

Forest Stewardship Plan 2012 - 2017

Xáxli'p Community Forest Corporation

Community Forest Agreement K3L

Oct 21, 2011 Submission for Review and Comment with FRPA References

Xáxli'p Community Forest Corporation

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Acronym Definitions

CFD	Cascades Forest District
CWS	Community Watershed
ECA	equivalent clearcut area
FDU	Forest Development Unit
FPPR	Forest Planning and Practices Regulation
FRPA	Forest and Range Practices Act
FSP	Forest Stewardship Plan
GAR	Government Actions Regulation
IAP	invasive alien plant
LRDW	Land and Resource Data Warehouse

LU	Landscape Unit
MOF	Ministry of Forests, Lands and Natural Resource Operations
OGMA	Old Growth Management Area
QP	Qualified Registered Professional
CFA	Community Forest Agreement
POD	Point of Diversion
RMZ	riparian management zone
RRZ	riparian reserve zone
SAR	species at risk
SMZ	streamside management zone
TSA	Timber Supply Area
UWR	ungulate winter range
VQO	Visual Quality Objective
WUI	Wildfire Urban Interface
WHA	Wildlife Habitat Area
WTRA	Wildlife Tree Retention Area
XCFC	Xáxli'p Community Forest Corporation

Scientific Names for Wildlife Species

Coastal Tailed Frog	<i>Ascaphus truei</i>
Great Basin Gopher Snake	<i>Pituophis catenifer deserticola</i>
Flammulated Owl	<i>Otus flammeolus</i>
Interior Western Screech Owl	<i>Otus kennicottii macfarlanei</i>
Spotted Owl	<i>Strix occidentalis</i>
Spotted Bat	<i>Euderma maculatum</i>
Great Basin Spadefoot	<i>Spea intermontana</i>
Lewis's Woodpecker	<i>Melanerpes lewis</i>
White-headed Woodpecker	<i>Picoides albolarvatus</i>
Badger	<i>Taxidea taxus</i>
Fringed Myotis	<i>Myotis thysanodes</i>
Moose	<i>Alces alces</i>
Elk	<i>Cervus canadensis</i>
Mule Deer	<i>Odocoileus hemionus</i>
Mountain Goat	<i>Oreamnos americanus</i>
Big Horned Sheep	<i>Ovis canadensis</i>
Grizzly Bear	<i>Ursus arctos</i>

Definitions

Unless otherwise indicated terms used in this FSP have the definition given them, as of date of submission, in the *Forest and Range Practices Act* and the *Forest Act* and the regulations under them.

In addition, the following definitions apply to and are referenced in this FSP:

“Date of Submission” means the date on which the holder of this FSP submitted the FSP for approval by the designated decision maker;

“Evaluation” means an assessment conducted by a Qualified Registered Professional that examines, on a site specific basis, the social, economic and environmental factors as well as relevant factors as described in *FPPR Schedule 1*. An evaluation may include the development of alternative results or strategies that are consistent with the intent of the applicable objective.

“Qualified Registered Professional” means;

(1) A person with the prescribed qualifications, and is licensed by one or more of the following:

- (a) an agrologist under the *Agrologists Act*,
- (b) a professional biologist under the *College of Applied Biology Act*,
- (c) a professional engineer or professional geoscientist under the *Engineers and Geoscientists Act*, or
- (d) a forest professional under the *Foresters Act*

and is authorized under that Act to practice as a professional in relation to the subject matter prescribed under that paragraph or those paragraphs, as the case may be, and;

(2) has the appropriate education, experience and training to carry out the activity.

“Visual Impact Assessment” means an assessment conducted by a Qualified Registered Professional that examines, on a site specific basis, the potential visual impact of proposed primary forest activities on the scenic landscape. The level and detail of the VIA will be dependent upon the target visual quality objective and risk to visual quality from primary forest activities..

"Primary Forest Activity" means one or more of the following:

- (a) timber harvesting;
- (b) silviculture treatments;
- (c) eco-cultural restoration treatments;
- (d) road construction, maintenance and deactivation;

"Eco-cultural Restoration" means vegetation management treatments with the goal of maintaining and/or restoring ecological structure, managing vegetation density, and managing species composition to produce forest values and forest products of value to the Xáxli'p First Nation.

Forest Stewardship Plan 2012 - 2017

Xáxli'p Community Forest Corporation

Community Forest Agreement K3L

1 Introduction

1.1 Description of the Forest Stewardship Plan Area

FRPA Section 3(4): This FSP applies to Community Forest Agreement K3L.

Community Forest Agreement K3L is held by the Xáxli'p Community Forest Corporation and covers 23,265 ha. The Community Forest includes the main Fountain Valley and side drainages, which have been the territory of the Xáxli'p First Nation since time immemorial.

1.2 Term of the Forest Stewardship Plan

FRPA Section 6(1)(b): The Commencement Date for the term of this FSP is the date it is approved.

FRPA Section 6(1)(a) The Term of this FSP will be 5 years beginning on the Commencement Date.

1.3 Forest Planning and Practices Regulation Citations in FSP Text

Several instances occur in this FSP where it is noted that certain sections of FPPR apply to management decisions regarding specific resource values. The intent of noting FPPR sections which apply to the Agreement is to convey information to users of the Plan, not to suggest that some section of FPPR apply to this Community Forest Agreement and others do not. This Agreement is subject to and will be managed in accordance with all applicable legislation and regulations.

2 Forest Development Units

FPPR Section 14(1): There are no Forest Development Units (FDUs) in effect within K3L on the date of submission of this FSP. The FSP map set shows the area of the proposed FDU that will take effect with the approval of this FSP.

Forest Development Units identify areas in which XCFC will conduct primary forest activities, and which have common values, objectives and practice requirements. K3L will be managed with one FDU which contains the entire CFA area. There are no FDU's outside of the CFA area. Table 1 lists the FDU area and Figure 1 provides an overview of the FDU.

FDU No.	FDU Name	TSA	Landscape Unit	Gross Area (ha)
1	Fountain	Lillooet	Pavillion	23,265
Total				23,265

Table 1: Forest Development Units within K3L CFA.

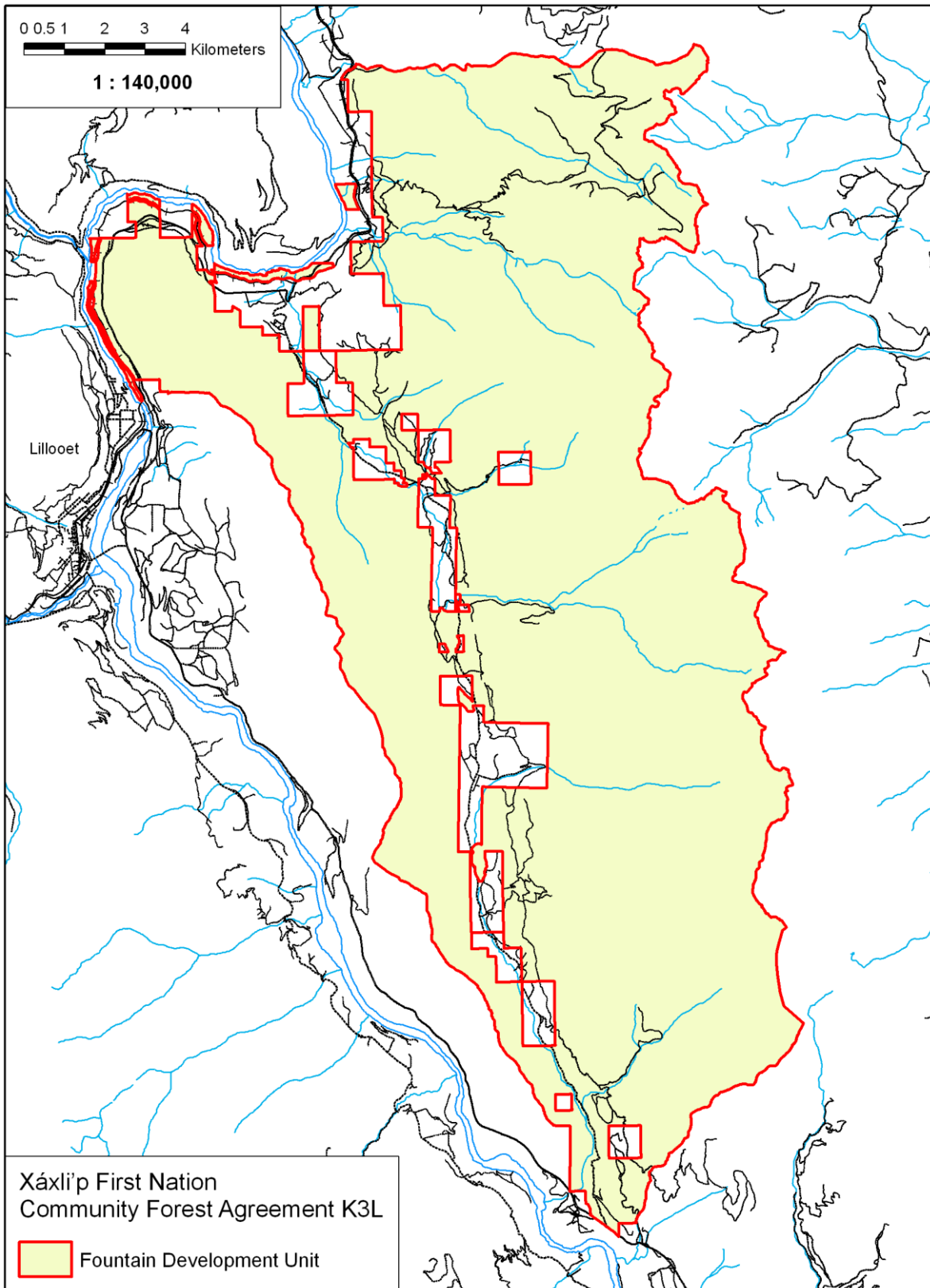


Figure 1: Forest Development Units within K3L CFA

3 Other Plans

This area covered by this FSP is not subject to any higher level plans.

4 FRPA Values, Objectives, Practice Requirements

4.1 Introduction

The Government of BC has established objectives for various forest resource values in legislation, regulations or higher level plans under FRPA or other acts that affect land management. To facilitate implementation of these objectives government has established practice requirements and/or provisions for the development of Results and/or Strategies, or combinations thereof, to be defined with the FSP.

Strategies mean a description of:

- a) measurable or verifiable steps or practices that will be carried out to meet a particular established objective, and
- b) the situations or circumstances that determine where in an FDU the steps or practices under (a) will be applied.

Results mean a description of:

- a) measurable or verifiable outcomes for a particular established objective, and
- b) the situations or circumstances that determine where in an FDU the outcomes under (a) will be achieved.

4.2 Designations And Objectives In Effect Before Submission Of FSP

Per FPPR Section 14(2)(b)(ii)), the following Notices, Orders, and Objectives were in place before the submission of this FSP and are to be considered in this FSP:

- Ungulate Winter Range Notice
- Species at Risk Notice
- GAR Orders creating Wildlife Habitat Areas
- Non- Spatial Old Growth Order
- Scenic Areas Designation
- Scenic Areas with Visual Quality Objectives Designation
- Community Watershed

4.3 Soils

Objective Set by Government for Soils	
Regulation and Objective	FPPR Section 5
<p>FPPR Section 5 - Objectives set by government for soils</p> <p>The objective set by government for soils is, without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and the hydrologic function of soils</p>	
Regulation	FPPR Section 12(1)
<p>FPPR Section 12 - Specifying results or strategies</p> <p>12. (1) A person who prepares a forest stewardship plan under section 5 (1) (b) of the Act, may consider the factors set out in Schedule 1 when specifying results or strategies for established objectives</p> <p>Schedule 1 Factors relating to objective set by government for soils</p> <p>1. The following factors apply to a result or strategy for the objective set out in Section 5 of the regulation:</p> <ul style="list-style-type: none"> (a) the amount of productive forest land base that will be occupied by permanent access structures; (b) the amount of soil disturbance within the net area to be reforested, having regard to <ul style="list-style-type: none"> (i) the classification of soils based on their biological, physical and chemical properties, including their sensitivity to displacement, surface erosion and compaction, (ii) the kinds of disturbance that are detrimental to productivity and hydrological function, (iii) the amount of detrimental disturbance that can occur without unduly compromising productivity or hydrological function, and (iv) the extent to which rehabilitation efforts can mitigate the effects of detrimental disturbance 	
Practice Requirements	Per FPPR Section 12.1(1), the agreement holder will undertake to comply with:
a) Soil disturbance limits	FPPR Section 35
b) Permanent access structure limits	FPPR Section 36
	This undertaking exempts the agreement holder from preparing results or strategies in relation to the objective for soils set out in FPPR 5.
<p>FPPR Section 35 - Soil disturbance limits</p> <p>(1) In this section:</p> <p>"roadside work area" means the area adjacent to a road where one or both of the following are carried out:</p> <ul style="list-style-type: none"> (a) decking, processing or loading timber; (b) piling or disposing of logging debris; <p>"sensitive soils" means soils that, because of their slope gradient, texture class, moisture regime, or organic matter content have the following risk of displacement, surface erosion or compaction:</p> <ul style="list-style-type: none"> (a) for the Interior, a very high hazard; (b) for the Coast, a high or very high hazard. <p>(2) Repealed.</p> <p>(3) An agreement holder other than a holder of a minor tenure who is carrying out timber harvesting must not cause the amount of soil disturbance on the net area to be reforested to exceed the following limits:</p> <ul style="list-style-type: none"> (a) if the standards unit is predominantly comprised of sensitive soils, 5% of the area covered by the standards unit, excluding any area covered by a roadside work area; (b) if the standards unit not is not predominantly comprised of sensitive soils, 10% of the area covered 	

