



Chinook Community Forest Agreement #K4R: Forest Stewardship Plan

January 2022

Chinook Forest Stewardship Plan (2nd generation)

Table of Contents

List of Tables	v
List of Appendices.....	vi
1.0 Interpretation	1
1.1 Definitions.....	1
1.2 Abbreviations.....	2
2.0 Tenses	2
3.0 Term of FSP	3
3.1 Term	3
4.0 Application of the Forest Stewardship Plan	4
4.1 Agreement Holders	4
4.2 Transition of Approved Cutting Permits and Road Permits into FRPA	4
5.0 Identifying Forest Development Units.....	5
5.1 Forest Development Units in Effect on Date of Submission.....	5
5.2 Forest Development Units	5
5.3 FSP Map Content Section.....	5
6.0 Results and Strategies.....	7
6.1 Land Use Objectives Set by Government – Lakes North Sustainable Resource Management Plan.....	7
6.1.1 Background: Lakes North SRMP Higher Level Plan.....	7
6.1.2 Result or Strategy: Lakes North SRMP Higher Level Plan Seral Stage Distribution..	7
6.1.3 Result or Strategy: Lakes North SRMP Higher Level Plan Preserve Old Growth Management Areas.....	8
6.1.4 Result or Strategy: Lakes North SRMP Higher Level Plan Maintain Habitat connectivity within the Landscape connectivity matrix (LCM).....	8
6.1.5 Result or Strategy: Lakes North SRMP Higher Level Plan Maintain stand level structural diversity by retaining wildlife tree retention (WTR)	9
6.2 Land Use Objectives Set by Government – Lakes South Sustainable Resource Management Plan.....	11
6.2.1 Background: Lakes South SRMP Higher Level Plan.....	11

6.2.2	Results or Strategy: Lakes South SRMP Higher Level Plan Objective 1 Seral Stage Distribution	11
6.2.3	Result or Strategy: Lakes South SRMP Higher Level Plan Objective 2 and 3 Old Growth Establishment	11
6.2.4	Result or Strategy: Lakes South SRMP Higher Level Plan Objective 4 Connectivity Maintain within a managed forest setting, landscape corridors.....	12
6.2.5	Result or Strategy: Lakes South SRMP Higher Level Plan Objective 5 Patch Size Distribution	12
6.2.6	Result or Strategy: Lakes South SRMP Higher Level Plan Objective 6 Wildlife Tree Patch Retention	13
6.2.7	Result or Strategy: Lakes South SRMP Higher Level Plan Objective 7 Ensure Representation of pre-harvest stands wildlife tree values	14
6.2.8	Result or Strategy: Lakes South SRMP Higher Level Plan Objective 8 Maintenance of Old Growth and Wildlife Tree Values	14
6.3	Objectives Set by Government for Soils (FPPR Section 5)	15
6.4	Objectives Set by Government for Wildlife (FPPR Section 7)	15
6.4.1	Species at Risk.....	15
6.4.2	Habitat Required for Winter Survival of Ungulate Species	16
6.5	Objectives Set by Government for Water, Fish, Wildlife, and Biodiversity within Riparian Areas (FPPR Section 8).....	17
6.5.1	Undertaking in respect of FPPR s. 8 (FPPR s. 12.1 (2)).....	17
6.5.2	Result or Strategy for Retention of trees within the Riparian Management Zone (RMZ) (FPPR s. 12 (3))	17
6.6	Objectives Set by Government for Wildlife and Biodiversity – Landscape Level (FPPR Section 8)	21
6.7	Objectives Set by Government for Visual Quality Objectives and Objectives in respect of Scenic Areas	21
6.7.1	Visual Quality Objectives	21
6.8	Objectives Set by Government for Cultural Heritage Resources.....	23
	Section 6.8.1 Background.....	23
7.0	Measures.....	25

7.1	Measures for Preventing the Introduction or Spread of Invasive Plants (<i>FPPR Section 17</i>)	25
	Section 7.1.1 Background.....	25
	Section 7.1.2 Interpretation.....	25
	Section 7.1.3.....	25
7.2	Measures to Mitigate the Loss of Natural Range Barriers (<i>FPPR Section 18</i>).....	27
	Section 7.2.1 Background	27
	Section 7.2.2 Measures.....	27
8.0	Stocking Standard Requirements	28
	8.1 General Standards.....	28
	8.2 Variations from Appendix A –Stocking Standards	28
9.0	Recreation Site, Recreation Trail or Interpretive Forest Site.....	31
	9.1 Background: Order to Establish Objectives for a Recreation Site, Recreation Trail or Interpretive Forest Site	31
	9.1.1 Mollice Lake Recreation Site (Recreation Project File 900-0593)	31
	9.1.2 Indian Bay Recreation Site (Recreation Project File 900-0552).....	31
	9.1.3 Walkadab Recreation Trail (Recreation Project File 900-6472)	31
10.0	Signatures of Persons Required to Prepare Plan.....	33
	Appendix A – Stocking Standards	34
	Even-Aged Stocking Standards	34
	Appendix B – FSP Maps.....	46

List of Tables

Table 1 –Agreement Holders and Agreements	4
Table 2 - New Forest Development Units.....	5
Table 3 – Red and Blue listed Ecological Communities	9
Table 4 - Hydro-Riparian Ecosystem Criteria	9
Table 5 - Percent of forested area by NDT	13
Table 6 - Wildlife Tree Patch Retention Targets for Lakes South SRMP.....	13
Table 7 - Retention of Trees Within Riparian Management Zones applicable to a cutblock.....	19
Table 8 - Retention within the Riparian Management Zones of S4, S5 and S6 streams applicable to a cutblock.....	20
Table 9 - Categories of Visually Altered Forest.....	22
Table 10 - Even-Aged Stocking Standards	34
Table 11 - Uneven-aged Stocking Standards - Single-tree selection only	45

List of Appendices

Appendix A: Stocking Standards

Appendix B:

- Forest Development Unit Maps 1 to 4 (1:50,000)
- Wildlife Maps 6 to 8
- Forest Stewardship Plan Overview Map 5 (1:500,000)
- Wildfire Risk Reduction Area Map 9

1.0 Interpretation

1.1 Definitions

In this FSP, unless the FSP specifies or the context requires otherwise: “Agreement Holder” has the meaning given it in Section 4.1;

“**Crown Forested Land Area**” means the total productive forest in the Lakes TSA as identified from the most recent timber supply review and also includes the total productive forest located in parks, protected areas and community forests;

“**Minister**” means the person who has, on behalf of government, approved this FSP, or such other person as that person may delegate;

“**Significant Public Viewpoint**” refers to a location to where the landscape is viewed relative to its scenic area and is of public interest for the purposes of visual quality;

“**Term**” means the period specified in Section 3.1;

“**Timber Harvesting Landbase**” is the crown forest land within the timber supply area where timber harvesting is considered both acceptable and economically feasible, given objectives for all relevant forest values, existing timber quality, market values and applicable technology as specified in the most recent timber supply review for the Lakes TSA;

“**Ecologically Suitable**” is the preferred and acceptable species by BEC variant and site series listed in Appendix A. All ecologically suitable species listed are commercially valuable;

“**Lodgepole Pine Leading Stands**” are stands where pine is greater than or equal to 50 percent at stand establishment; and

“**Overstorey**” is the uppermost continuous layer of vegetation cover: for example, the tree canopy in a forest ecosystem or the uppermost layer or a shrub stand.

“**Wildland Urban Interface**” The wildland urban interface (WUI) is any area where combustible forest fuel is found adjacent to homes, farm structures or other outbuildings. This may occur at the interface, where development and forest fuel (vegetation) meet at a well-defined boundary, or in the intermix, where development and forest fuel intermingle with no clearly defined boundary.

“**Wildfire Risk Reduction**” mean fuel treatment activities, as part of the overall wildfire management is the modification of forest structure to reduce forest fuel accumulations available to burn in a wildfire. The main goal of fuel management is improving public safety. This may include treatments such as thinning, spacing and pruning trees, and removal of needles and woody debris from the forest floor.

