West Fraser Mills Ltd.
Thompson Rivers Forest District

Forest License A18694, A18690
Tree Farm License 35
(also includes FLA89992, NRFLA88945 – Skeetchestn)

FSP amendment #2 - Added section 4.2.3 Fisheries Sensitive Watershed Result or Strategy. July 29, 2021

FOREST STEWARDSHIP PLAN #731

April 21, 2020

100 Mile Lumber

Table of Contents

List of Acronyms ..... **i**
1 Definitions and Interpretation **2**
1.1 Definitions *2*
1.2 Definitions under Enactments *2*
2 FSP Dates and Term **3**
3 Forest Development Units **3**
3.1 Forest Development Units *3*
3.2 FSP Map Layers *3*
3.3 Additional Items Identified in the FDU (Blocks and Roads) *3*
4 Results or Strategies **5**
4.1 Soil Management and Conservation Objective *5*
4.2 Water Objectives *5*
4.2.1 Community Watersheds 5
4.2.2 Water Licensees 6
4.2.3 Fisheries Sensitive Watershed.....
4.3 Riparian Management Objectives *10*
4.3.1 Lakeshore Management 10
4.3.2 General Riparian Management 11
4.4 Biodiversity Objectives *13*
4.4.1 General Biodiversity 13
4.4.2 Landscape Level Biodiversity 13
4.4.3 Old Growth Management Areas 14
4.4.4 Stand Level Biodiversity 15
4.5 Recreation Objectives *16*
4.5.1 Recreation Sites and Trails 16
4.5.2 Walk-in Lakes 16
4.5.3 Recreation and Tourism Zones 17
4.6 Wildlife Objectives *17*
4.6.1 Mule Deer Winter Range 17
4.6.2 Moose 19
4.6.3 Mountain Goat 20
4.6.4 Flammulated Owl 21
4.6.5 Lewis's Woodpecker 22
4.6.6 Spotted Bat 22
4.7 Visual Objectives *23*
4.7.1 Visuals in the old "Headwaters Forest District" of Kamloops TSA 23
4.7.2 Visuals in the old "Kamloops Forest District" of the Kamloops TSA 24
4.7.3 Areas Outside Visually Sensitive Areas 25
4.8 Cultural Heritage Resources *26*
4.9 Archaeological Assessments *27*
4.10 Settlement Area Objectives *28*
4.11 Range *29*
5 Measures – Natural Range Barriers and Invasive Plants **29**
5.1 Natural Range Barriers *29*

5.2 Invasive Plants 30
6 STOCKING STANDARDS 31
Plan signatures 30
APPENDIX A – List of S58 (xS105) Access Closures – Walk-in-Lakes 34
List of S58 Access closures 32
APPENDIX B – List of Recreation Sites and Trails with Established Objectives 34
APPENDIX C – Stocking Standards 39

List of Acronyms

- AOA – Archeological Overview Assessment
- BA – Basal Area
- BEC – Biogeoclimatic Ecosystem Classification
- BG Bunchgrass Biogeoclimatic Zone
- CHR – Cultural Heritage Resource
- DBH – Diameter at Breast Height
- DFP – Deviation From Potential
- ESSF Engelmann Spruce Subalpine Fir Biogeoclimatic Zone
- FDU – Forest Development Unit
- FG – Free Growing
- FPPR – Forest Planning and Practices Regulation
- FRPA – Forest and Range Practices Act
- FSP – Forest Stewardship Plan
- HLP – Higher Level Plan
- IAPP – Invasive Alien Plant Program
- ICH – Interior Cedar Hemlock Biogeoclimatic Zone
- IDF – Interior Douglas-fir Biogeoclimatic Zone
- LRMP – Land and Resource Management Plan
- LRUP – Local Resource Use Plan
- MS – Montane Spruce Biogeoclimatic Zone
- MSS – Minimum Stocking Standard
- NAR – Net Area to Reforest
- NDT4 – Natural Disturbance Type 4
- OGMA – Old Growth Management Area
- PP – Ponderosa Pine Biogeoclimatic Zone
- QRP – Qualified Registered Professional
- RMZ – Riparian Management Zone
- RPF – Registered Professional Forester
- RRZ – Riparian Reserve Zone
- SBPS - Sub-Boreal Pine/Spruce Biogeoclimatic Zone
- SBS - Sub-Boreal Spruce Biogeoclimatic Zone
- SR – Sufficiently Restocked
- SU – Standards Unit
- TSA – Timber Supply Area
- TSR – Timber Supply Review
- VQO – Visual Quality Objective

1 Definitions and Interpretation

1.1 Definitions

In this FSP:

FDU means the forest development units identified under this FSP;

FPPR means the Forest Planning and Practices Regulation as amended from time to time*;*

FRPA means the *Forest and Range Practices Act*, SBC 2002, c. 69, as amended from time to time;

FSP means this Forest Stewardship Plan;

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

Qualified Registered Professional means an individual who is a registered member, in good standing, of a professional association whose training, ability and experience make the member professionally competent;

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 FSP Dates and Term

The date of submission of this FSP is ***August 7, 2017***

The Term of this FSP is 5 years beginning on the Commencement Date. The Commencement Date for the Term of this FSP is the day this FSP is approved by the Delegated Decision Maker (DDM), or another date selected by the DDM.

3 Forest Development Units

3.1 Forest Development Units

Under FRPA licensees must identify areas where forest development (i.e. harvesting and road construction activities) may occur. These areas are referred to as Forest Development Units (FDU).

This plan will have one FDU which will cover the entire Thompson Rivers District (Appendix 1). The FDU will have results and/or strategies that are developed to meet Objectives Set by Government in the Forest Planning and Practices Regulation (FPPR), the Kamloops LRMP Higher Level Plan Order[1], and for Government Objectives that are the result of Government Actions Regulation.

3.2 FSP Map Layers

The FSP Map (See Appendix A) identifies locations of the following items that were in effect on the Submission Date as per section 14(2) and (3) of the FPPR:[2]

1. Ungulate winter range areas,
2. Wildlife habitat areas,
3. Scenic areas,
4. L1 lakes,
5. Community watersheds,
6. Old growth management areas, and
7. Areas where commercial timber harvesting is prohibited by an enactment.

3.3 Additional Items Identified in the FDU (Blocks and Roads)

For the purposes of FPPR sec 14(2) and (3), the areas within the FDU that are subject to a cutting permit, or a road permit granted by the District Manager are those cutting permits and road permits that are in effect at the commencement date of this FSP.

[1] Kamloops LRMP Higher Level Plan Order Amendment.
https://www.for.gov.bc.ca/tasb/slrp/lrmp/kamloops/kamloops/legal_documents/files/legal_orders/order_kamloops_hlp_jan06.pdf

[2] The following items have not been identified as they are not in effect at the date of submission of this FSP.
- Fisheries Sensitive Watersheds
- Lakeshore Management Zones

Road Permits for A18690, A18694, TFL35

R21333	R13479	R13464	R13508	R18930	R13509	R13512	R13462
R18903	R13524	R13511	R13449	R16037	R13510	R13519	R13460
R13459	R15199	R13456	R15982	R13455	R13514	R13507	R13450
R13384	R13523	R17159	R13516	R89987	R13521	R13520	R13451
R17574	R13457	R17231	R13465	R13517	R13526	R13515	R13506
R13513	R15244	R18902	R17611	R13525	R13458	R13522	R13463
				R21333	R15774	R13518	R13478

Cutting Permits

Licence	Permit	Licence	Permit	Licence	Permit	Licence	Permit
A18690	717	A18694	15J	A18694	34J	A18694	755
A18690	718	A18694	10J	A18694	33J	A18694	38J
A18690	49K	A18694	41K	A18694	11K	TFL35	207
A18690	47K	A18694	13J	A18694	248	TFL35	212
A18690	33K	A18694	24J	A18694	728	TFL35	02U
A18690	716	A18694	244	A18694	23J	TFL35	216
A18690	54K	A18694	20J	A18694	715	TFL35	05U
A18690	37K	A18694	706	A18694	717	TFL35	210
A18690	63K	A18694	708	A18694	733	TFL35	204
A18690	39K	A18694	707	A18694	720	TFL35	218
A18690	56K	A18694	21J	A18694	729	TFL35	208
A18690	69K	A18694	30J	A18694	246	TFL35	04U
A18690	34K	A18694	29J	A18694	734	TFL35	214
A18690	58K	A18694	247	A18694	735	TFL35	08U
A18690	57K	A18694	31J	A18694	36J	TFL35	213
A18690	720	A18694	26J	A18694	70K	TFL35	220
A18690	719	A18694	719	A18694	742	TFL35	07U
A18690	79K	A18694	718	A18694	40J	TFL35	06U
A18690	60K	A18694	724	A18694	768	TFL35	223
A18690	729	A18694	32J	A18694	736	TFL35	221
A18690	81K	A18694	727	A18694	745	TFL35	224
A18690	725	A18694	726	A18694	744	TFL35	09U
A18690	300	A18694	73J	A18694	739	TFL35	225
A18690	64K	A18694	71J	A18694	731	TFL35	222
A18690	77K	A18694	732	A18694	756	TFL35	226
A89992	11						

4 Results or Strategies

The following sections outline objectives that are relevant to this FSP as identified directly through the Forest and Range Practices Act[3] and associated regulations, the Kamloops LRMP Higher Level Plan Order[4] or the Kamloops TSA Old Growth Order[5].

4.1 Soil Management and Conservation Objective

Objective[6]: 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: All FDUs.

Strategy: If the FSP Holder carries out primary forest activities, the activities will conform with soil disturbance limits as specified in Sections 35 and 36 of the FPPR.

4.2 Water Objectives

4.2.1 Community Watersheds

Objective[7]: 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:

a) a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or

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

Applicable Area: Within Designated Community Watershed areas including Cornwall, Currie, Tranquille, Leonie, Nelson, Paul, Paul Lake, Peterson, Rosen, Skowootum, Toops, Jimmies, Avola, Hascheak, McDougall and Russell.

[3] Forest and Range Practices Act. http://www.bclaws.ca/Recon/document/ID/freeside/00_02069_01
[4] Kamloops LRMP Higher Level Plan Order Amendment.
ftp://ftp.geobc.gov.bc.ca/publish/Regional/Kamloops/KLRMP_Legal_OGMA/
[5] Ministerial Order under the Land Act – Land Use Objectives Regulation. Old Growth Management Objectives for the Kamloops Land and Resource Management Plan Area dated March 5, 2013.
https://www2.gov.bc.ca/gov/content/industry/crown-land-water/land-use-planning/regions/thompson-okanagan/kamloopslrmp?keyword=Kamloops&keyword=Land&keyword=and&keyword=Resource&keyword=Management&keyword=Plan
[6] FRPA Section 149, FPPR Section 5.
[7] FRPA Section 149, FPPR Section 8.2.

Strategy: In relation to the objective set by Government for water in Community Watersheds, the Holder of this FSP will adopt sections 59 through 61 of the FPPR as those sections were on the date of submission of this FSP.

In addition, prior to harvest and road construction within a Designated Community Watershed that:

a) is defined in section 8.2(1) of the FPPR;

b) contains a licensed waterworks through which water is being diverted for human consumption;

the Holder will:

c) complete watershed assessment by a Qualified Registered Professional that addresses the Government Objective (above) if one is not relevant as determined by a QRP;

d) ensure that primary forest activities are planned and conducted in a manner that comply with the assessment recommendations.

e) Complete reassessment every 5 years or consistent with frequency recommended in the watershed assessment.

4.2.2 Water Licensees

Objective[8]: Ensure implementation of a referral process to notify all potentially impacted water licensees when development is proposed.

Applicable Area: All FDUs.

Strategy: Prior to carrying out primary forest activities, the FSP Holder will:

a) Ensure a QRP will assess whether there are known water licenses that may be potentially impacted by the proposed road construction and harvesting activities. If it is determined that there may be a potential impact, complete a referral to the related water licensees prior to carrying out primary forest activities. The referral period will be for 60 days, or less if an agreement can be reached sooner than the expiry of the 60-day period.

b) Where specific information is provided by the water licensee(s), work with the potentially impacted water licencee(s) to develop strategies to mitigate the potential impact on the water licence.

[8] Kamloops LRMP Section 2.1.2 and HLP Order of January 23, 2006

If agreement cannot be made with the water licence holder or circumstance warrants,

c) The holder of this FSP will ensure a QRP completes an assessment of proposed activities as they relate to values associated with the water licence and make recommendations as they relate to values associated with the water licence
d) Comply with recommendations provided by the assessment completed by the QRP.

4.2.3 Fisheries Sensitive Watersheds

Background Information
Source of Objectives: Order – Fisheries Sensitive Watershed, Thompson Rivers Forest District, given under authority of sections 14(1) and 14(2) of the Government Actions Regulation
1. For the Fisheries Sensitive Watersheds identified by this Order, the objectives are: a. Maintain channel stability and riparian function by retaining and protecting all mature timber and/or other natural vegetation on all active fluvial units on: i. fish streams; and ii. streams that are a direct tributary to fish streams. b. Minimize adverse sediment related effects to fish and fish streams by maintaining a very low likelihood of harmful sediment delivery from un-natural sediment sources to: i. fish streams; and ii. streams that are a direct tributary to fish streams, c. To protect the quantity and timing of annual and seasonal flows establish and maintain a sustainable rate of cut for the fisheries sensitive watershed and/or specified basins, that does not exceed 25% Equivalent Clearcut Area (ECA) above the snowline, with forest harvesting distributed by aspect, sub-basin, and elevation where possible.

4.2.3.1 Definitions

For the purposes of the fisheries sensitive watershed results or strategies the following definitions apply. Terminology as defined in the Order apply to these result or strategies unless otherwise defined below.

"Order" means Order – Fisheries Sensitive Watershed, Thompson Rivers Forest District, given under authority of sections 14(1) and 14(2) of the Government Actions Regulation, dated March 27, 2018, effective April 13, 2018.

"fisheries sensitive watershed" means a watershed identified in the Order in "Table 1 – Fisheries Sensitive Watersheds Established by this Order".

"**applicable fisheries sensitive watersheds**" means, for the purposes of *Order* Objective 1c., those watersheds, basins or residuals where a Maximum ECA of 25% has been specified in Schedule B, Table 2 of the *Order*.

"**active fluvial unit**" or "AFU", as defined in the Order, means "that portion of a floodplain over which water can be expected to flow during a runoff event of magnitude 1 in 100 years, and that portion of an AFU on which there is evidence of hydro-geomorphic processes, active within at least one full rotation".

"direct tributary" means a stream channel that has the ability to transport sediment to downstream fish-bearing waters as a result of stream power and physical connection.

"**relevant active fluvial unit**" means an active fluvial unit that is relevant to the Order, due to its location:

a) within a fisheries sensitive watershed; and
b) on a fish stream, or
c) a stream that is a direct tributary to a fish stream.