- by the standards unit, excluding any area covered by a roadside work area;
- (c) 25% of the area covered by a roadside work area.
- (4) An agreement holder may cause soil disturbance that exceeds the limits specified in subsection (3) if the holder
- (a) is removing infected stumps or salvaging windthrow and the additional disturbance is the minimum necessary, or
- (b) is constructing a temporary access structure and both of the following apply:
- (i) the limit set out in subsection (3) (a) or (b), as applicable, is not exceeded by more than 5% of the area covered by the standards unit, excluding the area covered by a roadside work area;
- (ii) before the regeneration date, a sufficient amount of the area within the standards unit is rehabilitated such that the agreement holder is in compliance with the limits set out in subsection (3).
- (5) The minister may require an agreement holder to rehabilitate an area of compacted soil if all of the following apply:
- (a) the area of compacted soil
- (i) was created by activities of the holder,
- (ii) is within the net area to be reforested, and
- (iii) is a minimum of 1 ha in size;
- (b) the holder has not exceeded the limits described in subsection (3);
- (c) rehabilitation would, in the opinion of the minister,
- (i) materially improve the productivity and the hydrologic function of the soil within the area, and
- (ii) not create an unacceptable risk of further damage or harm to, or impairment of, forest resource values related to one or more of the subjects listed in section 149 (1) of the Act.
- (6) An agreement holder who rehabilitates an area under subsection (4) or (5) must
- (a) remove or redistribute woody materials that are exposed on the surface of the area and are concentrating subsurface moisture, to the extent necessary to limit the concentration of subsurface moisture on the area,
- (b) de-compact compacted soils, and
- (c) return displaced surface soils, retrievable side-cast and berm materials.
- (7) If an agreement holder rehabilitates an area under subsection (4) or (5) and erosion of exposed soil from the area would cause sediment to enter a stream, wetland or lake, or a material adverse effect in relation to one or more of the subjects listed in section 149 (1) of the Act, the agreement holder, unless placing debris or revegetation would not materially reduce the likelihood of erosion, must
- (a) place woody debris on the exposed soils, or
- (b) revegetate the exposed mineral soils.

FPPR Section 36 - Permanent access structure limits

36. (1) An agreement holder must ensure that the area in a cutblock that is occupied by permanent access structures built by the holder or used by the holder does not exceed 7% of the cutblock, unless
- (a) there is no other practicable option on that cutblock, having regard to
- (i) the size, topography and engineering constraints of the cutblock,
- (ii) in the case of a road, the safety of road users, or
- (iii) the requirement in selection harvesting systems for excavated or bladed trails or other logging trails, or
- (b) additional permanent access structures are necessary to provide access beyond the cutblock.
- (2) If an agreement holder exceeds the limit for permanent access structures described in subsection (1) for either of the reasons set out in that subsection, the holder must ensure that the limit is exceeded as little as practicable.
- (3) An agreement holder may rehabilitate an area occupied by permanent access structures in accordance with the results or strategies specified in the forest stewardship plan or by
- (a) removing or redistributing woody materials that are exposed on the surface of the area and are concentrating subsurface moisture, as necessary to limit the concentration of subsurface moisture

<p>on the area,</p> <p>(b) de-compacting compacted soils, and</p> <p>(c) returning displaced surface soils, retrievable side-cast and berm materials.</p> <p>(4) If an agreement holder rehabilitates an area under subsection (3) (a) and erosion of exposed soil from the area would cause sediment to enter a stream, wetland or lake, or a material adverse effect in relation to one or more of the subjects listed in section 149 (1) of the Act, the agreement holder, unless placing debris or revegetation would not materially reduce the likelihood of erosion, must</p> <p>(a) place woody debris on the exposed soils, or</p> <p>(b) revegetate the exposed mineral soils.</p>	
Practice Requirements	The following sections apply:
c) Landslides	FPPR Section 37
<p>FPPR Section 37 - Landslides</p> <p>An authorized person who carries out a primary forest activity must ensure that the primary forest activity does not cause a landslide that has a material adverse effect in relation to one or more of the subjects listed in section 149 (1) of the Act.</p>	
d) Natural surface drainage patterns	FPPR Section 39
<p>FPPR Section 39 - Natural surface drainage patterns</p> <p>39. (1) If an authorized person constructs a road, a temporary access structure or a permanent access structure on an area, the person must maintain natural surface drainage patterns on the area both during and after construction.</p> <p>(2) Despite subsection (1), if it is not practicable for an authorized person to maintain natural surface drainage patterns during the construction of a road, a temporary access structure or permanent access structure, the person must ensure that the altered surface drainage pattern is compatible with the original natural surface drainage pattern by the earlier of</p> <p>(a) the end of the construction, and</p> <p>(b) the next freshet.</p>	
e) Revegetation	FPPR Section 40
<p>FPPR Section 40 - Revegetation</p> <p>40. An authorized person who constructs or deactivates a road must ensure that soil exposed by the construction or deactivation is revegetated within two years after the construction or deactivation is completed if it is reasonably foreseeable that</p> <p>(a) the erosion of the soil would cause</p> <p>(i) sediment to enter a stream, wetland or lake, or</p> <p>(ii) a material adverse effect in relation to one or more of the subjects listed in section 149 (1) of the Act, and</p> <p>(b) revegetation would materially reduce the likelihood of erosion.</p>	
Practice Requirement	The following section does not apply:
Gully processes	FPPR Section 38 FPPR S 38 applies to the Coast only.
<p>38. An authorized person who carries out a primary forest activity on the Coast must ensure that the primary forest activity does not cause a gully process that has a material adverse effect in relation to one or more of the subjects listed in section 149 (1) of the Act.</p>	
Applies to FDU	All

4.4 Timber

Objectives Set by Government for Timber	
Regulation and Objective	FPPR Section 6

Practice Requirement	The agreement holder is exempt from:
Timber	Under FPPR Sec 12 (8) the agreement holder is exempt from the requirement to prepare a result or strategy for timber.
<p>FPPR Section 6 - Objectives set by government for timber</p> <p>The objectives set by government for timber are to</p> <ul style="list-style-type: none"> (a) maintain or enhance an economically valuable supply of commercial timber from British Columbia's forests, (b) ensure that delivered wood costs, generally, after taking into account the effect on them of the relevant provisions of this regulation and of the Act, are competitive in relation to equivalent costs in relation to regulated primary forest activities in other jurisdictions, and (c) ensure that the provisions of this regulation and of the Act that pertain to primary forest activities do not unduly constrain the ability of a holder of an agreement under the <i>Forest Act</i> to exercise the holder's rights under the agreement. 	
Practice Requirements	The following sections apply:
a) Modification of insect behaviour	FPPR Section 41
<p>FPPR Section 41 - Modification of insect behaviour</p> <p>41. An agreement holder or a timber sales manager who uses trap trees or pheromones to concentrate insect populations must ensure that the insect brood is destroyed before the insects emerge.</p>	
b) Use of livestock	FPPR Section 42
<p>FPPR Section 42 - Use of livestock</p> <p>42. If a person required to establish a free growing stand uses livestock for site preparation or brush control, the person must ensure that all necessary measures are taken to</p> <ul style="list-style-type: none"> (a) control the location and movement of the livestock to minimize conflict with wildlife that could prey on the livestock, (b) prevent the transmission of disease from the livestock to wildlife, and (c) maintain the health of the livestock 	
c) Use of seed	FPPR Section 43 and the "Chief Forester's Standards for Seed Use" October 3, 2010
<p>FPPR Section 43 - Use of seed</p> <p>43. (1) In this section, "transfer" means the process by which seed is selected and used, based on the origin of the seed and its genetic suitability for the site on which trees grown from the seed are to be planted.</p> <p>(2) The chief forester may make standards for matters referred to in section 169 (1) (a) (i) to (v) [<i>chief forester standards for forest practices</i>] of the Act if the chief forester considers such standards to be necessary or appropriate for the purpose of regulating the use, registration, storage, selection or transfer of seed to be used in the establishment of free growing stands.</p> <p>(3) The chief forester may authorize a person to exercise a discretion of the chief forester described in subsection (5), (6) or (7).</p> <p>(4) Unless an alternative is approved under subsection (6), a person who plants trees while establishing a free growing stand must use only seed registered, stored, selected and transferred in accordance with the standards, if any, established by the chief forester.</p> <p>(5) A person referred to in subsection (4) may submit to the chief forester for approval an alternative to any standard established by the chief forester under subsection (2).</p> <p>(6) The chief forester may approve an alternative submitted under subsection (5) if the chief forester considers that the alternative is consistent with achieving the intent of the standard.</p> <p>(7) If the chief forester approves an alternative submitted under subsection (5), the person who submitted the alternative</p> <ul style="list-style-type: none"> (a) is exempt from the requirement of subsection (4) for which the alternative has been approved, and 	

<p>(b) must comply with the alternative.</p> <p>(8) A person who is required to establish a free growing stand must keep a record of the registration numbers of the seed that is used, if any, and a map of the location where the trees grown from the seed are planted</p>	
d) Free growing stands generally – stocking standards and regeneration date and free growing height	FPPR Section 44 (1)
<p>FPPR Section 44 - Free growing stands generally</p> <p>44. (1) A person who has an obligation to establish a free growing stand must establish, for areas that have been identified under section 16 (1) [<i>stocking standards</i>] as areas to which this section will apply, a stand that</p> <p>(a) meets the applicable stocking standards set out in the forest stewardship plan for the area, by the applicable regeneration date specified for the area, and _</p> <p>(b) meets the applicable stocking standards and free growing height set out in the forest stewardship plan for the area by a free growing date that is no more than 20 years from the commencement date, unless the minister permits a later free growing date.</p>	
e) Free growing stands following unauthorized harvest	FPPR Section 44 (2)
<p>44(2) If an agreement holder contravenes section 52 (1) [<i>unauthorized timber harvesting</i>] of the Act, the holder must establish, on the area on which the contravention occurred, a stand that meets the requirements specified in the holder’s forest stewardship plan for an area with similar attributes, as if the area on which the contravention occurred had been identified under section 16 (1) as being subject to this section.</p>	
Practice Requirement	The following section does not apply:
Secondary structure retention in mountain pine beetle affected stands	FPPR Section 43.1 This section does not apply to Community Forest Agreements.
<p>43.1 (1) A holder of a cutting permit, a forestry licence to cut that does not provide for cutting permits or a timber sale licence must not carry out timber harvesting in a targeted pine leading stand, unless</p> <p>(a) it is necessary to fell or modify a tree that is a safety hazard and there is no other practicable option for addressing the safety hazard,</p> <p>(b) the harvesting is necessary to construct a road in the targeted pine leading stand and there is no other practicable option for locating the road, or</p> <p>(c) at the conclusion of timber harvesting, the holder retains an adequate stocking density of suitable secondary structure.</p> <p>(2) Despite subsection (1), a holder of a cutting permit, a forestry licence to cut that does not provide for cutting permits or a timber sale licence may harvest timber in a targeted pine leading stand without retaining an adequate stocking density of suitable secondary structure if</p> <p>(a) the timber in the stand is subject to a significant risk of blowdown,</p> <p>(b) at the time of harvesting, at least 30% of the pine trees in the stand contain live mountain pine beetles,</p> <p>(c) harvesting the timber is necessary to protect a community, or other area agreed to by the minister prior to harvesting, from wildfire, or</p> <p>(d) harvesting the timber is necessary to facilitate collection of tree seed and the resulting opening does not exceed 1 ha.</p> <p>(3) Without limiting the stocking standards applicable under section 29 (1) or (2) of the Act or section 46 of this regulation, if a person referred to in subsection (1) (c) carries out harvesting in a targeted pine leading stand that creates an obligation to establish a free growing stand, each tree of suitable secondary structure retained in the stand is considered to be a tree of a preferred species for the purpose of establishing a free growing stand on the area where the adequate stocking density of suitable secondary structure was retained.</p>	

<p>(4) This section does not apply to</p> <ul style="list-style-type: none"> (a) an occupant licence to cut or a master licence to cut that provides for cutting permits, (b) a forestry licence to cut entered into by a timber sales manager, (c) a road permit, (d) a community forest agreement, (e) an area that is subject to <ul style="list-style-type: none"> (i) a cutting permit that has been issued, (ii) a timber sale licence that has been advertised or entered into, or (iii) a forestry licence to cut that does not provide for cutting permits which has been entered into by the regional manager or district manager, before this section comes into force, (f) an area that is subject to a cutting permit, a forestry licence to cut that does not provide for cutting permits or a timber sale licence if the timber cruising or field layout for the cutting permit, forestry licence to cut or timber sale licence has been completed before this section comes into force, (g) a cutblock, if the cutblock has been specified in a forest stewardship plan as an area to which section 196 (1) (a) of the Act applies, or (h) an area depicted on a government-endorsed forest cover map which indicates that lodgepole pine is the leading tree species if a timber cruise of the timber on the area, or other process agreed to by the minister prior to harvesting, shows that lodgepole pine is not the leading tree species. 	
Applies to FDU	All