1.2 Abbreviations

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

“**AAC**” means Allowable Annual Cut;

“**BEC**” means Biogeoclimatic Zone;

“**CFLA**” means Crown Forested Land Area;

“**CHR**” means cultural heritage resource;

“**CMT**” means cultural modified tree;

“**ESSF**” means the Engelmann Spruce Subalpine Fir BEC, including its subzones and variants;

“**FDU**” means a Forest Development Unit as defined in the Forest Planning and Practices Regulation, B.C. Reg. 14/2004;

“**FPC**” means the *Forest Practices Code of British Columbia Act* R.S.B.C. 1996, c.159;

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

“**FRPA**” means the *Forest and Range Practices Act*, S.B.C. 2002;

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

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

“**LRMP**” means Land and Resource Management Plan;

“**NAR**” means net area to be reforested;

“**SBS**” means the Sub-Boreal Spruce BEC, including its subzones and variants;

“**SRMP**” means Sustainable Resource Management Plan;

“**RMZ**” means riparian management zone;

“**THLB**” means timber harvesting landbase;

“**TSA**” means timber supply area;

“**WTP**” means wildlife tree patch.

“**WRR**” means wildfire risk reduction.

“**WUI**” means wildland urban interface.

2.0 Tenses

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

3.0 Term of FSP

3.1 Term

This Forest Stewardship Plan (FSP) carries for a term of five year, commencing on the date of approval by the minister, or delegated decision maker.

4.0 Application of the Forest Stewardship Plan

4.1 Agreement Holders

This FSP applies to the Agreement Holder and agreement indicated in Table 1.

Table 1 –Agreement Holders and Agreements

Agreement Holder	Agreement
Chinook Community Forest Limited (the “Agreement Holder”)	Community Forest Agreement K4R

4.2 Transition of Approved Cutting Permits and Road Permits into FRPA

This FSP does not apply to cutblocks or roads under section 197 (4), (5) or (7) of the FRPA.

5.0 Identifying Forest Development Units

The area encompassed by the Agreement Holder in the Lakes TSA is presented in Appendix B (Chinook Community Forest - Forest Development Units [FDU] overview map 5).

5.1 Forest Development Units in Effect on Date of Submission

The Chinook FDU units, Chinook North FDU and Chinook South FDU, are in effect for the Agreement Holder on the date of submission of this FSP.

5.2 Forest Development Units

Table 2 lists the FDUs in this FSP.

Table 2 - New Forest Development Units

Agreement Holder	FDU Name	Operating Area Numbers	Licence Type and Number	FSP Map numbers
Chinook Community Forest	Chinook North FDU	1, 2, 3, 4	Community Forest #K4R	1, 2
Chinook Community Forest	Chinook South FDU	3, 5	Community Forest #K4R	1, 3, 4

Areas where the Agreement Holder is precluded from harvesting, including but not limited to Community Forests, Indian Reserves, Private Land and Woodlots, are not considered to be part of the Chinook North or Chinook South FDUs. These areas may or may not be shown on the FSP maps.

5.3 FSP Map Content Section

The FSP maps 1-4 (1:50,000 scale) included in this FSP show the location of the following items that were in effect 4 months before the date this FSP was submitted for approval:

- (a) the areas subject to a cutting permit or road permit held by the Agreement Holder four months prior to the date this FSP was submitted for approval;
- (b) Scenic Areas;
- (c) Old Growth Management Areas;
- (d) Landscape Connectivity Corridors; and
- (e) areas referred to in Sections 196(1) and 196(2) of the FRPA.

6.0 Results and Strategies

6.1 Land Use Objectives Set by Government – Lakes North Sustainable Resource Management Plan

6.1.1 Background: Lakes North SRMP Higher Level Plan

January 29th 2009 – Pursuant to Section 93.4 (1) of the *Land Act* objectives 1 through 4 of the Lakes North Sustainable Resource Management Plan (SRMP) (2009) are established as land use objectives and apply to the Chinook North FDU shown on FSP maps 1 and 2 (Appendix B). Any footnote or map referenced in the objective is an integral part of the objective.

6.1.2 Result or Strategy: Lakes North SRMP Higher Level Plan Seral Stage Distribution

- 1) During the Term of this FSP the Agreement Holder will not undertake any primary forest activity in the Chinook North FDU if the activity will, as of the completion of the activity, cause the amount of seral stage distribution to:
 - (a) drop below the applicable Mature + Old or Old targets; or
 - (b) continue to be below the applicable Mature + Old or Old targets; or
 - (c) exceed the applicable Early targets; or
 - (d) continue to be above applicable Early targets.

specified in Table 1 of the “Ministerial Order Lakes North Sustainable Resource Management Plan (2008)” dated January 26, 2009.

- 2) A recruitment strategy will be developed by the Agreement Holder in the Chinook North FDU area within the term of the FSP; and
- 3) The recruitment strategy shall be submitted to the DDM.

6.1.3 Result or Strategy: Lakes North SRMP Higher Level Plan Preserve Old Growth Management Areas

- 1) During the Term of this FSP, the Agreement Holder will not carry out timber harvesting within OGMA's identified on FSP maps 1 and 2 unless the OGMA has been amended to permit such harvesting and, then, only in the manner consistent with the amendment.

6.1.4 Result or Strategy: Lakes North SRMP Higher Level Plan Maintain Habitat connectivity within the Landscape connectivity matrix (LCM)

- 1) During the term of the FSP and within the LCM identified on FSP maps 1-2 the Agreement Holder will maintain each LCM in a contiguous mature and old forest condition. Each LCM is in a contiguous mature and old condition if:
 - a. At least 70% of the forested area within each LCM is greater than 100 years old (SBS) or 120 years old (ESSF) at any time; and
 - b. Cutblocks are spatially distributed as follows within each LCM:
 - i. A new cutblock cannot be adjacent to an existing cutblock unless at least 70% of the net area to be reforested on the existing cutblock has developed attributes that are consistent with a mature seral condition and
 - ii. Harvesting must not result in a condition where more than 30% of the width of a LCM is younger than mature and old.
- 2) During the term of the FSP and within the LCM identified on FSP maps 1-2 the Agreement Holder will retain 100% of the forested area within the red and blue-listed ecological communities identified in Table 3.
- 3) During the term of the FSP and within the LCM identified on FSP maps 1-2 the Agreement Holder will retain 100% of the hydro-riparian ecosystems identified in Table 4.
- 4) Section 6.1.4.1 does not apply where timber harvesting is necessary:
 - (a) for new road development and maintenance and where no practicable alternative exists, and subject to these roads in the LCM being deactivated 2 years after forestry operational activities are complete; or

(b) to salvage dead stands where 50% or more of the total mature and old stems within the stand are composed of dead pine trees in which case to the extent practicable:

- i. Areas \geq 1 ha within the salvage stands that have $<$ 50% dead mature and old pine stems will be retained;
- ii. Harvest openings within the LCM will be no larger than 4 ha in size;
- iii. Harvest openings will not be adjacent to other harvest openings or stands $<$ 40yrs of age within the LCM;
- iv. Harvesting will not result in a condition where more than 30% of the width of the LCM is younger than mature and old;
- v. Live stems, non-merch understory and deciduous trees will be retained.

