

**Wells Gray Community Forest Corp.**  
**Forest Stewardship Plan**  
**Community Forest Agreement CFA\_K2A**

FSP ID:

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## 1.0 Definitions and Interpretation

### 1.1 Definitions

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

- **“Act”** means the Forest and Range Practices Act S.B.C. 2002, c.69, as amended from time to time;
- **“Evaluation”** means an assessment conducted by a **Qualified Registered Professional** that examines, on a site specific basis, the social, economic and environmental factors as well as relevant factors as described in FPPR Schedule 1. An evaluation includes the development of alternative results or strategies that are consistent with the intent of the applicable objective.
- **“FDU”** means a Forest Development Unit to which this FSP applies as outlined on the FDU Map in Appendix E;
- **“Forest Act”** means the Forest Act R.S.B.C. 1996, c.157;
- **“FPPR”** means the Forest Planning and Practices Regulation, effective February 29, 2016, as amended from time to time;
- **“FRPA”** means the *Act*, and the regulations thereunder;
- **“FSP”** means a Forest Stewardship Plan;
- **“Holder”** means the Holder of this FSP: the Wells Gray Community Forest Corporation;
- **“Kamloops LRMP”** means the Kamloops Land and Resource Management Plan approved by the government in 1995 and as amended from time to time;
- **“License”** means an agreement under the Forest Act;
- **“Minister”** means the minister responsible for the Forest Act;
- **MFLNRORD** – means the Ministry of Forests, Lands, Natural Resource Operations, and Rural Development.
- **Notification** – is a process that informs stakeholders, the Crown, First Nations and other affected parties when industrial activities are being planned or being implemented in a location that may be of interest to the person or organization that is being notified. This notification will be completed at least 30 days ahead of industrial activities and will be completed once 30 days is passed or if the stakeholder, the Crown, First Nation or other affected party responds in writing, and any issues that are observed are resolved.
- **Primary Forest Activity** - means timber harvesting, road construction, road maintenance, road deactivation and silviculture treatments carried out by FSP holder.
- **“Qualified Registered Professional”** means;
  - (1) A person with the prescribed qualifications, and is licensed by one or more of the following:
    - (a) an agrologist under the *Agrologists Act*,
    - (b) a professional biologist under the *College of Applied Biology Act*,
    - (c) a professional engineer or professional geoscientist under the *Engineers and Geoscientists Act*, or
    - (d) a forest professional under the *Foresters Act* and being authorized under that Act to practice as a professional in relation to the subject matter prescribed under that paragraph or those paragraphs, as the case may be, and;
  - (2) has the appropriate education, experience and training to carry out the activity.
- **“Significant Cattle Damage”** - means damage to trees within a cutblock that a) was caused by cattle, and b) has affected or is likely to affect the ability of those trees, or the area on which those trees are located, to conform with the requirements in Part 7 of this FSP.
- **“Submission”** means the electronic submission of a Cutting Permit or Road Permit to the Forest Tenures Administration (FTA) system for approval.

- “Wildlife Tree Patches” means an area occupied by a group of trees with special characteristics that provide valuable habitat for the conservation and enhancement of wildlife.

## 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.

## 1.3 Changes in Legislation

Subject to Section 1.2, or if otherwise specified in this FSP, if legislation referred to in this FSP is renamed or a provision of legislation referred to in this FSP is renumbered, the reference in this FSP is to be construed as a reference to the provision as renamed or renumbered, as the case may be.

## 1.4 Exemptions under Sections 12.1 to 12.5 of the FPPR

The following paragraphs are included in this FSP for the purpose of obtaining an exemption under sections 12.1 to 12.5 of the FPPR from the following sections of the FPPR:

Section of FSP	Section of FPPR under which Exemption Provided	Section of the FPPR to which Exemption Applies
4.2.1	12.2	35(3), 35(4), 35(5), 35(6), 35(7)
4.2.3	12.3	50, 51, 52
4.2.4	12.32	59, 60, 61 as they pertain to cumulative hydrological effects on water quality affecting human health in a community watershed.
4.2.6	12.5(1), 12.5(2)	66, 67

## 2.0 Submission Date, Term and Commencement Date of FSP

### 2.1 Submission Date

The date of submission of this FSP is **pending**.

### 2.2 Term of Plan

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

### 2.3 Commencement

The commencement date for the term of this FSP is the date specified by the minister in approving this FSP.