4.5 Wildlife

Objective Set by Government for Wildlife	
Regulation and Objective	FPPR Section 7
<p>FPPR Section 7 - Objectives set by government for wildlife</p> <p>7. (1) The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for</p> <ul style="list-style-type: none"> (a) the survival of species at risk, (b) the survival of regionally important wildlife, and (c) the winter survival of specified ungulate species. <p>(2) A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the minister responsible for the <i>Wildlife Act</i> gives notice to the person of the applicable</p> <ul style="list-style-type: none"> (a) species referred to in subsection (1), and (b) indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1). <p>(3) If satisfied that the objective set out in subsection (1) is addressed, in whole or in part, by an objective in relation to a wildlife habitat area or an ungulate winter range, a general wildlife measure, or a wildlife habitat feature, the minister responsible for the <i>Wildlife Act</i> must exempt a person from the obligation to specify a result or strategy in relation to the objective set out in subsection (1) to the extent that the objective is already addressed.</p> <p>(4) On or after December 31, 2004, a notice described in subsection (2) must be given at least 4 months before the forest stewardship plan is submitted for approval.</p>	

4.5.1 Ungulate Winter Range

Objectives for Wildlife Enabled by Regulation	
Mule Deer, Bighorn Sheep and Elk Winter Range	FPPR Section 7(2)
	Pursuant to the Notice <i>Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the Lillooet Timber Supply Area</i>

	<p>issued in December 2004, and to the <i>Material Supporting the Notice but Not Part of the Notice</i>, the agreement holder will, within parts of the FDU area mapped as mule deer, bighorn sheep or elk winter range in Figures 1 and 2 of the <i>Material Supporting</i>:</p> <ul style="list-style-type: none"> • Maintain 33% of the area within the IDFdk1 and MS biogeoclimatic zones in snow interception cover, as defined by the <i>Notice</i> and <i>Material Supporting</i>. • Maintain 15% of the area within PP and IDFxh2 biogeoclimatic zones in snow interception cover, as defined by the <i>Notice</i> and <i>Material Supporting</i>.
Moose Winter Range	<p>FPPR Section 7(2)</p> <p>Pursuant to the <i>Notice Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the Lillooet Timber Supply Area</i> issued in December 2004, and to the <i>Material Supporting the Notice but Not Part of the Notice</i>, the agreement holder will, within parts of the FDU area mapped as moose winter range in Figure 2 of the <i>Material Supporting</i>:</p> <ul style="list-style-type: none"> • Identify and map winter moose foraging habitat, defined as areas with large quantities of browse biomass of woody brush species, including <i>Salix</i> spp, <i>Cornus stolonifera</i>, and <i>Betula</i> spp, within the term of this FSP. Such foraging habitat is generally associated with shrub dominated wetlands. • Identify and map areas of escape and thermal cover adjacent to foraging habitat. Escape and thermal cover is defined as forests ≥ 10 meters tall with $\geq 50\%$ crown closure, preferably in contiguous units > 20 hectares in size. Timber harvesting in these areas will be constrained. The desired result is to maintain 67% of the forested area within mapped escape and thermal cover units in forests > 5 meters in height at all times. <p>The target may not be met in some instances due to past disturbance and/or future natural disturbance.</p>
Mountain Goat Winter Range	<p>FPPR Section 7(2)</p> <p>Pursuant to the <i>Notice Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the Lillooet Timber Supply Area</i> issued in December 2004, and to the <i>Material Supporting the Notice but Not Part of the Notice</i>, the agreement holder will, within parts of the FDU area mapped as mountain goat winter range in Figure 1 of the <i>Material Supporting</i>:</p> <ul style="list-style-type: none"> • Map mountain goat escape terrain, as defined by the <i>Notice</i>. • Map accessible forage areas in close proximity to escape terrain.

	<ul style="list-style-type: none"> • Map thermal, snow interception and security cover, as defined by the notice, within 200 m of escape terrain. • Constrain timber harvesting such that <ul style="list-style-type: none"> • no more than 33% of the forested habitat within a 200m buffer of escape terrain is in early seral age classes (<40 years), • at least 50% of original stand basal area of mature and old stems within a 200m buffer of escape terrain is retained at all times, and • where possible, the retained mature and old stands are in snow interception cover at least 12 meters in height with a canopy closure $\geq 70\%$. <p>These targets may not be met in some instances due to past disturbance and/or future natural disturbance.</p>
Applies to FDU	All

4.5.2 General Wildlife Measures

Act	GAR Section 9
Practice Requirement	Not Applicable - There currently are no established General Wildlife Measures under GAR Section 9 that affect this FDU
Applies to FDU	All

4.5.3 Species At Risk and Wildlife Habitat Areas

Coastal Tailed Frog	FPPR Section 7(2)
	<p>The Agreement Holder is required to prepare a result or strategy for Coastal Tailed Frog per the Notice given December 31, 2004.</p> <p>However, no Coastal Tailed Frogs are known to exist in the area covered by this FSP, rendering preparation of a result or strategy not practicable at this time.</p>
Great Basin Gopher Snake	FPPR Section 7(2)
	<p>The Agreement Holder is required to prepare a result or strategy for Great Basin Gopher Snake per the Notice given December 31, 2004.</p> <p>However, no Great Basin Gopher Snakes are known to exist in the area covered by this FSP, rendering preparation of a result or strategy not practicable at this time.</p>
Flammulated Owl	FPPR Section 7(2)
	The Agreement Holder is required to prepare a result or

	<p>strategy for Flammulated Owl per the Notice given December 31, 2004.</p> <p>However, no Flammulated Owls are know to exist and no habitat suitable for Flammulated Owls has been identified in the area covered by this FSP, rendering preparation of a result or strategy not practicable at this time.</p>
Interior Western Screech Owl	<p>FPPR Section 7(3), GAR Section 10</p> <p>The Agreement Holder is exempted from preparing results or strategies for Interior Western Screech Owl by GAR Order to create WHA 3-032 and 3-068 dated March 17, 2008.</p>
Spotted Owl	<p>FPPR Sections 7(2) and 7(3), GAR Section 10</p> <p>Spotted Owl habitat requirements in the Cascades Forest District have been partially met through GAR Orders creating WHA 3-034 to 3-039.</p> <p>Therefore, the Agreement Holder is required to prepare a result or strategy for Spotted Owl per the Notice given December 31, 2004. However, no Spotted Owls are know to exist and no Spotted Owl Long Term Activity Centers have been identified in the area covered by this FSP, rendering preparation of a result or strategy not practicable at this time.</p>
Spotted Bat	<p>FPPR Section 7(2)</p> <p>The Agreement Holder is required to prepare a result or strategy for Spotted Bat per the Notice given December 31, 2004.</p> <p>However, no Spotted Bats are know to exist in the area covered by this FSP, rendering preparation of a result or strategy not practicable at this time.</p>
Grizzly Bear	<p>FPPR Sections 7(2) and 7(3), GAR Section 10</p> <p>Grizzly Bear habitat requirements in the Cascades Forest District have been partially met through GAR Orders creating WHA 3-026 to 3-028 and 8-083 to 8-089.</p> <p>Therefore, the Agreement Holder is required to prepare a result or strategy for Grizzly Bear per the Notice given December 31, 2004. The Notice identified a set of watersheds that the required Grizzly Bear habitat should be located in. All of the identified watersheds are located outside of the area covered by this FSP. This makes preparation of a result or strategy for Grizzly Bear in this FSP not practicable.</p>
Applies to FDU	All
Agreement Holder Developed Strategy:	
Objective	Species at Risk

<p>Strategy for Wildlife Species:</p> <ul style="list-style-type: none"> • Coastal Tailed Frog • Great Basin Gopher Snake • Flammulated Owl • Interior Western Screech Owl • Spotted Owl • Spotted Bat • Great Basin Spadefoot • Lewis's Woodpecker • White-headed Woodpecker • Badger • Fringed Myotis <p>per FPPR 7(2)</p>	<p>The noted species have been identified in a FPPR 7(2) Notice given in December 2004. These species are not known to occur in the area covered by this FSP. The following strategy will be followed to facilitate recognition of these species should they occur within operational areas:</p> <ol style="list-style-type: none"> 1. Personnel responsible for layout of primary forest activities will receive training in the identification of the noted species at risk, and, where feasible, the known attributes of wildlife habitat suitable for the noted species. 2. Observations believed to be of a noted species will be recorded and referred to a QP. Observations of a noted species brought to the attention of the Agreement Holder by another party will also be referred to a QP. 3. If the observation is confirmed as a noted species forest development in the immediate area will be halted while an evaluation is completed that a) will include reference to the current Accounts and Measures for Managing Identified Wildlife and/or other pertinent information and b) will contain a management strategy to conserve sufficient habitat for the species. 4. If areas of high value habitat suitable for the noted species are identified by personnel responsible for layout of primary forest activities, and if said habitat will be directly impacted by planned primary forestry activities, a QP will be consulted to determine a) if the species exists in the area, and, if so, b) to develop a management strategy per paragraph 3 above..
<p>Applies to FDU</p>	<p>All</p>

4.6 Riparian Areas

<p>Objective Set by Government for Water, Fish, Wildlife and Biodiversity Within Riparian Areas</p>	
<p>Regulation and Objective</p>	<p>FPPR Section 8</p>
<p>FPPR Section 8 - Objectives set by government for water, fish, wildlife and biodiversity within riparian areas</p> <p>8. The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.</p>	
<p>Regulation</p>	<p>FPPR Section 12.1(2)</p>
<p>Exemptions -- when undertaking given for compliance with specified regulations</p> <p>FPPR_12.1 (2) An agreement holder who is required to prepare a forest stewardship plan is exempt for that plan from the requirement under Section 5 of the Act that the plan specify intended results or strategies in relation to the objective for water, fish, wildlife and biodiversity set out in section 8 of this regulation if the agreement holder</p> <p>(a) prepares the plan, including in it an undertaking that the agreement holder will comply with</p>	

sections 47 to 51, 52 (2) and 53 of this regulation, during the term of the plan, and (b) receives the minister's approval to the plan.																																	
Practice Requirements	Per FPPR Section 12.1(2), the agreement holder will undertake to comply with:																																
a) Stream riparian classes	FPPR Section 47																																
<p>FPPR Section 47 - Stream riparian classes</p> <p>47. (1) In this section, “active flood plain” means the level area with alluvial soils, adjacent to streams, that is flooded by stream water on a periodic basis and is at the same elevation as areas showing evidence of</p> <ul style="list-style-type: none"> (a) flood channels free of terrestrial vegetation, (b) rafted debris or fluvial sediments, recently deposited on the surface of the forest floor or suspended on trees or vegetation, or (c) recent scarring of trees by material moved by flood waters. <p>(2) A stream that is a fish stream or is located in a community watershed has the following riparian class:</p> <ul style="list-style-type: none"> (a) S1-A, if the stream averages, over a 1 km length, either a stream width or an active flood plain width of 100 m or greater; (b) S1-B, if the stream width is greater than 20 m but the stream does not have a riparian class of S1-A; (c) S2, if the stream width is not less than 5 m but not more than 20 m; (d) S3, if the stream width is not less than 1.5 m but is less than 5 m; (e) S4, if the stream width is less than 1.5 m. <p>(3) A stream that is not a fish stream and is located outside of a community watershed has the following riparian class:</p> <ul style="list-style-type: none"> (a) S5, if the stream width is greater than 3 m; (b) S6, if the stream width is 3 m or less. <p>(4) Subject to subsections (5) or (6), for each riparian class of stream, the minimum riparian management area width, riparian reserve zone width and riparian management zone width, on each side of the stream, are as follows:</p> <table border="1" data-bbox="373 1144 1315 1522"> <thead> <tr> <th>Riparian Class</th> <th>Riparian Management Area (metres)</th> <th>Riparian Reserve Zone (metres)</th> <th>Riparian Management Zone (metres)</th> </tr> </thead> <tbody> <tr> <td>S1-A</td> <td>100</td> <td>0</td> <td>100</td> </tr> <tr> <td>S1-B</td> <td>70</td> <td>50</td> <td>20</td> </tr> <tr> <td>S2</td> <td>50</td> <td>30</td> <td>20</td> </tr> <tr> <td>S3</td> <td>40</td> <td>20</td> <td>20</td> </tr> <tr> <td>S4</td> <td>30</td> <td>0</td> <td>30</td> </tr> <tr> <td>S5</td> <td>30</td> <td>0</td> <td>30</td> </tr> <tr> <td>S6</td> <td>20</td> <td>0</td> <td>20</td> </tr> </tbody> </table> <p>(5) If the width of the active flood plain of a stream exceeds the specified width for the riparian management zone, the width of the riparian management zone extends to the outer edge of the active flood plain.</p> <p>(6) The minister may specify a riparian reserve zone for a stream with a riparian class of S1-A if the minister considers that a riparian reserve zone is required.</p> <p>(7) The riparian reserve zone for a stream begins at the edge of the stream channel bank and extends to the width described in subsection (4) or (6).</p>		Riparian Class	Riparian Management Area (metres)	Riparian Reserve Zone (metres)	Riparian Management Zone (metres)	S1-A	100	0	100	S1-B	70	50	20	S2	50	30	20	S3	40	20	20	S4	30	0	30	S5	30	0	30	S6	20	0	20
Riparian Class	Riparian Management Area (metres)	Riparian Reserve Zone (metres)	Riparian Management Zone (metres)																														
S1-A	100	0	100																														
S1-B	70	50	20																														
S2	50	30	20																														
S3	40	20	20																														
S4	30	0	30																														
S5	30	0	30																														
S6	20	0	20																														
b) Wetland riparian classes	FPPR Section 48																																
<p>FPPR Section 48 - Wetland riparian classes</p> <p>48. (1) Wetlands have the following riparian classes:</p>																																	

