

Skul'qalt Forestry Limited Partnership



2019-2024 FOREST STEWARDSHIP PLAN

Okanagan-Shuswap Natural Resource District



Submitted
October 28th, 2019



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Summary of changes from Original FSP (2014-2019)

- Revised Title Page with Effective Dates.
- Relocated signatures at the beginning of the document.
- Consolidated FDUs from previous versions and expanded new FDU further north-east within the Okanagan Shuswap TSA.
- Updated introduction and maps to reflect changes in FDU.
- Added Lower Similkameen Community Forest Limited Partnership as FSP Holder.
- Definitions for Applicable First Nation, Invasive Species, Intensive Recreation Area, Primary Forest Activity, Qualified Professional, Regionally Significant Trail, RMA added or modified.
- Added clarity as to procedure for data management regarding replacement of draft OGMA.
- Proposed alternative results for WTRA based on default result in FPPR section 66 rather than on the LRMP.
- Reorganized and updated Wildlife section for more clarity as to which piece of legislation the results or strategies pertain to, updated WHA reference list, added clarity regarding strategy for managing for regionally important species.
- Reorganized and updated Riparian Areas section for more clarity, included a summary table regarding amount of retention in riparian management area for each stream class.
- Created a list of walk-in lakes.
- Updated strategies for fisheries sensitive watershed to reflect changes in FDU.
- Added clarity to results and strategies for conducting primary activities in community watersheds.
- Added clarity to results and strategies for visual quality in Scenic Areas, Tourism Areas and Community/Crown Interface Areas.
- Added clarity as to procedure for conducting primary forest activities in intensive recreation areas. Updated list of category A and B trails to reflect changes in FDU.
- Updated strategies for cultural heritage features.
- Updated measures to mitigate the effects of removing and/or rendering ineffective natural range barriers to include best management practices described in the OSNRD letter.
- Updated Stocking Standards table to reflect changes in FDU.



1. Signatures of Person Preparing the Plan and Licence Holder Authorization

Legal Reference

FRPA 5(3)

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

signature

date

seal

Gary Gallinger, RPF
Preparing Forester,
Capacity Forest Management
on behalf of Skul'qalt Forestry Limited Partnership

signature

date

Corby Lamb
Authorized Licence Holder Signing Authority,
Skul'qalt Forestry Limited Partnership



2. INTRODUCTION

Our actions in forestry will balance between water, land, four sacred life forces and people, always
siw'k'wtat, tmx'wulax'wtat, timx'wtat uł sqilx'w a'xa i k'wu smalqmix i tmx'wulax'wtat

The area to which this Forest Stewardship Plan (FSP) applies is found within the Lower Similkameen Indian Band (LSIB) territory and the Okanagan Timber Supply Area (TSA) administered by the Okanagan Shuswap Natural Resource District. The LSIB members reside in the Similkameen Valley. A primary objective of the LSIB is to practice sound and sustainable forest stewardship on lands within their territory.

The FDU covered in this FSP is the result of a consolidation of previous FDUs and of an expansion further north-east within LSIB traditional territory and the Okanagan TSA.

3. INTERPRETATION

3.1. Definitions and Glossary of Terms

In this FSP, unless this FSP specifies, or the context requires otherwise:

“Applicable First Nation” – means any First Nation with an asserted or established aboriginal right, aboriginal title or treaty right to the area under consideration.

“Basal area retention for RMZs” means, after harvest completion, the average percentage of retention of standing and post-harvest windthrown trees based on the original basal area of the pre-harvest RMZ for the:

- (i) stream reach, or
- (ii) entire RMZ encompassing a lake or wetland.

“Bighorn sheep lambing areas” means escape terrain adjacent to areas of early spring green-up with abundant succulent and nutritious food for pre-natal or lactating ewes.

“Bighorn sheep loafing sites” means areas where sheep spend a substantial proportion of their time resting and digesting food - generally areas with the security of long sight lines and close to escape terrain.

“Bighorn sheep mineral licks” means exposed mineral deposits (usually in clay banks) that provide essential nutrients during the spring and summer.

“Bighorn sheep rutting areas” means areas where adult males (rams) compete to become the dominant ram for breeding purposes.

“Bighorn sheep special features” means:

- (i) open grasslands,
- (ii) mineral licks,
- (iii) rutting areas,
- (iv) lambing areas, or
- (v) loafing sites.

“Community watershed”

- (i) established under section 41 (8) to (13) [approval of plans by the district manager or designated environment official] of the Forest Practices Code of British Columbia Act,



- (ii) continued under section 180 (e) *[grandparenting specified designations]* of the Act, or
- (iii) designated under the Government Actions Regulation:

“Critical grizzly bear habitat” means part or all of a specific place occupied by a wildlife species or a population of such species and recognized as being essential for the maintenance of the population including,

- (i) herb dominated avalanche tracks,
- (ii) meadow/wetland complexes and seepage sites,
- (iii) areas of high-suitability spring habitat,
- (iv) glacier lily complexes, and
- (v) old burns dominated by *Vaccinium* species.

“CWD” means coarse woody debris as defined in the results and strategies in section 6.2 of this FSP.

“Draft OGMA” means an area identified on the map in Appendix A, established by the Integrated Land Management Bureau (ILMB), and outlined in the letter from the ILMB Manager, Planning and Crown Land Adjudication dated August 21, 2007, as amended from time to time by licence holders in the TSA.

“FDU” means a forest development unit to which this FSP applies.

“Forest Act” means the *Forest Act R.S.B.C. 1996, c.157* and all regulations there under.

“FPCA” means the *Forest Practices Code of British Columbia Act R.S.B.C. 1996, c. 159* and all regulations there under.

“FPPR” means the *Forest Planning and Practices Regulation B.C. Reg. 14/2004*.

“FRPA” means the *Forest and Range Practices Act, SBC 2002, c 69*, and regulations there under.

“FSP” means forest stewardship plan.

“GAR” means *Government Actions Regulation B.C. Reg. 582/2004*.

“High Risk of Infestation” means forested stands that:

- (i) Falls within a Beetle Management Unit (BMU) designated as Suppression or Holding within the most recent District Forest Health Strategy, or;
- (ii) Falls within a “High” or “Very High” hazard rating on the most recent beetle Susceptibility maps, or;
- (iii) Are in a location where infestation is imminent based on the latest Regional Aerial Overview Forest Health maps or local field level information.

“Holder” means a licensee listed in section 3.4 of this FSP, or any successor or assignee of that holder.

“Hydrologic Assessment” means an investigation of a particular area, site, process, or event within a Watershed Unit. This type of assessment can involve a study of both hydrologic and geomorphic processes but may not include either the full scope of a Watershed Assessment or the entire area of a Watershed Unit. The objectives and scope of these assessments can vary widely, depending on the reason for the assessment.¹

“Invasive plant species” means species from the *Invasive Plants Regulation* or species known to the Okanagan and Similkameen Invasive Species Society to occur in the FSP FDU.

¹ ABCFP/EGBC Watershed Assessment and Management of Hydrologic and Geomorphic Risk in the Forest Industry, pg.ix, January 2020



“Intensive Recreation Area” means areas with extensive trail networks as described in the Okanagan-Shuswap Land and Resource Management Plan (REC4-1).

“L1-B lake class A, B, C, or D” is the lake class assigned to the lake from Lake Classification and Lakeshore Management Guidebook for the Kamloops Forest Region (reference District Manager letter, 1996).

“LRMP” means The Okanagan-Shuswap Land and Resource Management Plan dated April 11, 2001.

“LRMP Order” means the Order Establishing Objectives Set by Government In The Area Covered by The Okanagan-Shuswap Land And Resource Management Plan In The Okanagan Shuswap Forest District dated February 6, 2007.

“Licence” means an agreement under the *Forest Act*.

“Local government” means a local government as that term is defined in the *Local Government Act*, Chapter #323 (RSBC 1996), representing a regional district within a Community/Crown Interface Area.

“MFLNRORD” means the Ministry of Forests, Lands, Natural Resource Operations and Rural Development or its predecessor assigned to the function in the context referred to in the FSP.

“Minister” means the person who, on behalf of the government, approves this FSP, or his or her delegate.

“MOE” means Ministry of Environment or its predecessor assigned to the function in the context referred to in the FSP.

“Moose Management Unit” includes the area that extends 200 m out from the wetland edge for a wetland that:

- (i) is either 200 m in length, or greater than one ha,
- (ii) is associated with wetland/riparian habitats that are within the dry biogeoclimatic subzones (MSdm2, and MSxk), and
- (iii) has demonstrated and verifiable high value moose habitat.

“NAR” means net area to be reforested.

“NDT4 a and b biogeoclimatic subzones” means drier biogeoclimatic (BGC) zones, notably the bunchgrass zone (BG), ponderosa pine zone (PP), and parts of the interior Douglas fir zone (IDF). NDT4a consists of the grassland site series. The NDT4b is characterized by frequent, low intensity fires and is described as a fire-maintained system.

“Mountain Goat Plateau” means the area indicated on the map in Appendix E identified as mountain goat plateau.

“Plateau band” means the area within a 200 m wide swath upslope of the slope break that separates the mountain goat plateau from the steeper slopes.

“Practicable” means capable of being carried out in action, as described in *FRPA* General Bulletin Number 3 - *Use of the Term "Practicable" Under the Forest and Range Practices Act (FRPA) and Regulations*, June 9, 2005. Where a result and strategy for a cutblock or road described in this FSP is not practicable, a rationale will be documented in the site plan.

“Practice Requirements” means requirements of the *FPPR* as they were on the FSP submission date.

“Primary forest activity” means one or more of the following: timber harvesting, silviculture treatments, wildlife habitat enhancement, road construction, maintenance, and deactivation, as described in *FPPR* section 1.



“Protect” means to keep from harm, attack, or injury.

“Qualified Professional” or QP means a registered member in good standing with a professional association whose training, ability and experience makes the member professionally competent in the relevant area of practice. Where the activities fall within the scope of practice of members of a professional regulatory body, this person will be a Qualified Registered Professional.

