4	20	
1060512	SBPS	mk		7	Sx(.6)	Bl(.6) PI(1.2)	I	1000	500	400	1.6	4	20	
1060513	SBPS	mk		8	PI(1.2) Sx(.6)	Sb(.6)	I	400	200	150	1.6	4	20	
1060514	SBPS	xc		1	PI(1.0)	Fd(.6) Sx(.6) Lw(1.4)	I	1200	700	600	2.0	7	20	
1060515	SBPS	xc		2a	Fd(.6) PI(1.0)		I	1000	500	400	1.6	7	20	
1060516	SBPS	xc		2b	PI(1.0)		i	1000	500	400	1.6	7	20	
1060517	SBPS	xc		2c	PI(1.0) Fd(0.6)		I	1000	500	400	1.6	7	20	
1060518	SBPS	xc		3	PI(1.0) Sx(.6)		I	1000	500	400	2.0	4	20	
1060519	SBPS	xc		4	PI(1.0) Sx(.8)	Lw(1.4)	I	1200	700	600	2.0	4	20	
1060520	SBPS	xc		5	PI(1.0) Sx(.6)		I	1000	500	400	1.6	4	20	
1060521	SBPS	xc		6	PI(1.0) Sx(.6)		I	1000	500	400	1.6	4	20	
1060522	SBS	dk		1	PI(2.0) Sx(1.0) Fd(1.4)		I	1200	700	600	2.0	7	20	
1060523	SBS	dk		2	PI(1.4) Sx(.8)		I	1000	500	400	1.6	7	20	
1060524	SBS	dk		3	PI(2.0) Sx(1.0)	Sb(1.0)	I	1200	700	600	2.0	7	20	
1060525	SBS	dk		4	Fd(1.4) PI(2.0) Sx(1.0)		I	1200	700	600	2.0	7	20	
1060526	SBS	dk		5	PI(2.0) Sx(1.0) Fd(1.4)		I	1200	700	600	2.0	7	20	
1060527	SBS	dk		6	PI(2.0) Sx(1.0) Fd(1.4)		I	1200	700	600	2.0	4	20	
1060528	SBS	dk		7	Sx(.8) PI(1.4)		I	1000	500	400	2.0	4	20	
1060529	SBS	dk		8	Sx(1.0) PI(2.0)		I	1200	700	600	2.0	4	20	
1060530	SBS	dk		9	PI(1.4) SB(1.0)		I	400	200	150	1.6	4	20	
1060531	SBS	dk		10	PI(1.4) Sx(.8) SB(.8)		I	400	200	150	1.6	4	20	
1060532	SBS	dw	1	1	Fd(1.4) PI(2.0) Sx(1.0)	Lw(2.0) Bl(1.0)	I	1200	700	600	2.0	7	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Layer	Stocking				Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)		Target	MIN p+a	MIN p	MITD (m)			
1060535	SBS	dw	1	2	Fd(1.0) PI(1.4)	Lw(1.4)	I	1000	500	400	2.0	7	20	
1060536	SBS	dw	1	3	Fd(1.4) PI(2.0)	Lw(1.4)	I	1200	700	600	2.0	7	20	
1060537	SBS	dw	1	4	Fd(1.4) PI(2.0) Sx(1.0)		I	1200	700	600	2.0	7	20	
1060540	SBS	dw	1	5	Fd(1.4) PI(2.0) Sx(1.0)	Lw(1.4)	I	1200	700	600	2.0	7	20	
106043	SBS	dw	1	6	Fd(1.4) PI(2.0) Sx(1.0)		I	1200	700	600	2.0	7	20	
1060545	SBS	dw	1	7	Fd(1.4) PI(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060547	SBS	dw	1	8	Fd(1.4) PI(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060549	SBS	dw	1	9	Sx(.8)	Bl(.8) PI(1.4)	I	1000	500	400	1.6	4	20	
1060550	SBS	dw	2	1	Fd(1.4) PI(2.0) Sx(1.0)	Lw(2.0)	I	1200	700	600	2.0	7	20	
	SBS	dw	2	1	Fd(1.0) PI(2.0) Sx(1.0)		4	1200	700	600	2.0	7	20	
	SBS	dw	2	1	Fd PI Sx		3	1000	500	400	2.0	7	20	
	SBS	dw	2	1	Fd PI Sx		2	800	400	300	2.0	7	20	
	SBS	dw	2	1	Fd PI Sx		1	600	300	250	0.0	7	20	
1060553	SBS	dw	2	2	Fd(1.0) PI(1.4)	Lw(1.4)	I	1000	500	400	2.0	7	20	
	SBS	dw	2	2	Fd(1.0) PI(4)		4	1000	500	400	2.0	7	20	
	SBS	dw	2	2	Fd PI		3	800	400	300	2.0	7	20	
	SBS	dw	2	2	Fd PI		2	600	300	250	2.0	7	20	
	SBS	dw	2	2	Fd PI		1	400	200	200	0.0	7	20	
1060554	SBS	dw	2	3	Fd(1.4) PI(2.0)		I	1200	700	600	2.0	7	20	
	SBS	dw	2	3	Fd(1.0) PI(2.0)		4	1200	700	600	2.0	7	20	
	SBS	dw	2	3	Fd PI		3	1000	500	400	2.0	7	20	
	SBS	dw	2	3	Fd PI		2	800	400	300	2.0	7	20	
	SBS	dw	2	3	Fd PI		1	600	300	250	0.0	7	20	
1060555	SBS	dw	2	4	Fd(1.4) PI(2.0)	Lw(2.0)	I	1200	700	600	2.0	7	20	
	SBS	dw	2	4	Fd(1.0) PI(2.0)		4	1200	700	600	2.0	7	20	
	SBS	dw	2	4	Fd PI		3	1000	500	400	2.0	7	20	
	SBS	dw	2	4	Fd PI		2	800	400	300	2.0	7	20	
	SBS	dw	2	4	Fd PI		1	600	300	250	0.0	7	20	
1060557	SBS	dw	2	5	Fd(1.4) PI(2.0) Sx(1.0)	Lw(2.0)	I	1200	700	600	2.0	7	20	

