

FOREST STEWARDSHIP PLAN

FSP #469

Term: 5 years (2013 – 2018)

Commencement Date: February 20, 2013

Amendment No. 1

Date: September 30, 2013

Lower North Thompson Community Forest Society

Community Forest Agreement K1Z

**Southern Interior Region
Thompson Rivers District
Kamloops Timber Supply Area**

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1.0 INTERPRETATION

1.1 DEFINITIONS

“**CFA**” means Community Forest Agreement K1Z;

“**Commencement Date**” means the date that it is approved by the Minister or by his/her delegate

“**FDU**” means the Forest Development Unit(s) identified under this FSP;

“**FPPR**” means the Forest and Planning and Practices Regulation;

“**FRPA**” means the Forest and Range Practices Act;

“**FSP**” means this Forest Stewardship Plan;

“**Holder of this FSP**” or “**Holder**” means the Lower North Thompson Community Forest Society;

“**Kamloops LRUP**” means the Kamloops Forest District Lakes Local Resource Use Plan - Lakeshore Management Guidelines, dated December 20, 2001;

“**KLRMP**” or “**LRMP**” means the Kamloops Land and Resource Management Plan approved by government in 1995 and as amended from time to time;

“**MFLNRO**” means the Ministry of Forests, Lands, and Natural Resources Operations;

“**Primary Forest Activity**” means one or more of the following:

- a) timber harvesting;
- b) silviculture treatments;
- c) road construction, maintenance and deactivation.

1.2 DEFINITIONS UNDER ENACTMENTS

Unless otherwise expressly indicated, or indicated by context, terms used in this FSP have the definition given them, as of the Submission Date, in Forest and Range Practices Act and associated regulations and the Forest Act and the regulations under them, as amended from time to time.

2.0 ADMINISTRATION

2.1 SUBMISSION DATE

The date of submission for approval is January 25, 2012.

2.2 TERM AND COMMENCEMENT DATE

The term of this FSP is five (5) years beginning on the Commencement Date.

2.3 APPLICATION OF THIS FSP

Subject to exceptions under FRPA, this FSP applies to:

- Community Forest Agreement K1Z, held by the Lower North Thompson Community Forest Society.
- all new Cutting Permits and Road Permits issued under Community Forest Agreement K1Z, and approved after the Commencement Date.

3.0 FOREST DEVELOPMENT UNITS

The following FDU's are identified in this FSP:

- Community Forest Agreement K1Z, including several buffers along the east and west boundaries to facilitate future access requirements and the potential need for salvage. This proposed FDU is shown on the FSP map (Appendix C).

3.1 ITEMS IDENTIFIED IN FDU'S

The FSP map (Appendix C) identifies, where applicable, the locations of the following items that were in effect four months prior to the submission date of this FSP:

- Forest Development Units (new and existing);
- Ungulate winter range area;
- Wildlife habitat areas;
- Fisheries sensitive watersheds;
- Lakeshore management zones;

- Scenic Areas;
- L1 Lakes;
- Community Watersheds;
- Old growth management areas;
- Areas where commercial timber harvesting is prohibited by an enactment;
- Areas within all FDU's that are subject to a Timber Sales Licence, a Cutting Permit or a Road Permit (i.e. those areas that were in effect at the commencement date of this FSP)

4.0 OBJECTIVES, RESULTS, AND STRATEGIES

4.1 KLRMP HLP OBJECTIVES NOT APPLICABLE TO THIS FSP

The following KLRMP Higher Level Plan (HLP) objectives identified in the February 13, 2009 Order from the Minister of Agriculture and Lands are not applicable to this FSP. These objectives refer to specific areas that are located outside the FDU(s) of this Plan and/or have since been cancelled. As such, no results or strategies are proposed for these objectives.

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.12.1 February 13, 2009	Critical Deer Winter Range (CDWR) – Maintain or enhance forage production and habitat requirements in CDWR
KLRMP HLP Sect. 2.1.12.1 February 13, 2009	CDWR – Disperse the timber harvest throughout the winter range and spread it evenly over the rotation.
KLRMP HLP Sect. 2.1.12.1 February 13, 2009	CDWR – Maintain at least 25% of forested area in the thermal cover. Link thermal cover units together with suitable travel corridors, especially mature Douglas-fir vets on ridges.
KLRMP HLP Sect. 2.1.3 February 13, 2009 Cancelled March 5, 2013	Maintain old growth attributes within landscape units.
KLRMP HLP Order Sect. 2.2 February 13, 2009	Manage land within community growth boundary to meet the objectives set out in approved community land use plans
KLRMP HLP Sect. 2.5.1 February 13, 2009	The overall objective of special resource management zones for habitat and wildlife management areas is to: maintain or enhance identified wildlife habitat areas.
KLRMP HLP Sect. 2.5.2 February 13, 2009	Maintain natural stand attributes in managed forests

KLRMP HLP Sect. 2.5.2 February 13, 2009	Maintain habitat for flammulated owls, for primary cavity nesters e.g. Flickers and for Blue Grouse.
KLRMP HLP Sect. 2.5.2 February 13, 2009	Maintain or enhance forage production and habitat requirements in critical deer winter range
KLRMP HLP Sect. 2.5.2 February 13, 2009	Maintain or enhance forage production and habitat requirements in critical moose winter range
KLRMP HLP Sect. 2.6.1 February 13, 2009	Maintain viewsapes in recreation and tourism areas to a standard that does not detract from the recreational enjoyment of other users.
KLRMP HLP Sect. 2.6.1 February 13, 2009	Road and trail construction, maintenance and deactivation and other surface disturbances and construction will be undertaken in a manner that meets the management objectives of each recreation and tourism zone, in accordance with direction from an approved plan, local process, or enhanced referral.
KLRMP HLP Sect. 2.6.1.4 February 13, 2009	Extractive uses are permitted providing they are consistent with the objectives of the resource management zone.

4.2 SOILS MANAGEMENT AND CONSERVATION OBJECTIVES

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 1, Sect. 5 (November 29, 2011)	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.
Applicable Area:	
<ul style="list-style-type: none"> All FDU's 	
Result or Strategy:	
Approach to Harvesting and Roads:	
1. The Holder of this FSP will:	
<ul style="list-style-type: none"> a) Comply with FPPR Section 35 (Soil Disturbance Limits) and within FPPR Section 36 (Permanent Access Structure Limits). 	