"**active fluvial unit assessment**" means an assessment, conducted by a qualified professional on a *relevant active fluvial unit* that is located within a proposed cutblock; or that crosses or is adjacent to a proposed new road, which specifies, where applicable, recommendations for:

a) mature tree and/or other natural vegetation retention within that portion of a *relevant active fluvial unit* that is located within that cutblock; and
b) the location, construction, maintenance and deactivation phases of the section of the proposed new road that crosses or is adjacent to the *relevant active fluvial unit*,

in order to ensure, to the extent it is practicable to do so, that stream channel stability and riparian function are maintained.

"**sediment mitigation assessment**" means an assessment conducted by a *qualified professional*, of a road or cutblock that crosses, contains, or is *adjacent* to a fish stream or *direct tributary,* that:

a) identifies existing or potential sediment generation and delivery zones which may be affected by or result from primary forest activities in that cutblock or along that road; and
b) specifies recommendations or measures to mitigate potentially adverse sediment-related effects to fish and fish streams that may be the result of un-natural sediment delivery associated with those primary forest activities.

"**adjacent**" - a fish stream or direct tributary will be considered **adjacent** to a cutblock or road, when a qualified professional determines that the fish stream or direct tributary could be directly impacted by primary forest activities due to the cutblock or road location".

"equivalent clearcut area (ECA)", as defined in the Order "refers to the area of forest that has been disturbed (e.g. harvested, affected by insects, cleared or burned, with consideration given to the silvicultural system, regeneration, and location of forest stands within a watershed). ECA is an indicator used to measure the relative loss and recovery of hydrologic function of a forest canopy".
A qualified professional will specify the process and assumptions used in the ECA calculation.

"**sustainable rate-of-cut**", or SRC, as defined in the Order "refers to a non-declining average annual rate of merchantable forest cover removal or alteration by primary forest activities and/or other land-use activities within the forest land base of the FSW. The sustainable rate-of-cut for the watershed and its basins must consider disturbances resulting from primary forest activities, natural events (wildfire, insects, pathogens etc…), and other land use activities, including disturbance on private land".

In any given year the actual harvest can exceed the SRC as long as the running average over a 10 year time period is maintained by balancing high levels of annual harvest with years of little or no harvest.

A qualified professional will specify the process and assumptions used in the sustainable rate-of-cut calculation.

4.2.3.2 Result or Strategy for Fisheries Sensitive Watersheds – maintenance of channel stability and riparian function

Applicable *FDU*: Kamloops

For objective 1a of the fisheries sensitive watershed Order, to "maintain channel stability and riparian function" in *fisheries sensitive watersheds*, the FSP holder will ensure that:

1. prior to conducting a primary forest activity within a cutblock or along a road to which this FSP applies, that is located within a fisheries sensitive watershed:
    a) a qualified professional assesses that cutblock and road location for the presence of a *relevant active fluvial unit*;
    b) *where a relevant active fluvial unit* is identified within that cutblock or along that road location, an *active fluvial unit assessment* is completed; and
2. the primary forest activity is conducted consistent with the recommendations of the *active fluvial unit assessment.*

4.2.3.3 Result or Strategy for Fisheries Sensitive Watersheds – minimizing adverse sediment related effects to fish and fish streams

Applicable *FDU*: Kamloops

For objective 1b of the fisheries sensitive watershed Order, to "minimize adverse sediment related effects to fish and fish streams", the FSP holder will ensure that:

1. prior to conducting a primary forest activity within a cutblock or along a road to which this FSP applies, that is located within a fisheries sensitive watershed:
    a) a qualified professional assesses that cutblock or road location for the presence of a fish stream or a stream that is a direct tributary to a fish stream*;*
    b) a *sediment mitigation assessment* is completed where a fish stream or stream that is a direct tributary to a fish stream:
        (i) is crossed by or *adjacent* to that road; or
        (ii) within or *adjacent* to that cutblock; and
2. the primary forest activity within that cutblock or along that road is conducted consistent with the recommendations of the *sediment mitigation assessment.*

4.2.3.4 Result or Strategy for Fisheries Sensitive Watersheds – to protect the quantity and timing of annual and seasonal flows

Applicable *FDU*: Kamloops

For objective 1c of the fisheries sensitive watershed *Order*, "to protect the quantity and timing of annual and seasonal flows", within *applicable fisheries sensitive watersheds*, the FSP holder will:

1. ensure that:
    a) prior to harvesting a cutblock or constructing a road to which this FSP applies, that is located within an *applicable fisheries sensitive watershed*:
        (i) the ECA above snowline of that *applicable fisheries sensitive watershed* is calculated and,
        (ii) a *sustainable rate-of-cut* is determined;

b) cutblock harvesting to which this FSP applies, that is located within that *applicable fisheries sensitive watershed* is:
   (i) conducted consistent with the calculated *sustainable rate-of-cut*;
   (ii) distributed by aspect, sub-basin, and elevation where possible; and

2. not cause the ECA above snowline to exceed 25%.

4.3 Riparian Management Objectives

4.3.1 Lakeshore Management

Objective[9]: 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: All FDUs.

Definitions

Lakes LRUPs: the *Clearwater Forest District Lakes Local Resource Use Plan – Lakeshore Management Guidelines* dated August 1, 2001[10] and the Kamloops Forest District *Lakes Local Resource Use Plan – Lakeshore Management Guidelines* dated December 20, 2001.[11]

Classified Lakes: lakes classified as outlined in the Lakes LRUPs.

Strategy: If carrying out primary forest activities within the lakeshore management zone around classified lakes, the FSP Holder will:

a) Subject to (b), ensure that timber harvesting and road construction is consistent with the harvesting guidelines found within the **Lakes LRUPs**;
b) Where it is not practicable to be consistent with the guidelines, ensure a rationale for variance as permitted within the Lakes LRUPs is developed by a QRP and is approved by the district manager prior to the carrying out of primary forest activities.
c) With the exception of the riparian reserve requirements for lake class L1-B and L2, where this strategy conflicts with table 3 in this FSP this strategy will take precedence.

[9] Kamloops LRMP Section 2.1.2.1 and HLP Order of January 23, 2006
[10] Clearwater LRUP - https://www.for.gov.bc.ca/ftp/DHW/external/!publish/DHW_Lakes_Local_Resource_Use_Plan/
[11] Kamloops LRUP - https://www.for.gov.bc.ca/ftp/DKA/external/!publish/DKA_Lakes_Local_Resource_Use_Plan/

4.3.2 General Riparian Management

Objective[12]*:* 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.

Definitions:

Discontinuous: - Is a stream that loses its defined channel and stream characteristics. These sections of no visible channel or "*NVC"* need to be vegetated and longer than 5m in length. These streams have no connectivity to fish bearing waters. Typically, these watercourses are ephemeral and at the NVC point they disperse water either subsurface or overland.

Indirect tributary - Is a stream that flows greater than 500m away into fish bearing waters, as measured along the stream channel.

Direct tributary - Is a stream that flows less than 500m away into fish bearing waters, as measured along the stream channel.

Strategy:

1. The Holder of this FSP harvesting a Cutblock to which this FSP applies that includes a riparian management zone will:
   a) conform with Sections 52(2) and 53 of the FPPR
   b) not cause retention in the Riparian Management Area, at the completion of that harvesting, to be less than the following:

[12] FRPA Section 149, FPPR Section 8

Table 1. Riparian Retention Strategies – Streams.

Riparian Class*	Riparian Reserve Zone (m)	Riparian Management Zone (m)	% Basal Area Retention in the Riparian Management Zone – Streams**
S1A	0	100	≥ 50
S1B	50	20	≥ 20
S2	30	20	≥ 20
S3	20	20	≥ 20
S4	0	30	≥ 20
S5	0	30	≥ 10
S6 – discontinuous	0	20	≥ 0
S6 – indirect tributary	0	20	≥ 10
S6 – direct tributary	0	20	≥ 20

* Refer to definition of riparian classifications found in FPPR Section 47.
** Basal area retained will be measured as an average across the entire reach length within the gross cutblock area.

Table 2. Riparian Retention Strategies - Wetlands

Riparian Class*	Riparian Reserve Zone (m)	Riparian Management Zone (m)	% Basal Area Retention in the Riparian Management Zone– Wetlands**
W1	10	40	≥ 10
W2	10	20	≥ 10
W3	0	20	≥ 20
W4	0	30	≥ 20
W5	10	40	≥ 10

* Refer to definition of riparian classifications found in FPPR Section 48.
** Basal area retained will be measured as an average across the entire reach length within the gross cutblock area.

Table 3. Riparian Retention Strategies - Lakes

Lake Class *	Riparian Reserve Zone Width (m)	Riparian Management Zone Width (m)	% Basal Area Retention in the Riparian Management Zone - Lakes**
L1-A	0	0	N/A
L1-B	10	0	N/A
L2	10	20	≥ 10
L3	0	30	≥ 20
L4	0	30	≥ 20

* Refer to definition of riparian classifications found in FPPR Section 49.
** Basal area retained will be measured as an average across the entire reach length within the gross cutblock area.

Further to the strategies tabled above:

a) To the extent practicable retain brush, regen, non-merch conifers, and deciduous stems within 5m of S4, S5, and any S6 stream, except at stream crossings, and to address cable or aerial yarding across or adjacent to a stream, or where a tree must be felled to address a safety concern,
b) Not permit tracked or wheeled ground-based machinery within 5m of all S4, S5, and S6 streams except:
    i. where construction of a stream crossing is required, or
    ii. where the primary forest activity is conducted in a manner that does not cause a material adverse impact to the stream bank and understory vegetation that is within 5 meters of the stream bank.

2. The agreement holder will comply with the requirements of FPPR section 50 and 51

4.4 Biodiversity Objectives

4.4.1 General Biodiversity

Objective[13] : To conserve the diversity and abundance of native species and their habitats throughout the Kamloops LRMP

Applicable Area: All FDUs.

Strategy: The strategies in the following sections of this FSP are the strategies for this objective:

- Section 4.3 – Riparian Management
- Section 4.4.2 – Landscape Level Biodiversity
- Section 4.4.3 – Old Growth Management Areas
- Section 4.4.4 – Stand Level Biodiversity
- Section 4.6 – Wildlife and Species at Risk

4.4.2 Landscape Level Biodiversity

Objective[14]***:*** 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

[13] Kamloops LRMP Section 2.1.3.1 and HLP Order of January 23, 2006
[14] FRPA Section 149, FPPR Section 9

that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.

Applicable Area: All FDUs.

Strategy: When the FSP Holder carries out primary forest activities, the FSP Holder will ensure that the activities are designed and carried out in a manner that is consistent with the requirements of Sections 64 and 65 of the FPPR.

4.4.3 Old Growth Management Areas

Objective[15]***:***

1. Conserve biodiversity by retaining old forest values and attributes, or rare features within OGMAs[16] across the landscape units over time.
2. Maintain all timber within OGMAs except as required to accommodate the following purposes:
   a. to prevent the spread of insect infestation or disease 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 clearance 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.
3. Primary forest activities conducted for the purposes under Objective #2 must:
   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 timeframe.

Applicable Area: All FDUs***.***

Result: The FSP Holder will carry out primary forest activities in a manner that is consistent with the March 5, 2013 Land Act Ministerial Order establishing old growth management objectives for the Kamloops Land and Resource Management Plan Area.

[15] Land Act Ministerial order. Old Growth Management Objectives for the Kamloops LRMP Area dated March 5, 2013.
[16] As identified in the 2013 Land Act Ministerial Order and as modified from time to time by OGMA incursions/replacements in accordance with the Order.

4.4.4 Stand Level Biodiversity

Objective[17]***:*** 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.

Applicable Area: All FDUs.

Strategy: For the purposes of section 12.5 (1) of the FPPR, in relation to the objective set by government for wildlife and biodiversity at the stand level set out in section 9.1 of the FPPR, the strategies that apply to areas of the primary forest activity carried out by the holder of this FSP and in the FDU are:

Wildlife Tree Retention over a Cutting Permit

1. A Holder of this FSP will ensure that in the Cutting Permit during any 12 month period beginning on January 1 of any calendar year:
    a. the total area covered by wildlife tree retention areas relating to one or more cutblocks where harvesting is concluded between January 1st and December 31st of the same year is a minimum of 7.0% of the total area of the cutblocks.
    b. At the competition of harvesting, the total amount of wildlife tree retention area that relates to any cutblock greater than 5 ha in size is a minimum of 3.5% of the cutblock.
    c. For the purposes of (a) above, wildlife tree retention area may relate to more than one cutblock if all of the cutblocks that relate to the wildlife tree retention area collectively meet the applicable requirements of this section.
2. The FSP holder may harvest trees within a designated wildlife tree retention area if the assessment of a qualified registered professional determines:
    a) the trees on the Net Area to be Reforested (NAR) of the cutblock to which the Wildlife Tree Retention Area relates, has developed attributes that are consistent with a mature seral condition, or
    b) harvesting the Wildlife Tree Retention Area is for the purposes of:
        i. road access where no other practicable option for the road location exists or,
        ii. guyline tiebacks where no other practicable location is available. exists,

    and the area harvested under 4.4.4 2(b) is replaced with an equivalent Wildlife Tree Retention Area as determined by a qualified registered professional.

[17] FRPA Section 149, FPPR Section 9.1

4.5 Recreation Objectives

4.5.1 Recreation Sites and Trails

Objective:[18] Manage known recreation sites and trails in accordance with established objectives.

Applicable Area: All FDUs.[19]

Definition:

Recreation Sites and Trails: those identified in Appendix B with established objectives.

Result: Prior to carrying out primary forest activities, the FSP Holder will ensure that primary forest activities are carried out in a manner that is consistent with the established objectives of designated recreation sites and trails.

4.5.2 Walk-in Lakes

Objective:[20] Maintain a mosaic of angling opportunities within the recreational spectrum (i.e. walk-in lakes, drive to lakes, trophy lakes).

Applicable Area: All FDUs. Within 200m of identified Walk-in Lakes.

Definition:

Walk-in Lakes: lakes identified in Appendix A.

FRPA Section 58 Walk-in Lakes: Thompson Rivers District lakes and their associated 'Walk-in-Zones' that have been ordered through a FRPA Section 58 Recreation order as having motorized vehicle restrictions.[21]

Strategy: Before carrying out primary forest activities within 200m of identified Walk-in Lakes, the FSP Holder will

a) Ensure that road location and construction is consistent with the harvesting guidelines found within the Lakes LRUPs,
b) Where it is not practicable to follow the harvesting guidelines found within the Lakes LRUPs, ensure a rationale for variance as permitted within the Lakes

[18] Grandparented designations, FRPA Section 180.
[19] Although Recreation Sites and Trails have been legally established in the former Kamloops Forest District, no formal objectives were established (as required by FRPA Sec 181) and therefore no Result or Strategy is required in this FSP. Establish objectives are in place for a series of recreations sites and trails in the former Headwaters Forest District portion of the Kamloops TSA. A list of these sites can be found in Appendix B.
[20] Kamloops LRMP Section 2.1.5 and HLP Order of January 23, 2006.
[21] Digital spatial data can be found in the BC Data Catalogue at hhps://cataloque.data.gov.bc.ca/dataset/section-58-recreation-orders-polygons.