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	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
	SBS	dw	2	5	Fd(1.0) PI(2.0) Sx(1.0)		4	1200	700	600	2.0	7	20	
	SBS	dw	2	5	Fd PI Sx		3	1000	500	400	2.0	7	20	
	SBS	dw	2	5	Fd PI Sx		2	800	400	300	2.0	7	20	
	SBS	dw	2	5	Fd PI Sx		1	600	300	250	0.0	7	20	
1060560	SBS	dw	2	6	Fd(1.4) PI(2.0) Sx(1.0)	Lw(2.0)	I	1200	700	600	2.0	7	20	
	SBS	dw	2	6	Fd(1.0) PI(2.0) Sx(1.0)		4	1200	700	600	2.0	7	20	
	SBS	dw	2	6	Fd PI Sx		3	1000	500	400	2.0	7	20	
	SBS	dw	2	6	Fd PI Sx		2	800	400	300	2.0	7	20	
	SBS	dw	2	6	Fd PI Sx		1	600	300	250	0.0	7	20	
1060563	SBS	dw	2	7	PI(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	7	20	
1060564	SBS	dw	2	8	Fd(1.4) PI(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060567	SBS	dw	2	9	Fd(1.4) PI(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060568	SBS	dw	2	10	Sx(.8)	Bl(.8) PI(1.4)	I	1000	500	400	1.6	4	20	
1060569	SBS	dw	2	11	PI(1.4) Sx(.8)		I	400	200	150	1.6	4	20	
1060570	SBS	mc	1	1	Fd(1.0) PI(1.6) Sx(.8)	Bl(.8) Lw(1.6)	I	1200	700	600	2.0	7	20	
1060572	SBS	mc	1	2	PI(1.4)	Sx(.6) Bl(.6) Lw(1.4)	I	1000	500	400	2.0	7	20	
1060573	SBS	mc	1	3	Fd(1.0) PI(1.4)	Sx(.8) Lw(1.4)	I	1200	700	600	2.0	7	20	
1060575	SBS	mc	1	4	PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060577	SBS	mc	1	5	PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060579	SBS	mc	1	6	Fd(1.0) PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060581	SBS	mc	1	7	Fd(1.0) PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060583	SBS	mc	1	8	Sx(.6)	PI(1.2) Bl(.6)	I	1000	500	400	1.6	4	20	
1060584	SBS	mc	2	1	PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	7	20	
1060585	SBS	mc	2	2	PI(1.2)	Sx(.6) Bl(.6)	I	1000	500	400	1.6	7	20	
1060586	SBS	mc	2	3	PI(1.6) Sx(.8)	Bl(.8) SB (.6)	I	1200	700	600	2.0	7	20	
1060587	SBS	mc	2	4	PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060588	SBS	mc	2	5	PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060589	SBS	mc	2	6	PI(1.6) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060590	SBS	mc	2	7	PI(1.2) Sx(.6)	BI(.6) SB (.6)	I	1000	500	400	1.6	4	20	
1060591	SBS	mc	2	8	PI(1.6) Sx(.8)	BI(.8)	I	1200	700	600	2.0	4	20	
1060592	SBS	mc	2	9	PI(1.6) Sx(.8)	BI(.8)	I	1200	700	600	2.0	4	20	
1060593	SBS	mc	2	10	PI(1.2) Sx(.6)	BI(.6)	I	1000	500	400	1.6	4	20	
1060594	SBS	mc	2	11	Sx(.6)	PI(1.2) BI(.6)	I	1000	500	400	1.6	4	20	
1060595	SBS	mc	2	12	PI(1.2) Sx(.6)	BI(.6)	I	400	200	150	1.6	4	20	
1060596	SBS	mc	3	1	PI(1.6) Sx(.8)	BI(.8) Fd(0.8) Lw(0.8)	I	1200	700	600	2.0	7	20	
1060597	SBS	mc	3	2	PI(1.6)	Sx(.8)	I	1200	700	600	2.0	7	20	
1060598	SBS	mc	3	3	PI(1.6)	Sx(.8)	I	1200	700	600	2.0	7	20	
1060599	SBS	mc	3	4	PI(1.6) Sx(.8)	BI(.8) Sb(.8)	I	1200	700	600	2.0	7	20	
1060600	SBS	mc	3	5	PI(1.6)	Sx(.8) Sb(.8)	I	1200	700	600	2.0	7	20	
1060601	SBS	mc	3	6	PI(1.6)	Sx(.8) Sb(.8)	I	1200	700	600	2.0	7	20	
1060602	SBS	mc	3	7	PI(1.6) Sx(.8)	BI(.8)	I	1200	700	600	2.0	4	20	
1060603	SBS	mc	3	8	PI(1.2) Sx(.6)	BI(.6)	I	1000	500	400	1.6	4	20	
1060604	SBS	mc	3	9	PI(1.2) Sx(.6)	BI(.8) Sb(.8)	I	400	200	150	1.6	4	20	
1060605	SBS	mh		1	Fd(1.4) Sx(1.0)	BI(1.0) Lw(2.0)	I	1200	700	600	2.0	7	20	
1060606	SBS	mh		2	Fd(1.0) PI(1.4)	Lw(1.4)	I	1000	500	400	2.0	7	20	
1060607	SBS	mh		3	Fd(1.4) PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	7	20	
1060608	SBS	mh		4	Fd(1.4)	BI(1.0) Sx(1.0) Lw(1.4)	I	1200	700	600	2.0	7	20	
1060609	SBS	mh		5	Fd(1.4) Sx(1.0)	BI(1.0) Lw(2.0)	I	1200	700	600	2.0	7	20	
1060610	SBS	mh		6	Fd(1.4) PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	7	20	
1060611	SBS	mh		7	Fd(1.4) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	4	20	
1060612	SBS	mh		8	Fd(1.4) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	4	20	
1060613	SBS	mh		9	Sx(.8)	BI(0.8)	I	1000	500	400	1.6	4	20	

SSID	BGC				Free Growing							Assessments		Additional Standards
	Classification				Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p)	Acceptable (a)	Layer	Target	MIN p+a	MIN p	MITD			
					minimum height (m)	minimum height (m)		Well-spaced/ha				(m)	(yrs)	(yrs)
1060614	SBS	mm		1	Pl(2.0) Sx(1.0) Bl(1.0)	Fd(1.4)	I	1200	700	600	2.0	7	20	Balsam (Bl) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060615	SBS	mm		2	Pl(1.4)	Sx(.8) Bl(.8) Fd(1.0)	I	1000	500	400	1.6	7	20	
1060616	SBS	mm		3	Pl(1.4) Sx(.8)	Bl(.8) Fd(1.0)	I	1000	500	400	2.0	7	20	
1060617	SBS	mm		4	Pl(1.4) Sx(.8)	Fd(1.0) Bl(.8)	I	1000	500	400	2.0	7	20	
1060618	SBS	mm		5	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	7	20	
1060619	SBS	mm		6	Pl(2.0) Sx(1.0) Bl(1.0)	Fd(1.4)	I	1200	700	600	2.0	7	20	Balsam (Bl) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060620	SBS	mm		7	Sx(1.0) Bl(1.0)	Fd(1.4) Pl(2.0) Cw(1.0)	I	1200	700	600	2.0	4	20	Balsam (Bl) is limited to a maximum of 50% of preferred and acceptable well spaced trees
1060621	SBS	mm		8	Sx(.8) Bl(.8)	Pl(1.4)	I	1000	500	400	1.6	4	20	
1060622	SBS	mw		1	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0) Lw(2.0)	I	1200	700	600	2.0	7	20	
1060625	SBS	mw		2	Fd(1.0) Pl(1.4)	Sx(.8) Bl(.8)	I	1000	500	400	1.6	7	20	
1060626	SBS	mw		3	Fd(1.4) Pl(2.0)	Sx(1.0) Lw(2.0)	I	1200	700	600	2.0	7	20	
1060628	SBS	mw		4	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0) Lw(2.0)	I	1200	700	600	2.0	7	20	
1060631	SBS	mw		5	Pl(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060633	SBS	mw		6	Fd(1.4) Pl(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060636	SBS	mw		7	Pl(2.0) Sx(1.0)	Bl(1.0)	I	1200	700	600	2.0	4	20	
1060638	SBS	mw		8	Fd(1.4) Sx(1.0)	Bl(1.0) Pl(2.0)	I	1200	700	600	1.6	4	20	
1060640	SBS	mw		9	Sx(.8)	Bl(.8) Pl(1.4)	I	1000	500	400	1.6	4	20	
1060641	SBS	mw		10	Pl(1.4) Sx(.8)	Sb(.8)	I	400	200	150	1.6	4	20	
1060642	SBS	mw		11	Pl(2.0) Sx(.8)	Bl(.8)	I	1200	700	600	2.0	4	20	
1060644	SBS	mw		12	Pl(1.4) Sx(.8)		I	1000	500	400	1.6	4	20	
1060645	SBS	mw		13	Sx(.8)	Bl(.8)	I	1000	500	400	1.6	4	20	