“Regionally Significant Trail” means trails where there is an ongoing intention to recognise and provide for ongoing summer and/or winter travail corridors. The specific list of trails can be found in the Okanagan Shuswap Land and Resource Management Plan (REC 4-5).

“RMZ” means riparian management zone and includes a lakeshore management zone.

“RMA” means riparian management areas and is composed of the total combined areas of the RMZ and the RRZ.

“RRZ” means riparian reserve zone and includes a lakeshore reserve zone.

“SAR Notice” means the *Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Okanagan Shuswap Forest District*, effective December 30, 2004.

“Stub” mechanically felled or broken off tree stems 3-5 m in height (high stumps).

“Suitable habitat” means habitat required to sustain a particular “species at risk” and is described in *Accounts and Measures for Managing Identified Wildlife* in the Identified Wildlife Management Strategy Version 2004.

“THLB” means timber harvesting land base.

“TSA” means the Okanagan Timber Supply Area.

“UWR” means ungulate winter range.

“VQO” means a category of visually altered forest landscape:

- (i) identified as Visual Management Zone 1 in the LRMP,
- (ii) mapped according to the visual landscape inventory procedures,
- (iii) transcribed to the FDU map in Appendix I, and
- (iv) having alterations defined in *FPPR* section 1.1.

“Walk-in Lakes” means Chapman Lake, Howard Lake, the unnamed lake shown on the map in Appendix G, as well as those lakes whose coordinates are shown in the schedule given in the LRMP Order.

“Watershed Unit” means the surface drainage area upstream of a defined Point of Interest. A Watershed Assessment may be for a single Watershed Unit or may subdivide a large drainage area into smaller Watershed Units for the purpose of the assessment.

“WHA” means wildlife habitat area.

“WTRA” means wildlife tree retention area.

3.2. Definitions from Legislation

In this FSP, unless this FSP specifies, or the context requires otherwise, words and phrases defined in *FRPA* or the *Forest Act* as of 4 months prior to the Date of Submission have the same meaning as those definitions.



3.3. Changes to Legislation

Subject to paragraph 3.2, if legislation referred to in this FSP is renamed or a provision of legislation referred to in this FSP is renumbered, the reference in this FSP is to be construed as a reference to the provision as renamed or renumbered.

3.4. Tenses

In this FSP, the singular includes the plural and the plural the singular, unless the context indicates otherwise.

3.5. Objectives Cancelled

If an objective for which a result or strategy included within this FSP is cancelled by approval by government, then the result or strategy within this FSP concerning the cancelled objective is no longer applicable effective the date of the cancellation of the objective.

4. SUBMISSION DATE, TERM AND COMMENCEMENT

Legal Reference
<i>FRPA</i> section 6(1).

4.1. Term

The term of this FSP is 5-years beginning on the commencement date unless the Holder of this FSP elects to replace it with another FSP, or it is extended pursuant to *FRPA*.

4.2. Submission Date

The date this FSP was submitted for approval is October 28th, 2019.

4.3. Commencement Date

The commencement date for this FSP is the date on which the FSP is approved by the Minister.

4.4. Holder and Application of this FSP

This FSP applies to the following licence(s):

Licensee	Licence	Applicable FDUs
Skul'qalt Forestry Limited Partnership	Replaceable Forest Licence A90151	FDU 1
Lower Similkameen Community Forest Limited Partnership	Community Forest Agreement K2U	FDU 1



5. FOREST DEVELOPMENT UNITS

5.1. Map and Forest Development Units

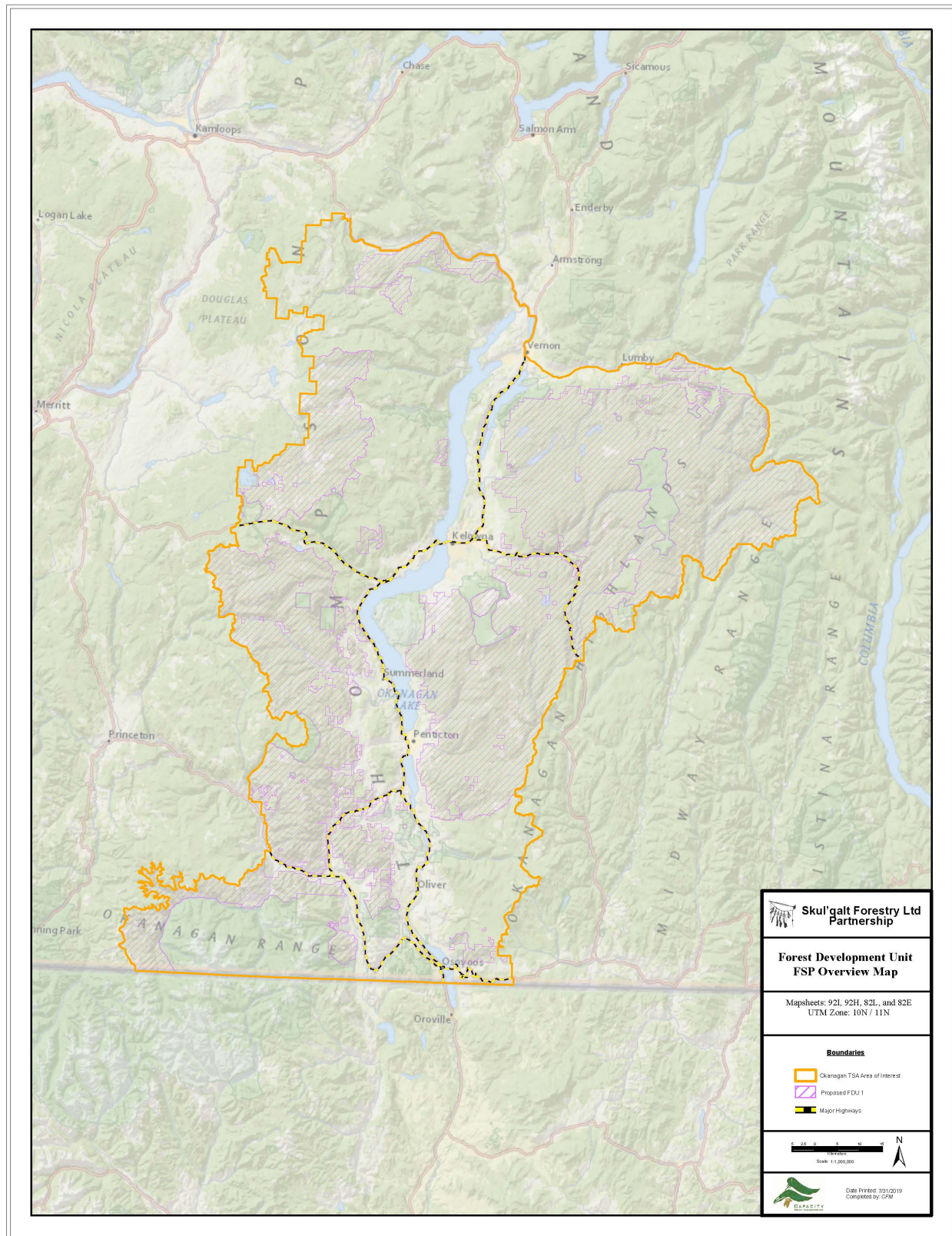
Legal Reference
<i>FRPA</i> section 5(1)(a), and <i>FPPR</i> sections 14(1), 14(2), and 14(3).

FDUs are areas where forest practices can occur over the term of this FSP and have common sets of objectives, results and/or strategies. Figure 1 illustrates the FDU under this FSP. The FDU Maps in the appendices show the location of the following designations in effect 4-months before the date the FSP was submitted for approval:

- (a) ungulate winter range,
- (b) wildlife habitat area,
- (c) fisheries sensitive watershed,
- (d) lakeshore management zone,
- (e) scenic area,
- (f) lake identified as an L1 lake under *FPPR* section 49 (1) (b) (ii),
- (g) community watershed,
- (h) old growth management area,
- (i) area in which commercial timber harvesting is prohibited by another enactment, and
- (j) cutting permit and road permit held by the agreement holder if that is the person required to prepare the plan.



Figure 1 Forest Development Unit





6. RESULTS OR STRATEGIES

6.1. Wildlife and Biodiversity – Landscape Level

<p>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>	
Legal References	<p>FPPR section 9, Land Act section 93.4 Objectives continued under FPCA section 4, and FPPR section 64 and 65</p>
References	Date
Standards for Managing Natural OGMA Consolidation Mapping, Okanagan Shuswap Natural Resource District	February 2020
Okanagan TSA Timber Supply Review, Data Package	December 2017
Old Growth Management Area Guidance Thompson Okanagan (ILMB)	August 2007
Order Establishing Provincial Non-Spatial Old Growth Objectives.	June 30, 2004
LRMP	April 11, 2001
Strategies	<p><i>Non-Spatial Old Growth Objectives</i></p> <p>The Holder adopts the spatially identified non-legal Old Growth Management Areas (OGMAs), as developed and made available by Integrated Land Management Branch for the Okanagan-Shuswap TSA and will not harvest within those OGMAs except under the following circumstances.</p> <ol style="list-style-type: none"> 1) Timber harvesting may occur in a draft OGMA with no replacement where up to 10 ha, or 10% of the area of the draft OGMA, whichever is less, is disturbed by timber harvesting, and: <ol style="list-style-type: none"> a) where there are no other practicable alternatives, to allow road construction and maintenance; to address a public or industrial safety hazard; or b) to enhance or maintain an interpretive forest site, recreation site, recreation facility, or recreation trail, where there are no other practicable options; or c) to facilitate range development, maintenance, and related activities where there are no other practicable options; or