LRUPs is developed by a Qualified Registered Professional and approved by the district manager prior to the authorization of primary forest activities.

c) New roads constructed within 200m of identified Walk-in-Lakes, will be deactivated after primary silviculture actives are complete.

d) Prior to carrying out primary forest activities within or adjacent to a **FRPA Section 58 Walk-in Lake** polygon, the FSP holder will conform to the applicable FRPA Section 58 order.

4.5.3 Recreation and Tourism Zones

Objective:[22] 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.

Objective[23] ***:*** Extractive uses are permitted providing they are consistent with the objectives of the Resource Management Zone.

Applicable Area: *Special Resource Management – All Recreation and Tourism Zones* within the FDU.

Strategy: When carrying out timber harvesting or road construction, the FSP Holder will ensure that the activity is designed and carried out in a manner that is consistent with existing direction from an approved plan, local process or enhanced referral.

4.6 Wildlife Objectives

4.6.1 Mule Deer Winter Range

Objectives:[24]

1. Maintain or enhance forage production and habitat requirements in critical deer winter range.
2. Disperse the timber harvest throughout the winter range and spread it out evenly over the rotation.
3. 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.

[22] Kamloops LRMP Section 2.6.1 and HLP Order of January 23, 2006.
[23] Kamloops LRMP Section 2.6.1.4 and HLP Order of January 23, 2006.
[24] Kamloops LRMP HLP Order dated January 8, 2009. Kamloops LRMP sections 2.1.12.1 and 2.5.2.

4. Maintain or enhance forage production and habitat requirements in critical deer winter range (Skull Wildlife Habitat).

Applicable Area: Critical Deer Winter Range and the Skull Wildlife Habitat Management Area, as identified in the Kamloops HLP Ministerial Order January 8, 2009.

Definitions:

Critical Deer Winter Range: an area that is Crown land and either identified as Critical Deer Winter Range in Kamloops HLP Ministerial order dated January 8, 2009 or is within the Skull Wildlife Habitat Management Area.

Suitable Snow Interception Cover[25]:

1. A forest area that is greater than 0.25 hectares in size, conifer leading (with preference given to Douglas-fir leading stands) and has a crown closure class of:
    i. 2 or greater in the PP, or IDFxh biogeoclimatic zones;
    ii. 5 or greater in the ESSF and ICH biogeoclimatic zones;
    iii. 4 or greater in all other biogeoclimatic zones; or

Planning Cell: An area of crown forested land within a Critical Deer Winter Range that is up to 800 ha in size.

Suitable Travel Corridors: Areas identified through an assessment carried out by a QRP that are generally suitable for mule deer travel during winter. Specific attention will be given to Douglas-fir vets (e.g. 65cm or greater) on ridges.

Harvest area: Is the harvest area of a cutblock or road where >40% of the pre-harvest basal area is removed at the conclusion of harvesting.

Strategy: When carrying out primary forest activities in an area within **Critical Deer Winter Range**, the FSP Holder will:

1. With the inclusion of the **Harvest Area**, not cause less than 25% of the forested area in each **Planning Cell** to be retained as **Suitable Snow Interception Cover** with preference given to Douglas-fir leading stands.
2. Subject to #1, and to the extent practicable, areas of **Suitable Snow Interception Cover** will be linked together with suitable travel corridors.
3. The FSP holder will meet the objective to maintain or enhance forage production in critical deer winter range by complying with strategies 1 and 2 above.

[25] Snow interception cover is equated with and assumed to provide security cover and thermal cover.

4.6.2 Moose

Objectives:[26]

1. Maintain thermal and visual cover for moose, and enhance browse production.
2. Maintain suitable forest cover attributes with respect to thermal cover and forage production.
3. Maintain or enhance forage production and habitat requirements in critical moose winter range (Skwilatin Wildlife Habitat).

Applicable Area: Critical Moose Winter Range as identified in the Kamloops HLP Ministerial Order January 8, 2009.

Definitions

Extended Use Roads: newly constructed roads that are planned for more than 2 years of use for forestry activities;

Moose Forage: palatable species of plants that are a food source for Moose. These plants include Salix spp., red-osier dogwood and Betula spp.;

Moose Habitat: Deciduous leading stands, classifiable wetlands or lakes in Moose Winter Range that are either 200 metres 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: areas identified in Figure 4 of the Kamloops Land and Resource Management Plan (July 1995) as critical moose winter range (See Appendix A);

Moose Management Units: Means an area of Moose Habitat with a 200 metre buffer around the Moose Habitat;

Security Cover: is vegetation >5m height and at least 1ha in size.

Thermal Cover: an area >3ha with stand age >60yrs and canopy closure >40%.

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

Strategy: Where carrying out primary forest activities in an area within **Moose Winter Range**, the FSP Holder will:

[26] Kamloops LRMP HLP Order dated January 8, 2009. Kamloops LRMP sections 2.1.12.2, 2.5.1 and 2.5.2.

a) Subject to the approval of stocking standards, pursue mixed forest management with similar species distribution to natural stands (including deciduous)[27]
b) minimize the amount of area that is >400m from sufficient thermal and security cover to the extent practicable
c) not create an opening greater than 40ha in size until a minimum 5m greenup is achieved on adjacent openings unless harvesting to salvage damaged timber due to blowdown, beetle infestation, or other forest health concerns (i.e. fire, frost, etc…),
d) within each **Moose Management Unit**, retain at least 67% of the forested area equal to or greater than 20 years of age,
e) where present, retain **Visual Screening** along those **Extended Use Roads** that are located within 100 meters of a **Moose Management Unit** to the extent practicable, and
f) 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.

4.6.3 Mountain Goat

Objective[28]

1. The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for
    - the survival of species at risk,
    - the survival of regionally important wildlife, and
    - the winter survival of specified ungulate species.
2. A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister responsible for the Wildlife Act gives notice to the person of the applicable:
    - species referred to in subsection (1), and
    - indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Applicable Area: Mountain Goat Winter Range.

[27] Section LRMP 2.1.12.2 of the Kamloops LRMP
[28] FRPA Section 7, FPPR Section 7

Definitions

Early Seral: less than 40 years of age;

Escape Terrain: rock outcrops or cliffs with slopes >30° and <60°;

Mountain Goat Winter Range: areas identified in the Kamloops Timber Supply Area by Ministry of Environment and provided as spatial data to support the **Ungulate Winter Range Notice**;

Snow Interception Cover: mature coniferous forest with preference given to Douglas-fir (*Pseudotsuga menziesii*) leading stands equal to or greater than 12m in height with a crown closure class equal to or greater than 7. Snow interception cover is assumed to also provide adequate security cover and thermal cover;

Ungulate Winter Range Notice: the notice for the Kamloops Timber Supply Area dated December 30, 2004.

Strategy

1. When carrying out primary forest activities in an area that is within 200m from **Escape Terrain** within **Mountain Goat Winter Range**, the FSP Holder will
   a) Ensure no more than 33% of the forested area is in **Early Seral** condition and
   b) Retain equal to or greater than 50% basal area of **Snow Interception Cover.**
2. In areas currently occupied by Mountain Goats for winter use within **Mountain Goat Winter Range**, the FSP Holder will follow the recommendations of a wildlife assessment completed by a QRP.

4.6.4 Flammulated Owl

Objective:[29] 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).

Applicable Area: All FDUs

Strategy: The strategy for Old Growth Management Areas (Section 4.4.3) is the strategy for Flammulated Owl.

[29] Kamloops LRMP Section 2.1.12 and HLP Order of January 23, 2006

4.6.5 Lewis's Woodpecker

Objective:[30] 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).

Applicable Area: All FDUs.

Definitions

Occurrence Area: area where Lewis's Woodpecker has been identified

(i) in the Applicable SAR Notice[31];.
(ii) by the BC Conservation Data Centre[32];

Core Area means an area not less than 5 hectares, incorporating an **Occurrence Site**.

Management Area: area located 100 meters (slope distance) beyond the edge of an **Occurrence Area**.

Strategy

1. The FSP Holder will not carry out primary forest activities within an **Occurrence Area**.
2. When carrying out primary forest activities within a **Management Area**, the FSP Holder will where practicable
   a) Retain live ponderosa pine and black cottonwood,
   b) Retain single tree or group wildlife tree reserves on site, focusing reserves on non-hazardous dead standing trees where they exist,
   c) Retain a minimum of 6 standing dead trees/ha greater than 45 cm dbh
   d) Not employ the use of pesticides, and
   e) Place wildlife tree retention within or adjacent to an **Occurrence Area** where practicable.

4.6.6 Spotted Bat

Objective[33]***:*** 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).

Applicable Area: All FDUs.

[30] Kamloops LRMP Section 2.1.12 and HLP Order of January 23, 2006
[31] Material supporting the Notice for Species at Risk – Kamloops Forest District as found at **https://www.for.gov.bc.ca/hfd/library/fia/2004/fia-04-05-0085.pdf**
[32] http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/data-reporting/conservation-data-centre
[33] Kamloops LRMP Section 2.1.12 and HLP Order of January 23, 2006

Definitions

Occurrence Site: area where Spotted Bat has been identified

(i) in the Applicable SAR Notice
(ii) by the BC Conservation Data Centre

Core Area means an area not less than 5 hectares, incorporating an **Occurrence Site** and any cliff feature or talus slope within 150 meters (slope distance) of the **Occurrence Site**.

Management Area is an area located 100 meters (slope distance) beyond the edge of a **Core Area**.

Strategy:

1. The FSP Holder will not carry out primary forest activities within a **Core Area**.
2. When carrying out primary forest activities within a **Management Area**, the FSP Holder will where practicable
   a) Employ a partial cut harvest method, retaining at least 50% of the pre-harvest basal area at the completion of harvest,
   b) Retain single tree or group reserves on site,
   c) Retain vet trees,
   d) Not build roads between March and October
   e) Rehab temporary access roads after use and install access control measures.
   f) Not remove rock or talus, and
   g) Not employ the use of pesticides.

4.7 Visual Objectives

4.7.1 Visuals in the old "Headwaters Forest District" of Kamloops TSA

Objective 1 (FPPR): The objective set by government[34] in relation to visual quality for a scenic area, that is:

a) in visual sensitivity class 1 is in either the preservation or retention category,
b) in visual sensitivity class 2 is in either the retention or partial retention category,
c) in visual sensitivity class 3 is in either the partial retention or modification category,
d) in visual sensitivity class 4 is in either the partial retention or modification category,

[34] FPPR Section 9.2

e) in visual sensitivity class 5 is in either the modification or maximum modification category

Objective 2[35] (KLRMP): 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

***Objective 3[36] (KLRMP)*:** Maintain viewscapes in recreation and tourism areas to a standard that does not detract from the recreational enjoyment of users.

Applicable Area: Kamloops VSA, FRPA scenic area (1999 inventory) and the Rec Tourism RMZ.

Strategy – Objectives 1 and 2: The FSP Holder will

1. Prior to the carrying out of primary forest activities, ensure a QRP designs cutblock harvesting and road construction such that the visual alteration is consistent with the applicable category described in *FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes*, and
2. Conduct harvesting and road construction consistent with the applicable category described in *FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes*.

Strategy – Objective 3: The FSP Holder will

3. Prior to carrying out primary forest activities on cutblocks and roads, ensure that a QRP applies visual resource management landscape design principles, and where a viewscape in recreation and tourism area overlaps a scenic area that is in a visual sensitivity class, that the post harvest landscape alteration is consistent with the applicable category described in FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes.

4.7.2 Visuals in the old "Kamloops Forest District" of the Kamloops TSA

Objective 1 (FPPR): Known scenic areas[37] with established VQOs.

Objective 2[38] (KLRMP): 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.

[35] Kamloops LRMP Section 2.1.14.2 and HLP Order of January 23, 2006
[36] Kamloops LRMP Section 2.6.1 and HLP Order of January 23, 2006
[37] FRPA Section 180 & 181. Grandparented VQOs.
[38] Kamloops LRMP Section 2.1.14.2 and HLP Order of January 23, 2006

Objective 3[39] ***(KLRMP):*** Maintain viewscapes in recreation and tourism areas to a standard that does not detract from the recreational enjoyment of users.

Applicable Area: Within Visually Sensitive Areas[40] and Scenic Areas[41] within the Kamloops Portion of the TSA, and the Rec Tourism RMZ.

Strategy - Objectives 1 and 2: The FSP Holder will

1. Prior to the carrying out of primary forest activities, ensure a QRP designs cutblock harvesting and road construction such that the visual alteration is consistent with the applicable category described in *FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes*, and
2. At the conclusion of primary forest activities, the post harvest landscape alteration is consistent with the applicable category described in *FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes*.

Strategy – Objective 3: The FSP Holder will

3. Prior to carrying out primary forest activities on cutblocks and roads, ensure that a QRP applies visual resource management landscape design principles, and where a viewscape in recreation and tourism area overlaps a scenic area that is in a visual sensitivity class, that the post harvest landscape alteration is consistent with the applicable category described in FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes.

4.7.3 Areas Outside Visually Sensitive Areas

Objective: Areas outside the identified Visually Sensitive Areas in 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. [42]

Applicable Area: Areas outside the identified Visually Sensitive Areas in all FDUs, or within a visually sensitive area that does not have either a visual quality objective or visual sensitivity class established.

Strategy:

[39] Kamloops LRMP Section 2.6.1 and HLP Order of January 23, 2006
[40] Fig 5 of the KLRMP (July 28, 1995)
[41] Scenic Areas with VQOs as defined by District Manager direction.
[42] Kamloops LRMP Section 2.1.14.1 and HLP Order of January 23, 2006

1. Prior to carrying out primary forest activities on cutblocks and roads, ensure that a QRP applies visual resource management landscape design principles consistent with the objective and,
2. To the extent practicable, conduct harvesting and road construction consistent with the *Modification* category described in *FPPR Sec 1.1 Categories of Visually Altered Forest Landscapes*

4.8 Cultural Heritage Resources

Objective*[43]*: The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and not regulated under the Heritage Conservation Act

Applicable Area: All FDUs

Definitions:

Potentially Affected First Nations: those First Nations with interest within an area as defined by the Consultative Areas Database[44] or as determined by the district First Nations Liaison Officer.

Affected Cultural Heritage Resource: a cultural heritage resource (CHR), geographically associated with the planned forest harvesting, road building or site prep activities, to which the objective set by government in Section 10 of the FPPR pertains;

CHR Evaluation: an office and/or field based process conducted by an authorized member of the **Potentially Affected First Nation** or QRP to assess the existence and significance of an **Affected CHR**;

Strategy: The FSP Holder will

1. Follow any development specific or general protocols that are developed and agreed to with First Nations
2. In the absence of general or specific protocols, and prior to carrying out primary forest activities,
    a) Refer the areas identified for proposed forest harvesting, road construction or site preparation to **Potentially Affected First Nations,** requesting specific information regarding CHR values;

[43] FPPR Section 10
[44] http://maps.gov.bc.ca/ess/sv/cadb/

b) Complete a **CHR Evaluation** where specific information is brought forward or made available by the **Potentially Affected First Nation**.

c) If made aware of the presence of an **Affected CHR** in or adjacent to a proposed cutblock or road, work with affected First Nations to develop strategies to mitigate the direct impact of the proposed forest harvesting or road construction on the affected CHR, based on:

   i. The relative value or importance of the affected CHR to a traditional use by a First Nation;

   ii. The relative abundance or scarcity of the affected CHR;

   iii. The historical extent of the traditional use of the affected CHR and

   iv. Options for mitigating the impact of primary forest activities on the CHR;

   v. The impact that conserving or protecting the CHR has on the FSP Holder's ability to implement primary forest activities.

d) In the event that agreement cannot be reached regarding the **Affected CHR**, the holder of this FSP will develop and implement management strategies (based on i – v above) that will ensure that the **Affected CHR** is conserved or if necessary, protected and communicate back to the affected First Nation these management strategies.

e) Implement the management strategies in response to the **Affected CHR**.

f) If a specific previously unidentified **Affected CHR** is identified during forest harvesting, road construction or site preparation activities, modify or stop work to the extent necessary to protect the **Affected CHR**, then complete 2, c to e.