SSID	BGC Classification				Free Growing							Assessments		Additional Standards
					Species		Stocking					Regen Delay	Free Growing	
	BGC Zone	Subzone	Variant	Site Series	Preferred (p) minimum height (m)	Acceptable (a) minimum height (m)	Layer	Target	MIN p+a	MIN p	MITD (m)			
1060646	SBS	wk	1	1	Fd(1.4) PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	7	20	
1060649	SBS	wk	1	2	PI(1.4) Fd(1.0)	BI(.8) Sx(.8)	I	1000	500	400	2.0	7	20	
1060650	SBS	wk	1	3	PI(2.0) Fd(1.4)	Sx(1.0)	I	1200	700	600	2.0	7	20	
1060651	SBS	wk	1	4	Fd(1.4) PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	7	20	
1060654	SBS	wk	1	5	PI(2.0) Sx(1.0)	Fd(1.4) BI(1.0)	I	1200	700	600	2.0	7	20	
1060656	SBS	wk	1	6	PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	4	20	
1060658	SBS	wk	1	7	PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	4	20	
1060660	SBS	wk	1	8	PI(2.0) Sx(1.0)	BI(1.0)	I	1200	700	600	2.0	4	20	
1060662	SBS	wk	1	9	Sx(.8)	PI(1.4) BI(.8)	I	1000	500	400	1.6	4	20	
1060663	SBS	wk	1	10	PI(1.4) Sx(.8)		I	400	200	150	1.6	4	20	
1060664	SBS	wk	1	11	PI(1.4) Sx(.8)		I	400	200	150	1.6	4	20	

Appendix 2 - Stocking Standards -Supporting Document (July 24, 2018)

Section 44(1) of the Forest Planning and Practices Regulation (FPPR) applies to all areas harvested under the Forest Stewardship Plan except where exempted from the requirement of Section 29(1) or (2) of the Forest and Range Practices Act.

The stocking standards specified in the Cariboo Region Stocking Standards (CRSS) and its addendum shall apply to areas harvested under the Forest Stewardship Plan (FSP). These stocking standards may also be applied to areas harvested under a previous FSP or Forest Development Plan. The stocking standards approved under this FSP will apply to an area harvested under a previous plan when the stocking standard identification number applicable to a Standard Unit (SU) is submitted to RESULTS.

1) Crop Tree Assessment

Regeneration and free growing surveys will be conducted under the oversight of a Forest Professional and/or Accredited Surveyor. Survey methodologies and tree acceptability criteria are as specified in the *Resource Practices Branch, Silviculture Survey Procedures Manual* and the *FS660- Silviculture Survey Reference* field card, as amended from time to time, unless specified or varied through provisions of this FSP.

2) Site Identification for the Purpose of Determining Stocking Standard

When determining the appropriate stocking standard in the CRSS, site identification will be completed based on the procedures and site descriptions contained in Land Management Handbook Number 39 (1997) – *A Field Guide to the Forest Site Identification and Interpretation for the Cariboo Forest Region*, as amended from time-to-time. For biogeoclimatic subzones that are not contained in the Cariboo Region field guide Handbook Number 23 (1990) – *A Guide to the Site Identification and Interpretation for the Kamloops Forest Region* and Handbook Number 24 (1993) – *A Field Guide for Site Identification and Interpretation for the Southwest Portion of the Prince George Forest Region*, as amended from time-to-time, shall be used.

3) District Policies That May Apply

Unless otherwise specified in the this FSP, where a District approves a policy that varies the standards or procedure described in the *Resource Practices Branch, Silviculture Survey Procedures Manual*, the policy may be applied in the applicable District at the discretion of the obligation holder.

4) Deviation from Potential (DFP) Survey Methodology to Assess Stocking Levels

Where harvesting on a SU having **even aged stocking standards** has resulted in partial cutting as a result of:

- a) forest health management, or
- b) where retention of crop trees is required to achieve a result or strategy in the FSP to address an objective set by government,

the deviation from potential (DFP) survey methodology may be used to assess compliance with stocking standards provided:

- a) the stratum contains between five (5) and twenty (20) m²/ha of residual basal area in stems \geq 12.5 cm dbh, of preferred and/or acceptable species; and
- b) the stratum is greater than 1 ha in size; and
- c) the SU is not being managed to uneven-aged standards.

Where the DFP survey methodology is used the applicable stocking standard in the CRSS, with regard to preferred and acceptable species, minimum tree heights, minimum inter tree distance, stocking targets, regeneration period and free growing period, continue to apply with the following exceptions:

- a) minimum inter tree distance for stems \geq 12.5 cm dbh is 0.0 m; and,
- b) subject to d) trees contributing to the retained basal area must be a preferred or acceptable species in the applicable stocking standard or another commercially valuable coniferous species, and
- c) trees contributing to stocking targets must be preferred or acceptable species specified in the stocking standard; and,
- d) any tree species specifically reserved to address a result or strategy in the FSP will contribute to the measurable basal area on the site.

5) Intermediate Harvest

Where a stand is harvested consistent with FPPR section 44 (4), other than harvesting for the purpose of uneven-aged management, it shall be deemed an intermediate harvest where the harvested stand complies with the conditions specified below for a minimum period of 12 months following the completion of harvesting

- a) greater than 20 m² average basal must be retained in trees with a diameter at breast high of \geq 12.5 cm; and
- b) no area $>$ 2 ha or 10% of the SU area, whichever is less, has a retained basal area less than 20 m²; and
- c) trees contributing to the retained basal area must be the species identified as preferred and acceptable in the CRSS; and
- d) greater than 50% of the contributing retained basal area must be a preferred tree species as defined in the CRSS, if it existed on site prior to harvest; and
- e) trees contributing to the retained basal area comply with the attributes defined in *FS 660 - Free growing damage criteria for multi-storey conifer stands*.

If during the 12 months period following the completion of harvesting the conditions specified below are not maintained, the licensee shall hold a free growing obligation on the harvested area and the appropriate stocking standards in the CRSS shall be applied.

6) Uneven Aged Management

The uneven-aged stocking standards in the CRSS will be applied in situations where:

- a) the biogeoclimatic (BEC) zone/subzone is IDF, SBSdw2 or MSxk and Douglas-fir is the leading species pre-harvest; and
- b) the silviculture system for the stand is single tree or the removal of small groups of trees resulting in openings $<$ 0.25 ha in size and the stand is being managed for multi-aged stand structure; and
- c) following completion of harvesting:
 - i. three (3) distinct layers are present
 - ii. layers 1 and 2 combined is either

- a. $\geq 6\%$ crown closure, or
- b. $> 5\text{m}^2/\text{ha}$ of basal area in layer 1, and
- iii. layers 3 and/or 4 are present.

If upon the completion of harvesting a continuous area ≥ 1 ha within the NAR area does not meet the requirements of c) above a separate standards unit will be created and even-aged stocking standards shall be applied to the area.

7) Conversion of Multi-Story Douglas-fir Stand to Even Aged Management Following a Wildfire

Where a SU or a portion thereof is impacted by a wildfire to the extent that the conditions specified in Section 5(c) “*Uneven Aged Management*” are no longer met, the impacted portion shall be defined as a separate SU and even-aged stocking standards shall be applied to the area.

8) Mixed Wood Stocking Standards

A mixed wood stocking standard may only be applied in situations where:

- a) The net merchantable cruise volume is greater than 30% net deciduous; and
- b) The merchantable deciduous volume will be utilized; and
- c) The pre-harvest objective specified in the site plan is to manage the SU for mixed wood timber values.

Broadleaf forest health free growing criteria are specified in the *FS6600-Silviculture Survey* Reference field card.

The applicable stocking standard in the CRSS for a SU shall be converted to a mixed wood stocking standard based on Table 1. Broadleaf species contained in a mixed wood stocking standard shall be considered preferred species.