	<ul style="list-style-type: none"> d) to manage for forest health where trees within the draft OGMA pose a significant forest health risk to forests outside the draft OGMA, and where timber harvesting constitutes an appropriate and effective control action; or e) limited to a 50 m incursion, the purpose being to establish a logical boundary for timber harvesting operations, and physical or administrative features that will not compromise the long-term management of the draft OGMA are used; or f) to improve harvest boundary alignment in a way that will contribute to the maintenance of the draft OGMA (e.g., to secure a more wind-firm boundary). <p>2) When timber harvesting exceeds the limit outlined in 1), the Holder, prior to constructing a road or harvesting timber, will document in a site plan a compelling rationale demonstrating retention of desired old seral conditions and biodiversity values to be retained and no replacement is necessary by using the following best practices:</p> <ul style="list-style-type: none"> a) minimizing long-term site disturbance, detrimental impacts to site productivity, or both; b) maintaining, restoring, or enhancing old seral forest attributes; c) retaining relatively old, large, live and/or dead, standing, or down trees; d) avoiding compromising rare ecosystems; e) avoiding compromising forest interior habitat conditions; f) restocking openings created with climax tree species suited to the site; and g) ensuring no unnecessarily increased risk of windthrow or forest health problems. <p>3) Where the Holder plans to harvest an area that exceeds 10 hectares or 10% of a mapped OGMA polygon, over a 5-year period, the Holder will, prior to Cutting Permit application, identify “replacement” OGMA that:</p> <ul style="list-style-type: none"> a) is of equivalent or larger area as the proposed OGMA harvest area; and b) is within the same landscape unit, biogeoclimatic zone, subzone, variant and site series as the proposed OGMA harvest area, and c) has forest cover attributes that are equal to or better than the proposed OGMA harvest area with respect to age class and species composition, and d) considers present and future forest health conditions to avoid stands that have or are likely to have forest health concerns; and e) avoid transfers that would result in new OGMA occurring in areas of higher levels of human disturbance.
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	4) The Holder will maintain a file of replacement draft OGMA's following the procedure outlined in the <i>Standards for Managing OGMA Consolidation Mapping</i> letter dated February 2020 . Additionally, the Holder will provide the District with updates from the current year by December 31 st of that year.
Practice Requirements	The Holder will comply with practice requirements outlined in <i>FPPR</i> sections: <ul style="list-style-type: none"> a) 64 – maximum cutblock size, and b) 65 – harvesting adjacent to another cutblock, with the exception of section 65(3)(a) and 65(3)(b)(ii) where the words “minimum of 3 m” is replaced with “minimum of 2 m.”²

6.2. Wildlife and Biodiversity – Stand Level

<p>The objective set by government for wildlife and biodiversity at the stand level is,</p> <ol style="list-style-type: none"> 1) without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees, 2) for areas entitled “Basic Levels of CWD” shown on the map in Appendix B, for the purposes of conserving soil, wildlife habitat and biodiversity at the stand level, to retain basic levels of coarse woody debris, including but not limited to, stub trees, standing trees, firmwood reject logs and poor quality grade 4 logs across sites subject to timber harvesting, and 3) for areas entitled “Basic and Enhanced Levels of CWD” shown on the map in Appendix B, for the purposes of conserving the suitability of Grizzly Bear, Marten and Fisher habitat at the stand level, and within landscape units of higher biodiversity emphasis, to retain basic and enhanced levels of coarse woody debris, including but not limited to, standing trees, stub trees and tree pieces across sites subject to timber harvesting; and <p>to limit the adverse impacts of forest road construction on the habitat values of grasslands and low elevation forests (Ecosystem – Natural Disturbance Type 4).</p>	
Legal Reference	<p><i>FPPR</i> section 9.1,</p> <p>Land Act section 93.4</p> <p><i>FPPR</i> section 66, 67, and 68(2)(a), and</p> <p><i>FPPR</i> section 12.5</p>
References	Date
LRMP Order	February 6, 2007
Wildlife Tree Retention: Management Guidance	May 31, 2006
District Manager Wildlife Tree Patches letter	June 20, 2005

² Okanagan Shuswap Land and Resource Management Plan, Page TIMBER 3-5, S. 1.8



LRMP	April 11, 2001
Results	<p><i>LRMP Basic and Enhanced Levels of Coarse Woody Debris</i></p> <ol style="list-style-type: none"> 1) Where the Holder conducts ground-based timber harvesting on cutblocks less than 20 hectares with slopes less than 35%, the Holder will retain, to the extent practicable, <ol style="list-style-type: none"> a) Timber grade firmwood reject (exclusive of tops and other material under 25 cm in diameter). b) Poorer quality grade 4, to be determined on site by the Holder, and c) Timber grade 5 in Riparian Management Areas 2) Where the Holder conducts ground-based timber harvesting on cutblocks greater than 20 hectares, where broadcast burning is not a treatment to be utilized, and with slopes less than 35%, the Holder will retain, to the extent practicable, <ol style="list-style-type: none"> a) a minimum of 5 pieces per ha of low-grade timber, of a diameter 25 cm and larger and a length of 3 to 5 m, dispersed throughout the cutblock; and b) non-merchantable standing trees, and <ol style="list-style-type: none"> i) in areas from the latest shapefiles from DataBC, as indicated on the map in Appendix B as Basic Levels of CWD, a minimum of 2 stubs or 2 mature trees per ha across a cutblock, or; ii) in areas from the latest shapefiles from DataBC, as indicated on the map in Appendix B as Enhanced Levels of CWD, 10 “green” trees, 10 stubs, or 10 tree pieces (>3m long and >40cm dia., where available; otherwise use the next closest size) per ha, or any combination thereof, <p>except from live spruce or Douglas-fir where there is a high risk of infestation.</p> 3) Where the Holder conducts timber harvesting on cutblocks with more than 35% slope, where broadcast burning is not a treatment to be utilized, the Holder will retain, to the extent practicable, and where an equipment operator feels it is safe to do so: <ol style="list-style-type: none"> a) a minimum of 5 pieces per ha of low-grade timber, of a diameter 25 cm and larger and a length of 3 to 5 m, dispersed throughout the cutblock; and b) non-merchantable standing trees, in clumps, and <ol style="list-style-type: none"> i) in areas from the latest shapefiles from DataBC, as indicated on the map in Appendix B as Basic Levels of CWD, a minimum of 2 stubs or 2 mature trees per ha across a cutblock, or ii) in areas from the latest shapefiles from DataBC, as indicated on the map in Appendix B as Enhanced Levels of CWD, clumps of 10 “green”



	<p>trees, 10 stubs, or 10 tree pieces (>3m long and >40cm dia., where available; otherwise use the next closest size) per ha, or any combination thereof,</p> <p>except from live spruce or Douglas-fir where there is a high risk of infestation.</p> <p><i>LRMP Natural Disturbance Type 4 Grasslands and Low Elevation Forests</i></p> <hr/> <p>4) In the area from the latest shapefiles from DataBC and indicated on the map in Appendix C as Natural Disturbance Type 4 (NDT4), grasslands and low elevation open forests,</p> <p>a) where access-related concerns in NDT4 'a' and 'b' biogeoclimatic subzones are identified by a government agency and made known to the Holder, the Holder will:</p> <p>i) not construct permanent access structures unless no other practicable alternative exists, and</p> <p>ii) If a new permanent structure is necessary, then deactivate it as soon as practicable following the completion of initial planting activities so long as it is not required to access future cutblocks where harvesting is scheduled to commence within five years following construction of the road, and</p> <p>iii) rehabilitate temporary access structures as soon as practicable after the cutblock harvest completion.</p> <p><i>Wildlife Tree Retention Areas Associated with Cutblocks</i></p> <hr/> <p>While the guidance document does suggest a maximum of 500 m spacing for WTRA, it recognizes that no spacing will meet all requirements. Arguments not to use this 500 m rule - grouping is better because of interior habitat, appropriate areas for wildlife may not align with spacing (marten prefers WTRA in RMA corridors, moose in wetlands). It is preferable to maximize flexibility and choose optimum WTRA rather than poorer WTRA because it is well spaced. The 500 m rule causes more retention than necessary because you cannot optimize previously constrained areas, causing a larger impact to the THLB.</p> <p>5) If the Holder completes harvesting in one or more cutblocks to which this FSP applies, the Holder will ensure that:</p> <p>a) at the conclusion of harvesting all cutblocks within a cutting permit, the wildlife tree retention that relates to the cutting permit will be consistent with the OSLRMP and the wildlife tree retention targets in the letter from the Okanagan Shuswap District Manager, dated June 20th, 2005 (shown in Table 1 below);</p> <p>b) at the conclusion of harvesting a cutblock in a multi-block cutting permit, the wildlife tree retention that relates to that cutblock will not be less than 50% of the wildlife tree retention targets in the letter from the Okanagan Shuswap District Manager, dated June 20th, 2005.</p>
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Table 1

Wildlife Tree Retention % by LU and BEC subzones in the Okanagan Shuswap District								
LU Name	BGCZ	%	LU Name	BGCZ	%	LU Name	BGCZ	%
Anarchist	ESSFdc	8	Kettle	ESSFdc	8	Trout	ESSFdc	9
	ESSFxc	6		ESSFxc	8		ESSFxc	6
	IDFdk	4		ICHmk	10		IDFdk	7
	IDFdm	6		IDFdm	8		IDFhx	3
	IDFhx	4	Mission	MSdm	11		MSdm	8
	MSdm	7		ESSFdc	8		MSxk	7
	MSxk	4		ESSFxc	4		PPxh	3
	PPxh	6		ICHmk	8	Upper Kettle	ESSFdc	8
Ashnola	ESSFdc	6	Okanagan West Side	IDFmw	7		ESSFmh	9
	ESSFxc	0		IDFhx	2		ESSFxc	9
	IDFdk	0		MSdm	10		ICHmk	10
	IDFhx	0		ESSFdc	12	Upper Salmon	ICHmw	8
	MSdm	0	Pennask	IDFdk	6		ESSFdc	9
	MSxk	0		IDFmw	5		ESSFxc	8
Cherryville	ESSFdc	6		MSdm	10		ICHmk	6
	ESSFxc	8	Penticton	ESSFdc	10		IDFdk	6
	ICHmk	8		ESSFxc	9		IDFmw	4
	ICHmw	6		IDFdk	8		IDFhx	3
	IDFmw	6		MSdm	9	Vernon	MSdm	7
Harris	ESSFdc	7	Trepanier	MSxk	7		MSxk	7
	ESSFxc	6		ESSFdc	8		ESSFdc	0
	ICHmk	9		IDFdm	7		ICHmk	8
	IDFmw	7		IDFhx	4		IDFdm	
	MSdm	10		MSdm	9		IDFmw	6
Keremeos	ESSFxc	4		PPxh	3		IDFhx	2
	IDFdk	4		ESSFdc	9		MSdm	10
	IDFhx	2		IDFdk	5			
	MSxk	4		IDFmw	7			
	PPxh	0		IDFhx	4			
				MSdm	6			