Table 3 – Red and Blue listed Ecological Communities

SBS dk – 04, 08, 81, 82
SBS mc2 - 81, 82

Table 4 - Hydro-Riparian Ecosystem Criteria

SBS dk – 04, 07, 08, 09, 10
SBS mc2 - 07, 09, 10, 12
ESSF mc - 07, 08, 09, 10
ESSF mv1 – 04, 05
ESSF mv3 - 07

6.1.5 Result or Strategy: Lakes North SRMP Higher Level Plan Maintain stand level structural diversity by retaining wildlife tree retention (WTR)

- 1) The Agreement Holder will, within the Chinook North FDU area as shown on FSP maps 1 and 2, during the Term of this FSP do the following:

- (a) if the Agreement Holder completes harvesting in one or more cutblocks during any 12 month period beginning on April 1 of any calendar year, it will ensure that, at the end of that 12 month period, the total area covered by WTR areas that relate to the cutblocks is a minimum of 10% of the total area of cutblocks;
 - (b) if the Agreement Holder harvests timber in a cutblock greater than 3 hectares in area, it will ensure that, at the completion of harvesting the cutblock, total amount of WTR areas that relate to the cutblock is a minimum of 5% of the cutblock; and
 - (c) if the Agreement Holder who harvests timber in a cutblock that is three hectares or less in area, it will ensure that, at the completion of harvesting of the cutblock, the total amount of WTR areas that relate to the cutblock is a minimum of 3.5% of the cutblock and
 - (d) for the purposes of subsections (a) to (c), a WTR area may relate to more than one cutblock if all the cutblocks that relate to the wildlife tree retention areas collectively meet the applicable requirements of those subsections.
- 2) The Agreement Holder will ensure that the WTR areas it relies on for the purposes of Section 6.1.5(1)(a) or (b):
- (a) are high wildlife value areas where such areas are available and it is practicable to retain them; or
 - (b) if the requirements of subsection (a) cannot be met, area retained giving priority to:
 - (i) areas most suitable for long-term wildlife tree recruitment, and
 - (ii) areas that are representative of the pre-harvest stand.
- 2) The Agreement Holder will, within the Chinook North FDU as shown on FSP maps 1 and 2, not harvest timber from a WTR unless the trees on the net area to be reforested of the cutblock to which the WTR relates have developed attributes that are consistent with a mature seral condition.

6.2 Land Use Objectives Set by Government – Lakes South Sustainable Resource Management Plan

6.2.1 Background: Lakes South SRMP Higher Level Plan

September 1, 2003 – Pursuant to Section 93.4 (1) of the Land Act objectives 1 through 4 of the Lakes South Sustainable Resource Management Plan (SRMP) (2003) are established as land use objectives and apply to the Agreement Holder Chinook South FDU (Appendix B). Objectives 1 – 8 Established under the Order to Establish the Lakes South Landscape Units and Objectives pursuant to Sections 4(1) and 4(2) of the Forest Practices Code of British Columbia Act effective September 1, 2003. Any footnote or map referenced in the objective is an integral part of the objective.

6.2.2 Results or Strategy: Lakes South SRMP Higher Level Plan Objective 1 Seral Stage Distribution

- 1) The Agreement Holder within the Chinook South FDU area for the Term of the plan shall address Seral Stage Distribution by achieving the target percentages of early, mature plus old and old forest per the landscape unit / BEC zone / biodiversity emphasis option as listed in Table 1 of the Lakes South SRMP.
- 2) A recruitment strategy will be developed by the Agreement Holder in the Chinook South FDU area within the term of the FSP; and
- 3) The recruitment strategy shall be submitted to the DDM.

6.2.3 Result or Strategy: Lakes South SRMP Higher Level Plan Objective 2 and 3 Old Growth Establishment

- 1) The Agreement Holder will, within the Chinook South FDU area for the Term of this FSP, not harvest timber or construct a road in an established OGMA unless the OGMA has been amended to permit such harvesting and, then, only in the manner consistent with the amendment.

6.2.4 Result or Strategy: Lakes South SRMP Higher Level Plan Objective 4 Connectivity Maintain within a managed forest setting, landscape corridors

- 1) The Agreement Holder will, within the Chinook South FDU for the Term of the FSP,
 - (a) not harvest timber within a Landscape Corridor segment with attributes consistent with one or more of the attributes identified in Table 6 of the Lakes South SRMP if that harvesting will result in 70% or less of the forest land in that segment to have one or more of those attributes;
 - (b) not harvest cutblocks:
 - (i) greater than 4 hectares in size within Landscape Corridor segments impacted by the Mountain Pine Beetle; or
 - (ii) greater than 3 hectares in size within Landscape Corridor segments not impacted by the Mountain Pine Beetle;
 - (c) not construct new permanent access roads in Landscape Corridor segments, unless no other practicable alternative exists for removing timber outside the corridor segment;
 - (d) deactivate all new roads referred to in subsection (c) within 18 months after the Agreement Holder completes harvesting activities for which it constructed the road.

6.2.5 Result or Strategy: Lakes South SRMP Higher Level Plan Objective 5 Patch Size Distribution

- 1) The Agreement Holder will, within the Chinook South FDU for the Term of the FSP, harvest cutblocks with a range of patch sizes to the extent practicable that meets the targets for patch sizes described in Table 7 of the Lake South SRMP (table 5 below).

Table 5 - Percent of forested area by NDT

NDT	BEC Subzone	Patch Size	Patch Size	Patch Size
2	ESSFmc	<40 ha	40-80 ha	80+ ha
		30-40%	30-40%	20-40%
3	SBSdk	<40 ha	40-250 ha	250+ ha
	SBSmc2	10-30%	10-30%	40-80%

6.2.6 Result or Strategy: Lakes South SRMP Higher Level Plan Objective 6 Wildlife Tree Patch Retention

- 1) The Agreement Holder will during the term of the FSP within the Chinook South FDU:
 - (a) maintain wildlife tree patches in each cutblock if it harvests in a cutblock that is 2 hectares or greater in a BEC subzone listed in Table 8 of the Lakes South SRMP (table 6 below); or
 - (b) if it harvests timber in a cutblock that is less than two hectares in area, ensure that, at the completion of harvesting, the total amount of WTR areas that relates to the cutblock is a minimum of 3.5% of the cutblock, and
 - (c) where, for the purposes of subsection (a) and (b), a WTR area may relate to more than one cutblock if all the cutblocks that relate to the wildlife tree retention areas collectively meet the applicable requirements of those subsections.

- 2) The Agreement Holder will, within the Chinook South FDU, not harvest timber from a WTR unless the trees on the net area to be reforested of the cutblock to which the WTR relates have developed attributes that are consistent with a mature seral condition.

Table 6 - Wildlife Tree Patch Retention Targets for Lakes South SRMP

BEC Subzone	% of cutblock to be retained as WTP					
	Chelaslie	Ootsa	Intata	Cheslatta	FL West	FL East
SBS dk	>12	>12	>16	>12	>13	>14

SBS mc2	>12	>12	>16	>12	>13	>14
ESSF mc, ESSF mcp	>9	>9	>9	>9	>12	>9

**6.2.7 Result or Strategy: Lakes South SRMP Higher Level Plan Objective 7
Ensure Representation of pre-harvest stands wildlife tree values**

- 1) To address representation of pre-harvest wildlife tree values the Agreement Holder within the Chinook South FDU area for the term of the plan shall:
 - (a) Maintain wildlife tree patches containing predominantly conifers having an average age consistent with the age of the associated cut block and a crown closure greater than 25%.
 - (b) Areas with less than 25% crown closure and individual wildlife trees may contribute to WTP area; however, these WTPs will contribute on a basal area basis as described in (c)
 - (c) The basal area of the individual wildlife trees or less than 25% crown closure WTP areas shall be converted into hectares based on the basal area of the harvested portion of the block (i.e. if the scattered WTP had a total basal area of 10 m² and the basal area of the harvested portion of the cutblock has an average BA of 20 m² per ha, the WTP is equivalent to half of the required area; thus requiring the WTP area to be multiplied by 2).

**6.2.8 Result or Strategy: Lakes South SRMP Higher Level Plan Objective 8
Maintenance of Old Growth and Wildlife Tree Values**

- 1) The Agreement Holder within the Chinook South FDU area for the term of the plan shall address maintenance of old growth and wildlife tree values as follows:
 - (a) No harvesting of wildlife tree patches or individual trees with exception to (b).
 - (b) Where a forest health agent within a wildlife tree patch or individual wildlife tree area poses a significant and substantiated forest health risk to forests (as determined by a qualified professional) outside of the wildlife tree patch or

individual tree area and where harvesting will effectively control the forest health issue.

- (c) Where wildlife tree patches or individual trees are harvested in accordance with strategy (b), suitable replacement areas shall be selected that are consistent with objectives 6 and 7 of the Lakes South SRMP.

6.3 Objectives Set by Government for Soils (FPPR Section 5)

- 1) “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”
- 2) For the objective for soils set out in Section 5 of the FPPR, the Agreement Holder undertakes to comply with section 35 and 36 of the FPPR in the Chinook North and Chinook South FDUs, during the term of this FSP.