- (a) W1, if the wetland is greater than 5 ha in size;
- (b) W2, if the wetland is not less than 1 ha and not more than 5 ha in size and is in one of the following biogeoclimatic zones or subzones:
- (i) Ponderosa Pine;
 - (ii) Bunch Grass;
 - (iii) Interior Douglas-fir, very dry hot, very dry warm or very dry mild;
 - (iv) Coastal Douglas-fir;
 - (v) Coastal Western Hemlock, very dry maritime, dry maritime or dry sub-maritime;
- (c) W3, if the wetland is not less than 1 ha and not more than 5 ha in size and is in a biogeoclimatic zone or subzone other than one referred to in paragraph (b);
- (d) W4, if the wetland is
- (i) not less than 0.25 ha and less than 1 ha in size and is in a biogeoclimatic zone or subzone referred to in paragraph (b) (i), (ii) or (iii), or
 - (ii) not less than 0.5 ha and less than 1 ha in size and is in a biogeoclimatic zone or subzone referred to in paragraph (b) (iv) or (v).
- (2) Despite subsection (1), an area is to be treated as a single wetland with a riparian class of W5 if
- (a) the area contains
 - (i) two or more W1 wetlands located within 100 m of each other,
 - (ii) a W1 wetland and one or more non-W1 wetlands, all of which are within 80 m of each other, or
 - (iii) two or more non-W1 wetlands located within 60 m of each other, and
 - (b) the combined size of the wetlands, excluding the upland areas, is 5 ha or larger.
- (3) Subject to subsections (4) and (5), for each riparian class of wetland, the minimum riparian management area width, riparian reserve zone width and riparian management zone width for the wetland are as follows:
- | Riparian Class | Riparian Management Area (metres) | Riparian Reserve Zone (metres) | Riparian Management Zone (metres) |
|----------------|-----------------------------------|--------------------------------|-----------------------------------|
| W1 | 50 | 10 | 40 |
| W2 | 30 | 10 | 20 |
| W3 | 30 | 0 | 30 |
| W4 | 30 | 0 | 30 |
| W5 | 50 | 10 | 40 |
- (4) No riparian reserve zone or riparian management zone extends onto any enclosed upland areas in a W1 wetland if the wetland is
- (a) located in a boreal, subboreal or hyper-maritime climate, and
 - (b) greater than 1 000 ha in size.
- (5) If the minister considers it necessary for a riparian reserve zone or riparian management zone to extend onto an enclosed upland area, the minister may require either or both of the following:
- (a) a riparian reserve zone of a width of 10 m or less;
 - (b) a riparian management zone of a width of 40 m or less.
- (6) The riparian reserve zone for a wetland begins at the edge of the wetland and extends to the width described in subsection (3) or (5).
- (7) The riparian management zone for a wetland begins at
- (a) the outer edge of the riparian reserve zone, or
 - (b) if there is no riparian reserve zone, the edge of the wetland,
- and extends to the width described in subsection (3) or (5).

c) Lake riparian classes

FPPR Section 49

FPPR Section 49 - Lake riparian classes

49. (1) Lakes have the following riparian classes:
- (a) L1-A, if the lake is 1 000 ha or greater in size;
 - (b) L1-B, if
 - (i) the lake is greater than 5 ha but less than 1 000 ha in size, or
 - (ii) the minister designates the lake as L1-B;
 - (c) L2, if the lake is not less than 1 ha and not more than 5 ha in size and is located in a biogeoclimatic zones or subzone that is
 - (i) Ponderosa Pine,
 - (ii) Bunch Grass,
 - (iii) Interior Douglas-fir, very dry hot, very dry warm or very dry mild,
 - (iv) Coastal Douglas-fir, or
 - (v) Coastal Western Hemlock, very dry maritime, dry maritime or dry sub-maritime;
 - (d) L3, if the lake is not less than 1 ha and not more than 5 ha in size and is in a biogeoclimatic zone or subzone other than one referred to in paragraph (c);
 - (e) L4, if the lake is
 - (i) not less than 0.25 ha and not more than 1 ha in size and is in a biogeoclimatic zone or subzone referred to in paragraph (c) (i), (ii) or (iii), or
 - (ii) not less than 0.5 ha and not more than 1 ha in size and is in a biogeoclimatic zone or subzone referred to in paragraph (c) (iv) or (v).

(2) Subject to subsection (3), for each riparian class of lake, the minimum riparian management area width, riparian reserve zone width and riparian management zone width are as follows:

Riparian Class	Riparian Management Area (metres)	Riparian Reserve Zone (metres)	Riparian Management Zone (metres)
L1-A	0	0	0
L1-B	10	10	0
L2	30	10	20
L3	30	0	30
L4	30	0	30

(3) If the minister considers it necessary, the minister may specify a riparian management area and a riparian reserve zone for a lake with a riparian class of L1-A.

(4) The riparian reserve zone for a lake begins at the edge of the lake and extends to the width described in subsection (2) or (3).

- (5) The riparian management zone for a lake begins at
- (a) the outer edge of the riparian reserve zone, or
 - (b) if there is no riparian reserve zone, the edge of the lake,
- and extends to the width described in subsection (2) or (3).

d) Restrictions in a riparian management area

FPPR Section 50

FPPR Section 50 - Restrictions in a riparian management area

50. (1) A person must not construct a road in a riparian management area, unless one of the following applies:

- (a) locating the road outside the riparian management area would create a higher risk of sediment delivery to the stream, wetland or lake to which the riparian management area applies;
- (b) there is no other practicable option for locating the road;
- (c) the road is required as part of a stream crossing.

(2) If a road is constructed within a riparian management area, a person must not carry out road maintenance activities beyond the clearing width of the road, except as necessary to maintain a stream crossing.

- (3) A person who is authorized in respect of a road must not remove gravel or other fill from within a riparian management area in the process of constructing, maintaining or deactivating a road, unless
- (a) the gravel or fill is within a road prism,
 - (b) the gravel or fill is at a stream crossing, or
 - (c) there is no other practicable option.

e) Restrictions in a riparian reserve zone

FPPR Section 51

FPPR Section 51 - Restrictions in a riparian reserve zone

51. (1) An agreement holder must not cut, modify or remove trees in a riparian reserve zone, except for the following purposes:

- (a) felling or modifying a tree that is a safety hazard, if there is no other practicable option for addressing the safety hazard;
- (b) topping or pruning a tree that is not wind firm;
- (c) constructing a stream crossing;
- (d) creating a corridor for full suspension yarding;
- (e) creating guyline tiebacks;
- (f) carrying out a sanitation treatment;
- (g) felling or modifying a tree that has been windthrown or has been damaged by fire, insects, disease or other causes, if the felling or modifying will not have a material adverse impact on the riparian reserve zone;
- (h) 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, Coal 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;
- (i) felling or modifying a tree for the purpose of establishing or maintaining an interpretative forest site, recreation site, recreation facility or recreation trail.

(2) An agreement holder who fells, tops, prunes or modifies a tree under subsection (1) may remove the tree only if the removal will not have a material adverse effect on the riparian reserve zone.

(3) An agreement holder must not carry out the following silviculture treatments in a riparian reserve zone:

- (a) grazing or broadcast herbicide applications for the purpose of brushing;
- (b) mechanized site preparation or broadcast burning for the purpose of site preparation;
- (c) spacing or thinning.

f) maintenance of stream bank or channel stability

FPPR Section 52 (2)

(2) An authorized person who cuts, modifies or removes trees in a riparian management zone for an S4, S5 or S6 stream that has trees that contribute significantly to the maintenance of stream bank or channel stability must retain enough trees adjacent to the stream to maintain the stream bank or channel stability, if the stream

- (a) is a direct tributary to an S1, S2 or S3 stream,
- (b) flows directly into the ocean, at a point near to or where one or more of the following is located:
 - (i) a herring spawning area;
 - (ii) a shellfish bed;
 - (iii) a saltwater marsh area;
 - (iv) an aquaculture site;
 - (v) a juvenile salmonid rearing area or an adult salmon holding area, or
- (c) flows directly into the ocean at a point near to the location of an area referred to in paragraph (b) and failure to maintain stream bank or channel stability will have a material adverse impact on that area.

	This undertaking exempts the agreement holder from preparing results or strategies in relation to the objective for water, fish and biodiversity soils set out in FPPR 8.	
Practice Requirements	The following sections do not apply:	
Temperature sensitive streams	FPPR Section 53 As of date of submission there are no designated Temperature Sensitive Streams in the FDU.	
FPPR Section 53 - Temperature Sensitive Streams		
53. An authorized person who fells, modifies or removes trees in a riparian management area adjacent to a temperature sensitive stream, or a stream that is a direct tributary to a temperature sensitive stream, must retain either or both of the following in an amount sufficient to prevent the temperature of the temperature sensitive stream from increasing to an extent that would have a material adverse impact on fish: (a) streamside trees whose crowns provide shade to the stream; (b) understory vegetation that provides shade to the stream. MoE Website reports there are currently no streams designated as Temperature Sensitive as of June 2011.		
Agreement Holder Developed Strategy		
Forest Retention in RMZ per FPPR 12(3) as alternative to FPPR 52(1)	The agreement holder will use the following strategy for retention of standing trees in a Riparian Management Zone (RMZ) at the stand and landscape levels while harvesting timber:	
	Case 1: RMZ containing live timber that is not imminently threatened by a forest health agent.	Case 2: RMZ where >40% of the basal area of timber is dead or is in imminent danger of being killed by a forest health agent (insect or disease)
i) Stream Classification S1-A, S1-B, S2, S3, S4, S5 or S6 as assessed by a QP	Retain a minimum of 60% of the original basal area of the timber type.	Retain all live, windfirm trees that are not in imminent danger of being killed by a forest health agent
ii) Wetland Classification W1, W2, W3, W4, or W5 as assessed by a QP	Retain a minimum of 60% of the original basal area of the timber type.	Retain all live, windfirm trees that are not in imminent danger of being killed by a forest health agent
iii) Lake Classification L1B, L2, L3 or L4 as assessed by a QP	Retain a minimum of 60% of the original basal area of the timber type.	Retain all live, windfirm trees that are not in imminent danger of being killed by a forest health agent
iv) All Stream, Wetland and Lake Classifications referred to in (a – c) above.	Prior to a primary forest activity in a RMZ, retention levels within the RMZ will be established by a qualified professional assessing such factors as: <ul style="list-style-type: none"> • tree species composition • soils • hydrology • risk of erosion/mass wasting • tree windfirmness • wildlife habitat 	

	<ul style="list-style-type: none"> • operational constraints • damage or imminent threats to the stand • other site specific factors the qualified professional deems important <p>The spatial pattern of prescribed retention may vary throughout the RMZ, and may include single trees and/or clumps of trees.</p> <p>Where practicable, the retained trees will be representative of the physical structure of the forest in the riparian management zone as it was prior to harvesting.</p>
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52. (1) A holder of a minor tenure who fells trees in a cutblock within a riparian management zone of a class described in Column 1 must ensure that

- (a) the percentage of the total basal area within the riparian management zone specified in Column 2 is left as standing trees, and
- (b) the standing trees are reasonably representative of the physical structure of the riparian management zone, as it was before harvesting:

Column 1 Riparian Class	Column 2 Basal Area to be Retained Within Riparian Management Zone (%)
S1-A or S1-B stream	greater than or equal to 20
S2 stream	greater than or equal to 20
S3 stream	greater than or equal to 20
S4 stream	greater than or equal to 10
S5 stream	greater than or equal to 10
S6 stream	Not applicable
All classes of wetlands or lakes	greater than or equal to 10

Applies to FDU	All
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Practice Requirements	The following sections apply:
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g) Stream crossings	FPPR Section 55
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FPPR Section 55 - Stream crossings

55. (1) An authorized person who builds a stream crossing as part of a road, a temporary access structure or permanent access structure must locate, build and use the crossing in a manner that

- (a) protects the stream channel and stream bank immediately above and below the stream crossing, and
- (b) mitigates disturbance to the stream channel and stream bank at the crossing.

(2) An authorized person who builds a stream crossing as part of a temporary access structure must remove the crossing when it is no longer required by the person.

h) Fish passage	FPPR Section 56
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FPPR Section 56 - Fish passage

56. (1) An authorized person who carries out a primary forest activity must ensure that the primary forest activity does not have a material adverse effect on fish passage in a fish stream.

(2) An authorized person who maintains a fish stream crossing built after June 15, 1995, must ensure that the crossing does not have a material adverse effect on fish passage.

(3) Despite subsections (1) and (2), an authorized person may temporarily allow a material adverse effect on fish passage to construct, maintain or deactivate a road, including a stream crossing, if

- (a) fish are not migrating or spawning, and

(b) the source of the material adverse effect is removed immediately on completion of the construction, maintenance or deactivation.	
i) Protection of fish habitat	FPPR Section 57
FPPR Section 57 - Protection of fish and fish habitat	
57. An authorized person who carries out a primary forest activity must conduct the primary forest activity at a time and in a manner that is unlikely to harm fish or destroy, damage or harmfully alter fish habitat.	
j) Use of livestock in riparian areas	FPPR Section 58
FPPR Section 58 - Use of livestock in riparian areas	
58. An agreement holder who uses livestock for site preparation or brush control for the purpose of carrying out a silviculture treatment must not	
(a) construct a livestock corral	
(i) in a riparian management area,	
(ii) on an area that drains directly into a fish stream or a fish-bearing wetland or lake, or	
(iii) on an area in a community watershed that drains directly into a potable water source, or	
(b) use the livestock in a riparian management area that is in a community watershed.	
Practice Requirements	The following sections do not apply:
Fan destabilization	FPPR Section 54 FPPR S 54 applies to Coast only.
FPPR Section 54 - Fan destabilization	
54. An authorized person who carries out a primary forest activity on the Coast must ensure that the primary forest activity does not cause fan destabilization that has a material adverse effect in relation to one or more of the subjects listed in section 149 (1) of the Act.	
Applies to FDU	All

4.7 Fisheries Sensitive Watersheds

Objective Set By Government for Fish Habitat in Fisheries Sensitive Watersheds:	
Regulation and Objective	FPPR Section 8.1
Practice Requirement	The following section do not apply:
Fisheries Sensitive Watersheds	FPPR Section 8.1 As of date of submission there are no designated fisheries sensitive watersheds in the FDU.
FPPR Section 8.1 - Objectives set by government for fish habitat in fisheries sensitive watersheds	
8.1 (1) In this section, " fisheries sensitive watershed " means an area identified in Schedule 2 of this regulation	
(a) with significant downstream fisheries values continued under section 180 (f) of the Act and significant watershed sensitivity continued under section 180 (g) of the Act, and	
(b) for which there is no fisheries sensitive watershed objective.	
(2) Until December 31, 2005 the objective set by government for fish habitat in fisheries sensitive watersheds is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities in the fisheries sensitive watershed from resulting in a material adverse impact on the habitat of the fish species for which the fisheries sensitive watershed was established.	
(3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.	
(4) If satisfied that the objective set out in subsection (2) is not required to provide special management, the minister responsible for the <i>Wildlife Act</i> must exempt a person from the requirement to specify a result or strategy in relation to the objective.	