Table 1: *Conversion Table for Conifer Standards to Mixed Wood Standards*

Target from Conifer Standards	Species	Target Stocking (well-spaced/ha)	Minimum Stocking Standards (well-spaced/ha)			Minimum Height at Free Growing (m)		Regen Delay (yrs)	Latest Free Growing (yrs)
			Min. Preferred & Acceptable	Min. Preferred	Min. Preferred Conifers	Dec.	Con.		
400	As defined by a productive, reliable and feasible regeneration option (footnote “a”) in Reference Guide for FDP Stocking Standards	400	200	200	200	2.0	From CRSS for applicable site series	7	20
600		800	500	400	400	2.0		7	20
1000		1200	700	600	400	2.0		7	20
1200		1600	1000	800	600	2.0		7	20

Where mixed wood standards are applied, black cottonwood, trembling aspen, and common paper birch trees not tallied as well-spaced or free-growing trees will be considered “competing vegetation” for the purpose of assessing the free growing status of the coniferous crop trees, unless Variation from General Standard 13) *Standard for the Reduction of Weevil Damage* is applied.

9) Broadleaf Stocking Standards

Broadleaf stocking standards may only be applied in situations where:

- a) the net merchantable cruise volume is greater than 70% net deciduous; and
- b) the merchantable deciduous volume will be utilized; and
- c) the pre-harvest objective specified in the site plans is to manage the SU for broadleaf timber value.

Broadleaf forest health free growing criteria are as specified in the *FS660- Silviculture Survey Reference* field card.

The applicable stocking standard in the CRSS for a SU shall be converted to a broadleaf stocking standard based on Table 2. Broadleaf species contained in a broadleaf stocking standard shall be considered preferred species.

Table 2: *Conversion Table for Conifer Standards to Broadleaf Standards*

Target from Conifer Standards	Species	Target Stocking (well-spaced/ha)	Minimum Stocking Standards (well-spaced/ha)			Minimum Height at Free Growing (m)		Regen Delay (yrs)	Latest Free Growing (yrs)
			Min. Preferred & Acceptable	Min. Preferred	Min. Conifers	Dec.	Con.		
400	As defined by a productive, reliable and feasible regeneration option (footnote "a") in Reference Guide for FDP Stocking Standards	600	400	400	n/a	2.0	From CRSS for applicable site series	7	20
600		1000	500	400	n/a	2.0		7	20
1000		1600	1000	800	n/a	2.0		7	20
1200		2000	1200	1000	n/a	2.0		7	20

10) Brush Competition

Where specified in the site plan as leave trees, layer one (≥ 12.5 cm dbh), black cottonwood, trembling aspen, and birch trees, retained at the time of harvest are not considered competing vegetation at the time of the free growing assessment of coniferous crop trees.

Black cottonwood, trembling aspen and birch trees, and shrubs species being managed to achieve an objective, result or strategy of the FSP as specified in the site plan, are not considered competing vegetation at the time of free growing evaluation of coniferous crop trees.

Trembling aspen, black cottonwood, birch, willow, and alder are not considered competing brush when conducting a free growing survey within 5 m of S4, S5, and S6 streams and all wetlands greater than 0.25 ha in the ICH and ESSF BEC zones, and within 10 m of S4, S5, and S6 streams, and all wetlands greater than 0.25 ha in all other BEC zones.

Where a brushing treatment has been undertaken, and a visual buffer is required to achieve a result or strategy, aspen, cottonwood, birch, willow and alder will not be considered competing brush when conducting a free growing survey where survey plots fall within the buffer.

For the purposes of free growing assessments in the SBPS BEC zone scrub birch will be considered non-competing when assessing the free growing status of crop trees.

Where the uneven-aged stocking standard applicable to a site specifies a minimum free growing height of 0.4 m for Douglas-fir, snow berry, soopalallie, common juniper, vaciniums sp. saskatoon, birch-leafed spirea, herbaceous vegetation, and grasses are not considered competing vegetation at the time of free growing evaluation of the well-spaced Douglas-fir.

Where required to assess the free growing status of a crop tree the conifer to brush ratio shall be 125% for the ESSF, IDF and MS biogeoclimatic zones, and 150% in the ICH, SBPS and SBS biogeoclimatic zones.

11) Lodgepole Pine Dwarf Mistletoe

In SUs where lodgepole pine is the only preferred species, when assessing the free growing status of a well-spaced lodgepole pine crop tree in regard to its proximity to mistletoe infected over topping pine stems, only stems located within the net area to reforest (NAR) portion of the block being surveyed will be considered overtopping stems. Therefore, well-spaced lodgepole pine trees that do not have visible evidence of mistletoe infection remain eligible as potential free growing trees regardless of their proximity or height relative to visibly infected stems that are located outside of the NAR.

12) Retained Mistletoe Infected Lodgepole Pine to Address a Result or Strategy

Where lodgepole pine stems are retained consistent with the South Chilcotin Stewardship Plan, for the purpose of visual screening modelled moose habitat or where specifically required by a result or strategy in the FSP, the free growing damage criteria for even-aged coniferous trees as specified in the FS 660 field card, with regard to dwarf mistletoe, will not apply to retained lodgepole pine and subsequent lodgepole pine regeneration, provided that the portion of the block where pine are retained as a visual screen or to achieve a result or strategy in the FSP is defined as a unique SU.

13) Limitations on the Use of Larch

The use of western larch must be consistent with the *Chief Forester's Standards for Seed Use*, as amended from time to time. (i.e., western larch restricted to 10% of planting program on an annual basis).

Despite western larch being listed as an acceptable species in the CRSS for various biogeoclimatic subzones/site series, western larch shall only be considered an acceptable species where it is established consistent with the LW1 and LW2 seed planning zones.

Larch shall not be considered preferred or acceptable in mule deer winter range (MDWR).

14) Limitations on the Use of White Pine

The use of white pine is restricted to rust resistant seedlots

Despite white pine's inclusion in a stocking standard, where white pine is planted outside of an "A" Class seed planning zone for white pine the seedlings are considered to be non-compliant with the *Chief Forester's Standard for Seed Use*.

15) Enhanced Stocking Standards

Enhanced stocking standards contained in the CRSS can be applied at the discretion of the obligation holder.

16) Maximum Density Limits at Free Growing

The maximum allowable density at the time of free growing declaration

- a) for pine leading strata where pine is ≥ 80 percent of the inventory is 25,000 countable conifers per hectare;
- b) for all other species and mixed pine stands where pine is less than 80% of the inventory is 10,000 countable stems per hectare; and
- c) for SUs to which uneven-aged stocking standards apply, the maximum density of stems in layer 3 is 1,0000 stems per hectare.

Where salvage harvesting has occurred following a wildfire disturbance the free growing obligation holder is exempt from clauses a) and b) above.

VARIATIONS FROM GENERAL STANDARDS

A Forest Professional may vary the stocking standard listed in the CRSS as defined below in the following situations and circumstances:

1) Multiple Years to Harvest a Standard Unit

Where harvesting occurs over multiple years on a SU with a 4-year regeneration delay, regeneration delay may be extended to 4 years after the start of the last harvest entry to a maximum of 7 years from the initial disturbance date. The late free growing date will be 20 years from the harvest start date of the initial harvest entry.

2) Seven Year Regeneration Delay

Within three (3) years following harvest commencement, and where based on a post-harvest field assessment, if a portion of a SU with a 4 year regeneration delay is planned to be regenerated by natural regeneration or direct seeding, the area being managed for natural regeneration or direct seedling may be defined as a separate standards unit with regeneration delay period of 7 years.

3) Changes to Milestones Due To Damage Caused By Wildfire

Where any portion of a standards unit larger than 1 ha is disturbed by wildfire such that the SU is left **Not Satisfactorily Restocked (NSR)** according to the currently approved stocking standard then:

- a) a new disturbance shall be reported for that opening;
- b) the NSR portion of the original standards unit may be defined as a new standards unit; and
- c) the appropriate stocking standards from CRSS shall apply to the disturbed area with the exception that;

- i. if the Regeneration Delay period has not elapsed, then Regeneration Delay and Late Free Growing shall be calculated from the new disturbance date, or
- ii. if the Regeneration Delay period has elapsed, then a new Regeneration Delay period will not apply and only Late Free Growing shall be calculated from the new disturbance date.