4.9 Archaeological Assessments

Objective[45]: Undertake archaeological assessments in all High and Medium Potential areas identified in the Archaeological Overview Assessment.

Applicable Area: All FDUs.

Definitions:

AOA Model: the area outlined in Figure 6 of the Kamloops LRMP otherwise referred to as the "1995 AOA Model" as updated from time to time.

[45] Source: Kamloops LRMP Section 2.1.16 and HLP Order of January 23, 2006

Archaeological Evaluation: evaluations completed by a QRP or

in accordance with the 1999 Archaeological Assessment Process as updated from time to time.

Affected Archaeological Resources: the physical remains of past human activity as defined by the Heritage Conservation Act that are susceptible to damage caused by primary forest activities;

Potentially Affected First Nations: those First Nations who have identified areas of interest (as defined by the Consultative Areas Database.[46]

Strategy: Before carrying out primary forest activities, the FSP Holder will

1. Ensure that an opportunity is provided to either **Potentially Affected First Nations** or a QRP for an **Archaeological Evaluation** to be carried out for areas that overlap medium and high potential areas shown on the **AOA Model.**
2. If made aware of the presence of an **Affected Archaeological Resource** through an **Archaeological Evaluation**, develop strategies to mitigate the direct impact of the primary forest activities on the **Affected Archaeological Resource.**
3. Implement the strategies developed as a result of the archaeological evaluation.
4. If a specific previously unidentified **Affected Archaeological Resources** is identified during forest harvesting, road construction or site preparation activities, modify or stop work to the extent necessary to protect the **Affected Archaeological Resources**, then complete 2 and 3.

4.10 Settlement Area Objectives

Objective[47]: Manage land within community growth boundaries to meet the objectives set out in approved community land use plans.

Applicable Area: Settlement Resource Management Zones (See Appendix A).

Strategy: Before carrying out primary forest activities in the Settlement Resource Management Zones, the FSP Holder will ensure compliance with any approved community land use plans.

[46] https://www.for.gov.bc.ca/Archaeology/docs/resource_management_handbook/index.htm#arch 63 http://maps.gov.bc.ca/ess/sv/cadb/
[47] Kamloops LRMP Section 2.2 and HLP Order of January 23, 2006

4.11 Range

Objective[48]: Minimize tree/grass/cattle conflicts through integrated management practices.

Applicable Area: All FDUs.

Strategy: Before carrying out primary forest activities, the FSP Holder will

1. Inform, through the referral of cutblocks and roads, the range tenure or grazing lease holder of primary forest activities within or adjacent to (within 500m) their range tenure;
2. Where a range tenure or grazing lease holder indicates that conflict between timber and range management may arise, work with the potentially impacted range tenure holder(s) to develop strategies to minimize the potential impact of the proposed activities on the range tenure through integrated management practices.
3. The FSP holder will undertake developed strategies as per (2) above.
4. In the event that agreement cannot be reached in the development of strategies in (2), communicate back to the range tenure holder and District Range Staff what management strategies will be undertaken in response to the potential conflict.
5. If a range tenure is unallocated, the FSP Holder will Inform, through the referral of cutblocks and roads, the Ministry responsible for range of primary forest activities within or adjacent to (within 500m) of the unallocated range tenure.
6. Where the Ministry responsible for range indicates that conflict between timber and range management may arise, work with the Ministry responsible for range to develop strategies to minimize the potential impact of the proposed activities on the range tenure through integrated management practices.

5 Measures – Natural Range Barriers and Invasive Plants

5.1 Natural Range Barriers

A person who prepares a forest stewardship plan must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.[49] The following measures will be undertaken by the FSP Holder in all FDU areas that contain, or are adjacent to range tenures.

Definitions

[48] Kamloops LRMP Section 2.1.10 and HLP Order of January 23, 2006
[49] FRPA Section 48, FPPR Section 18

Natural Range Barrier: a river, rock face, dense timber or other naturally occurring feature that stops or significantly impedes livestock movement to and from an adjacent area.

Measures

1. The Licensee shall notify the applicable range or grazing lease tenure holders of proposed forestry activities and provide these parties 30 days (or less under emergency circumstances as approved by FLNRO District Range Officer) to identify the location of natural range barriers in the vicinity of the proposed forestry activities prior to making application for the related cutting or road permits.

2. If the range or grazing lease tenure holder(s) indicates that proposed forestry activities will remove or render ineffective a natural range barrier, the Licensee shall work with the impacted range or grazing tenure holder(s) to develop strategies that:

    a) Install drift fencing and/or cattle guards to mitigate the effect of removing or rendering ineffective the natural range barrier by forestry activities within 30 days of the completion of harvest where practicable if during the grazing season or otherwise before the next grazing season following harvest, or
    b) Adjust forestry activities to avoid removing or rendering ineffective the natural range barrier.

3. Communicate to District Range Staff what strategies will be undertaken in response to (2) above.

5.2 Invasive Plants

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.[50]

Applicable Area: All FDUs.

Definitions

Invasive Plant Species: those plants defined in the Invasive Plants Regulation (January 31, 2004) as amended from time to time.

Successful Establishment: Means an amount of vegetation that is adequate to prevent the introduction or establishment of an invasive plant species, as determined by a QRP.

Measures: Prior to carrying out primary forest activities the FSP holder will:

[50] FRPA Section 47, FPPR Section 17

1. Provide annual invasive plant awareness training to West Fraser woodland staff and contractors.
2. Consult the Invasive Alien Plant Program (IAPP) Application[51] database to determine known invasive plant sites.
3. Where machinery will be working in known invasive plant sites, instruct the operator of the machinery to remove any observed plant material, or significant accumulations of soil which may contain plant material, from the machinery prior to that machinery being relocated outside of the cutblock or road.
4. During cutblock and road design, avoid infested sites when determining staging, parking and log sorting areas.
5. Advise that primary forest activities occur in uninfested sites before moving to infested sites
6. for contiguous areas of disturbed soil ≥ 0.03 ha, ensure that, within one year of the completion of the activities, the portions of the area occupied by ditch-lines, cut-or fill slopes, and deactivated roads (which are not reforested and not including active road running surfaces) will be seeded using:

i. seed or forage mixture that meets or exceeds Canada Common Number 1 Forage Mixture as defined by the Canada Seeds Act and Regulation, or
ii. native forbs or shrubs.

7. Where areas have been seeded in (6), inspect the areas within 12 months of seeding, where practicable, to ensure successful establishment and repeat one additional seeding as necessary.
8. Within 60 days of discovery, report new invasive plant infestation sites through the provincial Invasive Alien Plant Program (IAPP) Application.

6 STOCKING STANDARDS

See Appendix B for Stocking Standards. These stocking standards, as previously approved, will remain in effect until changes are required to implement the updated Biogeoclimatic Ecosystem Classification (BEC) and associated Land Management Handbooks. When required, an amendment will be made to incorporate the stocking standards and variations, as developed by the Thompson Okanagan Stocking Standards Working Group.

All stocking requirements are applicable across the entire FSP area (all FDUs).

Legal Reference: Section 29 (2) of the Act and Section 16 and 44(1) of the FPPR

Scale of Measurement: Cutblock

Map Reference: N/A

[51] https://www.for.gov.bc.ca/hra/Plants/application.htm

Where required under FRPA to establish a free growing stand with respect to timber harvesting governed by this FSP, the FSP Holder will do so in accordance with the coniferous (even- aged), coniferous (uneven-aged), and deciduous stocking standards in Appendix B.

For areas where the FSP Holder carries out commercial thinning or other similar type of intermediate cutting, stocking standards for the residual stand will be applied.

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"*
Rob Ballinger, R.P.F Planning Superintendent West Fraser Mills Ltd.	 Rob Ballinger, RPF Date: April 22, 2020

	acknowledging this FSP is submitted on behalf of West Fraser Mills Ltd.
Licensee Authorized Signature	 Chad Swanson, RPF Woods Manager, 100 Mile Lumber

APPENDIX A – List of LRUP – Walk-in-Lakes

Lake #	Lake Name	Class_1
773	Copper Lake	A
850	Lost lake	B
874	Moosehead Lake	PA
821	Grizzly Lake	A
872	Moose Lake	B
1298		C
811	Fourteen Mile	C
789	Donna Lake	B
1302	Little Thumb	B
511		B
839	Laurel Lake	B
934	Thumb lake	A
948	Walkin Lake	C
963	Bendelin	C
354	Tortoise lake	C
1283		B
1708		C
1012	Trails End Lake	B
1015	Boot Lake	B
1013	Summit Lake	B
1287	Gords Lake	C
1258	Scott	PA/C
1255	Jeremy	PA
1267	Linquist Ch.	B
1041	Tibbetts Lake	B
1678		C
1266	Linquist Ch.	B
1257		C
1265	Linquist Ch.	C
1238		C
757	Boulanger Lake	C
35	Bogmar Lake	C
377	Twin Lake	PA/B
275	Pothole Lake	B
114	Frankie Lake	PA
1049	Pocket Lake	PA/B
76	Dagger Lake	PA
1211	Cherry Lake	PA/B
1213	Rubber boat	PA/B
1212	Lost	PA
88	Donut Lake	B
1697		C+
1198		C+
1199		C+
843	Little Badger	B
1196		W
1197		W
1594		D
1130		PA
391	Warren Lake	B
1315	Little Warren	C
1111		PA
1116		PA
1123		D
1106		D
1086		PA
1177		D
1185		C

Summary of S58 Access Closures.

Hardcastle Lake
Grizzly/Copper Lakes Area
Noname Lake Area
Spider/Portage Lake Area
Summit Lake Area
Stake Lake Cross Country Ski Trails
Logan Lake Cross Country Ski Trails
Smith Lake
George Lake
Neil Lake
Deube Lake
Rioux Lake
Downey (aka Jones) Lake
Goodwin Lake
Loch Ness (aka Lost Girl) Lake
2 Mile Lake
Robinson Lake
Efdee Lake
Constance Lake
David Lake
Earl Lake
Frank Lake
Walter Lake
Marshall Lake

APPENDIX B – List of Recreation Sites and Trails with Established Objectives

Rec Site or Trail	Objectives
Canoe Reach Marina	1999/05/21 The objective is to manage the Canoe Reach Marina Recreation Site for a roaded recreation experience. The campsite will be maintained. Opportunities for camping, picnicking and boating will be available at the site.
Upper Canoe	97/07/18 1. Recreation experience objective: To provide opportunities for natural roaded recreation experiences. 2. Recreation feature objective: To retain the small river and mixed deciduous / conferous features. 3. Recreation activity objective: To provide opportunities for picnicking, camping and nature study appreciation. 4. Public recreation access objective: To maintain summer 2 wheel drive access to the site. 5. The maintenance objective: This site will be user maintained. 6. This site will provide the following facilities: Table, firering and toilet.
Beaver Falls Trail	97/07/18 1. Recreation experience objective: To provide opportunities for natural roaded recreation experiences. 2. Recreation feature objective: To protect the river shoreline, site specific waterfall and mixed forest cover features. 3. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study/appreciation. 4. Public recreation access objective: To maintain 2 wheel drive access to the trail head. 5. The maintenance objective: To maintain the developed trail. 6. This site will provide the following facilities: Developed land trail and toilet.
Bell Mountain Meadow	1999/05/21 The objective is to manage the Bell Mountain Meadow Recreation Site for a roaded recreation experience. A campsite will be maintained; the natural vegetation will be conserved. Opportunities for camping will be available at the site.
Yellowjacket Creek	1999/05/21 The objective is to manage the Yellowjacket Creek Recreation Site for a roaded recreation experience. The campsite will be maintained and natural vegetation will be conserved. Opportunities for picniking will be available at the site.
Holmes (Beaver) River	97/07/18 1. Recreation experience objective: To provide opportunities for natural roaded recreation experiences. 2. Recreation feature objective: To retain the river shoreline features. 3. Recreation activity objective: To provide opportunities for picnicking, camping, fishing and viewing. 4. Public recreation access objective: To maintain summer 2 wheel drive access to the site. 5. The maintenance objective: To maintain the developed campsite. This site will be serviced during the summer months. 6. This site will provide the following facilities: Tables, firerings and toilets.
Little La Salle Lake	97/07/18 1. Recreation experience objective: To provide opportunities for natural roaded recreation experiences. 2. Recreation feature objective: To retain the small lakes, wetland vegetation and wildlife diversity features. 3. Recreation activity objective: To provide opportunities for picnicking, camping, fishing, non motorized boating and beach activities. 4. Public recreation access objective: To maintain summer 2 wheel drive access to the LaSalle West and foot access trail access to the LaSalle East. 5. The maintenance objective: To maintain the developed campsite and foot trail with servicing during summer months. 6. This site will provide the following facilities: Tables, firerings, toilets, gravel boat launch and dock.
Little Lost Lake Trail	97/07/18 1. Recreation experience objective: To provide opportunities for natural roaded recreation experiences. 2. Recreation feature objective: To retain the mixed deciduous/coniferous forest and wildlife features. 3. Recreation activity objective: To provide opportunities for hiking, picnicking, fishing, viewing and nature study appreciation. 4. Public recreation access objective: To maintain summer foot trail access to Little Lost Lake. 5. The maintenance objective: To maintain the developed land trail and campsite. 6. This site will provide the following facilities: Developed trail, interpretive signage, tables, firering and toilets.
Shere Lake	97/07/18 1. Recreation experience objective: To provide opportunities for natural roaded recreation experiences. 2. Recreation feature objective: To protect teh small lake and fisheries feature. 3. Recreation activity objective: To provide opportunities for angling, viewing and picnicking. 4. Public recreation access objective: To maintain summer 2 wheel drive access to the site. 5. The maintenance objective: This site will be user maintained. 6. This site will provide the following facilities: Toilet, parking, small wharf.
West Ridge Trail & Cabin	97/07/18 1. Recreation experience objective: To provide opportunities for semi-primitive motorized recreation experiences. 2. Recreation feature objective: To retain the coniferous forest and alpine / high subalpine features. 3. Recreation activity objective: To provide opportunities for hiking, skiing (downhill, touring, telemarking) and alpine hut use. 4. Public recreation access objective: To maintain summer 2 wheel drive access to the trailhead. 5. The maintenance objective: To maintain the developed land trail and alpine hut. 6. This site will provide the following facilities: Developed land trail and alpine hut.
Graffunder Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Silence Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Lolo Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Coldscaur Lake North	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Moira Lake South	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Ejas Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Italia Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.