Practice Requirements	<p>6) The Holder will comply with practice requirements outlined in <i>FPPR</i> section 67 – restriction on harvesting.</p> <p>7) Despite <i>FPPR</i> section 67, the Holder may harvest within a WTRA:</p> <ul style="list-style-type: none"> a) to address a safety, forest health, or fire concern; or b) relocate the WTRA to establish a logical boundary for timber harvesting operations; <p>providing the Holder has a qualified professional designate an ecologically equal or better replacement WTRA for the area harvested, amends the site plan, and reports the WTRA location as required in <i>FPPR</i> 86(3)(iv).</p>
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6.3. Wildlife



The objectives set by government for wildlife is,

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

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

to maintain congregation areas and movement corridors between summer and winter ranges for elk;

to maintain forage, cover and connectivity for marten and fisher;

for the purposes of conserving the suitability of bighorn sheep habitat that is not in established winter ranges, to retain sufficient forest cover during primary forest activities, including sanitation and salvaging activities, to provide for the thermal, snow interception and security requirements of bighorn sheep;

to limit the adverse impacts of forest road construction on the habitat values of grizzly bear, moose, mountain goat, and mule deer; and

to conserve critical breeding habitat for Williamson's sapsucker.

Legal Reference	<i>FPPR</i> section 7 Land Act section 93.4 <i>GAR</i> sections 9(2) and 10(1) <i>FPPR</i> sections 69 and 70	
References		Date
GAR Order WHA 8-092 (Tiger Salamander)		May 2, 2017
GAR Order WHA 8-047 (Sagebrush Brewer's Sparrow)		December 23, 2016
GAR Order WHA 8-422 (Tiger Salamander)		December 23, 2016
GAR Order WHA 8-308, 8-355, 8-356 (Williamson's Sapsucker)		December 22, 2016
GAR Order 8-368, 8-369, 8-370, 8-371, 8-372 (data sensitive)		December 22, 2016
GAR Order WHA 8-425 (Lewis's Woodpecker)		December 22, 2016
GAR Order WHA 8-429 to 8-431 (Half-moon Hairstreak)		December 22, 2016
GAR Order WHA 8-328 and 8-331 (Badger)		December 17, 2009
GAR Order WHA 8-338, 8-339 (Antelope-brush/Needle-and-thread grass)		July 23, 2009
GAR Order WHA 8-236 to 8-238 (Tiger Salamander)		July 25, 2008



GAR Order WHA 8-277, 8-278, 8-293 (Lewis's Woodpecker)		July 25, 2008
GAR Order WHA 8-244 (data sensitive)		May 20, 2008
GAR Order WHA 8-101 to 8-103, 8-106, 8-201 (Williamson's Sapsucker)		March 17, 2008
GAR Order WHA 8-131 to 8-138 and 8-144 to 8-146 (Grizzly Bear)		February 15, 2007
LRMP Order		February 6, 2007
GAR Grizzly Bear Specified Area 8-232		February 24, 2006
GAR Order U-8-001 (Mule Deer)		October 1, 2006
GAR Order U-8-005 (Mountain Goat)		July 24, 2006
GAR Order U-8-006 (Moose)		July 24, 2006
GAR Order WHA 8-053, 8-054, 8-063, 8-064 (data sensitive)		December 2, 2004
Notice – Indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species in the Okanagan Timber Supply Area		December 20, 2004
Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Okanagan Shuswap Forest District		December 30, 2004
GAR Order WHA 8-023, 8-025 (data sensitive)		May 14, 2003
LRMP		April 11, 2001
Order WHA 8-002 (Brewer's Sparrow)		December 14, 2001
Order WHA 8-014 to 8-016 (White-headed Woodpecker)		December 14, 2001
GAR Order WHA 8-006 to 8-010 (Bighorn Sheep)		June 18, 2001
Results and Strategies	<i>GAR Species at Risk Notices – Species with total areas included in WHAs</i>	
	1) Within the Okanagan-Shuswap TSA, notices given under <i>FPPR</i> section 7(2) and specifying the amount, distribution and attributes of wildlife habitat required for identified species at risk have been established for: <ul style="list-style-type: none"> a) the interior Western Screech Owl (WHA 8-124, 8-261, 8-262) and b) the Lewis's Woodpecker (WHA 8-121 to 8-123) 	



	<p>2) Pursuant to FPPR section 7(3), the licence holder is exempted from the obligation to prepare results or strategies in relation to the species mentioned in 1).</p> <p><i>GAR Species at Risk Notices - Species with remaining areas to include in WHAs</i></p> <hr/> <p>3) For the species at risk listed in Appendix K, where habitat:</p> <ul style="list-style-type: none"> a) in known occurrences outside of a WHA, b) with the attributes described in the SAR Notice and summarized in the suitable habitat description summary in Appendix K, or c) identified by the MoE is: <ul style="list-style-type: none"> i) encountered by the Holder, and ii) likely to be impacted by primary forest activities, <p>the habitat will be assessed by a qualified professional to determine whether it is considered suitable habitat.</p> <p>4) If habitat identified in 3) is assessed as suitable habitat,</p> <ul style="list-style-type: none"> a) the MoE will be notified of the location and approximate size, and b) until the MoE determines the area is not required to meet SAR Notice objectives, the Holder will not harvest or construct roads within the habitat area. <p>5) Results and strategies in 3) and 4) apply until:</p> <ul style="list-style-type: none"> a) the SAR Notice is cancelled, or b) WHAs with the total required area for species identified in the SAR Notice are established. <p><i>LRMP Objectives for Wildlife</i></p> <hr/> <p>Elk Areas</p> <p>6) Elk habitat covered by this FSP involves Summer and Winter Habitats and Movement Corridors. In Elk Habitat Areas and Movement Corridors indicated on the map in Appendix D, the Holder will</p> <p>7) ensure that,</p> <ul style="list-style-type: none"> a) timber harvesting will not result in more than 30% of the corridor area being less than 3 m in height, b) timber harvesting will not result in more than 70 % of the corridor area being less than 16 m in height, c) cutblock length shall not be more than 300 m on any one side except where a minimum of 40% basal area is retained in the harvest area,
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	<p>d) adjacent cutblocks will not be closer than 300 m at any point unless the regenerating stand of the cutblock harvested first has attained an average height of 3 m.</p> <p>8) Where wallows or rubbing sites are made known to the Holder, these sites will be placed in a WTRA. Utilize rub trees as leave trees. If not suitable for a WTRA, a 100-meter buffer where selection logging is practiced (percentage of selection harvest dictated by windfirmness) will be established. No roads are to be located within 100 meters of a wallow.</p> <p>Marten Areas</p> <p>9) In Marten Areas indicated in the map in Appendix D, where practicable, the Holder will:</p> <ul style="list-style-type: none"> a) minimize access structure density, b) preferentially place WTRAs in RMAs to create corridors, c) target optional retention to meet other silviculture objectives, of up to 33% of the cutblock total area under prescription, in RMAs, d) focus enhanced levels of CWD specified in section 6.2 in RMAs of streams 1.5 m and greater in width, e) where required to increase plantable area, pile slash: <ul style="list-style-type: none"> i) close to the timber edge where fire hazard permits, and ii) near streams, but not within the stream channel. <p>Bighorn Sheep Areas</p> <p>10) In Bighorn Sheep Areas indicated in the map in Appendix D, except in areas subject to a high risk of infestation, where practicable, the Holder will:</p> <ul style="list-style-type: none"> a) where revegetation of exposed mineral soils is required under FPPR 35(7)(b) or to mitigate establishment of invasive plant species in section 7.1, if available and economic, revegetate using native species or non-invasive non-rhizomatous grass mixes; b) prior to commencing primary forest activities, communicate with the Ministry responsible for wildlife requesting any special features located within or adjacent to the cutblock be identified.; c) locate roads outside of known bighorn sheep rutting and lambing areas; d) within the FDU, maintain 33% of the Bighorn Sheep Area in stands <ul style="list-style-type: none"> i) greater than 16 m in height, and ii) with a crown closure class of at least 36%. e) where the defined forest cover indicated in paragraph d) is not available, stands exhibiting the next lower height or crown closure percent or both, are to be used;
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	<p>f) where Bighorn sheep special features have been identified prior to harvest commencement, retain the stands in paragraph d) within 50 m of Bighorn sheep special features; and</p> <p>g) locate WTRAs within 50 m of known Bighorn sheep special features.</p> <p>Williamson Sapsucker</p> <p>Definitions for the purpose of this strategy:</p> <p><u>“Williamson’s Sapsucker area of occupation”</u> means an area:</p> <ul style="list-style-type: none"> a. identified in Figure 2, page 6 of “B.C. Ministry of Forests, Lands and Natural Resource Operations. 2014. Best management practices for timber harvesting, roads, and silviculture for Williamson’s Sapsucker in British Columbia: Okanagan-Boundary Area of Occupancy. B.C. Ministry of Forests, Lands and Natural Resource Operations, Nelson, BC. 15 pp”; b. within a 500-meter radius (slope distance) of a Williamson’s Sapsucker breeding location, identified by the BC Conservation Data Centre not less than 12 months prior to cutting authority application or amendment; or c. proposed by the ministry responsible for Environment as a Williamson’s Sapsucker wildlife habitat area, not less than 12 months prior to cutting authority application or amendment, which is located outside of an established cutblock or established road. <p><u>“Williamson’s Sapsucker primary forest activity design”</u> means a design of primary forest activities, developed by a QP that provides for the conservation of Williamson’s Sapsucker critical breeding habitat during harvesting, road construction and maintenance, and silviculture treatments by considering:</p> <ul style="list-style-type: none"> a) pre-harvest stand condition; b) forest health factors such as insect infestation, root disease, blowdown, and wildfire; c) site conditions that may affect worker or public safety; d) activity timing windows; e) critical breeding habitat suitability; f) forest stand management practices and g) Williamson’s Sapsucker critical breeding habitat requirements, including: <ul style="list-style-type: none"> (i) nest tree retention and recruitment; (ii) live tree retention targets; (iii) sap tree habitat targets; and (iv) coarse woody debris retention. <p>11) Prior to initiation of planned activities on a road or cutblock within a Williamson’s Sapsucker area of occupation, the Holder will ensure a Williamson’s Sapsucker primary forest activity design is completed by a QP and the design and recommendations are followed.</p> <p>12) If, in the opinion of the QP carrying out the Williamson’s Sapsucker primary forest activity design, the primary forest activity is likely to have an impact on that habitat, the bird, or nest site, then the Holder will only carry out primary</p>
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	<p>forestry activities that are consistent with the direction provided by the “Best Management Practices for Timber Harvesting, Roads, and Silviculture for Williamson’s Sapsucker in British Columbia (February 2014)”³.</p> <p><i>GAR Orders Ungulate Winter Ranges</i></p> <p>Mule Deer (UWR U-8-001)</p> <p>13) In the area indicated on the map in Appendix E as Mule Deer UWR (U-8-001), the Holder will:</p> <ul style="list-style-type: none"> a) avoid building access structures where practicable, b) apply the General Wildlife Measures of GAR Order U-8-001, c) where revegetation of exposed mineral soils along roadsides is required under FPPR 35(7)(b) or to mitigate establishment of invasive plant species in section 7.1, if available and economic, revegetate using native species or non-invasive non-rhizomatous grass mixes; d) If a new permanent structure is necessary, then deactivate it as soon as practicable following the completion of initial planting activities so long as it is not required to access future cutblocks where harvesting is scheduled to commence within five years following construction of the road, and e) rehabilitate temporary access structures as soon as practicable after the cutblock harvest completion. <p>Mountain Goat (UWR U-8-005)</p> <p>14) In the area indicated on the map in Appendix E as Mountain Goat UWR (U-8-005) the Holder will apply the General Wildlife Measures of GAR Order U-8-005.</p> <p>15) Within a mountain goat plateau band, the Holder will:</p> <ul style="list-style-type: none"> a) avoid building access structures where practicable, b) If a new permanent structure is necessary, then deactivate it as soon as practicable following the completion of initial planting activities so long as it is not required to access future cutblocks where harvesting is scheduled to commence within five years following construction of the road, and c) rehabilitate temporary access structures as soon as practicable after the later of site preparation or initial planting. <p>Moose (UWR U-8-006)</p> <p>16) In the area indicated on the map in Appendix E as Moose UWR (U-8-006), the Holder will:</p>
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³ <https://a100.gov.bc.ca/pub/eirs/lookupDocument.do?fromStatic=true&repository=BDP&documentId=11942>