4) Pine as a Preferred Species in IDF Subzones

Where in the IDF biogeoclimatic zone an area is being managed with an uneven-aged silviculture system and the pre-harvest gross volume is greater than 40% lodgepole pine, and lodgepole pine is an acceptable species in the CRSS for the applicable site series, lodgepole pine may be elevated to a preferred species to a maximum of 50% of the well-spaced stems.

5) Spruce as a Preferred Species in IDF Subzones

Where in the IDF biogeoclimatic zone the pre-harvest gross volume is greater than 40% spruce, and spruce is an acceptable species in the CRSS for the applicable site series, spruce may be elevated to a preferred species to a maximum of 50% of the well-spaced stems.

6) Reduced Minimum Inter-tree Distance

The minimum inter tree-distance (MITD) for a SU may be varied from the standard defined in the CRSS in the following situations and circumstances.

- a) Where mechanical site preparation, other than slash piling, has been undertaken to create microsites prior to planting the MITD can be reduced to 1.6m.
- b) On slopes >20% in the ESSF BEC zone where protected microsites are critical for successful reforestation due to snow creep, MITD may be reduced to 1.0 m where the SU has been planted to target density or greater.
- c) Where based on a silvicultural survey a SU or portion thereof which has previously been planted has failed to maintain minimum stocking densities, due to the impacts of cattle or horses, the affected area maybe designated as a separate SU. In the newly designated SU the MITD may be reduced to 1.0 m if planting will be completed.
- d) For areas that are identified and mapped as a root disease polygon, which may include up to a 30 m buffer, a separate SU may be created and the MITD may be reduced to 1.6 m where a stump avoidance strategy is employed to manage root disease.
- e) Where salvage harvesting has been undertaken in the IDF biogeoclimatic zone following a stand initiating wildfire, which is defined as having a level of disturbance such that the stand is NSR prior to salvage harvesting, and where the objective is to restore Douglas-fir and even-aged management is required, the MITD for Douglas-fir may be reduced to 0.5 m. The reduced MITD shall apply to the distance between natural or planted Douglas-fir stems and any other preferred or acceptable crop tree species. The MITD between non- Douglas-fir crop trees species (e.g., pine to pine) remains as specified in the CRSS.
- f) On rocky sites where a plantibility survey has determined that the target stocking cannot be achieved due to the presence of rock when assessed at the applicable MITD, the MITD may be reduced to 1.6 m.

7) Grizzly Bear Habitat

Where consistent with a result and/or strategy in the FSP and prescribed in a site plan pre-harvest, a clumped tree distribution is required for the management of grizzly bear habitat, the target density, minimum preferred and acceptable and minimum preferred values in the stocking standards in the CRSS shall be modified by the factors of 0.67. For example a stocking standard of 1000/500/400 shall become 670/335/268. The minimum intertree distance shall be 1.0 m and maximum density of countable conifers shall be 4,000/ha.

The site plan must prescribe the number of trees in a cluster, the number of clusters/hectare and the spacing between clusters.

8) GAR Consistency

Where stocking standards included in this FSP conflict with the management objectives/direction of an Order under the Government Action Regulation (GAR), the stocking standards will be varied to the extent that they do not conflict with management objectives/direction of the applicable GAR Order.

Achievement of a stocking standard does not supersede the obligation holder's obligation to be consistent with all requirements specified in the GAR Order.

9) Benchmark Grasslands Standards

Areas harvested within the identified Cariboo-Chilcotin Grassland Strategy benchmark area shall have no regeneration or free growing obligation.

10) Bighorn Sheep Management Area Standards

For SUs located within the identified Churn Creek Big Horn Sheep Migration Corridor stocking standards may be varied to the extent recommended in writing by a FLNRO&RD Habitat Biologist.

11) Standard for the Reduction of Weevil Damage

If,

- a) There is an active white pine weevil (*Pissodes Strobi*) population on the block or an adjacent managed opening as evidenced by the presence of weevil damaged trees, and
- b) The spruce trees being assessed are of acceptable form and vigour and meet all other acceptability criteria (i.e., preferred or acceptable species, minimum height, MITD),

Then for the purpose of assessing the free growing status of spruce crop trees, all deciduous vegetation shall be assessed as non-competing brush.

12) Variations to Preferred or Acceptable Species

The preferred and/or acceptable species in the stocking standards in the CRSS may be varied to the extent specified below in the following situation and circumstances.

- a) Where greater than 10% of the total merchantable volume on the area of a SU, based on a timber cruise, is of a conifer species not identified in the approved stocking standards, that species may be designated an acceptable species where it is ecologically suitable.
- b) Where prior to harvest lodgepole pine is greater than 50% of the total merchantable volume lodgepole pine can be designated as a preferred species in the following biogeoclimatic subzone/site series:
 - i. ESSFdc2/06 and /07
 - ii. ESSFxc/07 and /08
 - iii. ICHmk3/04 and /06
 - iv. ICHmw3/01
 - v. IDF dk/04
 - vi. IDF mw2/01 and 03
 - vii. IDFxM/06, 07 and /08
 - viii. MSxk/09

13) BEC Site Series Mosaics

Where an area consists of a mosaic of two or more biogeoclimatic site series, which cannot be clearly delineated or mapped (i.e., site series are less than one contiguous hectare in size), the stocking standard that applies to the area is the stocking standard for the dominate site series. The applied stocking standard may be varied such that a preferred species from the applicable stocking standard for either site series may be considered a preferred species and an acceptable species from the applicable stocking standard for either site series may be considered an acceptable species.

14) Douglas-fir Preferred on Mule Deer Winter Ranges

Within all mule deer winter range units to which this FSP applies, Douglas-fir may be considered a preferred species for the purposes of the stocking standards in addition to the species listed in the stocking standards in the CRSS.

15) Management of Root Disease Sites

For standard units that consist solely of areas that are identified and mapped as a root disease polygon, which may include up to a 30m buffer surrounding the area of infection, an alternate ecologically suitable, commercially valuable species that are moderately susceptible, tolerant, or immune may be specified as preferred and/or acceptable to maximize species diversity on site at the time of planting.

Due to the risk of increased inoculum levels, which may result from a conifer release treatment, on areas that have been identified and mapped and managed as a root disease polygon, which may include up to a 30 m buffer, for the purpose of assessing the free growing status of a conifer crop tree, all trembling aspen, paper birch, black cottonwood, willow and alder shall be assessed as non-competing brush.

16) Wildfire Urban Interface (WUI) Stocking Standards

(Currently under development)

17) Extension to Regeneration Delay Period Required to Reduce Pressure on Seed Supply and Nursery Capacity as a Result of 2017 Wildfires

Areas managed for natural reforestation may have regeneration delay extended to 9 years when all the following conditions are met:

- a) A regen survey is completed on the site in year 5 or 6 post-harvest start.
- b) The average stocking of preferred and acceptable species is greater than 500 well-spaced/ha.
- c) The regeneration survey has demonstrated that there are significant numbers of germinants on the site that will contribute to the stocking targets.
- d) The regen delay milestone date is not extended beyond 2028.

18) Extension to Regeneration Delay Period When Standards Units with a 4 Year Regen Delay are a Minor Component of the Cut Block

Where a cut block:

- a) is located in either the ESSFxv1, ESSFxv2, MSxv, SBPSdc, SBPSmc, SBPSmk or SBPSxc biogeoclimatic subzones, and
- b) contains SU's that have a 4 year regeneration delay and 7 years regeneration delay periods, and
- c) less than 25 percent (25%) of the NAR area of the cut block has a 4 year regeneration delay period,

all standards units within the block may be managed with a 7 year regen delay period.