Lawrence Lake East	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Kitty Anne Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Sicily Lake South	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
McCorvie Lake North	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Coldscaur Lake South	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Reflector Lake North	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study / appreciation. Public recreation objective: To maintain summer access.
Mystery Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for picnicking, camping, fishing non motorized boating and beach activities. Public recreation objective: To maintain summer access.
Mud Lake West	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for picnicking, camping, fishing non motorized boating and beach activities. Public recreation objective: To maintain summer access.
Fowler Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study / appreciation. Public recreation objective: To maintain summer access.
North Thompson Crossing	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To retain the river shoreline features. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study / appreciation. Public recreation objective: To maintain summer access.
Double Lakes	Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Tsikwustum Cr South	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
White Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for picnicking, camping, fishing non motorized boating and beach activities. Public recreation objective: To maintain summer access.
Windy Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Boundary Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
East Maury Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Moira Lake North	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study / appreciation. Public recreation objective: To maintain summer access.
Tsikwustum Cr North (Silviculture Camp)	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the river shoreline, site specific waterfall and mixed forest cover. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Gordon Bay	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Gannet Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Dennis Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Allan Creek	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for snowmobiling activities during winter season and hiking, scenic viewing and hunting. Public recreation objective: To maintain summer access to trailhead and winter access via maintained public highway.
Chappell Creek	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for snowmobiling activities during winter season and hiking, scenic viewing and hunting. Public recreation objective: To maintain summer access to trailhead and winter access via maintained public highway.

Grizzly Lake East	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Lawrence Lake West	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Moose Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Silvertip Falls	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the river shoreline, site specific waterfall and mixed forest cover. Recreation activity objective: To provide opportunities for picnicking, camping, fishing and viewing. Public recreation objective: To maintain summer access.
Rock Island	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study / appreciation. Public recreation objective: To maintain summer access.
Honeymoon Bay	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Rocky Point	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Upper Messiter Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for fishing, hiking, viewing and nature study / appreciation. Public recreation objective: To maintain summer access.
Stukmaptem Lake	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for summer camping, sport fishing and boating activities. Public recreation objective: To maintain summer access.
Horse Creek	1999/05/21 The objective is to manage the Horse Creek recreation site for a roaded recreation experience. The campsite will be maintained and natural vegetation will be conserved. Opportunities for camping, picnicking and boating will be available at the site.
Corsica Mahood Trail	1997/03/10 Recreation experience objective: To provide opportunities for natural roaded recreation experiences. Recreation feature objective: To protect the small / mid lake and fisheries experience. Recreation activity objective: To provide opportunities for snowmobiling activities during winter season and hiking, scenic viewing and hunting. Public recreation objective: To maintain summer access to trailhead and winter access via maintained public highway.
Eagle Valley Trail & Cabin	97/07/18 1. Recreation experience objective: To provide opportunities for semi-primitive, non motorized recreation experiences. 2. Recreation feature objective: To retain the small stream and valley features. 3. Recreation activity objective: To provide opportunities for hiking, viewing and alpine hut use. 4. Public recreation access objective: To maintain summer 2 wheel drive access to Eagle Valley. 5. The maintenance objective: To maintain the developed land trail and alpine hut. 6. This site will provide the following facilities: Developed land trail and alpine hut.

APPENDIX C – Stocking Standards

1.0 Interpretation

1.1 Definitions

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

(a) **"Even-Aged Stand"** means a post-harvest stand of trees consisting of:

(i) one or two Layers; or

(ii) consisting of three or more Layers with less than 100 total trees per hectare in Layer 1 and Layer 2 combined;

(b) **"Layer"** means any of Layer 1, Layer 2, Layer 3 or Layer 4;

(c) **"Layer 1"** means mature trees at least 12.5 centimetres in diameter at breast height;

(d) **"Layer 2"** means pole trees 7.5 to 12.4 centimetres in diameter at breast height;

(e) **"Layer 3"** means sapling trees greater than 1.3 metres in height and up to 7.4 centimetres in diameter at breast height;

(f) **"Layer 4"** means regeneration trees less than 1.3 metres in height;

(g) **"Standard Group"** means a Standard Group set out in Paragraph 2.0; and

(h) **"Uneven-Aged Stand"** means a post-harvest stand of trees consisting of three or more Layers with at least 100 total trees per hectare in Layer 1 and Layer 2 combined.

1.2 Paragraph References

Unless indicated otherwise in this Appendix, a reference in this Appendix to a Paragraph or subparagraph is a reference to that Paragraph or subparagraph in this Appendix.

2.0 General Standard

The matters required by sections 16(1) to (3) of the FPPR to be specified in this FSP, and the situations or circumstances that determine where they will apply under this FSP, are as follows:

SECTION OF FPPR		SECTION APPLIES TO FOLLOWING STANDARDS GROUPS AND AREAS HARVESTED
CUTBLOCK BASIS	MILESTONE	
EACH CUTBLOCK	*Regeneration* (FPPR ss.	Standard Group 1: for each Holder of this FSP, this Standard Group applies to each Cutblock to which this FSP applies that is harvested by that Holder of this FSP, in accordance with the basis of

SECTION OF FPPR		SECTION APPLIES TO FOLLOWING STANDARDS GROUPS AND AREAS HARVESTED
CUTBLOCK BASIS	MILESTONE	
INDIVIDUALLY (FPPR S.44)	16(3)(a) and 44(1)(a))	assessment described in Paragraph 3.2: ➢ Regeneration Date, as set out in Paragraph 4.0; ➢ Species, as set out in Paragraph 5.0; and ➢ Minimum Density, as set out for: 1. Even Aged Stands, in Paragraph 6.3; and 2. Uneven Aged Stands, in Paragraph 6.4.
	Free Growing (FPPR ss.16(3)(b) and 44(1)(b))	Standard Group 2: for each Holder of this FSP, this Standard Group applies to each Cutblock to which this FSP applies that is harvested by that Holder of this FSP in accordance with the basis of assessment described in Paragraph 3.2: ➢ Species, as set out in Paragraph 5.0; ➢ Free Growing Height, as set out in Paragraph 5.0; ➢ Minimum Density, as set out for: 1. Even Aged Stands, in Paragraph 6.3; and 2. Uneven Aged Stands, in Paragraph 6.4; and ➢ Maximum Density, as set out in Paragraph 6.5.
ACROSS GROUP OF CUTBLOCKS (FPPR S.45)	*Free Growing* (FPPR ss.16(3)(d) and 45(2))	Standard Group 3: for each Holder of this FSP, this Standard Group applies to an aggregation of standards units from a group of Cutblocks to which this FSP applies that are harvested by that Holder of this FSP in accordance with the basis of assessment described in Paragraph 3.2: ➢ Crop Density, as set out in Paragraph 6.6.

3.0 Basis of Assessment

3.1 Definitions

In Paragraphs 3.2 and 3.3:

(a) **"Assessment Period"** means three consecutive calendar years;

(b) **"Site Level Plan"** means the pre-harvest silviculture prescription, silviculture prescription or site plan in effect for an area.

3.2 Assessment By Standard Group

The basis of assessment for a Standard Group is as follows:

Standard Group	Basis of Assessment
1 or 2	Each Cutlock, assessed individually, that meets the requirements of the applicable Standard Group.
3	The aggregation of all Standards Units that, during an Assessment Period, met the requirements of Standard Group 2 and meet the requirements of Standard Group 3.

3.3 Stratification

The minimum area upon which the Even-aged Stand requirements in this Appendix will be assessed is the standards unit, or treatment unit, as identified in the Site Level Plan applicable to the net area to reforest

4.0 Regeneration Date

Where applicable under Paragraphs 2.0 and 3.0, the period for determining the regeneration date is:

(a) not more than 4 years for any standards unit having all of its net area to be reforested:

  (i) harvested within 2 years from commencement date, and

  (ii) planted;

(b) not more than 7 years for all other areas.

5.0 Species and Free Growing Height

Where applicable under Paragraphs 2.0 and 3.0, the species and the minimum free growing height for the relevant biogeoclimatic zone, subzone and site series are as follows:

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
ESSFdc2	01	Pl Sx	Bl		Pl	1.6
					Others	0.8
	03	Pl	Bl Sx Pa		Pl	1.2
					Others	0.6
	04	Pl	Bl Sx		Pl	1.2
					Others	0.6
	05	Pl Sx	Bl		Pl	1.2
					Others	0.6
	06	Pl Sx	Bl		Pl	1.6
					Others	0.8
	07	Pl Sx	Bl		Pl	1.6
					Others	0.8
	08	Pl Sx	Bl		Pl	1.2
					Others	0.6
ESSFvv	01	Bl Sx	Hm		All	0.8
	02	Bl Sx	Hm Pl		Pl	1.2
					Others	0.6
	03	Bl Sx	Hm		All	0.6
	04	Bl Sx	Hm		All	0.6
ESSFwc2	01	Bl Sx	Pl		Pl	1.6
					Others	0.8
	02	Pl Sx	Bl		Pl	1.2
					Others	0.6
	03	Sx Pl	Bl		Pl	1.2
					Others	0.6
	04	Bl Sx	Pl		Pl	1.6

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
					Others	0.8
	05	Bl Sx	Pl		Pl	1.6
					Others	0.8
	06	Bl Sx	Pl		Pl	1.6
					Others	0.8
	07	Bl Sx	Pl		Pl	1.6
					Others	0.8
	08	Bl Sx	Pl		Pl	1.2
					Others	0.6
	09	Pl Sx Bl			Pl	1.2
					Others	0.6
ESSFxc	01	Pl Sx	Bl		Pl	1.6
					Others	0.8
	02	Pl	Bl Sx		Pl	1.2
					Others	0.6
	05	Pl	Bl Sx		Pl	1.2
					Others	0.6
	06	Pl Sx	Bl		Pl	1.6
					Others	0.8
	07	Pl Sx	Bl		Pl	1.6
					Others	0.8
	08	Pl Sx	Bl		Pl	1.2
					Others	0.6
ICHmk2	01	Fd Pl Sx Lw	Bl Cw	At Act Ep	Pl, Lw	2.0
					Fd	1.4
					Sx	0.8
					Others	1.0
	02	Fd Pl	Sx Bl	At Act Ep	Pl	1.4
					Fd	1.0
					Others	0.8
	03	Fd Pl Sx	Cw Bl	At Ep	Pl	1.4
					Fd	1.0
					Others	0.8
	04	Fd Pl Sx Lw	Bl Cw	At Ep	Pl, Lw	2.0
					Fd	1.4
					Sx	0.8
					Others	1.0
	05	Fd Pl Sx	Bl Cw	At Act Ep	Pl	2.0
					Fd	1.4
					Others	1.0
	06	Pl Sx Fd	Bl Cw	At Act Ep	Pl	1.4
					Fd	1.0
					Others	0.8
ICHmw3	01	Fd Sx Pl Lw	Pw Hw Bl Cw	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
	01-YC	Fd Cw Sx Pl Lw	Hw Pw Bl	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	02	Fd Pl	Cw Pw Py	Ep	Pl, Pw	1.4
					Fd	1.0
					Others	0.8
	03	Fd Pl Lw	Cw Pw Sx Bl Hw	At Ep	Pl, Pw, Lw	1.4
					Fd	1.0
					Others	0.8
	04	Fd Pl Cw Sx Lw	Pw Bl Bl Hw	At Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	05	Fd Cw Sx Pl Lw	Hw Pw Bl	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	06	Cw Fd Hw Sx Pl Lw	Bl Pw	At Act Ep	Pl Pw Lw	2.0
					Fd	1.4
					Others	1.0
	07	Cw Sx Fd Hw Bl	Pl Pw	At Act Ep	Pl, Pw	2.0
					Fd	1.4
					Others	1.0
	08	Cw Hw Pl Sx Bl	Pw	At Act Ep	Pl	1.4
					Others	0.8
ICHvk1	01	Cw Sx Bl	Fd Pw Hw	At Act Ep	Pw	2.0
					Fd	1.4
					Others	1.0
	02	Fd Cw Sx Bl Lw	Pw Hw	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	03	Cw Fd Hw Sx Bl Lw	Pw		Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	04	Cw Fd Hw Sx Bl Lw	Pw	At Act Ep	Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	05	Cw Sx Bl Hw	Pw	At Act Ep	Pw	1.4
					Others	0.8

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
	06	Cw Hw Sx Bl	Pw	At Act Ep	Pw	1.4
					Others	0.8
ICHwk1	01	Cw Fd Hw Sx Pl Lw	Bl Pw	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	02	Fd Pl Cw	Pw Sx Hw Bl		Pl, Pw	1.4
					Fd	1.0
					Others	0.8
	03	Fd Cw Pl Lw	Hw Bl Pw Sx		Pl, Lw	2.0
					Fd	1.4
					Others	1.0
	04	Fd Cw Hw Sx Pl Lw	Pw Bl	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	05	Cw Sx Bl Hw Fd Lw	Pw Pl	At Act Ep	Pl, Pw, Lw	2.0
					Fd	1.4
					Others	1.0
	06	Cw Sx Bl Hw	Pw Pl	At Act Ep	Pl, Pw	1.4
					Others	0.8
	07	Cw Hw Sx Bl	Pl	At Act Ep	Pl	1.4
					Others	0.8
IDFdk1	01	Fd Pl Py Lw	Sx	At	Pl, Lw, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	02	Fd Py		At	Fd	0.8
					Broadleaf	1.0
					Others	0.6
	03	Fd Pl Py		At	Pl, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	04	Fd Pl Py	Sx	At	Pl, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	05	Fd Sx Pl Lw	Py Bl	Act At Ep	Pl, Lw, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	06	Pl Sx Fd	Bl	Act At Ep	Pl, Broadleaf	1.0

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
					Fd	0.8
					Others	0.6
IDFdk2	01	Fd Pl Py Lw	Sx	At	Pl, Lw, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	02	Fd Py		At	Fd	0.8
					Broadleaf	1.0
					Others	0.6
	03	Fd Pl Py		At	Pl, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	04	Fd Pl Sx Lw	Py	At	Pl, Lw, Broadleaf	1.4
					Fd	1.0
					Others	0.8
	05	Fd Sx Pl Lw	Cw Py	Act At Ep	Pl, Lw, Broadleaf	1.4
					Fd	1.0
					Others	0.8
	06	Pl Sx Fd	Bl	Act At Ep	Pl, Broadleaf	1.0
					Fd	0.8
					Others	0.6
	07	Pl Sx	Bl Cw	Act At Ep	Pl, Broadleaf	1.0
					Others	0.6
IDFmw2	01	Fd Pl	Cw Sx Bl Hw	At Act Ep	Pl	1.6
					Fd	1.0
					Others	0.8
	01-YC	Fd Pl Lw	Cw Sx Bl	At Act Ep	Pl, Lw	1.6
					Fd	1.0
					Others	0.8
	01-YS	Fd Pl Lw	Sx Cw Hw	At Ep	Pl, Lw	1.6
					Fd	1.0
					Others	0.8
	02	Fd	Py			
					Fd	0.8
					Py	0.6
	03	Fd Pl Lw	Py Cw Sx Hw Bl	At Act Ep	Pl, Lw	1.6
					Fd	1.0
					Others	0.8
	04	Fd Sx Pl Lw	Cw	At Act Ep	Pl, Lw	1.6
					Fd	1.0
					Others	0.8