(5) If satisfied that the objective set out in subsection (2) is addressed, in whole or in part, by an enactment, the minister responsible for the *Wildlife Act* must exempt a person from the requirement to specify a result or strategy in relation to the objective set out in subsection (2) to the extent that the objective is already addressed.

Applies to FDU

All

4.8 Water

4.8.1 Community Watersheds

The FSP area contains the Fountain Community Watershed, which is show in the FSP map set.

Objective Set by Government for Community Watersheds	
Regulation and Objective	FPPR Section 8.2
<p>FPPR Section 8.2 - Objectives set by government for water in community watersheds</p> <p>8.2 (1) In this section, "community watershed" means a community watershed</p> <ul style="list-style-type: none"> (a) that is continued under section 180 (e) of the Act, and (b) for which a water quality objective has not been <ul style="list-style-type: none"> (i) continued under section 181 of the Act, or (ii) established under the Government Actions Regulation. <p>(2) The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in</p> <ul style="list-style-type: none"> (a) a material adverse impact on the quantity of water or the timing of the flow of the water to the waterworks, or (b) the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under <ul style="list-style-type: none"> (i) an enactment, or (ii) the licence pertaining to the waterworks. <p>(3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.</p> <p>(4) If satisfied that the objective set out in subsection (2) is not required to provide special management the minister responsible for the <i>Wildlife Act</i> must exempt a person from the requirement to specify a result or strategy in relation to the objective.</p> <p>(5) If satisfied that the objective set out in subsection (2) is addressed, in whole or in part, by an enactment, the minister responsible for the <i>Wildlife Act</i> must exempt a person from the requirement to specify a result or strategy in relation to the objective set out in subsection (2) to the extent that the objective is already addressed.</p>	
Act and Practice Requirement	GAR Section 8
Water Quality Objectives	GAR Section 8 does not apply as no water quality objectives have been established in the Community Watershed as of date of submission.
<p>Community Watersheds And Water Quality Objectives</p> <p>8. (1) The minister responsible for the Land Act by order may designate as a community watershed all or part of the drainage area that is upslope of the lowest point from which water is diverted for human consumption by a licensed waterworks, if satisfied that, to protect the water that is diverted for human consumption, the area requires special management, that is not otherwise provided for under this regulation or another enactment,</p> <ul style="list-style-type: none"> (a) to conserve the quality, quantity and timing of water flow, or 	

<p>(b) to prevent cumulative hydrological effects that would have a material adverse effect on the water.</p> <p>(2) The minister responsible for the Wildlife Act by order may establish for a community watershed water quality objectives respecting a matter referred to in subsection (1).</p>	
Practice Requirements	The following sections apply:
Use of livestock in riparian areas	FPPR Section 58
<p>FPPR Section 58 - Use of livestock in riparian areas</p> <p>58. An agreement holder who uses livestock for site preparation or brush control for the purpose of carrying out a silviculture treatment must not</p> <p>(a) construct a livestock corral</p> <p style="padding-left: 40px;">(i) in a riparian management area,</p> <p style="padding-left: 40px;">(ii) on an area that drains directly into a fish stream or a fish-bearing wetland or lake, or</p> <p style="padding-left: 40px;">(iii) on an area in a community watershed that drains directly into a potable water source, or</p> <p>(b) use the livestock in a riparian management area that is in a community watershed.</p>	
Protecting water quality	FPPR Section 59
<p>FPPR Section 59 - Protecting water quality</p> <p>59. An authorized person who carries out a primary forest activity must ensure that the primary forest activity does not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks.</p>	
Licensed waterworks	FPPR Section 60
<p>FPPR Section 60 - Licensed waterworks</p> <p>60. (1) An authorized person who carries out a primary forest activity must ensure that the primary forest activity does not damage a licensed waterworks.</p> <p>(2) An authorized person must not harvest timber or construct a road in a community watershed if the timber harvesting or road construction is within a 100 m radius upslope of a licensed waterworks where the water is diverted for human consumption, unless the timber harvesting or road construction will not increase sediment delivery to the intake.</p>	
Excavated or bladed trails	FPPR Section 61
<p>FPPR Section 61 - Excavated or bladed trails</p> <p>61. An agreement holder who</p> <p>(a) carries out timber harvesting, and</p> <p>(b) constructs an excavated or bladed trail in a community watershed</p> <p>must ensure that doing so does not cause sediment that is harmful to human health to enter a stream, wetland or lake from which water is being diverted for human consumption by a licensed waterworks.</p>	
Roads in a community watershed	FPPR Section 62
<p>FPPR Section 62 - Roads in a community watershed</p> <p>62. (1) To prevent interference with the subsurface flow path of a drainage area that contributes to a spring that is a source of water for a licensed waterworks, the minister may</p> <p>(a) identify a spring in a community watershed,</p> <p>(b) specify a distance from the spring within which a person who constructs a road must not locate the road, and</p> <p>(c) permit a person who constructs a road to locate the road closer to the spring than the distance specified under paragraph (b).</p> <p>(2) If the minister does not specify a distance under subsection (1) (b), a person who constructs a road must not locate the road closer than a 100 m radius upslope of the spring identified under subsection (1) (a), unless the construction does not interfere with the subsurface flow path of a drainage area that contributes to the spring.</p>	
Use of fertilizers	FPPR Section 63

FPPR Section 63 - Use of fertilizers

63. (1) An authorized person who applies fertilizer in a community watershed for the purpose of carrying out a silviculture treatment must not apply fertilizer

- (a) closer than a 100 m radius upslope of a licensed waterworks, or
- (b) within 10 m of a perennial stream that is observable from an aircraft used to apply the fertilizer, if the application of the fertilizer results in
- (c) nitrate nitrogen levels in the stream exceeding 10 parts per million if measured immediately below the area where the fertilizer is applied, or
- (d) chlorophyll levels in the stream exceeding
 - (i) two micrograms per litre in a lake into which the stream drains, or
 - (ii) 50 milligrams per square metre in the stream.

(2) Subsection (1) does not apply if the use of fertilizer is restricted to spot applications.

Agreement Holder Developed Strategy per FPPR 8.2(2)(a):

<p>Hydrological Assessment Strategy in Community Watersheds</p>	<p>Prior to an primary forest activity in a Community Watershed that will create an opening greater than 1 ha in size, within which > 60% of current live basal area will be removed, an Evaluation will be completed by a QP which considers:</p> <ul style="list-style-type: none"> • Cumulative hydrological effects including, but not limited to: ECA, road density and number of stream crossings, stream channel assessment, sediment sources, terrain stability, hazard and risk interpretations and other factors as deemed necessary. • A referral to stakeholders and the public which allows 30 days for response. • Addressing written concerns of stakeholders and the public. • Other issues a deemed necessary by the agreement holder or QP. <p>The agreement holder will ensure that all primary forest activities are consistent with the recommendations of the hydrological assessment.</p>
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Objectives Set By Government For Water In Community Watersheds

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

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

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

<p>Applies to FDU</p>	<p>All</p>
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4.8.2 Consumptive Use Streams

Objective Set by Government for Water Quality Within Riparian Areas	
Regulation and Objective	FPPR Section 8
<p>FPPR Section 8 - Objectives set by government for water, fish, wildlife and biodiversity within riparian areas</p> <p>8. The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.</p>	
Practice Requirements	The following sections apply:
Protecting water quality	FPPR Section 59
<p>FPPR Section 59 - Protecting water quality</p> <p>59. An authorized person who carries out a primary forest activity must ensure that the primary forest activity does not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks.</p>	
Licensed waterworks	FPPR Section 60(1)
<p>FPPR Section 60 - Licensed waterworks</p> <p>60. (1) An authorized person who carries out a primary forest activity must ensure that the primary forest activity does not damage a licensed waterworks.</p>	
Agreement Holder Developed Strategy:	
Measures for Operations in SMZs to achieve FPPR 59	<p>The agreement holder will utilize specific measures within the streamside management zone of consumptive use streams:</p> <ul style="list-style-type: none"> • Retention of trees within the streamside management zone will comply with the strategy for RRZ's and RMZ's in Section 4.4 of this plan. • Ground-base equipment must remain on roads and/or designated skid trails during operations in the streamside management zone. • Cable harvesting within a streamside management zone will use full suspension yarding within the streamside management zone where practicable. • Stream channels will be cleaned of harvesting debris within a year of harvesting.
Agreement Holder Developed Strategy:	
Strategy for Planning Operations in Domestic Use Watersheds to achieve FPPR 59 and 60(1)	<p>Prior to the submission of a cutting permit or road permit in a Domestic Use watershed the agreement holder will:</p> <ul style="list-style-type: none"> • Obtain the current information for PODs from the Ministry of Environment, Water Stewardship Division's Water Agreement Holders database from LRDW, or its successor. • Identify the water licenses and PODs that may be affected by a primary forest activity. • Consult with a QP regarding potential impacts to

	<p>water quality, quantity and timing of flow from a primary forest activity.</p> <ul style="list-style-type: none"> • Contact any potentially affected water agreement holder and consult with the agreement holder with regards to planned primary activity. • Locate POD on the ground if deemed necessary by a QP. • Ensure that QP recommendations and/or water agreement holder comments are considered in planning primary forest activity.
Agreement Holder Developed Strategy:	
<p>Strategy for Operations in Domestic Use Watersheds to achieve FPPR 59</p>	<p>While engaging in a primary forest activity in a Domestic Use watershed the agreement holder will undertake to:</p> <ul style="list-style-type: none"> • Limit the number of stream crossings to the minimum practicable. • Maintain natural drainage patterns. • Limit the area disturbed during road construction to the minimum required to safely construct the road to design specifications. • Revegetate disturbed areas within one year following disturbance.
Agreement Holder Developed Strategy:	
<p>Strategy for Operations Near Licenced Waterworks to achieve FPPR 59 and 60(1)</p>	<p>The agreement holder will not harvest timber in a Domestic Use watershed within a 100 m radius upslope of a licensed waterworks where the water is diverted for human consumption, unless the timber harvesting will not increase sediment delivery to the water intake.</p> <p>The agreement holder will not construct a road in a Domestic Use watershed within a 100 m radius upslope of a licensed waterworks unless there is no practicable alternative location for the road.</p> <p>If a road is constructed within a 100 m radius upslope of a licensed waterworks, the agreement holder will undertake measures to limit the quantity of sediment from the road surface which enters the watercourse to a level that has no detrimental impact on water quality at the water intake.</p>
Agreement Holder Developed Strategy:	
<p>Strategy for Excavated or Bladed Trails to achieve FPPR 59</p>	<p>When constructing an excavated or bladed trail to facilitate a primary forest activity in a Domestic Use watershed the agreement holder will undertake measures to limit the quantity of sediment from the excavated or bladed trail which enters watercourses above licenced waterworks to a level that has no detrimental impact on</p>