4.3 WATER OBJECTIVES

4.3.1 Domestic Water Resources

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.2 (February 13, 2009)	Ensure implementation of a referral process to notify all potentially impacted water licensees when development is proposed.
Applicable Area:	
<ul style="list-style-type: none"> All FDU's 	
Result or Strategy:	
Approach to Harvesting and Roads:	

1. The Holder of this FSP will:
 - a) During the development phase, contact water license holders to solicit input into the planning process if it is determined that they may be impacted by primary forest activities;
 - b) Complete assessments for all riparian features associated with harvesting operations or road building activities;
 - c) When water is diverted for human consumption, notify the affected water license holders when road construction or timber harvesting occurs within a 100-meter radius upslope from their water license.

4.3.2 Community Watersheds

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 1, Sec. 8.2 (November 29, 2011)	<p>The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to, without unduly reducing the supply of timber from British Columbia’s forests, prevent the cumulative hydrological effects of primary forest activities within the community watershed from resulting in:</p> <ol style="list-style-type: none"> a. a material adverse impact upon the quantity of water or the timing of the flow of the water from the waterworks, or b. the water from the waterworks having a material adverse impact upon human health that cannot be addressed by water treatment required under (i) an enactment, or (ii) the license pertaining to the waterworks.
<p>Definitions: “Community Watershed Objective” means the objectives set by government for water in community watersheds as described in Section 8.2 of the Forest Planning and Practices Regulation (January 31, 2004); “Designated Community Watershed” means a community watershed</p> <ol 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 <ol style="list-style-type: none"> (i) continued under section 181 of the Act, or (ii) established under the Government Actions Regulation. 	
<p>Applicable Area:</p> <ul style="list-style-type: none"> • Designated Community Watershed areas 	
<p>Result or Strategy: There are no Designated Community Watershed areas within the FDUs of this FSP; no results or strategies are proposed.</p>	

4.3.3 Riparian Management Objectives

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2 Div. 1, Sect. 8 (November 29, 2011)	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.
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Result or Strategy: Approach to Harvesting and Roads:	
1. The Holder of this FSP will: <ol style="list-style-type: none"> a) Comply with FPPR Sections 47 to 51 (inclusive), FPPR Sections 52(2), and 53 that were effective on the Submission Date of this FSP. b) Where primary forest operations occur within a Riparian Management Area, comply with the retention strategies for streams, wetlands and lakes as outlined in Tables 1, 2, and 3. 	

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.2.1 (February 13, 2009)	Manage riparian areas, including streams, wetlands and lakes in accordance with the Forest Planning and Practices Regulation and the Kamloops and Clearwater District Lakeshore Management Guidelines, or other applicable management tools or agency agreements.
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Result or Strategy: Approach to Harvesting and Roads: <ol style="list-style-type: none"> 1. The Holder of this FSP will: <ol style="list-style-type: none"> a) Where operations occur within a Riparian/Lakeshore Management Area, the Licensee will observe the established retention strategies for streams, wetlands and lakes. These are outlined within Tables 1, 2, and 3 and further described below. b) Comply with FPPR Sections 47 to 51 (inclusive), FPPR Sections 52(2), and 53 that were effective on the Submission Date of this FSP, and c) Comply with the Kamloops Forest District Lakes Local Resource Use Plan – Lakeshore Management Guidelines dated December 20, 2001. 	

Table 1: Riparian Retention Strategies – Streams

Streams				% Basal Area Retention General Objectives**	
Riparian Class*	Width (m)	Riparian Reserve Zone (m)	Riparian Management Zone (m)	Riparian Management Zone	
				Low Windthrow Risk	Mod/High Windthrow Risk
S1	> 20	50	20	≥ 20	0 – 50
S2	>5 ≤ 20	30	20	≥ 20	0 – 50
S3	> 1.5 ≤ 5	20	20	≥ 20	0 – 50
S4	< 1.5	0	30	≥ 10	0 – 50
S5	> 3	0	30	0 – 30	0 – 30
S6	≤ 3	0	20	0 – 20	0 – 20
<p>* Refer to definition of stream classifications found in FPPR Section 47.</p> <p>** These are general objectives that represent a minimum target for % basal area retention within the Riparian Management Zones (RMZ). Site-specific factors will be assessed to determine the appropriate level of retention for a Riparian Feature. Site-specific factors include (but are not limited to): the presence and need to protect the viability of Riparian Reserve Zones (RRZs), windthrow risk, water quality, fish habitat protection, level of shading required, sediment filtering, stream bank integrity, etc.</p>					

Table 2: Riparian Retention Strategies – Wetlands

Wetlands				% Basal Area Retention General Objectives**	
Riparian Class*	Area (ha)	Riparian Reserve Zone (m)	Riparian Management Zone (m)	Riparian Management Zone	
W1	> 5	10	40	0 – 30	
W2	≥ 1 & < 5 ⁺	10	20	0 – 30	
W3 (fish-bearing)	≥ 1 & < 5 ⁺⁺	10	20	0 – 30	

W3	≥ 1 & < 5 ⁺⁺	0	30	0 – 30
W4	≥ 0.25 & < 1 ⁺	0	30	10 – 50
W5	Complex Wetland ⁺⁺	10	40	10 – 50
<p>* Refer to definition of wetland classifications found in FPPR Section 48.</p> <p>** These are general objectives that represent a minimum target for % basal area retention within the Riparian Management Zones (RMZ). Site-specific factors will be assessed to determine the appropriate level of retention for a Riparian Feature. Site-specific factors include (but are not limited to): the presence and need to protect the viability of Riparian Reserve Zones (RRZs), windthrow risk, water quality, fish habitat protection, level of shading required, sediment filtering, stream bank integrity, etc.</p> <p>+ Wetlands of this size within the following ecosystems: PP, IDFxh, xw, xm, and BG.</p> <p>++ Wetlands of this size, outside of the following ecosystems: PP, IDFxh, xw, xm, and BG.</p>				

Table 3: Riparian Retention Strategies – Lakes

Lakes			% Basal Area Retention General Objectives**
Lake Class *	Riparian Reserve Zone Width (m)	Riparian Management Zone Width (m)	Riparian Management Zone
A	0	0	N/A
B	10	0	NA
C	10	20	≥ 10
D	0	30	≥ 10
E	0	30	≥ 10
<p>* Refer to definition of lakes classifications found in the Kamloops LRUP.</p> <p>** These are general objectives that represent a minimum target for % basal area retention within the Riparian Management Zones (RMZ). Site-specific factors will be assessed to determine the appropriate level of retention for a Riparian Feature. Site-specific factors include (but are not limited to): the presence and need to protect the viability of Riparian Reserve Zones (RRZs), windthrow risk, water quality, fish habitat protection, level of shading required, sediment filtering, stream bank integrity, etc.</p> <p>Lakes of this size found outside of the following ecosystems: PP, IDFxh, xw, xm, and BG.</p>			

4.4 BIODIVERSITY OBJECTIVES

4.4.1 Landscape Level Biodiversity

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 1, Sect. 9 (November 29, 2011)	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.
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Result or Strategy: <p style="padding-left: 40px;">Approach to Harvesting and Roads:</p> <ol style="list-style-type: none"> 1. a) The Holder of this FSP will comply with the requirements of FPPR Sections 64 and 65. 	