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
	05	Sx Pl	Cw		Pl	1.2
					Others	0.6
IDFxh2	01	Fd Py			All	0.6
	02	Py Fd			All	0.6
	03	Py Fd			All	0.6
	04	Py Fd			All	0.6
	05	Fd Py			All	0.6
	06	Fd Py			All	0.6
	07	Fd Sx	Py Cw	Act At Ep	All	0.6
	08	Sx Fd	Pl	Act At Ep	Pl, Broadleaf	0.8
					Others	0.6
MSdm2	01	Pl Sx Fd Lw	Bl	At	Pl, Lw, Broadleaf	1.4
					Others	0.8
	03	Fd Pl	Bl Sx	At	Pl, Broadleaf	1.0
					Others	0.6
	04	Pl Sx Fd Lw	Bl Hw Cw	At	Pl, Lw, Broadleaf	1.4
					Others	0.8
	05	Pl Sx Fd	Bl Cw Lw	Act At	Pl, Broadleaf	1.4
					Others	0.8
	06	Pl Sx Fd Lw	Bl Cw Hw	Act At	Pl, LwBroadleaf	1.4
					Others	0.8
	07	Pl Sx	Bl	Act At	Pl, Broadleaf	1.0
					Others	0.6
MSxk	01	Pl Sx Fd	Bl	At	Pl, Broadleaf	1.4
					Others	0.8
	02	Pl Fd			Pl	1.0
					Others	0.6
	05	Pl Fd	Bl Sx		Pl	1.0
					Others	0.6
	06	Pl Sx Fd Lw	Bl	At	Pl, Lw, Broadleaf	1.4
					Others	0.8
	07	Pl Sx Fd	Bl		Pl	1.4
					Others	0.8
	08	Pl Sx	Bl Fd	Act At	Pl, Broadleaf	1.4
					Others	0.8
	09	Pl Sx	Bl	Act At	Pl, Broadleaf	1.0
					Others	0.6
SBSmm	01	Pl Sx Fd Lw	Bl Cw Hw	At Act	Pl, Lw	2.0
					Fd	1.4
					Others	1.0
	02	Pl Fd	Bl Sx	At	Pl	1.4
					Fd	1.0
					Others	0.8
	03	Fd Pl	Sx Bl		Pl	1.4

Biogeoclimatic Zone / Subzone	Site Series	Species			Minimum Free Growing Height	
		Conifer		Broadleaf		
		Preferred	Acceptable	Acceptable	Species	Height (metres)
					Fd	1.0
					Others	0.8
	04	Pl Fd	Sx Bl		Pl	1.4
					Fd	1.0
					Others	0.8
	05	Pl Fd Sx Lw	Bl	At	Pl, Lw	2.0
					Fd	1.4
					Others	1.0
	06	Pl Sx Fd	Bl Cw Hw	At	Pl, Lw	2.0
					Fd	1.4
					Others	1.0
	07	Pl Sx Fd	Bl Cw Hw	At Act Ep	Pl	2.0
					Fd	1.4
					Others	1.0
	08	Pl Sx	Fd Bl Cw Hw		Pl	1.4
					Others	0.8
SBPSmk	01	Fd Pl Sx		At	Pl	1.6
					Fd	1.0
					Sx	0.8
	02	Fd Pl	Sx		Pl	1.2
					Fd	0.8
					Sx	0.6
	03	Fd Pl		At	Pl	1.6
					Fd	1.0
	04	Fd Pl Sx		At	Pl	1.6
					Fd	1.0
					Sx	0.8
	05	Fd Pl Sx		At	Pl	1.6
					Fd	1.0
					Sx	0.8
	06	Pl Sx		At Act	Pl	1.6
					Sx	0.8
	07	Sx	Pl Bl	At Act	Pl	1.2
					Others	0.6
	08	Sx Pl			Pl	1.2
					Sx	0.6

provided, however, that broadleaf trees are acceptable only if they:

(a) were present on the area before harvesting occurred; and
(b) will contribute to biodiversity or offset conifer volume losses due to root disease.

6.0 Density

6.1 Definitions

In Paragraphs 6.1 to 6.6:

(a) "**Countable Tree**" means a coniferous tree that is:
  (i) in an Even-Aged Stand, at least 50% of the median height of all preferred and acceptable trees in the survey plot; and
  (ii) in an Uneven-Aged Stand, is in Layer 3;

(b) "**Density Benchmark**" means the minimum number of preferred and acceptable trees per hectare;

(c) "**Minimum Stocking Standard**" means the minimum number of healthy Well-Spaced preferred and acceptable trees per hectare, which:
  (i) will be limited to a maximum of 20% by the number of the relevant broadleaf acceptable species specified in Paragraph 5.0; and
  (ii) will, for Standard Group 2 include only those free growing trees greater than or equal to the relevant free growing height specified in Paragraph 5.0;

(d) "**Stand Type Model**" means the predictive mai relationships developed from the growth and yield model TASS that are provided in section 10 of the "FSP Rationale Document Part 6 Stocking Standards" submission;

(e) "**Maximum Productivity Index**" means the culmination of mean annual increment of preferred and acceptable conifer trees, for an Even-aged stand as predicted from the relevant Stand Type Model that corresponds to a density of 3,000 stems per hectare;

(f) "**Predicted Productivity Index**" means the average culmination of mean annual increment of all plots within an Even-aged stand standards unit, as predicted from the relevant Stand Type Model for surveyed preferred and acceptable conifer trees per plot for the relevant biogeoclimatic zone or subzone and site series, as set out in Paragraph 5.0, calculated:
  (i) for Standard Group 1 using the total healthy preferred and acceptable conifer trees surveyed; and
  (ii) for Standard Group 2 using the total free growing preferred and acceptable conifer trees surveyed that are greater than or equal to the relevant free growing height specified in Paragraph 5.0;

(g) "**M-Value**" means the maximum allowable number of Well-Spaced preferred and acceptable trees per hectare that may be counted in a survey plot;

(h) "**Threshold Productivity Index**" means the culmination of mean annual increment, as predicted from the relevant Stand Type Model for the Density Benchmark for the relevant biogeoclimatic zone or subzone and site series, as set out in Paragraph 6.2, which Density Benchmark:
  (i) is based on trees that are at least 2 horizontal metres apart; and
  (ii) is reduced from that set out in Paragraph 6.2 by the surveyed total of acceptable broadleaf trees, as specified in Paragraph 5.0, up to a maximum of 20% of the surveyed total of preferred and acceptable trees, as specified in Paragraph 5.0;

(i) "**Well-Spaced**" means a distance between trees that is greater than or equal to the minimum inter-tree distance specified in Paragraph 6.4.

6.2 Density Benchmark

For the purpose of determining:

(a) the Threshold Productivity Index applicable to an Even-Aged Stand under Paragraph 6.3; and

(b) the Minimum Stocking Standard applicable to an Uneven-Aged Stand under Paragraph 6.4,

the Density Benchmark for the relevant biogeoclimatic zone, subzone and site series is as follows:

Biogeoclimatic Zone / Subzone	Site Series	Density Benchmark (trees / hectare)	Biogeoclimatic Zone / Subzone	Site Series	Density Benchmark (trees / hectare)
ESSFdc2	01	700	**ICHmw3**	01	700
	03	500		01-YC	700
	04	500		02	500
	05	500		03	500
	06	700		04	700
	07	700		05	700
	08	500		06	700
ESSFvv	01	700		07	700
	02	400		08	500
	03	500	**ICHvk1**	01	700
	04	400		02	700
ESSFwc2	01	700		03	700
	02	500		04	700
	03	500		05	500
	04	700		06	500
	05	700	**ICHwk1**	01	700
	06	700		02	500
	07	700		03	700
	08	500		04	700
	09	200		05	700
ESSFxc	01	700		06	500
	02	400		07	500
	05	500	**IDFdk1**	01	500
	06	700		02	400
	07	700		03	400
	08	500		04	500
ICHmk2	01	700		05	500
	02	400		06	500
	03	500	**IDFdk2**	01	500
	04	700		02	400
	05	700		03	500
	06	500		04	700
				05	700
				06	500
				07	500
IDFmw2	01	70	**SBSmm**	01	700
	01-YC	700		02	500
	01-YS	700		03	500
	02	400		04	500
	03	500		05	700
	04	700		06	700

Biogeoclimatic Zone / Subzone	Site Series	Density Benchmark (trees / hectare)	Biogeoclimatic Zone / Subzone	Site Series	Density Benchmark (trees / hectare)
	05	200		07	700
IDFxh2	01	500		08	500
	02	200	**SBPSmk**	01	700
	03	200		02	500
	04	400		03	700
	05	500		04	700
	06	700		05	700
	07	700		06	700
	08	500		07	500
MSdm2	01	700		08	200
	03	500			
	04	700			
	05	700			
	06	700			
	07	500			
MSxk	01	700			
	02	500			
	05	500			
	06	700			
	07	700			
	08	700			
	09	500			

6.3 Minimum Density for Even Aged Stands

Where applicable under Paragraphs 2.0 and 3.0, for an Even-Aged Stand:

(a) a regime of silviculture treatments will be designed in consideration of Section 6.2 of the "FSP Rationale Document Part 6 Stocking Standards" submission, and implemented, at or before the regeneration date, to be consistent with a preferred and acceptable conifer tree density of at least 90% of the Maximum Productivity Index for the net area to be reforested where practicable;

(b) the sampling intensity of any standards unit shall not exceed 2 survey plots per hectare but shall not be less than 5 plots over the standards unit area;

(c) if the standards unit is greater than 5 hectares in size, the lower 95% confidence limit of the Predicted Productivity Index will be greater than or equal to the Threshold Productivity Index, as calculated in sections 7.2 and 7.3 of the "FSP Rationale Document Part 6 Stocking Standards" submission; and

(d) if the standards unit is less than or equal to 5 hectares in size, the Predicted Productivity Index will equal or exceed the Threshold Productivity Index, as calculated in sections 7.2 and 7.3 of the "FSP Rationale Document Part 6 Stocking Standards" submission.

6.4 Minimum Density for Uneven Aged Stands

Where applicable under Paragraphs 2.0 and 3.0, for an Uneven-Aged Stand, the Minimum Stocking Standard for the relevant biogeoclimatic zone or subzone and site series, as determined from cross-referencing the specified Density Benchmark in Paragraph 6.2, will be as follows:

Density Benchmark (only for determining applicable BEC and site series from Paragraph 6.2)	Layer	Minimum Stocking Standard (trees/hectare)	M-Value (trees/hectare)	Minimum Inter-Tree Distance (metres)
700	1	300	600	not applicable
	2	400	800	1.6
	3	500	1000	1.6
	4	700	1200	1.0
500	1	200	400	not applicable
	2	300	600	1.6
	3	400	800	1.6
	4	500	1000	1.0
400	1	150	300	not applicable
	2	200	400	1.6
	3	300	600	1.6
	4	400	800	1.0
200	1	100	200	not applicable
	2	125	250	1.6
	3	150	300	1.6
	4	200	400	1.0

provided, however, that the minimum inter tree distance in Layer 4 is 1.0 meter only where obstacle planting is used in heavy cattle use areas. Otherwise, the minimum inter tree distance in Layer 4 is 1.6 meters.

6.5 Maximum Density

If the number of Countable Trees exceeds 30,000 trees per hectare, the Holder of this FSP that harvested the area will, within 20 years of the commencement date for the area, reduce that number to below 4,000 trees per hectare.

6.6 Crop Density that Applies at Free Growing Across a Group of Cutblocks

Where applicable under Paragraphs 2.0 and 3.0, the Crop Density for:

(a) the area-weighted average of the Predicted Productivity Indices will equal or exceed 90% of the area-weighted Maximum Productivity Index;

(b) the area-weighted average of the Predicted Productivity Indices, using only the surveyed preferred conifer trees per hectare, will equal or exceed 70% of the area-weighted average Maximum Productivity Index; and

(c) the area-weighted average of surveyed acceptable broadleaf trees per hectare surveyed will be less than 1% of the surveyed total preferred and acceptable conifer trees per hectare.

7.0 Free Growing Date that Applies Across a Group of Cutblocks

Where applicable under Paragraphs 2.0 and 3.0, the period for determining the free growing date is not more than 20 years.

6.0 Stocking Standards - Application

This stocking standards amendment provides additional stocking standard ID's for application under this FSP. It does not replace the current stocking standard ID's.

6.0.1
For the purposes of section 16 (1) of the FPPR, these stocking standards are to be applied to *"free growing stands generally" on each standards units and cutblocks to which this FSP applies*, as per section 44(1) of the FPPR on areas described under section 29 (1) of FRPA where a free growing stand must be established.

The primary objective of these stocking standards is the production of sawlog timber.

6.0.2
As per Section 197 of FRPA, the stocking standards approved in this FSP may be utilized for management of harvest undertaken under the authority of this FSP and may also be utilized for harvesting that previously occurred under the authority of any approved FDP or approved amendments to them for Forest Licence A18694, A74910, A18693 and TFL 35, the amendment from FDP to FSP stocking standards taking effect with an applicable RESULTS submission.

6.1 Areas Not Meeting Free Growing Requirements within a Standards Unit

Mappable contiguous areas not meeting the free growing stocking standards are permitted on up to 5% of a standards unit NAR, up to a maximum area of 2.0 ha.

6.2 Partial Retention – Even-Aged Management

Partial retention stocking standards may be applied on standards units prescribed for even-aged management where ≥ 5 m^2/ha of dispersed merchantable conifer basal area exists.

6.2.1
For standards units where ≤ 50% of the dispersed pre-harvest merchantable conifer basal area has been removed or ≥ 20 m^2/ha of dispersed merchantable conifer basal area remains, section 44 (3)(h) of the Forest Planning and Practices Regulation will be applied if an assessment made 12 months following harvest completion confirms the applicable area conforms to the partial retention stocking standards (sect. 44(4)).

6.3 Application of Uneven-Aged Stocking Standards

Uneven-aged stocking standards will be applied on stands having all of the following attributes:

1. ≥ 3 well-represented and distinct conifer age classes,
2. ≥ 6% crown closure of trees in layer 1 and 2 combined, and
3. Layers 3 and/or 4 present.

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

6.4 Assessment of Crop Tree Free Growing Criteria

Crop trees will be assessed for free growing as per the criteria outlined in the *"Forest Practices Branch Silviculture Survey and Procedures Manual", April 1, 2011.* The holder of this FSP may also elect to adopt survey procedures in any subsequent releases of this manual.

Advanced (pre-harvest) regeneration will be assessed as per the *2000 Kamloops Region Establishment to Free Growing Guidebook.*

6.4.1 Deleterious Competition Exceptions

The following will be excluded from deleterious competition classification during a free growing assessment:

- Residual broadleaf trees that existed on site pre-harvest with a DBH of greater than 15 cm.
- Birch, Aspen, Cottonwood, Willow, or Alder growing within 5 m of an S-4, S-5, or S-6 stream.