	water quality at the water intake.
Applies to FDU	All

4.9 Biodiversity

Objective Set by Government for Wildlife and Biodiversity - Landscape Level			
Regulation and Objective	FPPR Section 9		
<p>FPPR Section 9 - Objectives set by government for wildlife and biodiversity – landscape level</p> <p>9. The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.</p>			
Practice Requirements	Per FPPR Section 12(3), the agreement holder will undertake to comply with:		
Maximum cutblock size	FPPR Section 64		
<p>Maximum cutblock size</p> <p>64. (1) If an agreement holder other than a holder of a minor tenure harvests timber in a cutblock, the holder must ensure that the size of the net area to be reforested for the cutblock does not exceed</p> <p>(a) 40 hectares, for the areas described in the Forest Regions and Districts Regulation that are listed in Column 1, and</p> <p>(b) 60 hectares, for the areas described in the Forest Regions and Districts Regulation that are listed in Column 2:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Column 1</p> <p>40 hectares</p> <p>Coast Forest Region</p> <p>Southern Interior Forest Region – Arrow Boundary Forest District; Cascades Forest District; Columbia Forest District; Headwaters Forest District, except the portion of the forest district that is in the Robson Valley Timber Supply Area; Kamloops Forest District; Kootenay Lake Forest District; Okanagan Shuswap Forest District; Rocky Mountain Forest District</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Column 2</p> <p>60 hectares</p> <p>Northern Interior Forest Region</p> <p>Southern Interior Forest Region – 100 Mile House Forest District; Central Cariboo Forest District; Chilcotin Forest District; The portion of the Headwaters Forest District that is in the Robson Valley Timber Supply Area; Quesnel Forest District</p> </td> </tr> </table> <p>(2) Subsection (1) does not apply to an agreement holder where</p> <p>(a) (a) timber harvesting</p> <p style="padding-left: 20px;">(i) is being carried out on the cutblock</p> <p style="padding-left: 40px;">(A) to recover timber damaged by fire, insect infestation, wind or other similar events, or</p> <p style="padding-left: 40px;">(B) for sanitation treatments, or</p> <p style="padding-left: 20px;">(ii) is designed to be consistent with the structural characteristics and the temporal and spatial distribution of an opening that would result from a natural disturbance, and</p> <p>(b) the holder ensures, to the extent practicable, that the structural characteristics of the cutblock after timber harvesting has been substantially completed resemble an opening that would result from a natural disturbance.</p> <p>(3) Subsection (1) does not apply if the timber harvesting that is being carried out on the cutblock retains 40% or more of basal area of the stand that was on the cutblock before timber harvesting.</p> <p>(4) Subsection (1) does not apply if no point within the net area to be reforested is</p>		<p>Column 1</p> <p>40 hectares</p> <p>Coast Forest Region</p> <p>Southern Interior Forest Region – Arrow Boundary Forest District; Cascades Forest District; Columbia Forest District; Headwaters Forest District, except the portion of the forest district that is in the Robson Valley Timber Supply Area; Kamloops Forest District; Kootenay Lake Forest District; Okanagan Shuswap Forest District; Rocky Mountain Forest District</p>	<p>Column 2</p> <p>60 hectares</p> <p>Northern Interior Forest Region</p> <p>Southern Interior Forest Region – 100 Mile House Forest District; Central Cariboo Forest District; Chilcotin Forest District; The portion of the Headwaters Forest District that is in the Robson Valley Timber Supply Area; Quesnel Forest District</p>
<p>Column 1</p> <p>40 hectares</p> <p>Coast Forest Region</p> <p>Southern Interior Forest Region – Arrow Boundary Forest District; Cascades Forest District; Columbia Forest District; Headwaters Forest District, except the portion of the forest district that is in the Robson Valley Timber Supply Area; Kamloops Forest District; Kootenay Lake Forest District; Okanagan Shuswap Forest District; Rocky Mountain Forest District</p>	<p>Column 2</p> <p>60 hectares</p> <p>Northern Interior Forest Region</p> <p>Southern Interior Forest Region – 100 Mile House Forest District; Central Cariboo Forest District; Chilcotin Forest District; The portion of the Headwaters Forest District that is in the Robson Valley Timber Supply Area; Quesnel Forest District</p>		

<p>(a) more than two tree lengths from either</p> <ul style="list-style-type: none"> (i) the cutblock boundary, or (ii) a group of trees reserved from harvesting that is greater than or equal to 0.25 ha in size, or <p>(b) more than one tree length from a group of trees reserved from timber harvesting that is less than 0.25 ha in size.</p>	
Harvesting adjacent to another cutblock	FPPR Section 65
<p>FPPR Section 65 - Harvesting adjacent to another cutblock</p> <p>65. (1) In this section:</p> <p>"adjacent" 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>"existing cutblock" means a cutblock that was previously harvested under an agreement other than a minor tenure;</p> <p>"new cutblock" means a cutblock on which harvesting has not yet started and that is adjacent to an existing cutblock;</p> <p>"non-conforming portion" means an area within an existing cutblock on which the stocking and height requirements of subsection (3) have not been met.</p> <p>(2) An agreement holder other than a holder of a minor tenure must not harvest timber on a new cutblock, unless</p> <ul style="list-style-type: none"> (a) all existing cutblocks that are adjacent to the new cutblock meet the requirements set out in subsection (3), or (b) the combined area of the new cutblock and any non-conforming portions that are immediately adjacent to the new cutblock does not exceed the requirements relating to cutblock size set out in section 64 (1) [<i>maximum cutblock size</i>]. <p>(3) For the purpose of subsection (2) (a), an existing cutblock must meet the criteria set out in one of the following paragraphs:</p> <ul style="list-style-type: none"> (a) at least 75% of the net area to be reforested of the existing cutblock is stocked such that the average height of the tallest 10% of the trees on the area is a minimum of 3 m and <ul style="list-style-type: none"> (i) is stocked in accordance with the applicable stocking standards, as described under section 16 [<i>stocking standards</i>], (ii) if the area is on the Coast, other than the Nass timber supply area, is stocked with at least 500 trees/ha of a commercially valuable species that are at least 1.3 m in height, or (iii) if the area is in the Interior or in the Nass timber supply area, is stocked with at least 700 trees/ha of a commercially valuable species that are at least 1.3 m in height; (b) the part of the net area to be reforested of the existing cutblock that is closest to the new cutblock <ul style="list-style-type: none"> (i) must be at least half of the net area to be reforested, (ii) is stocked such that the average height of the tallest 10% of the trees on the area is a minimum of 3 m, and (iii) is stocked <ul style="list-style-type: none"> (A) in accordance with the applicable stocking standards for that cutblock, as described under section 16, (B) if the area is on the Coast, other than the Nass timber supply area, with at least 500 trees/ha of a commercially valuable species that are at least 1.3 m in height, or (C) if the area is in the Interior or in the Nass timber supply area, with at least 700 trees/ha of a commercially valuable species that are at least 1.3 m in height. <p>(4) Subsection (2) does not apply if section 64 (2), (3) or (4) apply to the new cutblock.</p>	
	This undertaking exempts the agreement holder from preparing results or strategies in relation to the objective for wildlife and biodiversity soils set out in FPPR 9.
Applies to FDU	All

Objective Set by Government for Wildlife and Biodiversity - Stand Level	
Regulation and Objective	FPPR Section 9.1
FPPR Section 9.1 - Objectives set by government for wildlife and biodiversity – stand level	
9.1 The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.	
Practice Requirements	The following section applies:
Coarse Woody Debris	FPPR Section 68
FPPR Section 68 - Coarse woody debris	
68. (1) An agreement holder who carries out timber harvesting must retain at least the following logs on a cutblock: <ul style="list-style-type: none"> (a) if the area is on the Coast, a minimum of 4 logs per hectare, each being a minimum of 5 m in length and 30 cm in diameter at one end; (b) if the area is in the Interior, a minimum of 4 logs per hectare, each being a minimum of 2 m in length and 7.5 cm in diameter at one end. (2) An agreement holder is exempt from subsection (1) if <ul style="list-style-type: none"> (a) the holder's agreement or an enactment requires the holder to act in a manner contrary to that set out in subsection (1), or (b) the holder carries out on the cutblock a controlled burn that is authorized under an enactment. 	
Agreement Holder Developed Result:	
Wildlife Tree Retention Result per FPPR 12.5(1) to achieve exemption from FPPR 66	<p>For the purposes of the Objectives set in FPPR Section 9, the following strategy applies:</p> <ul style="list-style-type: none"> a. The total area covered by wildlife tree retention areas that relate to the cutblocks in a cutting permit is a minimum of 7% of the gross area of the cutblocks. b. At the completion of harvesting, the total area of wildlife tree retention areas that relates to each cutblock is a minimum of 3.5% of the area of the cutblock. c. For the purposes of (a) and (b) above, a wildlife tree retention area may relate to more than one cutblock if all of the cutblocks that relate to the wildlife tree retention area collectively meet the applicable requirements of this section. d. Dispersed retained trees can be used to contribute to the required percentages of retained wildlife trees. Area equivalency will be assessed based on the basal area of the trees retained divided by the basal area of the original forest type.
Wildlife Tree Retention	
66. (1) If an agreement holder completes harvesting in one or more cutblocks during any 12 month period beginning on April 1 of any calendar year, the holder must ensure that, at the end of that 12 month period, the total area covered by wildlife tree retention areas that relate to the cutblocks is a minimum of 7% of the total area of the cutblocks.	
(2) An agreement holder who harvests timber in a cutblock must ensure that, at the completion of harvesting, the total amount of wildlife tree retention areas that relates to the cutblock is a minimum of 3.5% of the cutblock.	
(3) For the purposes of subsection (1) and (2), a wildlife tree retention area may relate to more than one	

cutblock if all of the cutblocks that relate to the wildlife tree retention area collectively meet the applicable requirements of this section.

Agreement Holder Developed Strategy:

Restriction on Harvesting WTRA per FPPR 12.5(2) to achieve exemption from FPPR 67

The agreement holder may harvest trees within a designated wildlife tree retention area if the purpose of the harvesting is to :

- a) remove trees that contain insect populations that constitute a threat to forest health,
- b) recover stems previously killed by a disturbance that are suitable habitat for known forest health risks, .
- c) facilitate adjacent harvesting (e.g. yarding guybacks or tailholds),
- d) remove a safety hazard, or
- e) carry out an eco-cultural restoration prescription approved by a QP.

If in the opinion of a QP, the ecological attributes of the WTRA that are valuable to wildlife are maintained following harvesting the agreement holder is not required to propose a replacement WTRA.

If harvesting carried out for the purpose of (a) to (d) above does not maintain the ecological attributes of the WTRA that are valuable to wildlife, the agreement holder must replace the WTRA with a WTRA that, in the opinion of a QP, has equal or better habitat characteristics for wildlife as the harvested WTRA in a location as close as practicable to the harvested WTRA area.

The agreement holder may harvest trees that have been previously designated as wildlife trees for forest health or access development reasons provided replacement wildlife trees that have equal or better habitat characteristics for wildlife are designated in a location as close as practicable to the harvested wildlife trees .

Restriction On Harvesting

67. An agreement holder must not harvest timber from a wildlife tree retention area unless the trees on the net area to be reforested of the cutblock to which the wildlife tree retention area relates have developed attributes that are consistent with a mature seral condition.

Applies to FDU

All

Objective Enabled by Government Order

Act

FRPA Sections 5(1)(b)(ii), 180,181

Order

Order Establishing Provincial Non-Spatial Old Growth Objectives June 30, 2004

Objective

To contribute to the conservation of biodiversity by retaining old forests areas distributed by biogeoclimatic variant Non-Spatial Old Growth Order June 30, 2004

FRPA Section 5

5 (1) A forest stewardship plan must

(a) include a map that

- (i) uses a scale and format satisfactory to the minister, and
- (ii) shows the boundaries of all forest development units,

(b) specify intended results or strategies, each in relation to

- (i) objectives set by government, and
- (ii) other objectives that are established under this Act and that pertain to all or part of the area subject to the plan, and

FRPA Section 180 - Grandparenting specified designations

180. Every area established or continued under the Code as

- (a) an ungulate winter range,
- (b) a wildlife habitat area,
- (c) a scenic area,
- (d) an emergency bark beetle management area,
- (e) a community watershed,
- (f) an area with significant downstream fisheries values,
- (g) an area with significant watershed sensitivity,
- (h) a lakeshore management zone,
- (i) an interpretive forest site,
- (j) a recreation site,
- (k) a recreation trail, or
- (l) a forest ecosystem network

that was in effect immediately before the effective date is continued under this Act.

FRPA Section 181 - Grandparenting objectives

181. All objectives in respect of areas continued under section 180 that were in effect immediately before the effective date are continued as objectives under this Act.

Agreement Holder Developed Result:

Old Growth Retention

The agreement holder will follow the Order Establishing Provincial Non-Spatial Old Growth Objectives.

The agreement holder will adopt the Draft 4 Old Growth Management Areas, as shown in the spatial data set OGMA_V4 dated July 3, 2006 downloaded from the MoE FTP site to meet the intent of the Order.

The agreement holder will restrict primary forest activities within the mapped OGMA's. Mapped OGMA's may be entered or boundaries modified per the criteria outlined in the document *Old Growth Management Area - Guidance Thompson Okanagan Integrated Land Management Bureau - August 2007* with the amendment that "carrying out an eco-cultural restoration prescription approved by a QP" is added to the list of rationales for harvesting activity in a designated OGMA.