## 3.0 Application of this FSP

### 3.1 FSP Holder

The holder of this FSP is the Wells Gray Community Forest Corporation.

### 3.2 Application of this FSP (FRPA s. 3(4))

This FSP applies to Community Forest Agreement K2A (CFA\_K2A).

Subject to exceptions under the FRPA, this FSP applies to cutting permit and road permit applications located within the FDU.

The application of individual results and strategies is intended to be either an outcome of a forest practice, or to be something considered during the planning process when developing timber harvesting or road construction plans, respectively. Rather than repeating this in each result or strategy, the reader is encouraged to understand that this notion is implicit given the nature of the FSP.

Stocking standards will apply to individual stands, as per the FPPR s.44(1), as opposed to collectively across cutblocks.

### **3.3 Forest Development Units in Effect on the Date of Submission of this FSP (FPPR s. 14(1)(B))**

The FDU map (Appendix D) shows the forest development unit that would be in effect with the approval of this FSP.

### **3.4 Items identified in this Forest Development Unit (FPPR s. 14(3)).**

The FDU Map (Appendix D) identifies the locations of the following items that were in effect on the submission date in accordance with FPPR section 14(2) and (3), and are in this FDU:

Ungulate Winter Range	Scenic Area
Wildlife Habitat Area	Community Watershed
Fisheries Sensitive Watersheds	Old Growth Management Areas
Lakeshore Management Zones	Openings and RP's held by the agreement holder

## 4. Results or Strategies

### 4.1 Incorporation of LRMP Objectives into the FSP

On January 23, 2006, the Minister of Agriculture and Lands signed the Order amending the “original order” dated January 23, 1996 which declared the Kamloops Land and Resource Management Plan (KLRMP) to be a higher level plan (HLP). The purpose of the amended order is to facilitate implementation of the KLRMP in the context of the Forest and Range Practices Act and Forest Stewardship Plan content requirement. The order clarifies which provisions regarding zones, objectives and strategies from the KLRMP constitute the HLP objective and establish the area, or (Special) Resource Management Zone, to where the objective applies. Twenty six objectives were outlined in the Higher Level Plan Order (HLPO). This Order was amended again in January 2009 to facilitate the implementation of the Mountain Caribou Recovery Implementation Plan by removing the Caribou Management Objective from the Kamloops Higher Level Plan Order. Results and strategies have been prepared for all HLPO objectives that apply to the CFA\_K2A FDU.

#### 4.1.1 Water Management (KLRMP Objective 2.1.2)

Objective	Ensure implementation of a referral process to notify all potentially impacted water licensees when development is proposed.
Applicable Area:	Clearwater and Raft Landscape Units within the FDU.
Strategy	<p>Approach to Harvesting and Roads</p> <p>If a Holder of this FSP is harvesting a Cutblock or constructing a Road to which this FSP applies, that Holder will:</p> <ul style="list-style-type: none"> <li>(a) provide notification to the holder of a “licensed” waterworks during the preparation of operational plans pertaining to the Cutblock or Road if the Holder considers that licensed waterworks may be impacted by that harvesting or road construction activities; and</li> <li>(b) notify holders of licensed water intakes, through which water is being diverted for human consumption, a minimum of 24 hours prior to the commencement of timber harvesting or road construction.</li> </ul>

#### 4.1.2 Riparian Management Areas (KLRMP Objective 2.1.2.1)

Objective	Manage riparian areas, including streams, wetlands and lakes in accordance with the Forest Planning and Practices Regulations and the Kamloops and Clearwater District Lakeshore Management Guidelines or other applicable management tools or agency agreements.
Applicable Area:	Clearwater and Raft Landscape Units within the FDU.
Result	<p>The results or strategies included in the following sections of this FSP are the results or strategies for this objective:</p> <p>4.2.3 Water , Fish, Wildlife and Biodiversity within Riparian Areas</p> <p>4.2.6 Wildlife &amp; Biodiversity – Stand Level</p>