6.5 Maximum Density

Maximum density applies to "countable conifers" only, as defined in the *"Forest Practices Branch Silviculture Survey and Procedures Manual"- April 1, 2011.*
Maximum density of countable confers have the following thresholds that are assessed at the standard unit level:

1. ≥ 25,000/ha if Lodgepole pine comprises >80% of the inventory label.
2. ≥ 10,000/ha if Lodgepole pine comprises <80% of the inventory label.

Countable conifers are defined as layer 3 stems when assessing maximum density in uneven-aged stands.

6.6 Choice of Planting Species

The prescribing forest professional will consider the following factors when selecting tree species to reforest:

- post-harvest stand structure
- presence of advanced regeneration
- natural regeneration potential
- broadleaf composition – both residual and potential post harvest regeneration
- non-crop vegetation potential
- pre-harvest species composition
- species site index by site series and growth potential
- climate change predictions and modeling assumptions along with predicted tree species migration
- site conditions and associated site limiting factors affecting tree growth (i.e., elevation, slope, slope position, aspect, soil texture, coarse fragment/rock content, soil moisture regime, soil nutrient regime, cold air drainage, frost potential, brush competition)
- wildlife activity and species present
- range use
- forest health

6.7 Western Larch

Where indicated with a footnote, Western larch is listed as a preferred species and is limited to a maximum of 30% of the species composition at the time of planting.

6.8 Western White Pine

Where indicated with a footnote, rust-resistant Western White pine is listed as a preferred species and is limited to a maximum of 30% of the species composition at the time of planting.

Natural Western White Pine may also be considered as a preferred or acceptable free growing crop tree if it has been pruned to at least 1.0 m.

6.9 Non-Mappable Site Series Complexes

Where non-mappable site series complexes exist, the stocking standards will be based on the dominantly represented site series.

6.10 Minimum Inter-tree Distance (MITD)

The default minimum inter-tree distance (MITD) is 2.0 m, consistent with MNRO statistical assumptions used when determining minimum stocking standards by site series.

The following alternative MITD values may also be applied on a standard unit basis where deemed appropriate by the prescribing forest professional:
1.7 m, 1.5 m, 1.0 m.

Alternative MITD values will be prescribed where site factors prevent or limit the consistent or uniform establishment of regeneration at target stocking levels across a site. Reforestation prescriptions with reduced MITD's improve the ability to select the best microsites in an effort to maximize site occupancy and achieve crop tree densities at or above the target stocking standard while promoting optimum seedling survival and growth performance. It is common that only a small percentage of crop trees are actually selected below the default MITD when alternative MITD values are prescribed.

The following site limiting conditions are common examples that may prompt the prescribing forest professional to select an alternate MITD for a standard unit.

- Microclimate limitations and the need to plant specifically on elevated, depressed, or shady microsites.
- High incidence of cattle and/or ungulate trampling and browsing.
- Physical barriers such as rock, water, slash or the retention of reserve trees, where increasing the surrounding density is needed to meet target stocking.
- Steep or inoperable terrain where mechanical site preparation is not permitted, slash loading is extensive, and where there is a concern for snow/slash/soil creep and suitable planting obstacles such as stumps, embedded rocks or logs are available.

MITD is not applicable to layer 1 trees (≥ 12.5 cm dbh).

6.11 Declaration of Free Growing Achievement

A standard unit may be formally declared free growing if a qualified registered forest professional has determined that the standards have been met and renders an opinion indicating it is reasonable to expect the standard unit to continue to meet or exceed the free growing standards.

Standards ID	BEC Zone	Site Series	Preferred Species	Acceptable Species	Stocking (Free Growing/ha) TSS	Stocking (Free Growing/ha) MSS pa	Stocking (Free Growing/ha) MSS p	Regen Delay (Max Yrs)	Late FG Assessment (Max Yrs)	Minimum Tree Heights (m) Pl	Minimum Tree Heights (m) Lw/Pw	Minimum Tree Heights (m) Fdl	Minimum Tree Heights (m) Other	Minimum Tree Heights (m) Broad	Crop Tree / Brush Ratio
1038478	ESSFdc2	01, 06	Pli, Sx, Bl[3]		1600	700	600	7	20	1.6			0.8		125%
1038479	ESSFdc2	03, 04	Pli, Sx, Bl[3]	Fa	1400	500	400	7	20	1.2			0.6		125%
1038480	ESSFdc2	05, 07	Pli, Sx	Bl	1400	500	400	7	20	1.2			0.6		125%
1038481	ESSFdc2	08	Pli, Sx	Bl	1400	500	400	7	20	1.2			0.6		125%
1038482	ESSFxc	01, 06, 07	Pli, Sx, Bl[3]		1600	700	600	7	20	1.6			0.8		125%
1038483	ESSFxc	02, 05	Pli	Bl,Sx	1200	400	300	7	20	1.2			0.6		125%
1038484	ESSFxc	08	Pli, Sx, Bl[3]		1400	500	400	4	20	1.2			0.6		125%
1038485	ICHmk2	01, 04, 05	Fdl, Pli, Sx, Bl[2], Lw[1]	Cw	1600	700	600	7	20	2.0	2.0	1.4	0.8		150%
1038486	ICHmk2	02	Fdl, Pli	Bl, Sx	1200	400	400	7	20	1.4		1.0	0.8		150%
1038487	ICHmk2	03	Fdl, Pli, Sx	Bl, Cw	1400	500	400	7	20	1.4		1.0	0.8		150%
1038488	ICHmk2	06	Pli, Sx, Fdl	Bl, Cw	1400	500	400	4	20	1.4		1.0	0.8		150%
1038489	IDFdk2	01, 03	Fdl, Pli, Py[1], Lw[1]	Sx	1400	500	400	7[4]	20	1.0	1.0	0.8	0.6		125%
1038490	IDFdk2	02	Fdl, Py		1200	400	400	7[4]	20			0.8	0.6		125%
1038491	IDFdk2	04	Fdl, Pli, Sx, Py[1], Lw[1]		1600	700	600	7[4]	20	1.4	1.4	1.0	0.8		125%
1038492	IDFdk2	05	Fdl, Pli, Sx, Lw[1]	Bl, Cw	1600	700	600	7[4]	20	1.4	1.4	1.0	0.8		125%
1038493	IDFdk2	06	Pli, Sx, Fdl	Bl	1400	500	400	4	20	1.0		0.8	0.6		125%
1038494	IDFdk2	07	Pli, Sx	Bl, Cw	1400	500	400	4	20	1.0			0.6		125%
1038495	IDFxh2	01, 05	Py, Fdl	Pli	1400	500	500	7[4]	20	0.6		0.6	0.6		125%
1038496	IDFxh2	02, 03	Py, Fdl		1000	200	200	7[4]	20	0.5		0.5	0.5		125%
1038497	IDFxh2	04	Py, Fdl	Pli	1200	400	400	7[4]	20	0.6		0.6	0.6		125%
1038498	IDFxh2	06	Py, Fdl	Pli, Sx	1600	700	600	7[4]	20	0.6		0.6	0.6		125%
1038499	IDFxh2	07	Fdl, Sx	Py, Cw	1600	700	600	4	20	0.6		0.6	0.6		125%
1038500	IDFxh2	08	Fdl, Sx	Pli	1400	500	400	4	20	0.5		0.5	0.5		125%
1038501	MSdm2	01, 04, 05, 06	Pli, Sx, Fdl, Lw[1] Bl[2]		1600	700	600	7	20	1.4	2.0	0.8	0.8		125%
1038502	MSdm2	03	Fdl, Pli, Bl[2]	Sx	1400	500	400	7	20	1.0		0.6	0.6		125%
1038503	MSdm2	07	Fli, Sx	Bl	1400	500	400	4	20	1.0			0.6		125%

Uneven-Aged Stocking Standards

Target from West Fraser & Interfor Stocking Standards	Layer**	Stocking***		
		TSS pa	MSS pa	MSS p
(stems/ha)		(well-spaced/ha)		
1600*	1	600	300	250
	2	800	400	300
SS ID #	3	1000	500	400
1038511	4	1600	700	600
1400*	1	600	300	250
	2	800	400	300
SS ID #	3	1000	500	400
1038512	4	1400	700	600
1200*	1	400	200	200
	2	600	300	250
SS ID #	3	800	400	300
1038513	4	1200	500	400

Target from West Fraser & Interfor Stocking Standards	Layer**	Stocking***		
		TSS pa	MSS pa	MSS p
(stems/ha)		(well-spaced/ha)		
1000*	1	400	150	150
	2	600	200	200
SS ID #	3	800	300	300
1038514	4	1000	400	400

*Regeneration Delay

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, the earliest free growing declaration date is 12 months after completion of harvest.

- All other conditions of the Conifer Stocking Standards remain the same.

**Stand Layer Definition

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

***Preferred and Acceptable Species

pa - preferred and acceptable species
p - preferred species

Application of Uneven-aged Stocking Standards

The above standards will be applied on uneven-aged stands having at least three well-represented and distinct conifer age classes. The crown closure of trees in layer 1 and 2 combined must exceed 6%, and layers 3 and/or 4 must also be present.

100 Mile Woodlands - A Division of West Fraser Mills Ltd. & International Forest Products - Adams Lake Lumber Division
FSP 154 STOCKING STANDARDS Amendment for TFL 35

PARTIAL RETENTION Even-Aged Stocking Standards

	Layer 1 Conifer Basal Area	Regen Stocking Standards for Layers 2, 3, 4		
Standards I.D.	(m^2/ha)	TSS	MSS	MSSp
1038507	≥ 5, < 10	1200	600	500
1038508	> 10, < 15	1200	500	400
1038509	> 15, < 20	1200	400	300
1038510	≥ 20	0	0	0

Application and Survey Methodology

1. These standards apply to stands with ≥ 5 m^2 Ba/ha.
2. Areas will be sampled at a minimum intensity of five (5) 50 m^2 circular plots/stratum, and one 50 m^2 circular plot/ha for strata > 5 ha.
3. Basal area will be measured with a 3 BAF prism at the plot center of each 50 m^2 circular plot.

All other accepted silviculture survey procedures will apply consistent with the **Forest Practices and Investment Branch Silviculture Survey Procedures Manual.**

Regeneration Delay and Free Growing Period

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, the earliest free growing declaration date is 12 months after completion of harvest, as per sections 44(3)(h) and 44(4) of the *Forest Planning and Practices Regulation*.

All other conditions of the Conifer Stocking Standards remain the same.

Stand Layer Definition

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

Standards ID	BEC Zone	Site Series	Preferred Species	Acceptable Species	Stocking (Free Growing/ha)			Regen Delay (Max Yrs)	Late FG Assessment (Max Yrs)	Minimum Tree Heights (m)					Crop Tree / Brush Ratio
					TSS	MSS pa	MSS p			Pli	Lw/Pw	Fdi	Other	Broad	
1038367	ESSFdc1	01, 04	Pl, Sx, Bl		1200	700	600	7	20	1.6			0.8		125%
1038368	ESSFdc1	02, 03	Pli	Bl, Sx	1000	500	400	7	20	1.2			0.6		125%
1038369	ESSFdc1	05, 06	Pli, Sx, Bl		1000	500	400	7	20	1.2			0.6		125%
1038370	ESSFdc2	01, 06	Pli, Sx, Bl[3]		1200	700	600	7	20	1.6			0.8		125%
1038371	ESSFdc2	03, 04	Pli, Sx, Bl[3]	Pa	1000	500	400	7	20	1.2			0.6		125%
1038372	ESSFdc2	05, 07	Pli, Sx	Bl	1000	500	400	7	20	1.2			0.6		125%
1038373	ESSFdc2	08	Pli, Sx	Bl	1000	500	400	7	20	1.2			0.6		125%
1038374	ESSFwc1	01	Bl, Sx	Pli, Cw	1200	700	600	7	20	1.6			0.8		125%
1038375	ESSFwc1	02	Pli, Sx	Bl	1000	500	400	7	20	1.2			0.6		125%
1038376	ESSFwc1	03	Bl, Sx	Cw	1200	700	600	7	20	1.6			0.8		125%
1038377	ESSFwc1	04	Bl, Sx	Pli	1200	700	600	7	20	1.6			0.8		125%
1038378	ESSFwc2	01, 06, 07	Bl, Sx	Pli	1200	700	600	4	20	1.6			0.8		125%
1038379	ESSFwc2	02, 03	Pli, Sx	Bl	1000	500	400	4	20	1.2			0.6		125%
1038380	ESSFwc2	04, 05	Bl, Sx	Pli	1200	700	600	4	20	1.6			0.8		125%
1038381	ESSFwc2	08	Bl, Sx	Pli	1000	500	400	4	20	1.2			0.6		125%
1038382	ESSFwc2	09	Pli, Sx	Bl	800	200	200	4	20	1.2			0.6		125%
1038383	ESSFwc4	01, 04, 05	Sx, Bl	Pli	1200	700	600	7	20	1.6			0.8		125%
1038384	ESSFwc4	02, 03	Sx, Pli, Bl		1000	500	400	4	20	1.2			0.6		125%
1038385	ESSFwc4	06, 07	Sx, Bl	Pli	1000	500	400	4	20	1.2			0.6		125%
1038386	ESSFvv	01	Bl, Sx	Hm	1200	500	400	7	20				0.8		110%
1038387	ESSFvv	02, 03	Bl, Sx	Hm, Pli	1200	500	400	7	20	1.2			0.8		110%
1038388	ESSFvv	04	Bl, Sx	Hm, Pli	800	400	400	7	20	1.2			0.8		110%
1038389	ESSFxc	01, 06, 07	Pli, Sx, Bl[3]		1200	700	600	7	20	1.6			0.8		125%
1038390	ESSFxc	02, 05	Pli	Bl,Sx	1000	400	300	7	20	1.2			0.6		125%
1038391	ESSFxc	08	Pli, Sx, Bl[3]		1000	500	400	4	20	1.2			0.6		125%