19) Intermediate Harvest Standards

Where harvesting is deemed to be an intermediate harvest, as per clause *General Condition clause 4) Intermediate Harvest* of this document, the applicable stocking standard in the CRSS may be varied such that:

- a) there shall be no regeneration objective, and
- b) the minimum basal area objective shall be set at 20m²/ha or greater.

20) Uneven Aged Management Required to Achieve a Result of Strategy in the FSP

Where required to achieve a result or strategy in the FSP any Douglas-fir leading stand may be managed for uneven aged stand structure. The stocking standard that shall apply will be the applicable even aged stocking standard, based on biogeoclimatic subzone and site series, from the CRSS as modified consistent with Table 3 below.

Table 3 *Stocking Standard Conversion Table*

Target Stocking from CRSS standards	Layer	Target Stocking	Minimum Stocking (P+A)	Minimum Stocking (P)
(stems/ha)		(well-spaced/ha)		
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
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

8.3 **Appendix 3 - Mature + Old, Old, Interior Old Forest Representation Targets and Early Seral Forest Guidelines (% Biodiversity Forest Landbase*)**

Big Bar Landscape Unit – High Biodiversity Emphasis					
Natural Disturbance Type – Biogeoclimatic Variant	Area (ha)	Mature+Old Forest	Old Forest	Interior Old Forest**	Early Seral Forest
3-ESSFxc	1002	>34	>21	>5.25	<35
3-MSxk	5461	>39	>21	>5.25	<35
4-BG xh 3 (fir group)	15	>65	>32	>16	<9
4-BG xw 2 (fir group)	540	>65	>32	>16	<9
4-BG xw 2 (Pine group)	9	>34	>16	>8	<40
4-IDFdk3 (fir group)	20817	>65	>32	>16	<9
4-IDFdk3	2	>51	>19	>9.5	<23
4-IDFdk3 (pine group)	14151	>34	>16	>8	<40
4-IDFxm (fir group)	4373	>65	>32	>16	<9
4-IDFxm (pine group)	291	>34	>16	>8	<40
4-IDFwx (fir group)	884	>65	>32	>16	<9
4-IDFwx (pine group)	2	>34	>16	>8	<40
Chasm Landscape Unit – Intermediate Biodiversity Emphasis					
Natural Disturbance Type – Biogeoclimatic Variant	Area (ha)	Mature+Old Forest	Old Forest	Interior Old Forest**	Early Seral Forest
3-ESSFxc	1442	>23	>14	>3.5	<46
3-MSxk	3394	>26	>14	>3.5	<46
4-IDFdk3 (fir group)	23246	>43	>21	>10.5	<12
4-IDFdk3 (pine group)	32065	>23	>11	>5.5	<54
4-IDFwx (fir group)	6266	>43	>21	>10.5	<12
4-IDFwx (pine group)	1383	>23	>11	>5.5	<54
Clinton Landscape Unit – Intermediate Biodiversity Emphasis					
Natural Disturbance Type – Biogeoclimatic Variant	Area (ha)	Mature+Old Forest	Old Forest	Interior Old Forest**	Early Seral Forest
3-ESSFxc	2017	>23	>14	>3.5	<46
3-MSxk	6164	>26	>14	>3.5	<46
4-IDFdk3 (fir group)	9111	>43	>21	>10.5	<12
4-IDFdk3 (pine group)	4175	>23	>11	>5.5	<54
4-IDFwx (fir group)	9567	>43	>21	>10.5	<12
4-IDFwx (pine group)	314	>23	>11	>5.5	<54
Kelly Lake Landscape Unit – Intermediate Biodiversity Emphasis					
Natural Disturbance Type – Biogeoclimatic Variant	Area (ha)	Mature+Old Forest	Old Forest	Interior Old Forest**	Early Seral Forest
3-ESSFxc	1225	>23	>14	>3.5	<46
3-MSxk	6321	>26	>14	>3.5	<46
4-BGxh3 (fir group)	337	>43	>21	>10.5	<12
4-IDFdk3 (fir group)	4553	>43	>21	>10.5	<12
4-IDFdk3 (pine group)	1478	>23	>11	>5.5	<54
Kelly Lake Landscape Unit – Intermediate Biodiversity Emphasis					
Natural Disturbance Type – Biogeoclimatic Variant	Area (ha)	Mature+Old Forest	Old Forest	Interior Old Forest**	Early Seral Forest
4-IDFdk1 (fir group)	48	>43	>21	>10.5	<12
4-IDFdk1 (pine group)	24	>23	>11	>5.5	<54
4-IDFwx (fir group)	2324	>43	>21	>10.5	<12
4-IDFwx (pine group)	32	>23	>11	>5.5	<54
4-PPxh2 (valley bottom)	1	>34	>13	>6.5	<30

Loon Landscape Unit – Intermediate Biodiversity Emphasis					
Natural Disturbance Type – Biogeoclimatic Variant	Area (ha)	Mature+Old Forest	Old Forest	Interior Old Forest**	Early Seral Forest
3-MSxk	19519	>26	>14	>3.5	<46
4-IDFdk3 (fir group)	18729	>43	>21	>10.5	<12
4-IDFdk3 (pine group)	12295	>23	>11	>5.5	<54
4-IDFdk3	7	>34	>13	>6.5	<30
4-IDFwx (fir group)	2409	>43	>21	>10.5	<12
4-IDFwx (pine, valley bottom)	111	>23	>11	>5.5	<54

*The biodiversity land base represents the productive forest land area with the addition of parks and proposed Goal 2 areas.

** Interior old expressed as % of total forest area, calculated as the percentage of the Old Forest specified in the Biodiversity Guidebook, September 1995.

8.4 **Appendix 4 - Wildlife Tree Retention Targets**

Landscape Unit – Biogeoclimatic sub unit	Minimum Wildlife Tree Retention Target (% gross harvest area)
Big Bar	
3-ESSFxc	5.1
3-MSxk	6.6
4-BGxh3 (fir group)	0.2
4-BGxw2 (fir group)	6.3
4-BGxw2 (pine group)	4.0
4-IDFdk3 (fir group)	7.5
4-IDFdk3 (pine group)	8.7
4-IDFxm (fir group)	7.5
4-IDFxm (pine group)	8.0
4-IDFxm (fir group)	4.6
4-IDFxm (pine group)	0.3
Chasm	
3-ESSFxc	2.2
3-MSxk	3.8
4-IDFdk3 (fir group)	8.2
4-IDFdk3 (pine group)	9.2
4-IDFxm (fir group)	5.7
4-IDFxm (pine group)	6.4
Clinton	
3-ESSFxc	3.2
3-MSxk	6.8
4-IDFdk3 (fir group)	6.5
4-IDFdk3 (pine group)	7.4
4-IDFxm (fir group)	7.0
4-IDFxm (pine group)	5.9
5-ESSFxc	8.4
Kelly Lake	
3-ESSFxc	1.7
3-MSxk	0.2
4-BGxh3 (fir group)	0.0
4-IDFdk3 (fir group)	2.4
4-IDFdk3 (pine group)	2.1
4-IDFdk1 (fir group)	7.8
4-IDFdk1 (pine group)	7.8
4-IDFxm (fir group)	0.0
4-IDFxm (pine group)	0.0
4-PPxh2 (valley bottom)	7.8
Loon	
3-MSxk	8.2
4-IDFdk3 (fir group)	7.7
4-IDFdk3 (pine group)	8.4
4-IDFxm (fir group)	5.6
4-IDFxm (pine, valley bottom)	6.3