	<ul style="list-style-type: none"> a) apply the General Wildlife Measures of GAR Order U-8-006, b) not cut non-merchantable stems or understory vegetation within 20 m of outside edge of the road right-of-way of main haul roads except to mitigate a safety hazard. c) where practicable, avoid building permanent access within 200 m of wetland complexes greater than 5 ha, d) in a Moose Management Unit, <ul style="list-style-type: none"> i) avoid access structure construction where practicable, ii) here the Holder builds access structures greater than 100 m in length that are located entirely within a cutblock, the Holder will, <ul style="list-style-type: none"> (1) deactivate permanent access structures, removing four-wheel drive access, if the permanent access structure is not required to provide access beyond the cutblock within 2 years of completion of timber harvesting on the cutblock that contains the access structure, and (2) rehabilitate temporary access structures as soon as practicable after the later of site preparation or initial planting. <p><i>GAR Orders Wildlife Habitat Areas</i></p> <ul style="list-style-type: none"> 17) For regionally important wildlife species for which WHAs have been designated and indicated on the map in Appendix F, the Holder will apply the General Wildlife Measures associated with each WHA. 18) Additionally, for any <i>FPPR</i> section 7 species for which no WHAs have been designated, and that are likely to be impacted by primary forest activities, the Holder will: <ul style="list-style-type: none"> a) during the planning and development stage of a cutblock, consult the following datasets: <ul style="list-style-type: none"> i) EcoCat Ecological Reports Catalogue ii) BC Conservation Data Center iii) Habitat Wizard. b) If potential occurrences are identified, the area will be assessed by a Qualified Professional to determine whether it is considered suitable habitat and the QP's recommendations will be considered.
Practice Requirements	<ul style="list-style-type: none"> 1) The Holder will comply with practice requirements outlined in <i>FPPR</i> sections: <ul style="list-style-type: none"> a) 69 – General wildlife measures, and b) 70 – Resource features and wildlife habitat features.

6.4. Soils



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 hydrological function of soils.		
Legal Reference	<i>FPPR</i> section 5 <i>FPPR</i> section 35 and 36 <i>FPPR</i> section 12.2	
References		Date
None.		
Results or Strategies	Not applicable.	
Practice Requirements	1) The Holder will comply with practice requirements outlined in <i>FPPR</i> sections: a) 35 – Soil disturbance limits, and b) 36 – Permanent access structure limits	



6.5. Riparian Areas

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;

to limit the adverse impacts of forest road construction on walk-in lakes, and

during primary forest activities, including sanitation and salvage activities, to provide for the conservation of water, fish, wildlife, and biodiversity associated with streams.

Legal Reference	<i>FRPA section 180(h)</i> <i>FPPR section 8</i> Land Act section 93.4 <i>FPPR sections 47 to 53</i> <i>FPPR 12(3)</i> <i>FPPR 12.3</i>	
References		Date
LRMP Order		February 6, 2007
LRMP		April 11, 2001
Lake Classification and Lakeshore Management Guidebook: Kamloops Forest Region		September 1996
Tri-district lake classification letter		August 28, 1997
Results	<p><i>LRMP Enhanced Riparian Reserve Zones</i></p> <ol style="list-style-type: none"> 1) The 10,000 ha of Enhanced Riparian Reserve Zones (ERRZ) required by the LRMP Order has been allocated by other licence holders. Referrals with other licence holders will ensure that these ERRZs are identified prior to road and block development. 2) Within ERRZs, the Holder will apply practice requirements outlined in <i>FPPR S. 51</i>. 3) Despite <i>FPPR S. 51</i>, the Holder may construct a road in an ERRZ if there is no other practicable option having regard to topography, engineering constraints, and the safety of road users. 4) Where a road is constructed through an ERRZ, or a block boundary infringes upon an ERRZ, for the purpose described in paragraph 3, the Holder will identify a replacement ERRZ equivalent in size to the harvested area. <p><i>LRMP Riparian Management Areas</i></p>	



- 5) Despite *FPPR Sections 47(4), 48(3) and 49(2)*, the Holder may establish RRZ of variable width, provided that the total area of reserve zone is equivalent to that which would have been established using the minimum width specified in *FPPR* multiplied by the length of stream, wetland edge, or lakeshore within the cutblock area. A variable width RRZ will only be used in the following circumstances:
- a) Locating the riparian reserve boundary along a natural terrain break,
 - b) Locating the riparian reserve boundary along a natural timber type line or existing road right-of-way, or
 - c) To reduce the windthrow hazard within the RRZ.
- 6) Despite *FPPR Sections 47(4), 48(3) and 49(2)*, the Holder establishes the following results within Riparian Management Areas (RMAs).

Table 1 Amount of retention for each riparian class

Riparian Class	Results that apply where harvesting is planned within the RMA
S1-B, S2, S3	Average 50% basal area retention within the RMZ.
S4 Fish bearing	Establish a 5m Machine Free zone adjacent to the stream and average 33% basal area retention within the RMZ; or Establish a 10m RRZ.
S4 Community watershed	Establish a 5m Machine Free zone adjacent to the stream and retain understory within 10m of the stream.
S5	Establish a 10m RRZ, except where cross-stream yarding is prescribed, and average 25% basal area retention within the remaining 20 meters of the RMZ. The total RMA is 30m.
Large S6 (>1.5m wetted width throughout the year)	Establish a 10m RRZ; or Average 50% basal area retention within the RMZ.
S6	Establish a 5m Machine Free zone adjacent to the stream and retain understory within 10m of the stream.
W1 - W5	Average 25% basal area retention within the RMZ.
L1-B, L2, L3, L4	100% basal area retention within the RMZ.

Windfirmness of trees will be determined by a QP.

The reference area for basal area retention within the RMA is the in-block portion of the stream.