4.4.2 Stand Level Biodiversity

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 1, Sect. 9.1 (November 29, 2011)	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.
Definitions: <p>“Mature Forest” means:</p> <ul style="list-style-type: none"> • for pine leading stands, trees that are greater than or equal to 80 years of age. • for deciduous leading stands, trees that are greater than or equal to 60 years of age. • for coniferous leading stands, other than pine, trees that are greater than or equal to 100 years of age. 	
<p>“Wildlife Trees” means a means a tree or group of trees that: (a) provide wildlife habitat, and (b) assist in the conservation of stand level biodiversity.</p> <p>“Wildlife Tree Patches (WTP)” means an area occupied by a group of trees with special characteristics that provide valuable habitat for the conservation and enhancement of wildlife.</p>	
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Result or Strategy: <p style="padding-left: 40px;">Approach to Harvesting and Roads:</p> <ol style="list-style-type: none"> 1. The Holder of this FSP will ensure the design for the cutblock conforms to the following: 	

- a) 80% of the cutblocks greater than 5 hectares, harvested during the 12-month period (beginning on April 1 of any calendar year) will have one or more Wildlife Trees and/or Wildlife Tree Patches associated with the cutblock;
 - b) For each cutblock, the distance from a Wildlife Tree Patch, Wildlife Tree, or area of Mature Forest, to another Wildlife Tree Patch, Wildlife Tree, or area of Mature Forest will not exceed 500 meters.
 - c) For the purposes of Section 1a), a Wildlife Tree Patch may relate to more than one cutblock if all of the cutblocks that relate to the Wildlife Tree Patch collectively meet the applicable requirements of this section.
2. The Holder of this FSP will not harvest timber from a Wildlife Tree Patch, except under the following conditions:
 - a) The trees on the net area to be reforested (NAR) of the cutblock to which the Wildlife Tree Patch relates have developed attributes that are consistent with a mature forest.
 - b) Access to future harvest is severely limited by the Wildlife Tree Patch.
 - c) One or more of the circumstances or conditions specified in paragraph 3 are applicable to the Wildlife Tree Patch, or
 - d) A qualified registered professional has determined that the ecological value of the Wildlife Tree Patch has been lost due to windfall, blowdown or another disturbance and the areas where timber harvesting is authorized or carried out are replaced with an equivalent or other suitable Wildlife Tree Patch.
3. The circumstances or conditions for the purposes of paragraph 2(c) are:
 - a) To remove one or more trees in order to ensure worker safety.
 - b) The condition of the stand within the Wildlife Tree Patch represents a significant forest health risks to surrounding stands.

4.4.3 Ecosystem Management

SOURCE	GOVERNMENT OBJECTIVE
Land Act Section 93.4, OGMA Order for the KLRMP area (March 5, 2013)	<ol style="list-style-type: none"> a) Conserve biodiversity by retaining old forest values and attributes, or rare features within the OGMAs across the landscape units over time. b) Maintain all timber within OGMAs except as required to accommodate the following purposes: <ol style="list-style-type: none"> (a) to prevent the spread of insect infestations or diseases that pose a significant threat to forested areas external to the OGMA; (b) to address safety hazards associated with primary forest activities; (c) to provide for guyline clearances and tailhold anchors; (d) to address fuel management concerns and related safety hazards; (e) to provide road access where no alternative practicable option for road location exists; or (f) to facilitate timber harvesting that will result in operationally practicable cutblock boundaries. c) Primary forest activities conducted for the purposes under Section 2 must: <ol style="list-style-type: none"> (a) be conducted to the minimum extent necessary to accommodate the purpose; and (b) not exceed the lesser of two hectares or 10% of an individual OGMA polygon per 20 year time period.
<p>Definitions: “Old Growth Management Areas” or “OGMAs” means the areas identified as old growth management areas and mapped in Schedule 2 of the Ministerial Order under the Land Act establishing OGMAs for the KLRMP area (March 5, 2013), as updated from time to time to reflect amendments completed through previously enabled FSP results and/or strategies.</p>	
<p>Applicable Area:</p> <ul style="list-style-type: none"> • All FDU’s 	
<p>Result or Strategy:</p> <p>Approach to Harvesting and Roads:</p> <ol style="list-style-type: none"> 1. Subject to Paragraph 2, the Holder of this FSP will: <ol style="list-style-type: none"> a) Maintain all timber within OGMAs except as required to accommodate the following purposes: <ol style="list-style-type: none"> i. to prevent the spread of insect infestations or diseases that pose a significant threat to forested areas external to the OGMA; ii. to address safety hazards associated with primary forest activities; iii. to provide for guyline clearances and tailhold anchors; iv. to address fuel management concerns and related safety hazards; v. to provide road access where no alternative practicable option for road location exists; or vi. to facilitate timber harvesting that will result in operationally practicable cutblock boundaries. 	

<p>b) Primary forest activities conducted for the purposes under Section 2 will:</p> <ol style="list-style-type: none"> i. be conducted to the minimum extent necessary to accommodate the purpose; and ii. not exceed the lesser of two hectares or 10% of an individual OGMA polygon per 20 year time period. <p>2. Where the Holder of this FSP determines an OGMA must be relocated and/or proposes Primary Forest Activities conducted for the purposes under Section 1(a) that exceed the less of two hectares or 10% of an individual OGMA polygon per 20 year time period, the Holder of this FSP will:</p> <ol style="list-style-type: none"> a) Submit for approval to the Statutory Decision Maker (SDM) an OGMA amendment proposal as per the procedural requirements of the Kamloops Forest District.