Standards ID	BEC Zone	Site Series	Preferred Species	Acceptable Species	Stocking			Regen Delay	Late FG Assessment	Minimum Tree Heights (m)					Crop Tree / Brush Ratio
					T/ha (Free Growing/ha)	MS/ha pa	MS/ha p	(Max Yrs)	(Max Yrs)	Pl	Lw/Pw	Fd	Other	Broad	
1038386	ICHmk1	01, 01-YS, 04, 05, 06	Fd, Pl, Sx, Bl[2], Lw[1]	Cw	1200	700	600	7	20	2.0	2.0	1.4	1.0	2.0	150%
1038387	ICHmk1	02	Fd, Pl	Bl, Sx	800	400	400	7	20	1.4	1.4	1.0	0.8		150%
1038388	ICHmk1	03	Fd, Lw, Pl, Sx	Bl, Cw	1000	500	400	7	20	1.4	1.4	1.0	0.8	2.0	150%
1038389	ICHmk1	07	Pl, Sx, Lw[1]	Fd, Bl, Cw	1000	500	400	7	20	1.4	1.4	1.0	0.8	2.0	150%
1038400	ICHmk2	01, 04, 05	Fd, Pl, Sx, Bl[2], Lw[1]	Cw	1200	700	600	7	20	2.0	2.0	1.4	0.8		150%
1038401	ICHmk2	02	Fd, Pl	Bl, Sx	1000	400	400	7	20	1.4		1.0	0.8		150%
1038402	ICHmk2	03	Fd, Pl, Sx	Bl, Cw	1000	500	400	7	20	1.4		1.0	0.8		150%
1038403	ICHmk2	06	Pl, Sx, Fd	Bl, Cw	1000	500	400	4	20	1.4		1.0	0.8		150%
1038404	ICHmw2	01, 01-YS, 02	Fd, Lw, Cw[1], Pl[2]	Hw, Sx, Bl, Py, Pw	1200	700	600	4	20	2.0	2.0	1.4	1.0	2.0	150%
1038405	ICHmw2	03	Fd, Lw, Sx, Pl[2]	Cw, Bl, Hw, Py, Pw	1200	700	600	4	20	2.0	2.0	1.4	1.0	2.0	150%
1038408	ICHmw2	04, 05	Cw, Fd, Hw, Lw, Sx	Bl, Pl, Pw	1200	700	600	4	20	2.0	2.0	1.4	1.0	2.0	150%
1038407	ICHmw2	06	Cw, Sx, Hw[2]	Bl, Pl, Pw	1000	500	400	4	20	1.4	1.4	0.8	0.8	2.0	150%
1038408	ICHmw2	07	Cw, Sx, Pl[2]	Bl, Hw	1000	500	400	4	20	1.4	1.4	0.8	0.8	2.0	150%
1038410	ICHmw3	01, 01-YC, 05	Fd, Sx, Cw, Pw, Lw[1], Pl[4]	Bl, Hw	1200	700	600	4	20	2.0	2.0	1.4	1.0	2.0	150%
1038411	ICHmw3	02, 03	Fd, Pl, Cw, Lw[1], Pw[1]	Sx, Hw, Py	1000	500	400	7	20	1.4	1.4	1.0	0.8		150%
1038412	ICHmw3	04	Fd, Pl[3], Cw, Lw[1], Pw[1]	Bl, Sx, Hw	1200	700	600	7	20	2.0	2.0	1.4	1.0	2.0	150%
1038413	ICHmw3	05	Cw, Fd, Hw, Sx, Lw[1]	Bl, Pl, Pw	1200	700	600	4	20	2.0	2.0	1.4	1.0	2.0	150%
1038414	ICHmw3	07	Cw, Sx, Fd	Bl, Hw, Pl, Pw, Lw	1200	700	600	4	20	2.0	2.0	1.4	1.0	2.0	150%
1038416	ICHmw3	08	Cw, Hw, Pl[4], Sx	Bl, Pw	1000	500	400	4	20	1.4	1.4		0.8		150%
1038418	ICHwk1	01	Cw, Sx, Bl, Hw[2]	Fd, Pw	1200	700	600	4	20			1.4	1.0	2.0	150%
1038417	ICHwk1	02	Fd, Cw, Sx	Bl, Hw, Pw, Pl	1200	700	600	4	20	1.4	1.4	1.4	1.0	2.0	150%
1038418	ICHwk1	03, 04	Cw, Fd, Hw, Sx, Lw[1]	Bl, Pw	1200	700	600	4	20		1.4	1.4	1.0	2.0	150%
1038419	ICHwk1	05, 06	Cw, Hw, Sx, Bl[2]	Pw, Pl	1000	500	400	4	20	1.0	1.4		0.8		150%
1038420	ICHwk1	01, 04	Cw, Fd, Hw, Sx, Lw[1], Bl[2]	Pw, Pl	1200	700	600	4	20	2.0	1.4	1.4	1.0		150%
1038421	ICHwk1	02	Fd, Pl[4], Cw	Pw, Sx, Bl, Cw, Hw	1000	500	400	7	20	1.4	1.4	1.0	0.8		150%
1038422	ICHwk1	03	Fd, Cw, Lw[1], Pl[4]	Hw, Pw, Sx, Bl	1200	700	600	4	20	2.0	1.4	1.4	1.0		150%
1038423	ICHwk1	05	Cw, Sx, Bl[2]	Fd, Hw, Pw, Pl, Lw	1200	700	600	4	20	2.0	1.4	1.4	1.0		150%
1038424	ICHwk1	06, 07	Cw, Hw, Sx, Bl[2]	Pl, Pw	1000	500	400	4	20	1.4	1.4		0.8		150%

Standards ID	BEC Zone	Site Series	Preferred Species	Acceptable Species	Stocking			Regen Delay	Late FG Assessment	Minimum Tree Heights (m)					Crop Tree / Brush Ratio
					TSS	MSS pa	MSS p	(Max Yrs)	(Max Yrs)	Pli	Lw/Pw	Fdi	Other	Broad	
					(Free Growing/ha)										
1038426	IDFdk1	01 ,04	Pli, Fdi, Py[1], Lw[1]	Sx	1000	500	400	7[5]	20	1.0	1.0	0.8	0.6	2.0	125%
1038428	IDFdk1	02	Py, Fdi		1000	400	400	7[5]	20			0.8		2.0	125%
1038427	IDFdk1	03	Pli, Fdi, Py[1]		1000	400	300	7[5]	20	1.0		0.8	0.6	2.0	125%
1038428	IDFdk1	05	Pli, Fdi, Sx, Lw[1]	Bl	1000	500	400	7[5]	20	1.0	1.0	0.8	0.6	2.0	125%
1038429	IDFdk1	06	Pli, Fdi, Sx	Bl	1000	400	300	4	20	1.0	1.0	0.8	0.6	2.0	125%
1038430	IDFdk1a	04	Fdi	Pli	1200	700	600	4	20	1.4		1.0			125%
1038431	IDFdk2	01, 03	Fdi, Pli, Py[1], Lw[1]	Sx	1000	500	400	7[5]	20	1.0	1.0	0.8	0.6		125%
1038432	IDFdk2	02	Fdi, Py		1000	400	400	7[5]	20			0.8	0.6		125%
1038433	IDFdk2	04	Fdi, Pli, Sx, Py[1], Lw[1]		1200	700	600	7[5]	20	1.4	1.4	1.0	0.8		125%
1038434	IDFdk2	05	Fdi, Pli, Sx, Lw[1]	Bl, Cw	1200	700	600	7[5]	20	1.4	1.4	1.0	0.8		125%
1038435	IDFdk2	06	Pli, Sx, Fdi	Bl	1000	500	400	4	20	1.0		0.8	0.6		125%
1038436	IDFdk2	07	Pli, Sx	Bl, Cw	1000	500	400	4	20	1.0			0.6		125%
1038437	IDFdk3	01, 05, 06	Pli, Fdi, Lw[1]	Sx	1200	700	600	7[5]	20	1.4	1.4	1.0	0.8	2.0	125%
1038438	IDFdk3	03	Pli, Fdi		1000	400	400	7[5]	20	1.0		0.8			125%
1038439	IDFdk3	02, 04	Pli, Fdi		1000	500	500	7[5]	20	1.0		0.8			125%
1038440	IDFdk3	07, 08	Pli, Fdi, Sx, Lw[1]		1000	500	500	4	20	1.0		0.8	0.6		125%
1038441	IDFdk3	09	Sx, Pli		1000	500	500	4	20	1.0			0.6		125%
1038442	IDFmw2	01, 01-YC, 01-YS	Fdi, Pli, Lw[1], Py[1]	Cw, Sx, Bl	1200	700	600	7[5]	20	1.6	1.6	1.0	0.8	2.0	125%
1038443	IDFmw2	02	Fdi, Pli, Py[1]		1000	400	400	7[5]	20	1.2		0.8	0.6		125%
1038444	IDFmw2	03	Fdi, Pli, Lw[1], Py[1]	Cw, Sx, Bl	1000	500	400	7[5]	20	1.6	1.6	1.0	0.8		125%
1038445	IDFmw2	04	Fdi, Sx, Pli, Lw[1]	Bl, Cw	1200	700	600	7[5]	20	1.6	1.6	1.0	0.8		125%
1038448	IDFmw2	05	Sx, Pli	Bl, Cw	800	200	200	4	20	1.2			0.6		125%
1038447	IDFxh2	01, 05	Py, Fdi	Pli	1000	500	500	7[5]	20	0.6		0.6	0.6		125%
1038448	IDFxh2	02, 03	Py, Fdi		800	200	200	7[5]	20	0.6		0.6	0.6		125%
1038449	IDFxh2	04	Py, Fdi	Pli	1000	400	400	7[5]	20	0.6		0.6	0.6		125%
1038450	IDFxh2	06	Py, Fdi	Pli, Sx	1200	700	600	7[5]	20	0.6		0.6	0.6		125%
1038451	IDFxh2	07	Fdi, Sx	Py, Cw	1200	700	600	4	20	0.6		0.6	0.6		125%
1038452	IDFxh2	08	Fdi, Sx	Pli	1000	500	400	4	20	0.6		0.6	0.6		125%

Standards ID	BEC Zone	Site Series	Preferred Species	Acceptable Species	Stocking			Regen Delay	Late FG Assessment	Minimum Tree Heights (m)					Crop Tree / Brush Ratio
					TSS	MSS pa	MSS p	(Max Yrs)	(Max Yrs)	Pli	Lw/Pw	Fdi	Other	Broad	
					(Free Growing/ha)										
1038463	MSdm2	01. 04. 05. 06	Pli. Sx. Fdi. Lw[1]. Bl[2]		1200	700	600	7	20	1.4	2.0	0.8	0.8		125%
1038464	MSdm2	03	Fdi. Pli. Bl[2]	Sx	1000	500	400	7	20	1.0		0.6	0.6		125%
1038465	MSdm2	07	Pli. Sx	Bl	1000	500	400	4	20	1.0			0.6		125%
1038466	MSxk	01. 06. 07	Pli. Fd. Sx. Lw[1]. Bl[2]		1200	700	600	7	20	1.4	2.0	0.8	0.8		125%
1038467	MSxk	02	Pli. Fdi	Bl	1000	500	400	7	20	1.0		0.6	0.6		125%
1038468	MSxk	05	Pli. Fdi	Bl. Sx	1000	500	400	7	20	1.0		0.6	0.6		125%
1038469	MSxk	08	Pli. Fdi. Sx	Bl	1200	500	400	4	20	1.0		0.6	0.6		125%
1038460	MSxk	09	Pli. Sx	Bl	1000	400	300	4	20	1.0		0.6	0.6		125%
1038461	SBPSmk	01. 04. 05. 06	Pli. Fdi. Sx. Lw[1]	Bl	1200	700	600	7	20	1.6	1.6	1.0	0.8		150%
1038462	SBPSmk	02. 03	Pli. Fdi	Sx. Bl	1200	700	500	7	20	1.4		1.0	0.8		150%
1038463	SBPSmk	07	Sx	Pli. Bl	1000	500	400	4	20	1.2			0.6		150%
1038464	SBPSmk	08	Sx	Pli	800	200	200	4	20	1.2			0.6		150%
1038465	SBSmm	01. 05. 06. 07	Pli. Fdi .Sx. Lw[1]. Bl[2]	Bl	1200	700	700	7	20	2.0	2.0	1.4	1.0		150%
1038466	SBSmm	02. 03. 04	Pli. Fdi	Bl. Sx	1000	500	400	7	20	1.4		1.0	0.8		150%
1038467	SBSmm	08	Pli. Sx. Bl[2]		1000	500	500	4	20	1.4			0.8		150%

FOOTNOTES:

The default Minimum Intertree Distance (MITD) is 2.0 m. This may be reduced to 1.7 m, 1.5 m or 1.0 m as per Section 6.10 of the FSP.

1. **Limited to a maximum of 30% of the planting species composition.**
2. **Limited to a maximum of 30% of the free growing species composition.**
3. **Limited to a maximum of 40% of the free growing species composition.**
4. **Limited to a maximum of 50% of the free growing species composition.**

5. A 10 yearmaximum regeneration delay period is provided in IDF subzones and variants where natural regeneration methods may be prescribed. The 10 year regeneration delay period is intended to account for the irregular periodicity of seed production and release by Fdi. The allowance of this regeneration delay period will provide more flexibility for the application of professional reliance when designing and prescribing reforestation regimes in IDF ecosystems.

Uneven-Aged Stocking Standards

Target from West Fraser & Interfor Stocking Standards	Layer**	Stocking***		
		TSS pa	MSS pa	MSS p
(stems/ha)		(well-spaced/ha)		
1200*	1	600	300	250
	2	800	400	300
SS ID #	3	1000	500	400
1038472	4	1200	700	600
1000*	1	400	200	200
	2	600	300	250
SS ID #	3	800	400	300
1038473	4	1000	500	400
900*	1	400	200	200
	2	500	300	250
SS ID #	3	700	400	300
1038474	4	900	500	400

Target from West Fraser & Interfor Stocking Standards	Layer**	Stocking***		
		TSS pa	MSS pa	MSS p
(stems/ha)		(well-spaced/ha)		
800*	1	300	150	150
	2	400	200	200
SS ID #	3	600	300	300
1038475	4	800	400	400
600*	1	300	150	150
	2	400	200	200
SS ID #	3	500	300	300
1038476	4	600	400	400
400*	1	200	100	100
	2	300	125	125
SS ID #	3	300	150	150
1038477	4	400	200	200

Regeneration Delay

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, the earliest free growing declaration date is 12 months after completion of harvest.

- All other conditions of the Conifer Stocking Standards remain the same.

Stand Layer Definition

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

Preferred and Acceptable Species

pa - preferred and acceptable species
p - preferred species

Application of Uneven-aged Stocking Standards

The above standards will be applied on uneven-aged stands having at least three well-represented and distinct conifer age classes. The crown closure of trees in layer 1 and 2 combined must exceed 6%, and layers 3 and/or 4 must also be present.

PARTIAL RETENTION Even-Aged Stocking Standards

	Layer 1 Conifer Basal Area	Regen Stocking Standards for Layers 2, 3, 4		
Standards I.D.	(m^2/ha)	TSS	MSS	MSSp
1038468	≥ 5, < 10	1200	600	500
1038469	≥ 10, < 15	1200	500	400
1038470	≥ 15, < 20	1200	400	300
1038471	≥ 20	0	0	0

Application and Survey Methodology

1. These standards apply to stands with ≥ 5 m^2 Ba/ha.
2. Areas will be sampled at a minimum intensity of five (5) 50 m^2 circular plots/stratum, and one 50 m^2 circular plot/ha for strata > 5 ha.
3. Basal area will be measured with a 3 BAF prism at the plot center of each 50 m^2 circular plot.

All other accepted silviculture survey procedures will apply consistent with the **Forest Practices and Investment Branch Silviculture Survey Procedures Manual.**

Regeneration Delay and Free Growing Period

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, the earliest free growing declaration date is 12 months after completion of harvest, as per sections 44(3)(h) and 44(4) of the *Forest Planning and Practices Regulation*.

All other conditions of the Conifer Stocking Standards remain the same.

Stand Layer Definition

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