	<p>The Holder will ensure the residual tree species and size are representative of the species and size in the RMZ, as it was before timber harvesting.</p> <p>7) Additionally, the Holder will</p> <ul style="list-style-type: none"> a) establish a 5m Machine Free zone within a minimum of 5m of stream banks, except at stream crossings; and b) retain understory vegetation and windfirm deciduous trees within 10m of streams in ground skid areas unless it creates a safety hazard or severely impedes operability; and c) not yard across streams unless under full suspension or at designated crossings. <p><i>LRMP Walk-in Lakes</i></p> <p>8) Where the Holder conducts primary forest activities adjacent to walk-in lakes listed and represented on the map and table in Appendix L, the Holder will not construct a permanent access structure within 500 m of a walk-in lake, unless no practicable alternative exists.</p> <p>Where an access structure is constructed,</p> <ul style="list-style-type: none"> a) minimize the amount of construction to the extent practicable and: <ul style="list-style-type: none"> (i) deactivate permanent access structures removing four-wheel drive access, and (ii) rehabilitate temporary access structures, as soon as practicable after the cutblock harvest completion. <p>Where a trail accessing a walk-in lake has been impacted by access structure construction, within six months of the completion of timber harvesting,</p> <ul style="list-style-type: none"> b) re-establish a trail or portion of a trail that has been impacted, and c) ensure that the trail is clearly visible.
<p>Practice Requirements</p>	<p>9) The Holder will comply with practice requirements outlined in <i>FPPR</i> sections:</p> <ul style="list-style-type: none"> a) 47 – Stream riparian classes, b) 48 – Wetland riparian classes, c) 49 – Lake riparian classes, d) 50 – Restrictions in a riparian management area, e) 51 – Restrictions in a riparian reserve zone, f) 52(2) – Restrictions in a riparian management zone, and <p>10) The Holder will comply with practice requirements outlined in <i>FPPR</i> section 53 – Temperature sensitive streams, when and if they are designated in an FDU under the Government Actions Regulation.</p>



6.6. Fisheries Sensitive Watersheds

<p>For each Fisheries Sensitive Watershed identified by the Orders, the objective set by government is to:</p> <ul style="list-style-type: none"> (i) Conserve the natural hydrologic conditions, natural stream bed dynamics and integrity of stream channels in the Fisheries Sensitive Watershed, (ii) Conserve the quality, quantity and timing of water flows required by fish in the Fisheries Sensitive Watershed, and (iii) Prevent the cumulative hydrological effects of primary forest activities in the Fisheries Sensitive Watershed from resulting in a material impact on the fish habitat in the watershed. 	
Legal Reference	FPPR section 8.1
References	Date
GAR Order - Fisheries Sensitive Watersheds – Okanagan Region (F-8-002, F-8-004 and F-8-005)	March 28 th , 2007
Strategies	<p><i>GAR Orders for Fisheries Sensitive Watershed</i></p> <ol style="list-style-type: none"> 1) For proposed timber harvesting and/or road building within a fisheries sensitive watershed shown on the map in Appendix G, the Holder will have a QP assess the risk of those activities to: <ul style="list-style-type: none"> a) the natural hydrological conditions, natural stream bed dynamics, and integrity of stream channels are conserved, b) the quantity, quality, and timing of water flow required by fish are conserved, c) the cumulative hydrological effects of primary forest activities do not result in material adverse impact on the fish habitat in the watershed. 2) If the QP determines the risk to the hydrological conditions and/or the water flow is low based on a review of the relevant and available site-specific hydrologic information and criteria including terrain stability and the proximity to the RMA, the commitments in 3 are not required. 3) If a QP determines the risk is high or moderate based on the same criteria used in 2 (above), the Holder of this plan will: <ul style="list-style-type: none"> a) Ensure that a fisheries sensitive hydrologic assessment is carried out by a QP, and b) Ensure the design of cutblocks and roads is consistent with the recommendations of the hydrologic assessment.
Practice Requirements	Not applicable.



6.7. Community Watersheds and Water Diversion for Human Consumption

<p>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 that it does not unduly reduce the supply of timber from British Columbia's forests, 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. 		
Legal Reference	<p>FPPR section 8.2</p> <p>FPPR sections 59 to 63</p>	
References		Date
None.		
Strategies	<p><i>FPPR Water Diverted for Human Consumption</i></p> <ol style="list-style-type: none"> 1) The Holder will manage the areas from the latest shapefiles from DataBC indicated as: <ul style="list-style-type: none"> a) community watersheds, b) licenced springs, and c) water diverted for human consumption by a licenced waterworks, according to FPPR practice requirements. <p><i>Cumulative Hydrological Impacts</i></p> <ol style="list-style-type: none"> 2) For proposed timber harvesting and/or road building within a community watershed derived from the latest shapefiles from DataBC, the Holder will have a QP assess the risk of those activities to cause: <ul style="list-style-type: none"> a) material that is harmful to human health to be deposited in or transported to water diverted for human consumption by licensed waterworks, b) an increase in sediment delivery to the intake or causing sediment that is harmful to human health to enter a stream, lake or wetland from which the water is being diverted for human consumption, or 	



	<p>c) a change in water quantity or timing of flow to the degree that there would be a material adverse impact to downstream resources.</p> <p>3) If the <i>QP</i> determines the risk to water flow and quality is low based on a review of the relevant and available site-specific hydrologic information and criteria including terrain stability and the proximity to the RMA, the commitments in 4 are not required.</p> <p>4) If the <i>QP</i> determines the risk is high or moderate based on the same criteria used above, the Holder of this plan will:</p> <p>a) Ensure that a hydrologic assessment is carried out by a <i>QP</i>, and</p> <p>b) Ensure harvest and road construction is consistent with the recommendations of the assessment(s).</p>
Practice Requirements	<p>5) The Holder will comply with practice requirements outlined in <i>FPPR</i> sections:</p> <p>a) 59 – Protecting water quality,</p> <p>b) 60 – Licenced waterworks,</p> <p>c) 61 – Excavated or bladed trails,</p> <p>d) 62 – Roads in a community watershed, and</p> <p>e) 63 – Use of fertilizers.</p>



6.8. Visual Quality

<p>The objective set by government for visual quality in the scenic areas are the established Visual Quality Objectives, applied in accordance with FPPR section 1.1 (Categories of visually altered forest landscapes). The Penticton and Vernon District Manager's all licensee letters of October 1, 2001 made Visual Zones in the LRMP as known scenic areas with established VQOs.</p>	
Legal Reference	<p><i>FPPR</i> section 1.1</p> <p>Land Act section 93.4</p> <p>Grandfathered as objectives under section 180 and 181 of the <i>FRPA</i></p> <p><i>GAR</i> sections 7 and 17</p>
References	Date
Penticton and Vernon District Manager's all licensee letter making Visual Zones in the LRMP as known scenic areas with established VQOs.	October 1, 2001
LRMP Order	February 6, 2007
LRMP	April 11, 2001
Strategies	<p><i>LRMP Scenic Areas with VQOs</i></p> <hr/> <p>Scenic Areas with visual quality objectives within the Okanagan TSA have been grand-parented under FRPA Section 180. The specific zones, objectives and guidelines are defined in the LRMP and in LRMP Appendix VI Scenic Areas with Visual Quality Objectives Zone 1 Guidelines.</p> <p>1) In Scenic Areas with VQOs established by the District Manager, identified in the map in Appendix I, the Holder will ensure primary forest activities meet the VQO by:</p> <ul style="list-style-type: none"> a) conducting a Visual Impact Assessment (VIA) utilizing visual design techniques to plan cutblocks and roads; b) designing openings consistent with natural landscape characteristics, with their location, shape and scale having regard for visual design principles as described in the LRMP Scenic Areas with Visual Quality Objectives Zone 1 and 2 Guidelines; c) model the cutblock alteration using visual simulation techniques; and d) integrate required visual landscape design principles in the cutblock layout, <p>to be consistent with the applicable VQO.</p> <p><i>LRMP Tourism Areas without VQOs</i></p> <hr/>



	<p>2) Prior to harvesting a block or constructing a road within a Tourism Areas without established VQOs as indicated on the map in Appendix I, the Holder will:</p> <ul style="list-style-type: none"> a) determine if the foreground visual alteration related to the harvesting or road construction is potentially visible from viewpoints on existing tourism areas, facilities, legally designated trails, and natural features important for tourism; b) if the foreground visual alteration is potentially visible from viewpoints, design the harvesting or road such that the foreground visual alteration mimics natural landscape characteristics and incorporates single or grouped tree retention, where practicable, to provide foreground screening and increase visual variety, and c) conduct road construction and harvesting consistent with the design. <p><i>Areas where VQOs cannot be achieved</i></p> <hr/> <p>3) Where cutblock visual objectives cannot be achieved in paragraph 1 or 2 because of a situation where there is:</p> <ul style="list-style-type: none"> a) a high risk of infestation, or b) the trees have been damaged by fire or subject to windthrow, the Holder will: <ul style="list-style-type: none"> i) take measures to mitigate the impact of the timber harvesting on the visual landscape, and ii) meet the VQO to the extent practicable, and iii) apply to the DDM for an exemption. <p><i>LRMP Community Crown Interface Areas</i></p> <hr/> <p>4) Within Scenic Areas, follow the strategy described in paragraph 1).</p> <p>5) Within Community/Crown Interface Areas as indicated on map in Appendix I, and prior to harvesting a block or constructing a road, the Holder will:</p> <ul style="list-style-type: none"> a) Provide a 60 day notice, or whatever time period is mutually agreed upon, of the proposed harvesting or road construction activity to the Local government⁴ within that portion of the Community/Crown Interface area, requesting the identification of concerns it may have related to the activity; b) If the local government responds in writing to the notice within the timelines specified in the notice and identifies a concern, a QP will develop a strategy to mitigate the concern where it is practicable to do so.
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⁴ "Local government" means a local government as that term is defined in the Local Government Act, Chapter 1 (RSBC 2015), representing a regional district within a Community/Crown Interface Area.



	<p>c) Respond to the Local government within 2 weeks, indicating how the concern has been addressed; and</p> <p>d) Mitigate the concern to the extent practicable when a mitigation strategy has been developed, and conduct harvesting or road construction consistent with the strategy.</p>
Practice Requirements	None.

6.9. Cultural Heritage Resources

<p>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>	
Legal Reference	FPPR section 10
References	Date
None.	
Strategies	<p>1) The Holder will:</p> <p>a) refer to applicable First Nations, on an annual basis, those areas identified for potential timber harvesting and road construction, and request information respecting cultural heritage resources within the identified areas,</p> <p>b) within areas of proposed timber harvesting or road construction activities, have a local First Nation member with traditional ecological knowledge (TEK), and where necessary, a QP carry out an assessment of cultural heritage resources, and</p> <p>c) where cultural heritage features are found, ensure primary forest activities are consistent with the recommendation(s) of the assessment.</p> <p>2) If a previously unidentified cultural heritage resource is encountered by the Holder while conducting a primary forest activity, operations will be modified or ceased to the extent necessary to protect the resource, until a cultural heritage resource assessment can be carried out.</p>
Practice Requirements	None.