4.10 Visual Quality

Objective Enabled by Grandparented Order

Act

FRPA Sections 180,181

Areas established under the Forest Practices Code as a

	scenic area with visual quality objectives areas that were in effect immediately before the effective date of FRPA are continued as objectives under FRPA.
Applicable Area	Known Scenic Areas with Established Visual Quality Objectives as established by the District Manager's letter dated July 28th, 1994 that are within the FDU. These areas are shown in the FSP map set.
Objective	To be consistent with the Established Visual Quality Objectives established by the District Manager's letter dated July 28th, 1994.
Agreement Holder Developed Result:	
Visual Management in Areas with Established Visual Quality Objectives	<p>The agreement holder will utilize the REC_VLND spatial data set maintained by LRDW, or its successor, to identify known Scenic Areas with Established Visual Quality Objectives.</p> <p>Within the area so identified, the agreement holder will conduct a Visual Impact Assessment and design primary forest activities to be consistent with the visual quality objectives established by the District Manager's letter dated July 28th, 1994.</p> <p>In Scenic Areas within the FDU which contain stands with > 50% mortality due to fire or insect infestation, all reasonable efforts will be made to be consistent with the VQO. Where the above is not practicable, the visual condition to be achieved may be greater in scale and visual acuity than that specified for the established VQO but consistent with the design elements of the established VQO.</p>
Applies to FDU	All
Objective Set by Government for Visual Quality	
Regulation, Act and Objective	<p>FPPR Section 9.2, FRPA Sections 180,181</p> <p>Areas established under the Forest Practices Code as a Scenic Area are continued as objectives under FRPA 9.2.</p>
<p>FPPR Section 9.2 - Objectives set by government for visual quality</p> <p>9.2 (1) In this section:</p> <p>"scenic area" means an area of land established as a scenic area under the <i>Forest Practices Code of British Columbia Act</i> on or before October 24, 2002 and continued as a scenic area under section 180 (c) of the Act;</p> <p>"visual sensitivity class" means a visual sensitivity class established on or before October 24, 2002, particulars of which are publicly available in the Land and Resource Data Warehouse maintained by the minister responsible for the <i>Land Act</i>.</p> <p>(2) The objective set by government in relation to visual quality for a scenic area, that</p> <p>(a) was established on or before October 24, 2002, and</p> <p>(b) for which there is no visual quality objective</p> <p>is to ensure that the altered forest landscape for the scenic area</p> <p>(c) in visual sensitivity class 1 is in either the preservation or retention category,</p> <p>(d) in visual sensitivity class 2 is in either the retention or partial retention category,</p>	

<p>(e) in visual sensitivity class 3 is in either the partial retention or modification category, (f) in visual sensitivity class 4 is in either the partial retention or modification category, and (g) in visual sensitivity class 5 is in either the modification or maximum modification category.</p>	
Applicable Area	Known Scenic Areas that were established on or before October 24, 2002 with no visual quality objectives. These areas are identified per the Visual Landscape Inventory and shown in the FSP map set.
Agreement Holder Developed Result:	
Visual Management in Scenic Areas	<p>The agreement holder will utilize the REC_VLND spatial data set maintained by LRDW, or its successor, to identify known Scenic Areas that were established on or before October 24, 2002 with no visual quality objectives.</p> <p>Within areas so identified, the agreement holder will conduct a Visual Impact Assessment and design primary forest activities to be consistent with the visual quality objectives established by FPPR 9(2)(2).</p> <p>In Scenic Areas within the FDU which contain stands with > 50% mortality due to fire or insect infestation, all reasonable efforts will be made to be consistent with the VQO. Where the above is not practicable, the visual condition to be achieved may be greater in scale and visual acuity than that specified for the established VQO but consistent with the design elements of the established VQO.</p>
Applies to FDU	All

4.11 Cultural Heritage Resources

Objective Set by Government for Cultural Heritage Resources	
Regulation	FPPR Section 10
Objective	FPPR Section 10
<p>FPPR Section 10 - Objectives set by government for cultural heritage resources</p> <p>10. The objective set by government for cultural heritage resources 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>	
Agreement Holder Developed Strategy:	
Cultural Heritage Resources	The agreement holder will employ the following strategy with respect to Cultural Heritage Resources:
Information	<p>The agreement holder will:</p> <ol style="list-style-type: none"> 1. Consult the MoFLNRO information and referral matrix and staff for guidance on information sharing approaches with First Nations.

	<ol style="list-style-type: none"> 2. Identify all First Nations who assert interests within the agreement area. These First Nations will be invited to a meeting where information on XCFC Eco-Cultural Restoration forest management approaches and plans will be shared. Attending First Nations will be given the opportunity to share information on their use of cultural heritage resources within the agreement area. 3. Offer First Nations the opportunity to sign an information sharing protocol which indicates that they are satisfied that XCFC's Eco-Cultural Restoration forest management practices adequately protect their interests, and that further information sharing is not necessary provided that XCFC plans and operations do not change significantly. 4. Annually share information with First Nations who do not sign the information sharing protocol noted above following the procedures identified by MoFLNRO First Nations Relations staff. 5. Share information with First Nations who sign the information sharing protocol noted above if XCFC plans and operations change significantly from those reviewed by the First Nations when the information sharing protocol was signed.
Operations	<p>If at any time a cultural heritage resource becomes known while planning, designing or implementing a primary forest activity the agreement holder will:</p> <ol style="list-style-type: none"> 1. Halt operations to the extent necessary to protect or conserve the cultural heritage resource. 2. Immediately record the location, detail of the resource, time and date of the discovery and other relevant information. 3. Assess the potential impact of the planned activity on the cultural heritage resource utilizing a QP or Xáxli'p expert. The assessment will comply with the factors listed in FPPR Schedule 1 (4). 4. Modify the planned activity to mitigate the impact on the cultural heritage resource if the assessment determines it is necessary to do so. 5. Communicate the details of the cultural heritage resource, planned activity and the expected outcome of the activity to the MoFLNRO. 6. Incorporate any new information regarding the cultural heritage resource into site level plans and operations. 7. Keep a record of all steps taken with regard to the

	cultural heritage resource.
Applies to FDU	All

4.12 Recreation

Objective Enabled by Grandparented Order	
Act	FRPA Sections 180,181 Areas established under the Forest Practices Code as a recreation sites or trails with management objectives that were in effect immediately before the effective date of FRPA are continued as objectives under FRPA.
<p>FRPA Section 180 - Grandparenting specified designations</p> <p>180. Every area established or continued under the Code as</p> <ul style="list-style-type: none"> (a) an ungulate winter range, (b) a wildlife habitat area, (c) a scenic area, (d) an emergency bark beetle management area, (e) a community watershed, (f) an area with significant downstream fisheries values, (g) an area with significant watershed sensitivity, (h) a lakeshore management zone, (i) an interpretive forest site, (j) a recreation site, (k) a recreation trail, or (l) a forest ecosystem network <p>that was in effect immediately before the effective date is continued under this Act.</p> <p>FRPA Section 181 - Grandparenting objectives</p> <p>181. All objectives in respect of areas continued under section 180 that were in effect immediately before the effective date are continued as objectives under this Act</p>	
Applicable Area	Not Applicable. Recreation Sites and Trails have been legally established, but formal objectives were not established and therefore FRPA 181 does not apply.
Strategy Not Required:	
Recreation Sites and Trails	Not Applicable. Recreation Sites and Trails have been legally established, but formal objectives were not established and therefore no Result or Strategy is required.
Applies to FDU	All

5 Measures

5.1 Invasive Alien Plants

Act	FRPA Section 47
FRPA Section 47 - Invasive plants	
47. A person carrying out a forest practice or a range practice must carry out measures that are (a) specified in the applicable operational plan, or (b) authorized by the minister to prevent the introduction or spread of prescribed species of invasive plants.	
Regulation	FPPR Section 17
FPPR Section 17 - Invasive plants	
17. 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.	
Measures	
IAP Management Plan	<p>The agreement holder will work with a QP to develop a plan for identification, monitoring, control and reduction of invasive alien plants.</p> <p>The plan will be developed within two years of approval of this FSP.</p> <p>Measures to achieve the results of the interim measures listed below will be included in the IAP Management Plan.</p> <p>The agreement holder will follow the recommendations contained in the IAP Management Plan.</p>
Interim Measures (Prior to Development of IAP Management Plan)	
Training	The agreement holder will train key staff in IAP identification, monitoring and reporting within one year of approval of this FSP.
Identification	The agreement holder will annually review the Invasive Plants Regulation, the MoFLNRO Invasive Plants Database and other resource materials to identify known IAPs of concern in the FDU.
Limiting Spread	<p>IAPs present in proposed operating areas will be identified during the layout of proposed roads and cutblocks.</p> <p>Measures to prevent introduction and spread of invasive plants will be incorporated in operational plans.</p>
Limiting Spread	<p>Machinery to be moved to an area to conduct a primary forestry activity or road maintenance will be inspected for invasive plant material and said plant material removed prior to movement within the FDU.</p> <p>Where practicable, the undercarriage and exposed areas</p>

	of machinery will be pressure washed prior to entering the FDU.
Limiting Spread - Revegetation	<p>The agreement holder will seed exposed soils attributable to roads, landings and excavated/rehabilitated trails constructed by the agreement holder with appropriate plant species using Canada #1 seed as a minimum.</p> <p>Seeding will be completed within one year of the completion of activity on 90% or more of the disturbed area, and within 2 years of the completion of activity on 100% of the disturbed area.</p> <p>Areas where activity is expected to be halted for more than 12 months will be treated as per completed areas above.</p> <p>Revegetation success will be monitored, and contiguous areas > 200 m² with an average of fewer than 10 seeded or native plants per square meter at the end of the next growing season will be reseeded during the next feasible seeding window. Up to 2 reseeding will be carried out as required.</p>
Monitoring	<p>The agreement holder will:</p> <ul style="list-style-type: none"> • develop a priority list of IAPs in the CFA area, based on threat of spread and proportion of landbase occupied, • map known infested areas of priority plants within FDU's, and • annually report the location of new infestations to the MoFLNRO through the IAP on-line database.
Applies to FDU	All

5.2 Natural Range Barriers

Regulation	FPPR Section 18
FPPR Section 18 - Natural range barriers	
18. 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.	
Measures	
	Prior to Road Permit or Cutting Permit Submission, the agreement holder will inform range tenure holder(s) of planned harvesting and road construction within or adjacent to their range tenure. The agreement holder will work with the Range Tenure Holder to develop and implement mitigation measures and to define the timing of those measures where impacts to Natural Range Barriers are anticipated.
Applies to FDU	All

6 Stocking Standards

Regulations	FPPR Sections 16, 44 and 46.11
General Standards	The K3L Stocking Standards are specified below.
<p>FPPR Section 16 - Stocking standards</p> <p>16. (1) A person required to prepare a forest stewardship plan must ensure that the plan specifies the situations or circumstances that determine when section 44 (1) [<i>free growing stands generally</i>] or section 45 [<i>free growing stands collectively across cutblocks</i>] will apply to an area.</p> <p>(2) In specifying a stocking standard under this section, a person who prepares a forest stewardship plan may consider the factors set out in section 6 [<i>factors relating to stocking standards</i>] of Schedule 1.</p> <p>(3) A person required to prepare a forest stewardship plan must ensure that the plan specifies, for each of the situations or circumstances specified under subsection (1) where</p> <ul style="list-style-type: none"> (a) section 44 (1) (a) will apply, the regeneration date and stocking standards, (b) section 44 (1) (b) will apply, the free growing height and stocking standards, (c) section 45 (1) will apply, the regeneration date and the stocking standards, and (d) section 45 (2) will apply, the free growing date and the stocking standards, as approved by the chief forester. <p>(4) A person required to prepare a forest stewardship plan must ensure that the plan specifies stocking standards for areas referred to in section 44 (4), and the situations or circumstances that determine when the stocking standards will be applied.</p> <p>(5) A holder of a major licence that is a forestry licence to cut entered into under section 24.8 of the <i>Forest Act</i> or converted into a forestry licence to cut under section 24.9 of the <i>Forest Act</i> is exempt from this section.</p> <p>FPPR Section 44 - Free growing stands generally</p> <p>44. (1) A person who has an obligation to establish a free growing stand must establish, for areas that have been identified under section 16 (1) [<i>stocking standards</i>] as areas to which this section will apply, a stand that</p> <ul style="list-style-type: none"> (a) meets the applicable stocking standards set out in the forest stewardship plan for the area, by the applicable regeneration date specified for the area, and (b) meets the applicable stocking standards and free growing height set out in the forest stewardship plan for the area by a free growing date that is no more than 20 years from the commencement date, unless the minister permits a later free growing date. <p>(2) If an agreement holder contravenes section 52 (1) [<i>unauthorized timber harvesting</i>] of the Act, the holder must establish, on the area on which the contravention occurred, a stand that meets the requirements specified in the holder's forest stewardship plan for an area with similar attributes, as if the area on which the contravention occurred had been identified under section 16 (1) as being subject to this section.</p> <p>(3) A person is exempt from the requirements of section 29 (1) and (2) [<i>free growing stands</i>] of the Act in respect of an area if timber harvesting is restricted to one or more of the following:</p> <ul style="list-style-type: none"> (a) harvesting timber to eliminate a safety hazard; (b) harvesting timber to facilitate the collection of seed, leaving an opening not greater than 1 ha; (c) removing felled trees from landings and road rights of way; (d) harvesting trees on land that is, or will be, exclusively used for harvesting hay or grazing livestock in accordance with an agreement under the <i>Range Act</i>; (e) harvesting timber for experimental purposes if, in the opinion of the minister, the harvesting will be carried out under controlled scientific or investigative conditions; (f) clearing areas for or within a recreation site or recreation trail; (g) felling and removing trees that have been or will be treated to facilitate the entrapment of pests; (h) commercial thinning, removal of individual trees, or a similar type of intermediate cutting; (i) harvesting special forest products. <p>(4) A person who harvests timber for the reasons referred to in subsection (3) (h) and (i) must ensure that, for a period of 12 months after completion of harvest, the area on which timber harvesting was carried out conforms to the stocking standards specified in section 16 (4) for the area.</p>	

FPPR Section 45 - Free growing stands collectively across cutblocks

The situation this section it is intended for does not apply to K3L

Applies to FDU

All

6.1 Preamble

All stocking standards and requirements are applicable across the entire FDU.

Per FPPR Section 16(1): FPPR Section 44(1) (Free growing stands generally) applies to all of the FDU.

Per FPPR Section 16(3): Regeneration dates, free growing heights and stocking standards for the area where Section 44(1) applies are specified below.

Per FPPR Section 16(4): Uneven aged layered stand stocking standards will be applied to areas referred to in FPPR Section 44(4) for the FDU.

The standards and criteria support stocking areas with ecologically suitable species to a density that is consistent with:

- (a) maintaining or enhancing an economically valuable supply of commercial timber from British Columbia's forests;
- (b) the timber supply analysis and forest management assumptions that apply to the area covered by the FSP on the Submission Date; and
- (c) Xáxli'p Eco-Cultural Restoration objectives.

6.2 Even-Aged Stocking Standards

Even-aged stocking standards for the appropriate biogeoclimatic zone and site series will be applied, as permitted under this FSP, where no significant residual tree retention has been identified.