#### 4.1.3 Ecosystem Management (KLRMP Objective 2.1.3 and Land Use Order)

Objective	<ol style="list-style-type: none"> <li>1. Conserve biodiversity by retaining old forest values and attributes, or rare features within the OGMAs across the landscape units over time.</li> <li>2. Maintain all timber within OGMAs except as required to accommodate the following purposes:</li> </ol>
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	<p>a) to prevent the spread of insect infestation to diseases that pose a significant threat to forested areas external to the OGMA;</p> <p>b) to address safety hazards associated with primary forest activities;</p> <p>c) to provide for guyline clearances and tailhold anchors;</p> <p>d) to address fuel management concerns and related safety hazards;</p> <p>e) to provide road access where no alternative practicable option for road location exists; or</p> <p>f) to facilitate timber harvesting that will result in operationally practicable cutblock boundaries.</p> <p>3. Primary forest activities conducted for the purposes under section 2 must:</p> <p>a) be conducted to the minimum extent necessary to accommodate the purpose; and</p> <p>b) not exceed the lesser of two hectares or 10% of an individual OGMA polygon pre 20 year time period.</p>
Applicable Area:	Clearwater and Raft Landscape Units within the FDU.
Result	When the holder of this FSP carries out primary forest activities, the holder will ensure that the activities are designed and carried out in a manner consistent with the requirements of the <i>Land Use Objectives Regulation - Old Growth Management Objectives for the Kamloops Land and Resource Management Plan Area, March 5, 2013</i> .
Complimentary Result of Strategy	The results or strategies included in the following sections of this FSP contribute to achieving this objective: 4.2.2 Wildlife 4.2.3 Water , Fish, Wildlife and Biodiversity within Riparian Areas 4.2.5 Wildlife & Biodiversity - Landscape Level 4.2.6 Wildlife & Biodiversity – Stand Level

#### 4.1.4 General Biodiversity (KLRMP Objective 2.1.3.1)

Objective	To conserve the diversity and abundance of native species and their habitats throughout the Kamloops LRMP.
Applicable Area:	Clearwater and Raft Landscape Units within the FDU.
Result or Strategy	The results or strategies included in the following sections of this FSP are the results or strategies for this objective: 4.1.3 Maintain old growth attributes within Landscape Units 4.2.2 Wildlife 4.2.3 Water , Fish, Wildlife and Biodiversity within Riparian Areas 4.2.5 Wildlife & Biodiversity - Landscape Level 4.2.6 Wildlife & Biodiversity – Stand Level

#### 4.1.5 Inland Fisheries (KLRMP Objective 2.1.5)

Objective(s)	Maintain a mosaic of angling opportunities within the recreational spectrum (ie. walk-in lakes, drive-to lakes, trophy lakes).
Applicable Area:	Within the FDU.
Result or Strategy	Approach to Harvesting and Roads If the Holder of this FSP carries out primary forest activities within the lakeshore management zone, the Holder will: a) Ensure that these activities are carried out in a manner that is consistent with the intent of the harvesting guidelines included in the “ <i>Clearwater Forest District Lakes Local Resource Use Plan – Lakeshore Management Guidelines dated August 1, 2001</i> ”.

#### 4.1.6 Range (KLRMP Objective 2.1.10)

Objective	Minimize tree/grass/cattle conflicts through integrated management practices.
Applicable Area:	Within the FDU where range licenses occur.
Strategy	Approach to Harvesting and Roads
Definitions:	<p><b>Significant Cattle Damage</b> means damage to trees, within a cutblock to which the Stocking Standards included in this FSP apply, that:</p> <ol style="list-style-type: none"> <li>a) was caused by cattle; and</li> <li>b) has affected or is likely to affect the ability of those trees or the area on which those trees are located to conform with the requirements of this FSP or otherwise become free growing in accordance with FRPA.</li> </ol>
Strategy:	<p>The Holder of this FSP will notify the Range Tenure Holder:</p> <ol style="list-style-type: none"> <li>a) When harvest operations are planned within the area of an active Range Tenure,             <ol style="list-style-type: none"> <li>i) provide notification to the appropriate range tenure holder and inform them of the:                 <ul style="list-style-type: none"> <li>• proposed location of roads and cutblocks,</li> <li>• proposed location of road deactivation,</li> <li>• schedule of industrial activities;</li> </ul>                 that are related to management of cattle by the range tenure holder, and;             </li> <li>ii) if necessary, modify the planned activities included in a) to the extent practicable considering:                 <ol style="list-style-type: none"> <li>(i) existing range improvements,</li> <li>(ii) cattle access to existing stock trails and watering sites, and</li> <li>(iii) potential tree seedling damage as a result of cattle management.</li> </ol> </li> </ol> </li> <li>b) In the case of identification of Significant Cattle Damage;             <ol style="list-style-type: none"> <li>i) The holder of this FSP will contact the Range Tenure Holder and develop an agreement to manage the range use issue.</li> <li>ii) Where agreement cannot be reached, agreed on actions are not carried out by the Range Tenure Holder, or seedling performance continues to be affected, the holder of this FSP will:                 <ol style="list-style-type: none"> <li>1. apprise the Designated Decision Maker of the situation, and</li> <li>2. complete a regeneration survey and based on the results consider reduction of stocking standards included in Appendix A of this FSP.</li> </ol> </li> </ol> </li> </ol>