6.10. Recreation Sites and Trails

The objective for the Intensive Recreation Areas and Regionally Significant Trail Corridors shown on the map in Appendix J is that primary forest activities, including sanitation and salvage activities, will not have a material adverse impact on the potential for a diverse range of quality recreational experiences that exist immediately before the activity.	
Legal Reference	Grandfathered as objectives under section 180 and 181 of the <i>FRPA</i> Land Act section 93.4
References	Date
LRMP Order	February 6, 2007
LRMP	April 11, 2001
Results and Strategies	<p><i>Objectives Grandparented by Government for Recreational Sites, Trails, and Interpretive Sites.</i></p> <p>1) The Holder will not conduct primary forest activities inside of the boundaries of the recreation sites mapped and listed in Appendix J, unless authorized by a recreation officer.</p> <p><i>LRMP Intensive Recreation Areas</i></p> <p>2) Prior to harvesting a cutblock or constructing a road within Intensive Recreation Areas as shown on map in Appendix J, the Holder will:</p> <ul style="list-style-type: none"> a) Contact the District Recreation Officer to request assistance in identifying the existing recreational use group(s) in the area, and the potential material adverse effects the activities can have on recreation opportunity. b) In collaboration with the District Recreation Officer, provide notice of the proposed harvesting and road construction to the identified recreation user groups, requesting the identification of concerns the groups may have related to the harvesting and road construction within a set timeline. c) If the group(s) response in writing within the timeline set in the notice, develop strategies to mitigate the concerns identified in 2 b), in collaboration with the District Recreation Officer and the identified groups. d) Where a mitigation strategy has been developed, conduct harvesting or road construction consistent with the strategy. e) Provide a 2-week notification prior to commencement of road and cutblock activities to the identified recreational groups. <p><i>LRMP Regionally Significant Trail Corridors</i></p> <p>3) The LRMP Order identifies trails listed as either Category A or Category B (Recreation RMZ, reference page REC 4-5). These trails are to be managed for</p>



	<p>their visual resource as defined for Zone 2 and 3, respectively (Visual Management RMZ, reference page VISUAL 4-3). The significant difference in the management of the Category A and B trails is that Category A trails are to be managed within a linear corridor while Category B trails are not.</p> <p>Category A Trails:</p> <p>Brent Mountain Trails (the four or five trails that access Brent Mountain, including the one that runs through polygons “A” – “D”).</p> <p>Centennial Trail (located in the Ashnola/Joe Lake area, and only those portions outside of the Snowy protected area)</p> <p>Kettle Valley Railway (multi-use corridor proposed as a route for the Trans Canada Trail)</p> <p>Mission Creek (Okanagan Lake to Graystokes)</p> <p>4) Where the Holder conducts primary forest activities within 100 m of the center line of a Category A trail shown on the map in Appendix J, the Holder will develop timber based on:</p> <ul style="list-style-type: none"> a) group selection harvesting (>66% basal area retention); or b) patch cuts (0.1 – 1.0ha) with less than 10% of the trail having patches less than 3m high, c) managing for foreground visuals within the corridor, d) minimizing distance between patches so that they are equal to the size of the adjoining patch, keeping in mind that patch cuts within the trail corridor may join up with larger openings that are located outside of, but contiguous with, the corridor, and e) where practical, salvage and control activities should focus on small patch removals. <p>5) The Holder will manage the viewsapes along the Kettle Valley Railway identified in the inventory according to the LRMP visual quality guidelines for Zone 2, depending of the site-specific situation, as follows:</p> <ul style="list-style-type: none"> a) alterations may dominate the characteristic landscape but must borrow from natural line and form to such an extent and on such a scale that they are comparable to natural occurrences, b) cutblock shapes will be irregular, follow natural features and be feathered, c) cutblock sizes will be varied, consistent with the scale of natural openings, d) individual leave trees and patches will be factored into block design and to break up the size of harvest areas, e) foreground views will be carefully managed so that alterations are smaller in scale, soil disturbances and logging slash are minimized, f) harvesting will create viewsapes where there is an opportunity to do so, and
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	<p>g) new road cuts and fills, as well as temporary access structures, will be grass seeded, as described in 7.1, to reduce colour contrast.</p> <p>Category B Trails:</p> <p>Big Meadow Trail</p> <p>Hudson's Bay Company Brigade Trail (where identifiable)</p> <p>Highland Trail (west and east side high level trail. Note: portions have not been constructed)</p> <p>Okanagan High Rim</p> <p>6) The viewsapes along the Category B trails indicated above, will be managed according to the LRMP visual quality guidelines for Zone 3 as follows:</p> <ul style="list-style-type: none"> a) alterations may dominate the characteristic landscape but must borrow from natural line and form to such an extent and on such a scale that they are comparable to natural occurrences, b) cutblock shapes will be irregular, follow natural features and be feathered, c) cutblock sizes will be varied, consistent with the scale of natural openings, d) individual leave trees and patches will be factored into block design and to break up the size of harvest areas, e) understory vegetation and non-merchantable trees will be retained within 5 metres of trails, except around viewsapes, f) harvesting will create viewsapes where there is an opportunity to do so, and g) road cuts and fills will be grass seeded, as described in 7.1, to reduce colour contrast from a trail. <p>7) If a regionally significant trail is disturbed by the Holder, that trail will be re-established and clearly marked upon the completion of primary forest activities. However, if that trail is located on an existing industrial road, nothing precludes the use of that trail. Harvesting and processing areas will be situated off the main road/trail, to the extent practicable.</p> <p>8) Unless no practicable alternative exists, roads will not be constructed across a Category A or B trail that is established and clearly identified on the ground.</p>
Practice Requirements	None.



7. MEASURES

7.1. Measures to Prevent the Introduction or Spread of Invasive Plant Species

For the purposes of <i>FRPA</i> section 47 [<i>invasive plants</i>], 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.		
Legal Reference	FPPR section 17	
References		Date
Invasive Alien Plant Program Reference Guide		June, 2010
Measures	<ol style="list-style-type: none"> 1) The Holder will: <ol style="list-style-type: none"> a) On an annual basis, review the MFLNRORD and Invasive Alien Plant Program information regarding known locations of invasive plant species, b) where practicable, avoid timber harvesting and road construction within 500m of a known location of invasive plant species, c) report new invasive plant infestations discovered by the Holder to the Invasive Alien Plant Program, d) instruct contractors to visually inspect and manually remove, between June 1 and October 31, any vegetation caught in the under carriage of equipment prior to removing it from a site where invasive plants have been identified in a Site Plan document, e) within 1-year of completion of timber harvesting or road construction, or both, revegetate all areas where the resultant exposed soil exceeds 0.1ha in contiguous area, with <ol style="list-style-type: none"> i) grade Canada No. 1 or Common #1 forage mixture (or better) at prescribed application rates, or ii) in bighorn sheep or mule deer areas referred to in section 6.3, if available and economic, seed using native species or non-invasive non-rhizomatous grass mixes; 2) Where avoidance under 1 b) is not practicable, the Holder will develop a mitigation strategy in consultation with the MFLNRORD. 	



7.2. Measures to Mitigate the Effect of Removing and/or Rendering Ineffective Natural Range Barriers

For the purpose of <i>FRPA</i> section 48 [<i>Natural range barriers</i>], a person who prepares a forest stewardship plan must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.	
Legal Reference	<i>FPPR</i> section 18
References	Date
FRPA General Bulletin #21: Managing Section 48 of the FRPA – “Natural Range Barriers”	February 17, 2009
OSNRD Natural Range Barrier Breach Mitigation – Best Management Practices	June 13, 2016
Measures	<ol style="list-style-type: none"> 1) The Holder will: <ol style="list-style-type: none"> a) make “reasonable efforts” (referral letter, map, phone calls, meetings) to annually review information on tenure boundaries, pasture boundaries and range improvements in FDUs that are within or adjacent to range tenures, with those who hold agreements under the Range Act, and b) share information on areas being considered for the construction or roads or harvesting of cutblocks, and c) utilize the best available information to determine if a natural range barrier exists and will be removed or made ineffective (a breach) by primary forest activities proposed by the Holder. 2) Where no input is received from the range tenure holder or an agreement cannot be reached, prepare a strategy to mitigate the breach, in consultation with District Range Staff. 3) The Holder will implement the strategy to mitigate the breach within a mutually agreed-to timeframe. Best management practices from the OSNRD Natural Range Barrier Breach Mitigation letter will be implemented. 4) Upon agreement with the Range Holder, one of the appraised measures will be applied to the breach as follows: <ol style="list-style-type: none"> a) cattle guards, b) remedial fencing, c) wing-fencing, d) logging debris fences, or e) other eligible improvements as described in the Interior Appraisal Manual.



8. Stocking Standards

Legal Reference	
FRPR section 16 and 44	
References	Date
Regional Executive Director, Southern Interior Forest Region, letter	March 8, 2006

Stocking standards requirements and reference tables in Appendix M are applied consistent with *FPPR* section 44 [Free growing stands generally] for all FDUs and associated cutblocks.