8.5 Appendix 5 - Interpretive Forest Sites, Recreation Sites and Recreation Trails

Project No.	Project Name	Type	Objectives
REC2509	RILEY DAM	SIT - Recreation Site	99/01/31 The objectives are to manage the Riley's Dam Recreation Site for a roaded recreation experience. The lakeshore line and coniferous vegetation will be maintained. Opportunities for fishing, camping and picnicking will be provided at the site. Gravel road access to the site will be maintained for two-wheel drive vehicles from May to early October.
REC6195	CLINTON CREEK FALLS	RR - Recreation Reserve	None listed.
REC2819	PORCUPINE CREEK	RR - Recreation Reserve	None listed.
REC2971	Big Bar Cross Country Ski Trails	RTR - Recreation Trail	99/01/07 The objectives are to manage the Big Bar Ski Recreation trails for a semi primitive recreation experience. Opportunities for cross country skiing and mountain biking will be provided at the site. Gravel road access for two-wheel drive vehicles will be maintained to the trail head.
REC230315	Clinton Trail	RTR - Recreation Trail	None listed.
REC98238	HALLER AND GRINDER RECREATION TRAILS	RTR - Recreation Trail	None listed.
REC106914	Porcupine Creek Trails	RTR - Recreation Trail	None listed.
REC202871	GRINDER TRAILHEAD	SIT - Recreation Site	None listed.
REC202869	HALLER TRAILHEAD	SIT - Recreation Site	None listed.
REC205666	Jesmond Fire Lookout	SIT - Recreation Site	None listed.
REC160877	Porcupine Creek Trailhead	SIT - Recreation Site	None listed.
REC6894	Gold Rush Snowmobile Trail	RTR - Recreation Trail	This trail section is not a grand-parented Rec Trail nor does it have objectives. It is being added to assist in managing the Trail within the FSP FDU. <i>The section of the trail within the plan area is located to the east of the Marble Range Provincial Park, along the River Lake Fifty Nine FSR.</i>

8.6 Appendix 6 - Management of Cumulative Effects.

<p>Recent direction from <i>FLNRORD</i> has suggested that <i>FSP Holders</i> address aspects of the Cumulative Effects of harvesting. While no formal objectives have been set by government, expectations have been expressed.</p> <ol style="list-style-type: none"> 1. Consolidated Planning. Sharing development plans spatially with the public, FN and Stakeholders. 2. No net access increase. 3. Access management. 4. Species impact monitoring (Moose, Marten, water). 5. Transitioning to a green harvest profile. 6. Dry-belt Fir Management. 7. Addressing issues of Climate change & species shift. 8. Cumulative Effects. 	
<p>Applicable area</p>	
<p>FDU 1.</p>	
<p>Discussion//Result or Strategy</p>	
<ol style="list-style-type: none"> 1. Consolidated Planning. The <i>FSP Holder</i> will, over the next five years, transition to an FDP style of block & access spatial planning as a separate process from the <i>FSP</i>. In each of the next three years, the CDCF will update their planning to include one additional yr. The rationale for the transition is the presence of Fir Bark Beetle in the Community Forest area that is likely to be a major factor in determining where harvesting will occur. 2. Amount of new access. The <i>FSP Holder</i> is aware that <i>FLNRORD</i> staff is encouraging the adoption of a “No net access increase” policy. While the <i>FSP Holder</i> is cognisant of the importance of limiting the proliferation of roads, there are a number of factors that make it unfeasible to establish this policy at this time within the area based Community Forest Agreement Tenure. These factors are Viewsheds with limited current access, steep ground with limited current access, Private land blocking access to potential harvest base area and an expanding fir bark beetle infestation. 3. Access management. This is the first cut control cycle of operations for the CDCF. As the Community Forest establishes an operational presence within the Community Forest Agreement Area, the <i>FSP Holder</i> will consider the amount of access required to maintain harvesting in a selection system dominated landscape that maintains fire initial attack access and enables the <i>holder</i> to meet silviculture obligations. The <i>holder</i> will prepare an access management plan for the community forest by September 30, 2020. 4. Species impact monitoring: (Moose, Marten, water). The <i>FSP Holder</i> will establish harvest access and blocks in a manner that minimizes impacts on moose habitat as described in Section 5.9 and furbearers Section 5.10. 5. Transitioning to a green harvest profile. This point is felt to not apply appropriately to the community forest. The primary timber harvest base is comprised of fir. The majority of beetle attacked pine has been salvaged and while CDCF staff is focusing on dealing with fir bark beetle salvage in the short term, there will be green fir harvest proposed in this cut control cycle. With respect to cutblock size & patch size distribution, most of the fir harvest will be by selection harvest, primarily targeting 50% volume removal. 	

6. Dry-belt fir mgmt. The primary harvest base is comprised of fir. While CDCF staff is focusing on dealing with fir bark beetle salvage in the short term there will be green fir harvest proposed in this cut control cycle. With respect to cutblock size and patchsize distribution, most of the fir harvest will be by selection harvest and primarily targeting 50% volume removal.
7. Climate change & species shift. Given the location of the community forest and the BEC zones encompassed by it, ponderosa pine is likely to increase its range within the community forest. The dry conditions experienced in the BG & IDF xm/dk 3 are unlikely to support larch. The **FSP Holder** will review silviculture species shift material on an annual basis to keep current with *FLNRORD* policy guidance on the issue of species shift and will implement changes to the stocking standards as is deemed professionally prudent.
8. Assessing Cumulative Effects. The **FSP Holder** will utilize the *FLNRORD* approved/sanctioned Assessment Tool prior to Cutting Permit application to guide the planning of stands for harvest.

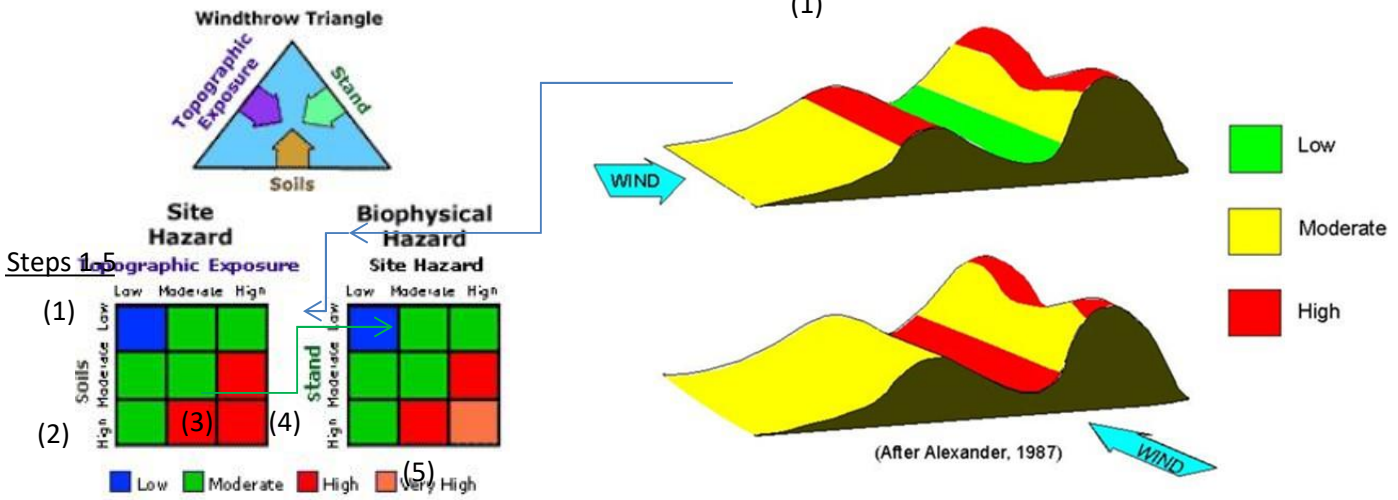
8.7 Appendix 7 - Windthrow Assessment Form.