6.4 Objectives Set by Government for Wildlife (FPPR Section 7)

- 1) “The objectives set by government for wildlife is, without unduly reducing the supply of timber from British Columbia’s forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas for:
 - (a) the survival of species at risk,
 - (b) the survival of regionally important wildlife, and
 - (c) the winter survival of specified ungulate species.”

6.4.1 Species at Risk

- 1) For the purposes of Section 7 of the FPPR, the December 17, 2004 Notice entitled “Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Nadina Forest District” the Agreement Holder shall employ the following strategies with respect to grizzly bear habitat within the Chinook North and South FDUs, over the term of this FSP will,

- (a) The area indicated as Grizzly Bear critical habitat (predictive mapping) on the FSP Map 8 shall not be harvested unless the following forest cover attributes can be met within the entire area to which the notice pertains:
 - (i) a maximum of 50% of the area can be less than 121 year of age; and
 - (ii) a maximum of 33% of the area can be less than 28 years or 5 meters in height.

6.4.2 Habitat Required for Winter Survival of Ungulate Species

- 1) For the purposes of Section 7 of the FPPR, the December 20, 2004 Notice entitled “Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the Lakes Timber Supply Area” the Agreement Holder over the term of this FSP, within the Lakes North and Lakes South FDUs will,
 - (a) In respect to moose,
 - (i) The Agreement Holder shall not harvest in the area(s) delineated on the FSP Map 6 as M1 or M2 Ungulate Winter Habitat, unless the following forest cover attributes can be met within the entire area to which the notice pertains: a minimum of 30% of the area must be greater than 101 years of age and a maximum of 33% of the area may be less than 3 meters in height or 17 years of age.
 - (c) In respect to mule deer,
 - (i) The Agreement Holder shall not harvest in the area(s) delineated on the FSP Map 7 as D2 Ungulate Winter Range, unless the following forest cover attributes can be met within the entire area to which the notice pertains: a minimum of 50% of the area must be greater than 101 years of age and a maximum of 33% of the area may be less than 3 meters in height or 17 years of age.

6.5 Objectives Set by Government for Water, Fish, Wildlife, and Biodiversity within Riparian Areas (FPPR Section 8)

“The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia’s forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.”

6.5.1 Undertaking in respect of FPPR s. 8 (FPPR s. 12.1 (2))

- 1) For the objective for water, fish, wildlife and biodiversity within riparian areas set out in Section 8 of the FPPR, the Agreement Holder undertake to comply with sections 47 to 51, 52(2) and 53 of the FPPR in the Chinook North and South FDUs, during the term of this FSP.

6.5.2 Result or Strategy for Retention of trees within the Riparian Management Zone (RMZ) (FPPR s. 12 (3))

6.5.2.1 Definitions

In this Part 6.5.2:

- (a) “**Commencement Date**” means the date referred to in Section 6.5.2.2;
- (b) “**Measurable Stem (Other)**” means a measurable stem that is:
 - (i) greater than or equal to 7.5 cm in diameter when measured 30 cm from ground level; and
 - (ii) representative of the tree species composition in the RMZ prior to harvesting;
- (c) “**Measurable Stem (S4, S5, S6)**” means a measurable stem that is:
 - (i) a tree greater than or equal to 7.5 cm in diameter when measured 30 cm from ground level or
 - (ii) a stub greater than or equal to 7.5 cm in diameter when measured 30 cm from ground level and greater than or equal to 3 m in height; and
 - (iii) representative of the tree species in the RMZ prior to harvesting; and
- (d) “**RMZ**” means a riparian management zone as that term is defined in the FPPR.

6.5.2.2 Retention at Landscape Level

- (a) In this section, “all such streams relating to the total gross cutblock area” means S4, S5 or S6 streams that have portions of their RMAs overlaying with the total gross cutblock area.
- (b) If, within any 2 year consecutive term commencing after the approval date of this FSP, the Agreement Holder completes harvesting in one or more cutblocks where the total gross cutblock area contains RMZs for S4, S5 or S6 streams, not subject to FPPR ss.52(2) or 53, the holder will ensure that, at the end of the term, it has not cut trees in at least 50% of the total RMZ area for all such streams relating to the total gross cutblock area of all such cutblocks combined.

6.5.2.3 Retention at Cutblock Level

The Agreement Holder will, when harvesting a cutblock within the Chinook North and South FDUs

- (a) that contains a stream, wetland or lake having a riparian class listed in Table 7 that is not subject to FPPR s. 51 or 53, retain, at the completion of harvesting, in the portion of the RMZ of each such riparian class within the cutblock, the number of Measurable Stems (Other) per ha specified in Table 7;
- (b) that contains a stream having a riparian class listed in Table 8, either:
 - (i) Retain, at the completion of harvesting, in that portion of the RMZ of each such riparian class for each stream that is within the cutblock, the percentage specified in Table 8 of the pre-harvest Measurable Stems (S4, S5, S6) in that portion of the RMZ; or
 - (ii) Retain, at the completion of harvesting, in that portion of the RMZ of each such riparian class for each stream that is within the cutblock, all Measurable Stems (S4, S5, S6) within an area comprising the percentage specified in Table 8 of the total area in each such portion of each such RMZ;
- (c) that contains a stream, wetland or lake having a riparian class listed in Table 7 or 8, retain, at the completion of harvesting and to the extent practicable, mature aspen and cottonwood within that portion of the RMZ of such stream, wetland or lake that is within the cutblock, provided, however, that

the Agreement Holder will not rely on this retention to meet more than 50% of the retention required under subsections (a) or (b)(i);

- (d) that contains a stream with a riparian class of S4, S5 or S6, retain, at the completion of harvesting and to the extent practicable within 5 metres of the stream, brush, advanced regeneration and non merchantable trees that are not a Measurable Stem (S4, S5, S6);
- (e) that contains a wetland with a riparian class of W3 or W4, retain, at the completion of harvesting and to the extent practicable within 5 metres of the wetland, brush, advanced regeneration and non merchantable trees that are not a Measurable Stem (S4, S5, S6);
- (f) that contains a lake with a riparian class of L1-A, L3 or L4, retain, at the completion of harvesting and to the extent practicable within 5 metres of the lake, brush, advanced regeneration and non merchantable trees that are not a Measurable Stem (S4, S5, S6).

Table 7 - Retention of Trees Within Riparian Management Zones applicable to a cutblock

Riparian Class	Riparian Management Area (meters)	Riparian Reserve Zone (meters)	Riparian Management Zone (meters)	Measurable Stems (Other) per ha within the RMZ
S1-A	100	0	100	>=30
S1-B	70	50	20	>=30
S2	50	30	20	>=30
S3	40	20	20	>=30
W1	50	10	40	>=20
W2	30	10	20	>=20
W3	30	0	30	>=20
W4	30	0	30	>=20
W5	50	10	40	>=20
L1-A	0	0	0	>=20
L1-B	10	10	0	>=20
L2	30	10	20	>=20
L3	30	0	30	>=20
L4	30	0	30	>=20

Table 8 - Retention within the Riparian Management Zones of S4, S5 and S6 streams applicable to a cutblock

Riparian Class	Riparian Management Area (meters)	Riparian Reserve Zone (meters)	Riparian Management Zone (meters)	Percentage of Pre-harvest Measurable Stems (S4, S5, S6) within the RMZ or Percentage of total RMZ area
S4	30	0	30	>=25%
S5	30	0	30	>=30%
S6 < 1.5 m wide	20	0	20	>=25%
S6 >1.5 m wide	20	0	20	>=30%

- 1) Section 6.5.2.3 does not apply to an Agreement Holder when harvesting a cutblock in the Chinook North and South FDUs to the extent the Agreement Holder
 - (a) cuts, modifies or removes a tree in and from a RMA that is infested or diseased by a forest health agent that would spread if the tree is not cut, modified or removed;
 - (b) cuts, modifies or removes a tree in and from a RMA that would likely cause a material adverse impact on stream channel stability or a material increase in sediment delivery if not cut, modified or removed; or
 - (c) cuts, modifies or removes a tree from a RMA for any of the following purposes:
 - (i) felling or modifying a tree that is a safety hazard, if there is no other practicable option for addressing the safety hazard;
 - (ii) topping or pruning a tree that is not wind firm;
 - (iii) constructing a stream crossing;
 - (iv) creating a corridor for full tree suspension yarding;

- (v) creating guyline tiebacks;
- (vi) felling or modifying a tree for the purposes of establishing an interpretative forest site, recreation site, recreation facility or recreational trail; or
- (vii) felling or modifying a tree for the purposes of fire suppression or wildfire risk reduction.