Additional Information Required to Interpret Stocking Standards

Upper Density Limits

Given concerns regarding forest stewardship and upper density limits for lodgepole pine stands, the following conditions are applicable to the stocking standards:

- 1) The upper density limit, consistent with the Regional Executive Director, Southern Interior Forest Region, letter dated March 8, 2006, is:
 - a) 25,000 countable stems per ha for lodgepole leading stands (where lodgepole pine composes 80% or greater of the inventory species label); and
 - b) 10,000 countable stems per ha for all other stands with a leading species other than lodgepole pine and for stands where lodgepole pine composes less than 80% of the inventory label.
- 2) A countable stem as it applies to determining the upper density limit, is defined as being:
 - a) taller than 50% of the median height of the preferred and acceptable well-spaced trees in the assessed survey plot, if the median height is assessed to be 2.0 m or greater; or
 - b) taller than 30% of the median height of the preferred and acceptable well-spaced trees in the assessed survey plot, if the median height is less than 2.0 m.
- 3) In post-harvest stands where the upper density limits are exceeded, the Holder will (prior to the late free growing date) reduce the stocking in those stands to a target post-spacing density between the target stocking standard prescribed in the site plan and 4 000 stems per ha.

Minimum Inter-tree Distance

The standard minimum inter-tree distance (MITD) for assessing well-spaced trees is 2.0 m.

MITD will be reduced to 1.6m where:

- 1) planting is prescribed on hygric or subhydryc sites and/or elevated microsites are preferred given the limitations of the harvest site ecology;
- 2) artificial regeneration is prescribed on mechanically prepared sites; or
- 3) maintenance of Grizzly bear berry forage sites requires a clumped distribution of stocking.

***Height of Crop Trees Relative to Competing Vegetation***

All crop trees assessed as free growing by spacing and height will also be required to be at least 125% the height of the surrounding vegetation within 1.0 m of the well-spaced stem except where:

- 1) Mature broadleaf (deciduous) trees have been retained for biodiversity or wildlife retention requirements;
- 2) Mature broadleaf (deciduous) trees have been retained to satisfy riparian management zone basal area retention prescriptions; or
- 3) Broadleaf (deciduous) trees are considered to contribute to the acceptable tree stocking layer as defined in Appendix M: Stocking Standards Reference Tables.

Late Free Growing Date

The late free growing expiration date for all areas subject to a stocking standard under this FSP will be 20 years.

Updated Stocking Standards and Field Guides

The Thompson Okanagan Stocking Standard Working Group (TOSSWG) is currently reviewing stocking standards in the Thompson Okanagan Forest Region. Once **those stocking standards** are approved, the FSP will be amended **to include those stocking standards**.



Appendix A - I Maps of Forest Development Unit and Resources



Appendix J Recreation Site List

Recreation Sites		
Aberdeen Columns	Grizzly Lake	Oyama Lake
Aberdeen Lake	Haddo Lake	Park, Alex And Rankin Lakes
Agur Lake	Hatheume Lake North	Peachland Lake
Aileen Lake	Hatheume Lake Northwest	Pinnacle Lake
Allenberg Lakes	Hatheume Lake South	Postill Lake
Allendale Lake	Haynes Lake	Postill Trailhead Parking
Ashnola River	Headwater Lakes #3	Priest Creek Cabin
Ashnola River 9km	High Lake	Red Bridge
Bear Creek	Horseshoe Canyon	Rock Lake
Bear Lake	Hydraulic Lake	Rock Lake North
Bisson Lake	Ideal Lake	Rusty Muffler Parking
Browne Lake	Idleback Lake	Ruth Lake
Bruer Creek	Inkaneep XC Ski Trails	Similkameen Cabin
Brunette Lake	Isintok Lake	Smethurst Staging Area
Buck Hills Emergency Shelter	Island Lake	Specs Lakes
Cameo Lake	James Creek Falls Trail	Streak Lake
Carmi	James Lake	Stuart Lake
Chute Lake	Kaiser Bill Lake	Swalwell Echo Creek
Crater Lake	Kettle River	Swalwell Lake
Crescent Lake	Kettle River North	Taylor Lake
Crump	King Edward Lake North	Telemark XC Ski Trails
Damer Lake	King Edward Lake South	Thirsk Lake
Dee Lake	Lees Lake	Three Forks
Dennison Lake	Loon Lake	Trapper Lake



Derenzy Lake	Lower Barge Lake	Trout Creek
Dog House Cabin	Macdonald Lake	Trout Creek Crossing
Doreen Lake	Madden Lake	Tunnel
Eastmere / Westmere Lakes	Mcculloch XC Ski Trails	Tuzo Lake
Edwin Lakes	Mcculloch Reservoir	Wallaston Lake
Elinor Lake	Mohr Creek	Whitehead Lake
Fish Lake	Moore (Bullman) Lake	Wilma Lake
Flyfish Lake # 1	Nickel Plate Lake	Windy Lake
Flyfish Lake # 2	Nickel Plate XC Ski Trails	Winnifred Creek
Gillard Parking	Nicklen Lake East	Woods Lake North
Glen Lake South	Nicklen Lake South	
Goat Mtn. Lake	Nicklen Lake West	
Graystoke Snowmobile	Okanagan Boulderfields	
Graystokes Staging Area	Okanagan Falls Trails	



Appendix K Species at Risk, Area, and Description of Suitable Habitat

Species	Amount remaining for exemption		Suitable Habitat Description
	Total Area (ha)	Limit of impact on THLB (ha)	
Blotched Tiger Salamander	320	Not Available Yet	Shallow ponds and lakes of B.C.'s southern interior with nearby grasslands and aspen groves.
Great Basin Spadefoot	200	0	Dry grasslands and open woodlands. Need loose soil for burrowing.
Great Basin Gopher Snake	6250	0	Prefer open areas, Bunch grass, sagebrush and open Ponderosa forests.
Flammulated Owl	540	420	Found between 500-1000m in elevation, mature Douglas-fir forest with scattered large Ponderosa pine, grassy openings, thickets of young trees, snags with woodpecker cavities and large old trees.
Fringed Myotis	12	0	Caves, mines, rock crevices and cliffs, wildlife trees and buildings. Associated with arid grasslands and ponderosa pine-fire forests.
Spotted Bat	8	0	Open and dense conifer forests, deciduous habitats, hay fields, marshes, riparian areas and dry shrub grasslands. Roost in crevices of cliffs or canyon walls. Proximity of roosts to feeding areas and source of water is important.



Appendix L Walk-In Lake List

Arc ID	Name	Class	Hectares	Latitude	Longitude
4128		B	0.8	50.185598	-118.606643
2081		C	3.9	50.149211	-119.139679
2123	High Lake	B	7.2	50.152184	-119.237028
4205	Kaiser Bill Lake	B	4.5	50.150546	-119.202438
2090	Min Lake	B	5.3	50.139416	-119.157541
2092		B	2.6	50.135979	-119.138818
2093	Hidden Lake	B	8.9	50.131928	-119.177865
4224	Curtis Lake	B	11.2	50.119627	-119.015301
2104	Wilma Lake	B	10.9	50.119973	-119.152762
2227		B	12.6	50.086357	-118.680043
2108	Roly Lake	B	5.6	50.115391	-119.126008
5035	Park Lakes	C	2.5	50.109080	-119.201421
4267	Home Lake	A	13.5	50.079815	-118.794150
2238	Nahm Lake	B	3.3	50.082647	-118.838405
4279	Alex Lake	B	7.2	50.104214	-119.211028
2239	Harris Lake	B	0.0	50.082224	-118.859764
5036	Rankin Lake	C	3.5	50.100887	-119.217636
4292	Flyfish Lakes	A	22.9	50.092106	-119.151996
4301	Ruth Lake	B	8.6	50.085466	-119.142652
4304		A	8.7	50.060336	-118.797334
2265	Brunette Lake	C	10.9	50.078493	-119.159706
4316	Rod Lake	B	3.7	50.067820	-119.179811
2252		B	7.8	50.052332	-118.968268
2277	Wollaston Lake	B	11.1	50.059352	-119.107655
4358		C	2.2	50.014762	-119.177217
2391		B	2.5	49.903157	-118.494993
4482		A	14.0	49.892092	-118.614284
2551		A	7.9	49.879536	-118.619209
2187		B	6.3	50.167380	-119.815973
4314		B	5.3	50.106401	-119.797817
2257		B	13.6	50.031801	-118.933888
		B	8.1	50.047875	-119.993601
2364		B	9.3	50.042269	-119.901754
4375		A	70.2	50.035837	-120.024496
2438		B	7.2	49.990129	-119.173465
4387		B	20.4	49.982387	-119.219779
4390		B	7.4	50.029909	-120.015169
2372		C	5.5	50.024142	-119.983269
2374		B	5.8	50.018679	-119.987778
2461		B	4.9	49.971111	-119.222762
4408		C	6.3	50.010887	-119.937308
2429		A	6.1	49.939998	-118.910954
4415		A	8.0	49.948098	-119.191191
4415		A	8.2	49.955231	-119.188395
4417		B	30.5	50.008165	-120.088533



4479	B	16.5	49.979681	-119.995514
2533	C	9.2	49.976227	-120.050785
2669	B	3.4	49.776020	-118.892004
2670	B	1.1	49.773618	-118.890406
2812	B	8.9	49.783279	-120.033868
2736	B	8.7	49.716796	-119.040117
	B	7.0	49.716037	-119.045498
2743	B	6.6	49.711889	-119.040726
2761	A	2.8	49.718371	-119.502374
2822	C	3.0	49.696214	-119.158388
2825	B	2.1	49.676688	-119.075449
4639	B	5.7	49.697102	-119.447507
4644	C	7.3	49.669842	-119.202012
2832	B	3.4	49.666885	-119.162141
4648	B	19.1	49.653814	-119.185651
4655	B	7.6	49.602719	-119.349432
2890	B	1.4	49.600871	-119.457880
2910	D	4.7	49.585993	-119.375521
2978	B	4.3	49.417819	-119.285178
2991	B	3.3	49.411290	-119.457027
2993	B	7.3	49.410526	-119.483259
4733	B	6.1	49.386413	-119.424203
4741	C	5.7	49.373149	-119.395452
3272	B	1.4	49.196116	-120.054979
4897	A	4.3	49.059167	-120.411858
3411	A	8.7	49.053274	-120.440346
4899	A	1.1	49.052464	-120.404106
3404	A	2.8	49.005522	-120.397022



Appendix M Stocking Standards Tables