4.4.4 Biodiversity Emphasis Options

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.3.1 (February 13, 2009)	To conserve the diversity and abundance of native species and their habitats throughout the Kamloops LRMP
Definitions: N/A	
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Result or Strategy: The KLRMP Section 2.1.3.1 Biodiversity Emphasis Options Objective is addressed through the results and strategies provided in the following sections of this FSP: Section 4.3.3 – Riparian Management Objectives Section 4.4.1 – Landscape Level Biodiversity Section 4.4.2 – Stand Level Biodiversity Section 4.4.3 – Ecosystem Management Section 4.6 – Wildlife Objectives Section 4.9.2 – Invasive Plants No additional results or strategies are proposed for this objective.	

4.5 RECREATION OBJECTIVES

SOURCE	GOVERNMENT OBJECTIVE
FRPA Part 11, Div. 2, Sect. 180/181 (November 29, 2011)	Grandparent Objective: Manage known recreation sites in accordance with established objectives.
Applicable Area: <ul style="list-style-type: none"> • FRPA s.180 established recreation sites in the Kamloops Forest District portion of the FDU's. 	
Result or Strategy: Although Recreation Sites and Trails have been legally established in the Kamloops Forest District, no formal objectives (as required by FRPA Section 181) were established; therefore, no Result or Strategy is required in this FSP.	

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.5 (November 29, 2011)	Maintain a mosaic of angling opportunities with the recreational spectrum (i.e. walk-in lakes, drive to lakes, trophy lakes).
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Result or Strategy: Approach to Harvesting and Roads: 1. The Holder of this FSP will: <ol style="list-style-type: none"> a) Avoid road development within Lakeshore Management Zones and Riparian Management Zones associated with lakes; this will help maintain existing levels of lake access within the Plan area. 2. If the Holder of this FSP conducts a Primary Forest Activity, the Holder will implement the intent of the access management recommendations as outlined in the Kamloops LRUP for identified Walk-In Lakes.	

4.6 WILDLIFE OBJECTIVES

The following section outlines Results and Strategies for some specific species, which have special significance and importance. The species and area-specific objectives are from two sources:

- FPPR Section 7(2) Notices
- KLRMP Objectives

Table 4: Wildlife Related Objectives Applicable to this FSP

Species	FRPA	Kamloops LRMP	Applicable Area for Results & Strategies
Mule Deer	No "Section 7 Notice" exists No WHA's designated.	LRMP HLP Section 2.1.12.1 (February 13, 2009)	No Critical Deer Winter Range (CDWR) is located within the FDU(s) of this FSP; no results and/or strategies are required.
Moose	No "Section 7 Notice" exists No WHA's designated.	LRMP HLP Section 2.1.12.2 (February 13, 2009)	Critical Moose Winter Range (CMWR) as outlined in Figure 4, Kamloops LRMP
Mountain Goat	"Section 7 Notice" exists Mountain Goat Winter Range designated.	LRMP HLP Section 2.1.12 (February 13, 2009)	No Mountain Goat Winter Range is located within the FDU(s) of this FSP; no results and/or strategies are required.
"Interior" Western Screech Owl	FPPR Section 7(2) Notice WHA's designated.	LRMP HLP Section 2.1.12 (February 13, 2009)	Designated WHA's; Figure 3, General Resource Management Zone
Western Rattlesnake	FPPR Section 7(2) Notice WHA's designated.	LRMP HLP Section 2.1.12 (February 13, 2009)	Designated WHA's; Figure 3, General Resource Management Zone
Lewis's Woodpecker	FPPR Section 7(2) Notice WHA's designated.	LRMP HLP Section 2.1.12 (February 13, 2009)	Designated WHA's; Figure 3, General Resource Management Zone
Badger	FPPR Section 7(2) Notice WHA's designated	LRMP HLP Section 2.1.12 (February 13, 2009)	Designated WHA's; Figure 3, General Resource Management Zone
Flammulated Owl	No "Section 7 Notice" exists No WHA designated.	LRMP HLP Section 2.1.12 (February 13, 2009)	Figure 3, General Resource Management Zone, Kamloops LRMP
Spotted Bat	No "Section 7 Notice" exists No WHA's designated.	LRMP HLP Section 2.1.12 (February 13, 2009)	Figure 3, General Resource Management Zone, Kamloops LRMP
Williamson's Sapsucker	No "Section 7 Notice" exists WHA's designated.		Designated WHA's;
Great Basin Spadefoot Toad	No "Section 7 Notice" exists WHA's designated.		Designated WHA's;

4.6.1 KLRMP Wildlife Objective

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.12 (February 13, 2009)	Ensure habitat needs of all naturally occurring wildlife species are provided for. Special attention will be paid to those red- and blue-listed species, as defined by BC Environment, and species designated as regionally important (e.g. Mule Deer)
Definitions: N/A	
Applicable Area: <ul style="list-style-type: none"> All FDU's 	

Result or Strategy:

The KLRMP Section 2.1.12 Wildlife Objective is addressed through the results and strategies provided in the following sections of this FSP:

Section 4.6.2 – Moose

Section 4.6.3 – Flammulated Owl and Spotted Bat

Section 4.6.4 – “Interior” Western Screech Owl, Lewis’s Woodpecker, Badger, and Western Rattlesnake

No additional results or strategies are proposed for this objective.

4.6.2 Moose

The following objectives and associated results or strategies pertain to the Critical Moose Winter Range (CMWR) areas as identified in the Kamloops LRMP Higher Level Plan Order (February 13, 2009).

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.12.2 (February 13, 2009)	CMWR – Maintain thermal and visual cover for moose, and enhance browse production.
KLRMP HLP Sect. 2.1.12.2 (February 13, 2009)	CMWR – Maintain suitable forest cover attributes with respect to thermal cover and forage production.
KLRMP HLP Sect. 2.5.1 (February 13, 2009)	The overall objective of special resource management zones for habitat and wildlife management areas is to maintain or enhance identified wildlife habitat areas.

Definitions:

“**Extended Use Roads**” means newly constructed and/or existing roads that are planned for more than two years of use for forestry activities.

“**Moose Forage**” means palatable species of plants that are a food source for Moose. These plants include rose, Saskatoon, Salix spp., Red-Osier Dogwood and deciduous species.

“**Moose Habitat**” means wetlands in Moose Winter Range that are either 200 meters in length or greater than one hectare in size and that contain habitat features required by Moose as defined by a qualified registered professional.

“**Moose Winter Range**” means areas identified in Figure 4 of the Kamloops Land and Resource Management Plan (July, 1995) as critical moose winter range.