WINDTHROW EVALUATION

Licence: _____ CP/RO: _____ Blk: _____ Date: _____ Surveyor: _____

Biophysical Hazard Assessment

Topographic Exposure



Hazard Indicator	High Hazard	Moderate Hazard	Low Hazard
(1) TOPOGRAPHIC	<input type="checkbox"/> HIGH	<input type="checkbox"/> MODERATE	<input type="checkbox"/> LOW
(2) SOILS	<input type="checkbox"/> HIGH	<input type="checkbox"/> MODERATE	<input type="checkbox"/> LOW
Parent Material	<input type="checkbox"/> Organic <input type="checkbox"/> Rock <input type="checkbox"/> Fine Alluvial	<input type="checkbox"/> Till <input type="checkbox"/> Moderate Alluvial	<input type="checkbox"/> Coarse Alluvial <input type="checkbox"/> Colluvial
Texture	<input type="checkbox"/> Fine	<input type="checkbox"/> Medium <input type="checkbox"/> Very Coarse	<input type="checkbox"/> Coarse
Coarse Fragment %	<input type="checkbox"/> > 70 %	<input type="checkbox"/> 30 – 70 %	<input type="checkbox"/> < 30 %
Rooting Depth/Pattern	<input type="checkbox"/> < 40 cm / <input type="checkbox"/> Plate Roots	<input type="checkbox"/> 40 – 80 cm / <input type="checkbox"/> Flattened Base	<input type="checkbox"/> > 80 cm / <input type="checkbox"/> Rounded Base
Impeding Layer	<input type="checkbox"/> Water Table	<input type="checkbox"/> Surface Fractured Rock	<input type="checkbox"/> Deep Fractured Rock
Soil Drainage	<input type="checkbox"/> Poor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Good
(3) DETERMINE SITE HAZARD MATRIX (1) x (2)	<input type="checkbox"/> HIGH	<input type="checkbox"/> MODERATE	<input type="checkbox"/> LOW
(4) STAND ** MPB = HIGH **	<input type="checkbox"/> HIGH	<input type="checkbox"/> MODERATE	<input type="checkbox"/> LOW
Beetle Incidence	<input type="checkbox"/> Present, small stems	<input type="checkbox"/> Present, large stems	<input type="checkbox"/> Absent
Structure	<input type="checkbox"/> Uniform	<input type="checkbox"/> Two-layer <input type="checkbox"/> Uniform with vets	<input type="checkbox"/> Multi-layer
Height	<input type="checkbox"/> > 30 m	<input type="checkbox"/> 15 – 30 m	<input type="checkbox"/> < 15 m
Species Composition	<input type="checkbox"/> Spruce	<input type="checkbox"/> Douglas-fir <input type="checkbox"/> Pine	
Live Crown Ratio (%) of Exposed Crowns	<input type="checkbox"/> < 30	<input type="checkbox"/> 30 - 70	<input type="checkbox"/> > 70
Height-Diameter Ratio	<input type="checkbox"/> > 90	<input type="checkbox"/> 70 - 90	<input type="checkbox"/> < 70
Stand Density	<input type="checkbox"/> Dense	<input type="checkbox"/> Moderate	<input type="checkbox"/> Open
Root/Stem Rots	<input type="checkbox"/> Significant	<input type="checkbox"/> Some	<input type="checkbox"/> Minor
(5) DETERMINE BIOPHYSICAL HAZARD MATRIX (3) x (4)	<input type="checkbox"/> HIGH HAZARD	<input type="checkbox"/> MODERATEHAZARD Assess Either High or Low Risk	<input type="checkbox"/> LOW HAZARD
(6) WINDTHROW RISK	<input type="checkbox"/> HIGH RISK Apply Treatment Options		<input type="checkbox"/> LOW RISK Use as Firm Boundaries /Anchors

Notes:

WINDTHROW EVALUATION

Licence: _____ CP/RO: _____ Blk: _____ Date: _____ Surveyor: _____

HIGH WINDTHROW RISK TREATMENT OPTIONS - PLANNING & LAYOUT

AVOID	CLEARCUT OPTIONS	UNIFORM PARTIAL CUTTING	OPPORTUNITIES
Wind exposed edges on gullies or breaks	Allow windthrow & plan for salvage	Allow windthrow & plan for salvage	Use existing harvested blocks to create windfirm edges for logging
Small retention patches of slender trees on exposed block locations	Adjust boundary to maximize lee and parallel edges to prevailing wind	Favour trees with height:diameter ratios < 70	Plan future harvesting into the wind
Exposed susceptible individual dispersed trees	Irregular wind facing edges may expose trees to higher loads	Leave intact units or clumps	Identify windfirm natural anchor points to protect boundaries
Block shapes and orientation that funnel the wind	Increase patch size to protect features – 60-95 m	When thinning, increase density of leave trees along wind edge	Locate edges 25-30+ m into the wind from breaks, gullies & wet areas
Unnecessary exposed peninsulas	Change orientation of patch to minimize frontal exposed edges		Leave advanced regen in front of exposed edges
Narrow strips of retention	Reduce the length wind can travel unobstructed to < 50 m; be aware of openings that give wind 'fetch'		Leave leaning and dead trees near the edge
			Look at neighbouring windthrown blocks to determine extent of risk
			Consider leaving clumps of less susceptible trees if habitat objectives can be met
			Test ideas on small areas first
			Employ multi-pass systems

Notes/Map:

8.8 Appendix 8 - Explanation of *Basal area* equivalency methodology.

Two issues are being solved. Applying a credit for single trees by BA and simplifying/defining what WTR percent to use.

1. Credit for Single tree Reserves.
 - a. Applies to areas where > 50 % of the **Basal area** has been removed or for a stand classified as Shelterwood. Since it is vague as to whether WTR in these cases must be in Patches the following calculation is applied.
 - i. Gross area calculation: WTP is layed out and GPS'd - area = 1.0 ha. Divide the GPS'd WTP area by the gross area of the cutblock to get WTP %.
 - ii. Where it is desired to count single tree retention (primarily of deciduous or oversized fir) towards the WTR requirement, the method of calculating the contribution amount is: Stand: 30 m² /ha. Over-size fir is 2.0 m² /ha; deciduous is 1.0 m² /ha for a total of 3.0 m² /ha. $3.0/30.0 = 10\%$ **Basal area**. All single trees included in the BA / ha calculation are counted therefore it is considered to be a 1:1 ration.
 - b. For areas where harvest is planned at < 50 % BA removal the following calculation is applied.
 - i. Where it is desired to count single tree retention (primarily of deciduous or oversized fir) towards the WTR requirement, the method of calculating the contribution amount is: Stand has 30 m² /ha. Over-size fir is 2.0 m² /ha; deciduous is 1.0 m² /ha for a total of 3.0 m² /ha. $3.0/30.0 = 10\%$ **Basal area**. All single trees included in the BA / ha calculation are counted therefore it is considered to be a 1:1 ration.
2. Simplify what WTR % to use.
 - a. Interpretation: WTR % is listed by LU & BEC combination. The situation can arise where there are many LU/BEC combinations in a CP, some of which can result in a very small WTR area requirement. For e.g. - if the CP has 1 ha of a particular LU/BEC combination the required WTR could be 0.1 ha which is neither practical nor desirable. To avoid these situations, the **FSP Holder** picks the dominant LU/BEC combination and applies the required WTP %; which gives one WTR percent of the Cutting Permit.
3. There are two options to having a single WTR % for a CP/Block.
 - a. Assess all present LU/BEC combinations and pick the highest percent and meet this for the CP. This method continually over allocates WTR % but is relatively straight forward to implement and track.
 - b. Weight the LU/BEC WTR % by area of contribution within the CP to calculate a single %.
4. See attached Wildlife Tree Retention: Management Guidelines - *FLNRORD*, 2006. Pages 4, 7 & 8.

Amendment Log and Summary of Changes

Am #	Date Submitted	Type	Summary of Changes