Even-aged stocking standards are specified in Table 2.

No operations are planned in the ESSF or the BG subzones, so no stocking standards are specified for these subzones.

6.3 Uneven-Aged Layered Stand Stocking Standards

Uneven-aged layered stand stocking standards for the appropriate biogeoclimatic zone and site series will be applied as permitted under this FSP where significant residual trees are retained following harvest or eco-cultural restoration treatment and:

- a) the crown closure of the trees in layers 1 and 2 is equal to or greater than 6% and
- b) layers 3 and/or 4 are also present.

Uneven-aged stocking standards are specified in Table 3.

6.4 Cultural Emphasis Restoration Area Stocking Standards

XCFC plans to carry out Eco-Cultural Restoration activities throughout agreement area. Cultural restoration objectives will be determined by consultation with Xaxli'p Elders and other Xaxli'p experts and review of the Xaxli'p Traditional Use Study. Ecological restoration objectives will be determined from assessments and reconstruction of historical composition and structure at the stand and landscape levels.

XCFC will determine one of three objectives for a eco-cultural restoration treatment unit:

- cultural emphasis

- cultural and timber mixed emphasis
- timber emphasis

Uneven-aged layered stand stocking standards per Section 6.3 will be used in cultural and timber mixed emphasis and timber emphasis treatment units.

Stocking targets in cultural emphasis treatment will vary as the management goal in many units will emphasize the vigour and stocking of non-tree plants. We propose a minimum target stocking standard 300 stems per hectare implemented as an uneven-aged layered stand for cultural emphasis treatment units.

Higher target stocking standards may be used if deemed by XCFC to be compatible with cultural emphasis goals.

This cultural emphasis stocking target will apply to not more than 20% of the timber harvesting landbase.

6.5 Preferred and Acceptable Species

In order to maintain existing biodiversity at the stand and landscape level:

- Commercially valuable conifer species contributing > 20% of the gross basal area of the pre-harvest stand may be considered preferred species for stocking and free growing assessments.
- Commercially valuable conifer species contributing 5 to 20% of the gross basal area of the pre-harvest stand may be considered acceptable species for stocking and free growing assessments.
- Broadleaf species contributing > 10% of the gross basal area of the pre-harvest stand may be considered preferred species for stocking and free growing assessments.
- Broadleaf species contributing \leq 10% of the gross basal area of the pre-harvest stand may be considered acceptable species for stocking and free growing assessments.

In order to retain suitable maintain secondary structure in mountain pine beetle affected stands, each tree of suitable secondary structure retained in such a stand is considered to be a tree of a preferred species for the purpose of establishing a free growing stand.

If the Site Plan does not specify any acceptable species, Minimum Stocking Standard - preferred (MSSp) equals Minimum Stocking Standard - preferred and acceptable (MSSpa).

6.6 Regeneration Delay

Up to a maximum of 7 years regeneration delay may be applied to all stocking standards where harvesting has resulted in an obligation to establish a free growing stand.

Where harvesting has not resulted in an obligation to establish a free growing stand (FPPR 16.4 / 44.4), regeneration can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets minimum stocking. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest.

6.7 Minimum Inter-Tree Distance

Unless otherwise specified by this FSP, the Minimum Inter-Tree Distance defaults to 2.0 m for all stocking standards.

The minimum inter-tree distance does not apply between Layer 1 well spaced or free growing trees in surveys of uneven aged stands.

Subject to an Evaluation and as identified in a Site Plan, the MITD may be reduced to 1.5m to provide an opportunity to improve site occupancy in situations associated with the following:

- hygric or wetter sites,
- cluster planting for wildlife habitat maintenance,
- very rocky soils,
- areas with expected high cattle trampling damage to seedlings,
- sites with significant retained residual stems,
- areas with high residual regeneration density,
- areas with high, unavoidable slash loading, and/or
- very harsh sites where use of protected planting microsites is critical (e.g. shaded microsites, microsites protected from snow creep, etc).

6.8 Free Growing Tree to Brush Height Ratio

Free growing trees will be 125% of brush height in all biogeoclimatic zones.

Potential free growing trees will be assessed per the Silvicultural Survey process, as outlined in Section 17 and 18 of FS-660 2008/3/28.

6.9 Maximum Density

The maximum density for conifer species in stands where lodgepole pine is greater than and equal to 80% of the stand by stem count is 25,000 countable stems per hectare in even-aged stands or 25,000 Layer 3 stems in uneven-aged stands.

The maximum density number for conifer species in all other stands is 10,000 countable stems per hectare in even-aged stands or 10,000 Layer 3 stems in uneven-aged stands.

Broadleaf species will not contribute towards maximum conifer density counts.

6.10 Free Growing Damage Criteria

6.10.1 Young Even Aged Stands

The tree condition and acceptable damage criteria set out in Section 23 (Free growing damage criteria for even-aged (age class 1) coniferous trees) of FS-660 2008/3/28 will apply at the time of the free growing survey in young even aged stands regenerated following harvesting.

6.10.2 Advanced Regeneration

The tree condition and acceptable damage criteria set out in Section 21 (Free growing acceptability guidelines for layer 3 and 4 advanced regeneration) of FS-660 2008/3/28 will apply to advanced regeneration within young even aged stands at the time of the free growing survey.

6.10.3 Uneven Aged Stands

Layer 1 and 2 Trees: The minimum characteristics of Layer 1 and 2 leave trees that contribute towards meeting stocking standards and free growing criteria are per the guidelines in Section 26 (Free growing damage criteria for multi-layered conifer stands) of FS-660 2008/3/28.

Layer 3 and 4 Trees: The minimum characteristics of Layer 3 and 4 trees that contribute towards meeting stocking standards and free growing criteria are per the guidelines in Section 21 (Free growing acceptability guidelines for layer 3 and 4 advanced regeneration) and in Section 26 (Free growing damage criteria for multi-layered conifer stands) of FS-660 2008/3/28.

6.10.4 Dwarf Mistletoe

A tree susceptible to dwarf mistletoe that is located within 10 m of an overtopping tree that is infected with dwarf mistletoe will not be considered susceptible if the overtopping infected tree is outside of the cut block boundary or is reserved from harvest to address non-timber objectives.

6.11 White Pines

Should a 5 needled pine (*Pinus monticola* or *Pinus albicaulis*) be identified as a preferred or acceptable species per Section 6.5, planted rust resistant stock will be considered preferred to a maximum of 50% of the total preferred and acceptable well spaced stems.

To reduce blister rust infections, non-rust resistant 5 needled pines will be pruned to 1.3 meter height where they make up more than 5% of the minimum free growing number. SU with less than 5% non-resistant 5 needled pines contributing to the minimum free growing number require no pruning and can be accepted as free growing.

6.12 Species Suitability

Unless specified otherwise in this FSP, the species suitability identified in the even-aged stocking standards applies to the other stocking standards within this FSP.

BGC Classification		SSID	Regeneration Guide					Free Growing Guide					
Zone/SZ	Series		Species		Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)		
			Conifer		Target	MIN pa	MIN p		Earliest	Latest	Species	Ht	
			Preferred (p)	Acceptable (a)	(well-spaced/ha)			(yrs)	(yrs)		(m)		
IDFdk1	01		Fd ³² PI	Py ^{9,14} Sx ^{10,13}	1000	500	400	7	5	20	PI	1.0	
											Lw	1.0	
											Fd	0.8	
											Sx	0.6	
											Py	0.6	
		02		Fd ²⁷ Py ^{9,14}		400	200	150	7	5	20	PI	1.0
												Fd	0.8
	03		Fd PI	Py ^{9,14}	600	400	300	7	5	20	PI	1.0	
											Fd	0.8	
											Py	0.6	
	04		Fd PI	Py ^{9,14} Sx ^{10,13}	1000	500	400	7	5	20	PI	1.0	
											Fd	0.8	
	05		Fd ^{9,14,32} Sx	Bl ^{10,13} PI	1000	500	400	7	5	20	Others	0.6	
											PI, Lw	1.0	
											Fd	0.8	
	06		PI ¹ Sx ¹ Fd ^{1,32}	Bl ¹	1000	500	400	7	5	20	Others	0.6	
											PI	1.0	
											Fd	0.8	
	07		non-forested		-	-	-	-	-	-	Others	0.6	
											-	-	
IDFhx2	01		Fd ²⁷ Py		1000	500	400	7	5	20	All	0.6	
	02		Py ²⁷ Fd ²⁷		400	200	150	7	5	20	All	0.6	
	03		Py ²⁷ Fd ²⁷		400	200	150	7	5	20	All	0.6	
	04		Py Fd ²⁷		400	200	150	7	5	20	All	0.6	
	05		Fd ²⁷ Py		600	400	300	7	5	20	All	0.6	
	06		Fd Py		1000	500	400	7	5	20	All	0.6	
	07		Fd ³² Sx	Py ³² Cw ³²	1200	700	600	7	5	20	All	0.6	
	08		Sx ¹ Fd ^{1,32}	PI ¹	1000	500	400	7	5	20	PI	0.8	
											Others	0.6	
MSxk3	01		PI Fd ^{9,14,32} Sx ^{10,13}	Bl ^{10,13}	1200	700	600	7	5	20	PI	1.4	
											Others	0.8	
	02		PI Fd ^{9,14}	Bl ^{10,13}	1000	500	400	7	5	20	PI	1.0	
											Others	0.6	
	03		non-forested		-	-	-	-	-	-	-	-	
	04		non-forested		-	-	-	-	-	-	-	-	
	05		PI Fd ^{9,14}	Bl ^{10,13} Sx ^{10,13}	1000	500	400	7	5	20	PI	1.0	
												Others	0.6
	06		PI Fd ^{9,14,32} Sx ^{10,13}	Bl ^{10,13}	1200	700	600	7	5	20	PI, Lw	1.4	
											Others	0.8	
07		PI Fd ^{1,9,14,32} Sx	Bl ^{10,13}	1200	700	600	7	5	20	PI	1.4		
											Others	0.8	
08		PI Sx Fd ^{9,14,32}	Bl	1200	700	600	7	5	20	PI	1.4		
											Others	0.8	
09		PI ¹ Sx ¹	Bl ¹	1000	500	400	7	5	20	PI	1.0		
											Others	0.6	
PPxh2	01		Py ²⁷ Fd ²⁷		400	200	150	7	5	20	All	0.6	
	02*		Py ²⁷ Fd ²⁷		400	200	150	7	5	20	All	0.6	
	03		Py ²⁷ Fd ²⁷		400	200	150	7	5	20	All	0.6	
	04		Py ²⁷ Fd ²⁷		400	200	150	7	5	20	All	0.6	
	05		non-forested		-	-	-	-	-	-	-	-	
	06		Fd ²⁷ Py		600	400	350	7	5	20	All	0.6	
	07		PI ¹ Sx ¹ Fd ¹	Py ¹	1000	500	400	7	5	20	All	0.6	

Footnotes

- | | |
|-------------------------------------|---|
| * Avoid logging | 13 restricted to upper elevations of biogeoclimatic unit |
| 1 elevated microsites are preferred | 14 restricted to lower elevations of biogeoclimatic unit |
| 9 restricted to southerly aspects | 27 partial canopy cover required for successful establishment |
| 10 restricted to northerly aspects | 32 limited by growing-season frosts |

BGC classification means the zone, subzone, variant and site series described in the most recent field guide published by the Ministry of Forests for the identification and interpretation of ecosystems, as applicable to a harvested area.

Table 2: Even-aged stand stocking standards for K3L.

Uneven-aged Layered Stand Stocking Standards

Target from Table 2 Standards (stems/ha)	Layer**	Stocking***		
		Target pa	MIN pa	MIN p
1200	1	600	300	250
	2	800	400	300
	3	1000	500	400
	4	1200	700	600
1000	1	400	200	150
	2	600	300	250
	3	800	400	300
	4	1000	500	400
900	1	400	200	150
	2	500	300	250
	3	700	400	300
	4	900	500	400
800	1	300	150	100
	2	400	200	150
	3	600	300	250
	4	800	400	350
600	1	300	150	100
	2	400	200	150
	3	500	300	250
	4	600	400	350
400	1	200	100	75
	2	300	125	100
	3	300	150	125
	4	400	200	175
300	1	150	75	50
	2	225	100	75
	3	225	125	100
	4	300	150	125

****Stand Layer Definition**

Layer 1	Mature	trees >= 12.5 cm dbh
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Layer 3	Sapling	trees >= 1.3 m height to 7.4 cm dbh
Layer 4	Regeneration	trees < 1.3 m height

*** MIN = Minimum, pa = preferred and acceptable species, p = preferred species

Preferred and acceptable species and 'Target from Table 2 Standards' are as specified in Table 2 by BEC site series.

Early free growing date is 1 year after completion of harvest, late free growing date is 20 years. Minimum free growing height for Douglas-fir is 40 cm. For other species, the minimum free growing height is 70% of the minimum free growing height for the species and site series indicated in Table 2.

Table 3: Uneven-aged layered stand stocking standards for K3L.

7 Review and Comment

7.1 Public Review and Comment

The draft FSP was available for review and comment from ____ to ____.

MoFR staff provided their comments on the draft on ____

Written comments received during the advertisement period have been considered in the “Submission for Approval”. The written comments, as well as a summary of changes to the draft FSP, are included in Appendix B - “Review and Comment”.

7.2 Summary of Review and Comment

The summary of the Review and Comments is found in Appendix B, under separate cover.

K3L FSP 2012-2017

Appendix A

Maps

The XCFC K3L FSP Map has been uploaded to the MoFLNRO FSP Tracking Site in PDF format.