6.6 Objectives Set by Government for Wildlife and Biodiversity – Landscape Level (FPPR Section 8)

- 1) “The objectives set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia’s forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.”
- 2) For the objective for wildlife and biodiversity at a landscape level set out in section 9.0 of the FPPR, the Agreement Holder undertakes to comply with sections 64 and 65 of the FPPR within the Chinook North FDU.

6.7 Objectives Set by Government for Visual Quality Objectives and Objectives in respect of Scenic Areas

6.7.1 Visual Quality Objectives

- 1) For visual quality objectives (VQO) established or amended under GAR 7(2) in the Chinook North and South FDUs that are in scenic areas established or amended under GAR 7(1), the Agreement Holder over the term of this FSP, shall ensure that completed harvesting and road construction, does not exceed the established VQO when viewed from a significant public viewpoint relevant to the scenic area. Table 9 describes the categories of visually altered forest landscapes corresponding to the prescribed VQO.

Table 9 - Categories of Visually Altered Forest

Visual Quality Objective	Description of Altered Forest Landscape
Preservation	(i) very small in scale, and (ii) not easily distinguishable from pre-harvest landscape
Retention	(i) difficult to see (ii) small in scale, and (iii) natural in appearance
Partial Retention	(i) easy to see, (ii) small to medium in scale, and (iii) natural and not rectilinear or geometric in shape
Modification	(i) very easy to see, and (ii) is large in scale and natural appearance, or (iii) small to medium in scale but with some angular characteristics.
Maximum Modification	(i) is very easy to see, and (ii) is very large in scale, (iii) rectilinear or geometric in shape, or both.

2) Despite section 6.7.1.1, for the area identified as Wildfire Risk Reduction Units (WRRU) on map 9, where, as per FPPR 12(7), it is not practicable to design a cutblock for the purpose of forest health and wildfire risk reduction, that will achieve the desired VQO or retention. The holder of this FSP with respect to a cutblock within the Wildfire Risk Reduction Units will follow the strategies outlined below:

(a) Complete a Visual Impact Assessment (VIA) for the proposed harvest areas.

(b) Limit harvest to those areas identified within:

i. A Chinook Wildfire Protection Plan;

ii. A BC Wildfire Service Interface Risk Class Polygon (WUI RC Polygon);
or

iii. A Wildfire Risk Reduction tactical plan area of interest.

(c) Priority will be given to areas that fall within a WUI RC Polygon that have been identified as a high priority WRRU/Fuel Treatment Unit (FTU) within a tactical plan.

(d) Ensure the visual design is consistent with the objectives and describe which ones of, ease of seeing, scale or geometry cannot be consistent; and

- (e) Describe what mitigation is being implemented to be as consistent as practicable.

6.8 Objectives Set by Government for Cultural Heritage Resources

Section 6.8.1 Background

“The objectives set by government for cultural heritage resources (CHR) is to conserve, or, if necessary, protect cultural heritage resources that are:

- (a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and
- (b) not regulated under the Heritage Conservation Act.”

The following definition applies to section 6.8.1 of this FSP

“Cultural Heritage Resource Evaluation” is a process conducted by a qualified person and consisting of the following steps:

- (a) Record the location of the CHR;
 - (b) Record the location and age of the CMT;
 - (c) Evaluate the direct impact of the development on the CHR or CMT;
 - (d) If necessary, prepare recommendations in order to conserve, protect or mitigate the impact to the CHR or CMT at the location, considering:
 - i. The relative value or importance of the CHR or CMT to a traditional use by an aboriginal people;
 - ii. The relative abundance or scarcity of the CHR or CMT;
 - iii. The historical extent of the traditional use of the CHR or CMT;
 - (e) Communicate the results of (a) – (d) back to the agreement holder.
- 1) With regards to cultural heritage resources the Agreement Holder shall, over the term of the FSP, within Chinook North and South FDUs;
- (a) Conduct an annual referral to First Nations regarding proposed road and cutblock development that is within their traditional territories.

- (b) Prior to harvesting or road building the agreement holder shall conduct a CHR evaluation in areas within cutting permits and road permits.
- (c) Should CMTs or CHRs be noted in a CHR evaluation, location and age shall be recorded.
- (d) All CHR evaluations shall be made available to affected First Nations and FLNRORD staff upon written request.
- (e) In the event that a CHR or CMT is identified; all road and cutblock activities shall be consistent with the recommendations and results of the CHR evaluation.
- (f) In the event that a previously unidentified CHR or CMT is identified during all road and cutblock activities, operations shall cease to the extent necessary to protect the CHR until a CHR evaluation can be carried out and the Agreement Holder shall adhere to section (c) to (f).

7.0 Measures

7.1 Measures for Preventing the Introduction or Spread of Invasive Plants (FPPR Section 17)

Section 7.1.1 Background

Section 17 of the FPPR provides as follows:

“...a person who prepares a forest stewardship plan must specify measures in the plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person's forest practices.”

Section 7.1.2 Interpretation

7.1.2.1 Definitions:

In this Section:

- (a) **“Disturbed Area”** means an Area of not less than 0.1 contiguous hectare non-surfaced area where mineral soil has been exposed over 50% of the area by the Agreement Holder when conducting a primary forest activity to which this FSP applies in the Chinook North and Chinook South FDU;
- (b) **“Non-surfaced Area”** means an access road, as defined in the FPPR, designated trails, roadside work areas, quarries, pits and an area within a cutblock that is disturbed from primary forest activity that, in any such case, is not covered by gravel, rock, pavement or other similar materials;
- (c) **“Satisfactorily Re-vegetated”** means, based on a visual inspection, that a minimum of 50% of a Disturbed Area is covered by plants from grass seed applied pursuant to this Section, by other non-invasive species or by a combination thereof.
- (d) **“Forestry Contractors”** means contractors engaged in harvesting, silviculture and cut block and road layout.

Section 7.1.3

- 1) Within disturbed areas the Agreement holder will:

- (a) use in all grass seeding it undertakes under this section the Canada Common #1 Forage Mix or an equivalent as defined by the Canadian Seed Act Regulation;
 - (b) acquire the seed certificate and will sow seed that does not contain an invasive species under section 47 of the FRPA Invasive Plants Regulation;
 - (c) grass seed the Disturbed Area as soon as practicable within one year after the primary forest activity that caused the disturbance is completed if, based on site and weather conditions, the exposed soils are capable of supporting the growth of grass seed;
 - i. if site or weather conditions do not promote the growth of grass seed within one year after the primary forest activities, grass seed will be applied to the Disturbed Area as soon as practicable within the following year.
 - (d) where carrying out annual monitoring under subsection (c) indicates that a Disturbed Area is not Satisfactorily Re-Vegetated, reseed the area until Satisfactorily Re-vegetated;
 - (e) where carrying out annual monitoring under subsection (c), monitor for invasive plants;
 - (f) report to the Northwest Invasive Plant Council of B.C. or a government approved weed reporting portal by October 31 of the year in which any invasive plant that had been identified.
- 2) On an annual basis, Agreement Holder and Forestry Contractors will receive instruction through pre-works on best practices for preventing the spread of invasive plants during forest management activities. Best practices may include:
- (a) Any work will begin in un-infested sites before moving to infested locations;
 - (b) Equipment and vehicle undercarriages will be regularly inspected for plant parts or propagules if working in an area known to contain invasive plants; and
 - (c) Equipment and vehicles will be cleaned if they are likely to have plant parts or propagules prior to moving equipment or vehicles to non-infested locations.