“**Moose Management Units**” means 200 meter buffers around Moose Habitat.

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

Applicable Area:

- Critical Moose Winter Range (CMWR) as outlined in Figure 4, KLRMP, and identified on the FSP map in Appendix C

Result or Strategy:

Approach to Harvesting and Roads:

1. If the planned harvesting or road construction activity occurs within Moose Winter Range, the Holder of this FSP will:
 - a) Within each Moose Management Unit, retain at least 67% of the forested area equal to or greater than 20 years of age.
 - b) Where present, retain Visual Screening between Extended Use Roads and Moose Management Units for those roads that are located within 100 meters of a Moose Management Unit. Where it is not practical to maintain visual screening, any newly constructed roads will be deactivated within four years of harvest completion.
 - c) Newly constructed roads that are not Extended Use Roads and that are located within 100 meters of a Moose Management Unit will be deactivated within four years of harvest completion.
 - d) Retain Moose Forage during silviculture activities (including brushing, weeding and stand tending) unless retaining Moose Forage impedes the ability of a stand to reach free growing status. This will be achieved by retaining browse species (i.e. rose, Saskatoon, red-osier dogwood and willow) and by retaining deciduous species.

4.6.3 “Interior” Western Screech Owl, Lewis’s Woodpecker, Badger, and Western Rattlesnake, Flammulated Owl, Spotted Bat, Great Basin Spadefoot Toad, and Williamson’s Sapsucker

SOURCE	GOVERNMENT OBJECTIVE
	There are presently no FPPR Section 7(2) Notices for these species. Wildlife Habitat Area (WHA) designations have been made for Spotted Bat, “Interior” Western Screech Owl, Lewis’s Woodpecker, Badger, Western Rattlesnake, Great Basin Spadefoot Toad, and Williamson’s Sapsucker. All of these species are identified in the “Background

Information for Wildlife Habitat for Species at Risk Objectives Under the Kamloops LRMP, in the Kamloops District”.
Applicable Area: <ul style="list-style-type: none"> All FDU’s
Result or Strategy: <p>There are no designated WHA’s or known locations of these species within the FDUs of this FSP.</p> <p>If any of these species are located during fieldwork for block or road development, the following strategy will be employed:</p> <ol style="list-style-type: none"> Qualified Registered Professional will be contacted for further guidance and an appropriate management strategy will be developed. the Holder of this FSP will contact the Ministry of Environment to inform them of the location and details of the sighting

4.7 VISUAL QUALITY OBJECTIVES

4.7.1 Visually Sensitive Areas Associated with this FSP

SOURCE	GOVERNMENT OBJECTIVE
FRPA Section 180/181 (November 29, 2011)	Grandparent Objective: Known scenic areas with established VQO’s
KLRMP HLP Section 2.1.14.1 (February 13, 2009)	The primary objective of management in Visually Sensitive Areas is to ensure that the levels of visual quality expected by society are achieved on Crown land in keeping with the concepts and principles of integrated resource management.
Definitions: “Visually Sensitive Areas” means areas identified as of October, 1994, and presented in Figure 5 of the KLRMP (1995); “Visually Sensitive 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 Land Act. “Known Scenic Area” means an area of land established as a scenic area under the Forest Practices Code of British Columbia Act on or before October 24, 2002 and continued as a scenic area under Section 180(c) of the Act.	
Applicable Area: <ul style="list-style-type: none"> Known Scenic Areas with established VQO’s within all FDU’s Visually Sensitive Areas within all FDU’s Areas outside Visually Sensitive Areas with established VQO’s within all FDU’s 	

Result or Strategy:

Approach to Harvesting and Roads:

1. The Holder of this FSP will, to the extent practicable, ensure that the design of the cutblock or road is consistent with the established Visual Quality Objectives.

4.7.2 Areas Outside Visually Sensitive Areas Associated with this FSP

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Section 2.1.14.1 (February 13, 2009)	Areas outside the identified visually sensitive areas within the Kamloops LRMP are managed for landscape objectives as follows: 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.
Applicable Area: <ul style="list-style-type: none"> • Areas outside Visually Sensitive Areas and Known Scenic Areas within all FDU's 	
Result or Strategy: <p>Approach to Harvesting and Roads:</p> <ol style="list-style-type: none"> 1. When an area is outside an identified Visually Sensitive Area, the Holder of this FSP will only carry out timber harvesting or road construction when the design of the cutblock or road is consistent with mimicking naturally occurring landscape characteristics with variability in openings (in size, shape and distribution), by following natural boundaries, lines and forms such as ridgelines, creeks, draws, rock outcrops or timber types etc. to ensure that naturally appearing boundaries remain. 	

4.8 CULTURAL HERITAGE RESOURCES

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 1, Sect. 10 (November 29, 2011)	The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are: <ol style="list-style-type: none"> a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people. b) not regulated under the Heritage Conservation Act.
Definitions: “Affected First Nation” means the First Nation in whose asserted traditional territory the area of Primary Forest Activity lies, as identified by the maps and documents provided by government. “Cultural Heritage Resource” means a cultural heritage resource to which the objective set by government under section 10 of the FPPR pertains.	
Applicable Area: All FDU's	

Result or Strategy:

Approach to Harvesting and Roads Information-Sharing:

1. The Holder of this FSP will:

a) Comply with all Service Agreements and Communications Agreements developed for the purpose of this FSP between the Licensee and a First Nation. This includes any unique referral processes.

a) Subject to any unique referral processes under Paragraph 1(a), make reasonable efforts to communicate to Affected First Nations proposed areas of timber harvesting and road construction, including the provision of a map and description of the proposed development for review and comment.

b) If any site specific information is communicated to a Holder concerning a Cultural Heritage Resource that is of traditional use and continuing importance to the Affected First Nation and in or adjacent to a proposed Cutblock or Road,

- Evaluate the work to mitigate the direct impact of the road or cutblock upon the affected Cultural Heritage Resource based upon:

- i. The relative value or importance of the affected Cultural Heritage Resource to a traditional use by an aboriginal people.

- ii. The relative abundance or scarcity of the affected Cultural Heritage Resource.

- iii. The historical extent of the traditional use of the affected Cultural Heritage Resource.

- If necessary, the Holder of this FSP will modify the Primary Forest Activity to ensure that the Cultural Heritage Resource is conserved and communicate the outcomes to the Affected First Nation that communicated the information.

2. If a previously unidentified affected Cultural Heritage Resource is encountered during a Primary Forest Activity, the activity will cease to the extent necessary to protect the affected cultural heritage resource until the process outlined in Section 1c) is carried out. If necessary, the Primary Forest Activity will be modified to ensure that the Cultural Heritage Resource is conserved; this information will be communicated to the Affected First Nation.

4.9 CULTURAL AND HERITAGE SITES

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.16 (February 13, 2009)	Undertake archaeological assessments in all High and Medium Potential areas identified in the Archaeological Overview Assessment.
Definitions: “ Archaeological Impact Assessment ” means assessments initiated in response to proposed development projects, which will disturb or alter the landscape; thereby, potentially endangering archaeological sites. “ Recommended Areas ” means areas where an Archaeological Impact Assessment is recommended based on ‘Guidelines for the Archaeological Overview Assessment (AOA) Process for the Forest Development Planning in the Kamloops TSA (June 2010)’, as amended from time to time.	
Applicable Area: <ul style="list-style-type: none"> • All FDU’s 	
Result or Strategy: Approach to Harvesting and Roads:	
<p>1. The Simpcw First Nation has completed an Archaeological Overview Assessment (AOA) (February 23, 2010) over the CFA covered by this FSP. For areas within the CFA, the Holder of this FSP will:</p> <ol style="list-style-type: none"> a) Comply with the results and recommendations of the Simpcw First Nation AOA for the CFA (February 23, 2010). b) Conduct Archaeological Impact Assessments for Recommended Areas. c) Implement recommendations where archaeological sites are found, through measures such as establishing no harvest buffers, redesign of cutblock boundaries, combining into WTP’s or riparian reserves. 	

2. For areas within the FDU of this FSP but outside the CFA, the Holder of this FSP will:
- a) Comply with the ‘Guidelines for the Archaeological Overview Assessment (AOA) Process for the Forest Development Planning in the Kamloops TSA (June 2010)’, as amended from time to time.
 - b) Conduct Archaeological Impact Assessments for Recommended Areas.
 - c) Implement recommendations where archaeological sites are found, through measures such as establishing no harvest buffers, redesign of cutblock boundaries, combining into WTP’s or riparian reserves.

4.10 RANGE AND NOXIOUS WEED MEASURES

4.10.1 Range Resources

SOURCE	GOVERNMENT OBJECTIVE
KLRMP HLP Sect. 2.1.10 (February 13, 2009)	Minimize tree/grass/cattle conflicts through integrated management practices.
Applicable Area: All FDU’s	
Result or Strategy: Before the Holder of this FSP carries out or authorizes a Primary Forest Activity, 1. the Holder will: <ul style="list-style-type: none"> a) On an annual basis or as required, inform the range tenure holder of the planned activities within or adjacent to their range tenure, and b) Where the range tenure holder indicates that conflict between timber and range management may arise, develop and implement strategies, in collaboration with the range tenure holder, to minimize such conflict through integrated management practices. c) Develop and implement strategies to protect any range improvements (i.e. fences) located near Primary Forest Activities; any damage to range improvements resulting from these activities will be repaired as soon as practicable. 	

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 2, Sect. 18 (November 29, 2011)	A person who prepares a FSP must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.
Applicable Area: All FDU's	
Measures: <p>Annually, based on information obtained from the MFLNRO, the Holder of this</p> <ol style="list-style-type: none"> 1. FSP will update maps of occupied areas or areas adjacent to range tenures with information pertinent to range management (range unit boundaries, natural barriers). 2. Before the Holder of this FSP carries out or authorizes a Primary Forest Activity, the Holder will: <ol style="list-style-type: none"> a) On an annual basis or as required, inform the range tenure holder of the planned activities within or adjacent to their range tenure. b) Where the range tenure holder indicates that natural range barriers are removed or rendered ineffective, work with the range tenure holder to develop and implement a reasonable strategy for mitigation. 	

4.10.2 Invasive Plants

SOURCE	GOVERNMENT OBJECTIVE
FPPR Part 2, Div. 2, Sect. 17 (November 29, 2011)	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 is likely to be a result of the person's forest practices.
Definitions: <p>“Invasive Plant Species” means those invasive plant species identified annually by the Holder of this FSP as new or top priority for management, using information provided by the MFLNRO, Southern Interior Weed Management Committee, or equivalent organization. “Known Location” means sites identified in the MFLNRO Invasive Alien Plan Program containing Invasive Plant Species, as defined above.</p>	
Applicable Area: <ul style="list-style-type: none"> • All FDU's 	
Measures to Prevent the Introduction or Spread of Invasive Plants: <ol style="list-style-type: none"> 1. The Holder of this FSP will: <ol style="list-style-type: none"> a) Before commencing a Primary Forest Activity, check the provincial inventory database and mapping system for the presence of Invasive Plant Species in the area proposed for development. 	

- b) When harvesting or road construction activities occur within 500 meters of a Known Location and result in contiguous areas of disturbed soil that are greater than 0.1 ha, the Holder of this FSP will ensure that within one year of their completion, the portions of the area that are occupied by ditch-lines, cut-slopes, fills and deactivated roads which are not reforested (except for active running surface) are revegetated using:
 - Seed or forage mixture that meets or exceeds Canada Common Number 1 Forage Mixture as defined by the *Canada Seeds Act* and Regulation, or
 - Native forbs or shrubs
- c) Advise logging truck drivers and heavy equipment operators when they are operating within 500m of a Known Location, and require them to inspect the undercarriage of their vehicle or equipment and remove observed Invasive Plant Species when leaving or returning to a site.
- d) Train field staff as required on the identification of Invasive Plant Species.
- e) Report previously unknown infestation sites to the MFLNRO within one month of discovery where Invasive Plant Species are identified.

5.0 STOCKING STANDARDS

All stocking requirements are applicable across the entire FSP area (all FDU's).

Legal Reference:	FRPA Section 29(2), (July 26, 2007) FPPR Section 16 and Section 44(1), (July 26, 2007)
Scale of Measurement:	Cutblock
Map Reference:	N/A

5.1 General Standards

Where the Holder of this FSP is required under FRPA to establish a free-growing stand with respect to timber harvesting governed by this FSP, the Holder will do so in accordance with the stocking standards in Appendix A.