7.2 Measures to Mitigate the Loss of Natural Range Barriers (*FPPR Section 18*)

Section 7.2.1 Background

- 1) "...a person who prepares a forest stewardship plan must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers."

Section 7.2.2 Measures

- 1) The Agreement Holder will:
 - (a) annually during the term of this FSP notify range tenure holders within the Chinook North and South FDUs prior to primary forest activities within the area of their range tenure; and
 - (b) provide a 60-day period to such range tenure holders to provide written comments to the Agreement Holder regarding the primary forest activities.

- 2) Should the Agreement Holder's primary forest activities render ineffective any natural range barrier, the Agreement Holder will mitigate the effect as soon as practicable after the completion of primary forest activity by:
 - (a) reaching an agreement with the tenure holder; and
 - (b) implement the measures agreed upon under subparagraph (a); or
 - (c) If no agreement is reached between the agreement holder and the range tenure holder, then the Nadina District Range staff will be notified to assist in mediating a resolution. The agreement holder will follow the recommended course of action to the extent practicable.

8.0 Stocking Standard Requirements

8.1 General Standards

- 1) For the purposes of section 16(1) of the FPPR, section 44(1) of the FPPR applies to all areas where the Agreement Holder is required to establish a free growing stand. The Agreement Holder will on all cutblocks within the Chinook North and South FDUs subject to 8.2 do so in accordance with Appendix A –Stocking Standards.

8.2 Variations from Appendix A –Stocking Standards

- 1) Despite section 8.1, the Agreement Holder of this FSP will apply the following stocking standards variation within the Chinook North and South FDUs in the following circumstances:
 - (a) Aspen, birch, cottonwood, willow and alder within 10.0 meters of the riparian feature listed in Table 4 are not considered deleterious brush competition when conducting a free growing survey.
 - (b) For an opening that is being managed as an even aged stand, any overstorey deciduous stems that were retained at the time of harvest will be considered non-deleterious competition for the purpose of free growing assessment.
 - (c) The Regeneration Date applicable to a Standard Unit will be:
 - (i) Seven years if natural generation is used in the used in the Standard Unit.
 - (d) In a standard unit consisting of a site series complexes of differing site series:
 - (i) the preferred species for the Standard Unit will include all of the preferred species for all the site series comprising that unit, however potential crop trees will only be preferred or acceptable where they are ecologically suited within the Standard Unit.
 - (ii) The target stocking standard, minimum inter-tree distance, minimum height and minimum stocking standards shall be based on the dominate site series.

(e) MITD Reductions – Minimum inter-tree distance (MITD) can be reduced from 2.0 meters to 1.5 meters where there is a lack of suitable plantable microsites that prevents the achievement of target regeneration density if MITD is not reduced, where:

- (i) obstacle planting is applied in areas with a high potential for cattle;
- (ii) there is a high potential for cattle congregation;
- (iii) there is a significant number of dispersed wildlife trees (e.g., greater than or equal to 50 uniformly distributed trees/ha);
- (iv) stump avoidance strategy is employed to manage root rot;
- (v) cluster planting is determined to be beneficial for the management of high wildlife values, as identified in the site plan, and will not exceed 4% of the NAR where the Agreement Holder completes harvesting in one or more cutblocks during any 12 month period beginning on April 1 of any calendar year;
- (vi) there are site moisture limitations (less than stratification size);
- (vii) fill planting or under planting is being applied due to plantation failure;
- (viii) mounding is used for site preparation and there is insufficient distance between mounds;
- (ix) very rocky sites; or
- (x) The net area to be reforested overlaps and area within an RMZ.

(f) The stocking standard that applies to the SBS mc2 Subzone applies to the SBS wk3 and the SBS dw3 Biogeoclimatic Subzones within the Chinook North and South FDUs.

(g) In addition to achieving the required height, trees must be greater than the approved minimum percentage height above competing brush in order to be

free growing. The percent height above brush will be 125% in the ESSF and 150% in the SBS, unless

- (i) the competing species are *Epilobium angustifolium* (fireweed), *Rubus parviflorus* (thimbleberry), *Spiraea douglassii* (hardhack), *Lonicera involucrata* (black twinberry), *Rubus idaeus* (red raspberry), or the *Poaceae* family (grass spp.), then crop tree height must meet minimum free growing height requirement and be greater than or equal to the competing vegetation.
 - (ii) there is overlap of the net area to reforest and RMZ within the cutblock where natural brush has been retained, then crop tree height must meet minimum free growing height requirement.
- (h) Lodgepole Pine leading stands (stands greater than or equal to 50% pine at establishment) - Where the target density is 1400 or greater and stands are established as pine leading within the Sub Boreal Spruce Biogeoclimatic Zone, those stands will have a free growing and regeneration target density of 2,000 stems per hectare and a minimum inter-tree distance of 1.8 meters. Minimum preferred will be 700 and minimum preferred and acceptable will be 800 at free growing and regeneration delay. Preferred and acceptable are as per applicable BEC and variant as per appendix A at regeneration delay and free growing. Free growing will not be declared until at least 16 years after harvest commencement.
- (i) Despite the list of species stated in the stocking standards tables in Appendix A for a site, when there is cruise information for a block, a species shall be elevated to preferred if it made up 20% of gross cruise volume of the original stand and elevated to acceptable if it made up less than 20%.
 - (j) Where there is overlap of the net area to reforest and an RMZ, retained species can contribute to the stocking if the retained tree meets good form and vigor as per the free to grow stocking criteria.
 - (k) Engelmann Spruce (Se) can be replaced with Interior Spruce (Sx) if the use of the Interior Spruce is consistent with the provincial seed transfer guidelines or the "Chief Forester's Standards for Seed Use" when they are established.
- 2) Despite section 8.1, the Agreement Holder of this FSP may apply the Wildfire Stocking Standards (WUI-WRR) in appendix A within a WUI RC Polygon or wildfire risk reduction units identified on map 9 in the circumstances where fuel treatment activities or wildfire risk reduction activities occur.

9.0 Recreation Site, Recreation Trail or Interpretive Forest Site

9.1 Background: Order to Establish Objectives for a Recreation Site, Recreation Trail or Interpretive Forest Site

October 31st, 1997 – Pursuant to Section 6.3 of the *Forest Practices Code of British Columbia Act*, The Ministry of Forests is establishing objectives for the following recreation sites, recreation trails and interpretive forest sites, effective October 31 1997.

9.1.1 Mollice Lake Recreation Site (Recreation Project File 900-0593)

“The objectives are; to manage the Mollice Lake recreation site for a roaded recreation experience. The lake shore features will be retained and the overstory vegetation will be managed within site boundaries. Opportunities for fishing, canoeing, and camping activities will be provided at this site”.

9.1.1.1 Result or Strategy

During the Term of this FSP the Agreement Holder will, within the Chinook South FDU, not construct a road or harvest a cutblock within the site boundaries of the Mollice Lake Recreation Site.

9.1.2 Indian Bay Recreation Site (Recreation Project File 900-0552)

“The objectives are; to manage the Indian Bay recreation site for a roaded recreation experience. The lake shore features will be retained and the overstory vegetation will be managed within site boundaries. Opportunities for fishing, boating, swimming and camping activities will be provided at this site”.

9.1.2.1 Result or Strategy

During the Term of this FSP the Agreement Holder will, within the Chinook South FDU, not construct a road or harvest a cutblock within the site boundaries of the Indian Bay Recreation Site.

9.1.3 Walkadab Recreation Trail (Recreation Project File 900-6472)

“The objectives are, to manage the Walkadab recreation trail for a natural recreation experience. The coniferous vegetation features will be maintained within 10m on either

side of the trail. The trail is to provide the opportunities for hiking, horseback riding, snowmobiling and ATV activities”.

9.1.3.1 Result or Strategy

During the Term of this FSP the Agreement Holder will, within the Chinook North FDU, not construct a road or harvest a cutblock within 10 metres on either side of the Walkadab Recreation Trail.