6.0 SIGNATURES OF PREPARING FORESTER AND PERSON REQUIRED TO PREPARE PLAN

Preparing Forester

“I certify that I have determined that this work was performed to an acceptable standard”

Mike Francis, RPF

Lower North Thompson Community
Forest Society

Signature of Person Required to Prepare
the Plan

Harley Wright, President

Lower North Thompson Community Forest
Society

Lower North Thompson Community Forest Society

**APPENDIX A – STOCKING
STANDARDS**

**January 2012
Community Forest Agreement K1Z**

**Southern Interior Region
Thompson Rivers District
Kamloops Timber Supply Area**

1.0 GENERAL DISCUSSION

Where possible, it is the intent of the Holder to utilize the established stocking standards. In general, they will be based upon biogeoclimatic variant and site series. However, site-specific conditions (i.e. aspect, elevation and management objectives) may modify them. The foundation for stocking standards is described in the following discussion.

1.1 Minimum Inter-Tree Distance:

For the duration of this Forest Stewardship Plan, the Holder will use a minimum inter-tree distance of 2.0 meters for the majority of sites. However, it may be reduced to 1.5 meters when any of the following conditions exist and are identified in a Site Plan:

- hygric and subhydric sites
- xeric and very xeric sites
- mechanically site prepped sites
- areas with evidence of heavy cattle use (i.e. tracks, sign, salt blocks, past seedling damage, heavy grazing, etc)
- riparian areas with $\geq 20\%$ residual component
- sites where protected microsites are critical (shade, snow creep)

1.2 Crop Tree-Brush Ratio:

Biogeoclimatic Zone	Crop Tree Height Above Brush (%)
ESSF, IDF, MS, PP, BG	125
ICH, SBPS, SBS	150

1.3 Characteristics of Retained Trees:

Where trees are retained to form either an even-aged or uneven-aged stand following timber harvesting the minimum characteristics of trees to be retained will be consistent with the Silviculture Survey Procedures Manual (April 1, 2012)

1.4 Regeneration Delay:

The Holder will use a four year regeneration delay for areas utilizing an even-aged silviculture system. Cutblocks relying upon natural regeneration will have a seven-year regeneration delay.

1.5 Damage Criteria:

The Holder will use damage criteria for Regeneration and Free Growing surveys specified in Silviculture Survey Procedures Manual (April 1, 2012).

1.6 Maximum Density:

The Holder will use a maximum density of 25,000 countable stems per hectare for stands having lodgepole pine as the leading species ($\geq 80\%$ by inventory). Maximum density for all other leading species and mixed pine stands where pine component is less than 80% will be 10,000 countable stems per hectare.

1.7 Western White Pine (Pw):

Western white pine will be utilized as follows:

- Only rust-resistant stock will be considered for planting purposes.
- Where identified as a preferred species, Pw will contribute up to a maximum of 50% of the total well-spaced and free-growing stems.
- Where identified as an acceptable species, Pw will contribute up to a maximum of 30% of the total well-spaced and free-growing stems.
- If a natural Pw is considered a potential crop tree and it accounts for more than 5% of total stocking, it will be pruned as part of the basic silviculture obligations to a minimum height of 1.3 meters.
- If a natural Pw is considered a potential crop tree and it accounts for less than 5% of total stocking, it will not be pruned.
- Pw has been included in the IDFmw2 stocking standards due to its presence and performance within the existing naturals stands.

1.8 Western Larch (Lw):

Western larch will be utilized for stocking purposes as per Section 2.0 Stocking Standards Tables. Where identified as a preferred or acceptable species, Lw will contribute up to a maximum of 30% of the total well-spaced and free-growing stems.

2.0 STOCKING STANDARDS TABLES

The stocking standards and footnotes for both even-aged and uneven-aged silvicultural systems are found in the attached tables.

Note: Stocking standards for the 'New' ICHdw3 subzone (Version 7) Biogeoclimatic units have not been developed as of the Submission Date. For this subzone, the 'Old' ICHmw3 stocking standards will apply.

Lower North Thompson Community Forest Society - FSP #469

Appendix A - Stocking Standards

Worksheets Included

The following worksheets are included with this workbook (see tabs at the bottom of the screen):

Introduction - introductory material and [additional reference standards](#)
Stocking Standards - stocking standards applicable to this FSP

Additional Reference Standards

For additional stocking standards information refer to Appendix A of the approved Forest Stewardship Plan.

FSP #469 Stocking Standards

BGC			Regeneration Guide						Free Growing Guide			
Classification			Species		Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)	
Zone/SZ	Series	Standards ID	Conifer		Target	MIN pa	MIN p		Earliest (yrs)	Latest (yrs)	Species	Ht (m)
			Preferred (p)	Acceptable (a)	(well-spaced/ha)							
ICHmk2	01	1044346	Fd ³² PI Sx Lw ³²	Bl ¹⁰ Cw	1200	700	600	4	20	PI, Lw	2.0	
										Fd	1.4	
										Sx	0.8	
										Others	1.0	
	02	1044359	Fd PI	Bl ¹⁰ Sx ¹⁰	600	400	400	4	20	PI	1.4	
										Fd	1.0	
										Others	0.8	
03	1044360	Fd PI Sx ^{10,13}	Bl ¹⁰	1000	500	400	4	20	PI	1.4		
										Fd	1.0	
										Others	0.8	
04	1044361	Fd PI Sx Lw ³²	Bl ¹⁰ Cw	1200	700	600	4	20	PI, Lw	2.0		
										Fd	1.4	
										Sx	0.8	
										Others	1.0	
05	1044362	Fd ³² PI Sx Lw ³²	Bl Cw ³²	1200	700	600	4	20	PI, Lw	2.0		
										Fd	1.4	
										Others	1.0	
06	1044363	PI ¹ Sx ¹ Fd ^{1,32}	Bl ¹ Cw ³²	1000	500	400	4	20	PI	1.4		
										Fd	1.0	
										Others	0.8	
ICHmw3 (ICHdw3)	01	1044364	Fd Sx ¹⁰ Cw ¹⁰ Lw ³² Pw ³¹	PI ⁵¹ Bl ¹⁰ Hw ¹⁰	1200	700	600	4	20	PI, Pw	2.0	
										Lw	2.0	
										Fd	1.4	
										Others	1.0	
	01-YC	1044365	Fd Cw ¹⁰ Sx ¹⁰ Lw ³² Pw ³¹	Bl ¹⁰ Hw ¹⁰ PI ⁵¹	1200	700	600	4	20	PI, Pw	2.0	
										Lw	2.0	
										Fd	1.4	
										Others	1.0	
	02	1044366	Fd PI	Cw ¹⁰ Pw ³¹ Py ^{23,32}	1000	500	400	4	20	PI, Pw	1.4	
										Fd	1.0	
									Others	0.8		
03	1044367	Fd ³² PI Lw ³²	Cw ¹⁰ Pw ³¹ Sx ¹⁰ Bl ¹⁰ Hw	1000	500	400	4	20	PI, Pw	1.4		
									Lw	1.4		
									Fd	1.0		
									Others	0.8		
04	1044368	Fd PI ⁵¹ Lw ³²	Cw ¹⁰ Bl Pw ³¹ Sx ¹⁰	1200	700	600	4	20	PI, Pw	2.0		
									Lw	2.0		
									Fd	1.4		
									Others	1.0		
05	1044369	Fd Cw ¹⁰ Sx ¹⁰ Lw ³² Pw ³¹	Bl ¹⁰ PI ⁵¹	1200	700	600	4	20	PI, Pw	2.0		
									Lw	2.0		
									Fd	1.4		
									Others	1.0		
06	1044370	Cw Fd Hw Sx Lw Pw ³¹	Bl ¹⁰ PI ⁵¹	1200	700	600	4	20	PI, Pw	2.0		
									Lw	2.0		
									Fd	1.4		
									Others	1.0		
07	1044371	Cw ³² Sx Fd ^{1,32} Lw ^{1,32}	Bl Hw ³² PI ⁵¹ Pw ³¹	1200	700	600	4	20	PI, Pw	2.0		
									Lw	2.0		
									Fd	1.4		
									Others	1.0		
08	1044372	Cw ^{1,32} Hw ^{1,32} PI ^{1,51} Sx ¹	Bl ¹ Pw ³¹	1000	500	400	4	20	PI	1.4		
									Others	0.8		
09		non-forested			-	-	-	-	-	-	-	