10.0 Signatures of Persons Required to Prepare Plan

 <hr/>	 <p>Preparing Forest</p> <p><i>"I certify that I have determined that this work was performed to an acceptable standard"</i></p>
<p>Daniella Oake, R.P.F. Planning Supervisor Babine Forest Products Limited</p>	
 <hr/>	<p><i>"I certify that I have determined that this work was performed to an acceptable standard"</i></p>
<p>Ken Nielsen, General Manager Chinook Signing Authority</p>	

Appendix A – Stocking Standards

Even-Aged Stocking Standards

Table 10 - Even-Aged Stocking Standards

		Regeneration Guide						Free Growing Guide			
BGC		Species		Stocking(i)			Regen	Assessment	Min. Height(ii)		
Classification				Target	MIN pa	MIN p	Minimum Horizontal Distance (m)	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)							
ESSFmc	01	BI Sx	PI ³⁴	1200	700	600	2	7	20	PI	1.60
										Others	0.80
	02*	PI	BI Sx	1000	500	400	2	7	20	PI	1.20
										Others	0.60
	03*	PI	BI Sx	1000	500	400	2	7	20	PI	1.20
										Others	0.60
	04	PI BI Sx		1200	700	600	2	7	20	PI	1.60
										Others	0.80
	05	BI Sx	PI ³⁴	1200	700	600	2	4	20	PI	1.60
										Others	0.80
	06	BI Sx	PI ³⁴	1200	700	600	2	4	20	PI	1.60
										Others	0.80
	07	BI Sx ³²		1200	700	600	1.5	4	20	PI	1.60
										Others	0.80

ESSFmc	08*	BI Sx ³²	1000	500	400	1.5	4	20	All	0.60
	09	BI ¹ Sx ^{1,32}	1000	500	400	1.5	4	20	All	0.60
	10	BI ¹ Sx ^{1,32}	1000	500	400	1.5	4	20	All	0.60
ESSFmk	01	BI Se Ba ¹⁷ Hm PI ³⁴	1200	700	600	2	7	20	PI Others	1.60 0.80
	02*	Pa PI BI Hm Se	1000	500	400	2	7	20	PI Others	1.20 0.60
	03*	Pa PI BI Hm Se Ba ¹⁷	1200	700	600	2	7	20	PI Others	1.60 0.80
	04	BI Se Ba ¹⁷ Hm PI ³⁴	1200	700	600	2	4	20	PI Others	1.60 0.80
	05	BI Se ³² Hm Ba ¹⁷	1200	700	600	1.5	4	20	PI Others	1.60 0.80
	06	BI ¹ Se ^{1,32} Hm Ba	1000	500	400	1.5	4	20	All	0.80
	07	BI ¹ Se ^{1,32} Ba	1000	500	400	1.5	4	20	All	0.80
ESSFmv3	01	BI Se PI ³⁴	1200	700	600	2	4	20	PI Others	1.60 0.80
	02*	PI ³⁴ Se ²⁸ BI ²⁸	1000	500	400	2	4	20	PI Others	1.20 0.60
	03	BI Se Sb PI ³⁴	1000	500	400	2	4	20	PI Others	1.20 0.60
	04	BI Se PI ³⁴	1200	700	600	2	4	20	PI Others	1.60 0.80

ESSFmv3	05	BI Se	PI ³⁴	1200	700	600	1.5	4	20	PI 1.60 Others 0.80
	06	BI Sx	PI ³⁴	1200	700	600	2	7	20	PI 1.60 Others 0.80
	07	BI ¹ Se ^{1,32}	PI ^{1,34}	1000	500	400	1.5	4	20	PI 1.20 Others 0.60
ESSFwv	01	BI Sx	Hw Hm PI ³⁴	1200	700	600	2	7	20	PI 1.60 Others 0.80
	02*	PI ³⁴	Hm Sx ²⁸ BI ²⁸	1000	500	400	2	7	20	PI 1.20 Others 0.60
	03	PI ³⁴	Hm BI Sx Hw	1000	500	400	2	7	20	PI 1.20 Others 0.80
	04	BI PI ³⁴	Hm Sx	1200	700	600	2	7	20	PI 1.60 Others 0.80
	05	BI Sx	Hm Hw PI ³⁴	1200	700	600	2	4	20	PI 1.60 Others 0.80
	06	BI Sx	Hm Hw PI ³⁴	1200	700	600	2	4	20	PI 1.60 Others 0.80
	07	BI ¹ Sx ^{1,32}	Hm Hw PI ^{1,34}	1000	500	400	1.5	4	20	PI 1.20 Others 0.60
	08	BI ¹ Sx ^{1,32}		1000	500	400	1.5	4	20	PI 1.20 Others 0.60
	09	BI ¹ Sx ^{1,32}		1000	500	400	1.5	4	20	PI 1.20 Others 0.60

SBSdk	01	PI Sx Fd ³² Lw ³²	1400	800	800	2	7	20	PI 2.00 Fd 1.40 Others 1.00
	02*	PI Sx ²⁸	1000	500	400	2	7	20	PI 1.40 Others 0.80
	03	PI Sx Sb ²⁸ Sx ²⁸ Fd ³² Lw ³²	1200	700	600	2	7	20	PI 2.00 Lw 2.00 Others 1.00
	04	Fd ³² PI Sx ²⁸ Lw ³²	1200	700	700	2	7	20	PI 2.00 Lw 2.00 Fd 1.40 Others 1.00
	05	PI Sx ²⁸ Fd ³² Lw ³²	1400	800	700	2	7	20	PI 2.00 Lw 2.00 Fd 1.40 Others 1.00
	06	PI Sx Fd ³² Lw ³²	1400	800	800	2	4	20	PI 2.00 Lw 2.00 Others 1.00
	07	Sx ^{1,32} Fd ³² Lw ³² PI ¹	1000	500	400	1.5	4	20	PI 1.40 Lw 2.00 Others 1.00
	08	Sx ^{1,32}	1200	700	600	1.5	4	20	PI 2.00 Others 1.00
	09*	PI ¹ Sb ¹ Sx ¹	400	200	200	1.5	4	20	PI 1.40 Others 0.80
SBSdk	10* 10*	PI ¹ Sb ¹ Sx ^{1,32}	400	200	200	1.5	4	20	PI 1.40 Others 0.80

SBSmc2	01	PI Sx Fd ³² Lw ³²	BI ²⁹	1400	800	700	2	7	20	PI 1.60 Lw 2.00 Others 0.80
	02*	PI	BI Sx ³²	1000	500	400	2	7	20	PI 1.20 Others 0.60
	03	PI Sx ³²	BI ²⁹ Sb Fd ³² Lw ³²	1200	700	600	2	7	20	PI 1.60 Lw 2.00 Others 0.80
	05	PI Sx Fd ³² Lw ³²	BI ²⁹	1400	800	700	2	4	20	PI 1.60 Lw 2.00 Others 0.80
	06	PI Sx Fd ³² Lw ³²	BI ²⁹	1400	800	700	2	4	20	PI 1.60 Lw 2.00 Others 0.80
	07*	PI Sb Sx ³²	BI	1000	500	400	1.5	4	20	PI 1.20 Others 0.60
	08	PI Sx	BI ²⁹	1200	700	600	1.5	4	20	PI 1.60 Others 0.80
	09	Sx BI ²⁹	PI	1200	700	600	1.5	4	20	PI 1.60 Others 0.80
	10	Sx ^{1,32} BI ^{1,29}	PI ¹	1000	500	400	1.5	4	20	PI 1.20 Others 0.60
	12*	Sb ¹ Sx ^{1,32}	PI ¹ BI ¹	400	200	200	1.5	4	20	PI 1.20 Others 0.60

Wildfire Stocking Standards (WUI-WRR)