1,2 etc - see "Footnotes"

*Avoid logging

** Additional information or requirements may be contained in the text portion of the reference guide.

FSP #469 Stocking Standards

BGC			Regeneration Guide						Free Growing Guide			
Classification			Species		Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)	
Zone/SZ	Series	Standards ID	Conifer		Target	MIN pa	MIN p		Earliest (yrs)	Latest (yrs)	Species	Ht (m)
			Preferred (p)	Acceptable (a)	(well-spaced/ha)							
IDFmw2	01	1044373	Fd PI Lw ³² Pw ³¹	Cw ¹⁰ Sx ¹⁰ Bl ¹⁰ Py ²³	1200	700	600	4		20	PI, Lw, Pw	1.6
	01-YC	1044374	Fd PI Lw ³² Pw ³¹	Bl ¹⁰ Cw ¹⁰ Sx ¹⁰	1200	700	600	4		20	PI, Lw, Pw	1.6
	01-YS	1044375	Fd PI Lw ³² Pw ³¹	Sx ¹⁰ Bl ¹⁰ Cw ¹⁰	1200	700	600	4		20	PI, Lw, Pw	1.6
	02	1044376	Fd ²⁷ PI	Py ²³	600	400	400	4		20	PI	1.2
	03	1044377	Fd PI Lw ³²	Py Cw ¹⁰ Sx ¹⁰ Pw ³¹	1000	500	400	4		20	PI, Lw, Pw	1.6
	04	1044378	Fd ³² Sx PI Lw ³²	Cw ³² Pw ³¹	1200	700	600	4		20	PI, Lw, Pw	1.6
	05*	1044379	Sx ¹ PI ¹	Bl ¹ Cw ^{1,32} Pw ³¹	400	200	200	4		20	PI, Pw	1.2
											Others	0.6

1,2 etc - see "Footnotes"

*Avoid logging

** Additional information or requirements may be contained in the text portion of the reference guide.

FSP #469 Stocking Standards

Uneven-aged Stocking Standards* -- Single-tree selection only

Target from Table A standards (stems/ha)	Layer**	Stocking***			Target from Table A standards (stems/ha)	Layer**	Stocking***		
		Target pa	MIN pa	MIN p			Target pa	MIN pa	MIN p
		(well-spaced/ha)					(well-spaced/ha)		
1200 ID 86000 (all layers)	1	600	300	250	800 ID 86003 (all layers)	1	300	150	150
	2	800	400	300		2	400	200	200
	3	1000	500	400		3	600	300	300
	4	1200	700	600		4	800	400	400
1000 ID 86001 (all layers)	1	400	200	200	600 ID 86004 (all layers)	1	300	150	150
	2	600	300	250		2	400	200	200
	3	800	400	300		3	500	300	300
	4	1000	500	400		4	600	400	400
900 ID 86002 (all layers)	1	400	200	200	400 ID 86005 (all layers)	1	200	100	100
	2	500	300	250		2	300	125	125
	3	700	400	300		3	300	150	150
	4	900	500	400		4	400	200	200

MIN - minimum

* Maximum regeneration delay is seven years. For a seven-year regeneration delay, the early free growing is 12 years and the late free growing is 15 years. Regeneration delay can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets minimum stocking standards. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest and the latest date is 24 months after completion of harvest.

** Stand Layer Definition

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

*** pa - preferred and acceptable species p - preferred species

FSP#469 - Appendix A: Stocking Standards

Species Footnotes

	Footnote #	<u>Footnote</u>
<u>Conifer Tree Species</u>		
"Bl" means subalpine fir;	1	elevated microsities are preferred
"Cw" means western red cedar;	10	restricted to northerly aspects
"Fd" means Douglas-fir;	23	restricted to trial use
	27	partial canopy cover required for successful establishment
	31	use of resistant stock mitigates risk of white pine blister rust. Do not use non-resistant stock for reforestation. See BC Journal of Ecosystems and Management 10(1): 97-100.
"Hw" means western hemlock;		
"Lw" means western larch;	32	limited by growing-season frosts
"Pl" means lodgepole pine;	51	restricted to areas with proven PI performance
"Pw" means white pine;		
"Py" means ponderosa pine;		
"Sx" means hybrid spruce or interior spruce;		
# <u>Localized Footnotes</u>		
"Biogeoclimatic unit" or "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.	58	Southern Interior Forest Region - Fd limited to a max 50% of preferred and acceptable well-spaced stems in the IDfmw and all subzones of the ICH (except the ICHxw) due to root rot in areas where stump removal has not been performed. See BC Journal of Ecosystems and Management 9(2): 60-65.
"MIN or "Min" means minimum.		