SBSdk1	01	Fd ^{9,18,32} Lw ³² At Ep PI	Sx	1000	600	500	2	7	20	PI 2.00 Fd 1.40 Others 1.00
	02*	PI At Ep	Sx ²⁸	1000	600	500	2	7	20	PI 1.40 Others 0.80
	03	PI At Fd Lw ³²	Sb ²⁸ Sx ²⁸	1000	600	500	2	7	20	PI 2.00 Lw 2.00 Others 1.00
	04	At Ep Fd ^{9,32} Lw ³² PI	Sx	1000	600	500	2	7	20	PI 2.00 Lw 2.00 Fd 1.40 Others 1.00
	05	At Ep Fd ^{9,18,32} Lw ³² PI	Sx ²⁸	1000	600	500	2	7	20	PI 2.00 Lw 2.00 Fd 1.40 Others 1.00
	06	Act At Ep Fd ^{9,18,32} Lw ³² PI	Sx	1000	600	600	2	4	20	PI 2.00 Lw 2.00 Others 1.00
	07	Act At Ep Fd ³² Lw ³² PI ¹	Sx ^{1,32}	1000	600	500	1.5	4	20	PI 1.40 Lw 2.00 Others 1.00
	08	Act At Ep PI Sx ^{1,32}		1000	600	600	1.5	4	20	PI 2.00 Others 1.00
	09*	PI ¹ Sb ¹ Sx ^{1,32}		1000	600	600	1.5	4	20	PI 1.40 Others 0.80

SBSdk	10*	PI ¹ Sb ¹ Sx ^{1,32}	1000	600	600	1.5	4	20	PI 1.40 Others 0.80
SBSmc2	01	At Fd ³² Lw ³² PI Sx BI ²⁹	1000	600	600	2	7	20	PI 1.60 Lw 2.00 Others 0.80
	02*	At PI BI ³² Sx ³²	1000	600	500	2	7	20	PI 1.20 Others 0.60
	03	At PI Fd ³² Lw BI ²⁹ Sb Sx ³²	1000	600	500	2	7	20	PI 1.60 Lw 2.00 Others 0.80
	05	Act At Fd ³² Lw ³² PI BI ²⁹ Sx	1000	600	500	2	4	20	PI 1.60 Lw 2.00 Others 0.80
	06	Act At Fd ³² Lw ³² PI BI ²⁹ Sx	1000	600	500	2	4	20	PI 1.60 Lw 2.00 Others 0.80
	07*	At PI Sb Sx ³² BI	1000	600	500	1.5	4	20	PI 1.20 Others 0.60
	08	Act At PI Sx BI ²⁹	1000	600	600	1.5	4	20	PI 1.60 Others 0.80
	09	Act At Sx BI ²⁹ PI	1000	600	600	1.5	4	20	PI 1.60 Others 0.80
	10	Act At Sx ^{1,32} BI ^{1,29,32} PI ¹	1000	600	500	1.5	4	20	PI 1.20 Others 0.60
	12*	Sb ¹ Sx ^{1,32} PI ¹ BI ¹	1000	600	500	1.5	4	20	PI 1.20 Others 0.60

Footnotes to even-aged Stocking Standards Table 10

- 1 - elevated microsites are preferred
- 17 - restricted to western portion of biogeoclimatic unit in region
- 28 - limited by moisture deficit
- 29 - risk of heavy browsing by moose
- 32 - limited by growing-season frosts
- 34 - risk of snow damage

Footnotes to all even-aged Stocking Standards Table 10

Conifer Tree Species

- "Ba" means amabilis fir;
- "Bg" means grand fir;
- "Bl" means subalpine fir;
- "Bp" means noble fir;
- "Cw" means western red cedar;
- "Fd" means Douglas-fir;
- "Hm" means mountain hemlock;
- "Hw" means western hemlock;
- "Lt" means tamarack;
- "Lw" means western larch;
- "Pa" means whitebark pine;

"Pl" means lodgepole pine;

"Pw" means white pine;

"Py" means ponderosa pine;

"Sb" means black spruce;

"Se" means Engelmann spruce;

"Ss" means Sitka spruce;

"Sw" means white spruce;

"Sx" means hybrid spruce or interior spruce or Engelmann spruce;

"Sxs" means hybrid Sitka spruce;

"Sxw" means hybrid white spruce;

"Yc" means yellow cedar.

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

"MIN or "Min" means minimum.

Pine (Pl) is preferred on elevated microsites within low lying areas where frost tends to pond and spruce is at risk to frost damage. These are generally toe, depression, or level slope positions where frost collects and spruce is susceptible to damage as indicated in "A Field Guide to Site Identification and Interpretation for the Prince Rupert Forest Region", Land Management Handbook Number 26 – June 1993.

Balsam (Bl) will be preferred within **riparian management areas, areas harvested through patch cut, shelter wood, group selection silviculture systems**, and where balsam (Bl) residuals, meeting the acceptability criteria and have been retained MIN p = MIN pa.

Within areas classified as transitional SBS/ESSF, Balsam (Bl) is preferred where it comprised \geq to 40% of the pre-harvest stand composition.

Within areas classified as transitional ESSF/SBS, Pine (PI) is preferred where it comprised \geq to 50% of the pre-harvest stand composition.

The m-value at regeneration survey and free to grow survey stage will be the designated target stocking standard divided by the plot multiplier for the standard unit.

Each stocking standard will refer to the assigned “SSID” given to it at the time of entry into the FSP Tracking System.

Footnotes to Wildfire Stocking Standards Section ONLY in Table 10

Wildfire Stocking Standards are supported by BC Wildfire Branch through the Wildfire Risk Reduction project. This project identifies fuel treatment units (FTU) that support the Wildfire Risk Reduction currently under development by FLNRORD. These units represent high priority areas within the total area due to their proximity to values at risk; values are classified under four (4) priority action themes: human life and safety, critical infrastructure, high environmental and cultural values, and other resource values.

The approach used to modify the even aged stocking standards includes:

1. Greater species diversity in the preferred.
2. Conifer species with a low to moderate fire resistance/resilience rating as per BC Wildfire Service (BCWS) Fire Management Stocking Standards Guidance are still preferred species that are suitable growing stock for the site (eg. Pli is still preferred on most sites for low crown bulk density, crown fire initiation potential and branching habits).
3. Conifer species with a high fire resistance/resilience rating as per BCWS Fire Management Stocking Standards Guidance are promoted from acceptable species to preferred species. This includes Fd and Lw.

4. Deciduous species that are ecologically suitable to each site series, as per recommended FDP stocking standards, are promoted to preferred species. This includes At, Act, and Ep. Where deciduous species are indicated to have poor performance in a site series, the primary preferred conifer species remained a preferred stocking species.
5. Target and minimum stocking densities are reduced.

Table 11 - Uneven-aged Stocking Standards - Single-tree selection only

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Target from Table A standards (stems/ha)	Layer**	Stocking***			Target from Table A standards (stems/ha)	Layer**	Stocking***		
		Target pa	MIN pa	MIN p			Target pa	MIN pa	MIN p
		(well-spaced/ha)					(well-spaced/ha)		
1200 (all layers)	1	600	300	250	800 (all layers)	1	300	150	150
	2	800	400	300		2	400	200	200
	3	1000	500	400		3	600	300	300
	4	1200	700	600		4	800	400	400
1000 (all layers)	1	400	200	200	600 (all layers)	1	300	150	150
	2	600	300	250		2	400	200	200
	3	800	400	300		3	500	300	300
	4	1000	500	400		4	600	400	400
900 (all layers)	1	400	200	200	400 (all layers)	1	200	100	100
	2	500	300	250		2	300	125	125
	3	700	400	300		3	300	150	150
	4	900	500	400		4	400	200	200

MIN - minimum

* Maximum regeneration delay is seven years. For a seven-year regeneration delay and the late free growing is 20 years. Regeneration delay can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets minimum stocking standards. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest and the latest date is 24 months after completion of harvest.

****Stand Layer Definition**

Layer 1	Mature	trees >= 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

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

Preferred and acceptable species and "Target from Table 8 standards" are as specified in Table 8 by biogeoclimatic ecosystem classification (BEC) site series.

Appendix B – FSP Maps

See attached Chinook Community Forest - Forest Development Units maps:

Map 1: Operating Areas 1& 3

Map 2: Operating Areas 2 & 4

Map 3: Operating Area 5 west

Map 4: Operating Area 5 east

Map 5: Chinook Forest Development Units (FDU) Overview

Map 6: Moose Chinook FDU

Map 7: Deer Chinook FDU

Map 8: Grizzly Chinook FDU

Map 9: Wildfire Risk Reduction