#### 4.1.6 Wildlife (KLRMP Objective 2.1.12)

Objective	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 (eg. Mule Deer).
Applicable Area:	Within the FDU
Result or Strategy	<p>The results or strategies included in the following sections of this FSP are the results or strategies for this objective:</p> <p>4.1.3 Ecosystem Management</p> <p>4.2.2 Wildlife</p> <p>4.2.3 Water , Fish, Wildlife and Biodiversity within Riparian Areas</p> <p>4.2.5 Wildlife &amp; Biodiversity - Landscape Level</p> <p>4.2.6 Wildlife &amp; Biodiversity – Stand Level</p>

#### 4.1.7 Critical Deer Winter Range (KLRMP Objective 2.1.12.1)

Objective	<p>1) Maintain or enhance forage production and habitat requirements in critical deer winter range.</p> <p>2) Disperse the timber harvest throughout the winter range and spread it out evenly over the rotation.</p> <p>3) Maintain at least 25% of forested area in thermal cover. Link thermal cover units together with suitable travel corridors, especially mature Douglas-fir vets on ridges.</p>

#### 4.1.8 Critical Moose Winter Range (KLRMP Objective 2.1.12.2)

Objective	<p>1) Maintain thermal and visual cover for moose. Enhance browse production.</p> <p>2) Maintain suitable forest cover attributes with respect to thermal cover and forage production.</p>
	There is only a small 56 ha. overlap of Critical Moose Winter Range with the CFA_K2A operating area (see the Lo Lo FDU Map included in Appendix D).
Definitions	<p>"<b>Permanent Roads</b>" means main haul roads that will be maintained over time.</p> <p>"<b>Moose Forage</b>" means palatable species of plants that are a food source for Moose. These plants include Salix sp., red osier dogwood and Betula sp.</p> <p>"<b>Moose Habitat</b>" means wetlands in Moose Winter Range that are either 200 metres in length or greater than one hectare in size that contain habitat features required by Moose as defined by a Qualified Registered Professional.</p> <p>"<b>Moose Winter Range</b>" means the area identified on the Lo Lo FDU Map included in Appendix ???.</p> <p>"<b>Moose Management Units</b>" includes a 200m. buffer around Moose Habitat.</p> <p>"<b>Visual Screening</b>" means vegetation and/or topography providing visual obstruction that makes it difficult to see into adjacent areas from the road prism.</p>
Strategy	<p><b>Approach to Harvesting and Roads</b></p> <p>If the holder of this FSP carries out primary forest activities within an area in the FDU that is in Moose Winter Range, the holder will:</p> <ol style="list-style-type: none"> <li>pursue mixed forest management with similar species distribution to natural stands (including deciduous),</li> <li>within <b>Moose Winter Range</b>, retain at least 50% of the forested area equal to or greater than 20 years of age,</li> <li>where present, retain <b>Visual Screening</b> along those <b>Permanent Roads</b> that are located within 100 metres of a Moose Management Unit, and</li> <li>retain <b>Moose Forage</b> during silviculture activities (including brushing, weeding and stand tending) unless retaining <b>Moose Forage</b> impedes the ability of a stand to reach free growing status.</li> </ol>

#### 4.1.9 Visually Sensitive Areas (KLRMP Objective 2.1.14)

Objective	1) Within Visually Sensitive Areas, 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.
	2) Outside of Visually Sensitive Areas, 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 compatible to natural disturbances.
Applicable Area:	Within the FDU.

Strategy	The Result or Strategy included in Section 4.2.7 of this FSP is the Strategy for the purpose of these Objectives.
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#### 4.1.10 Cultural and Heritage Sites (KLRMP Objective 2.1.16)

Objective	Undertake archaeological assessments in all High and Medium Potential areas identified in the Archaeological Overview Assessment.
Applicable Area:	Within the FDU.
Result or Strategy	The Result or Strategy included in Section 4.2.8 of this FSP is also related to this Higher Level Plan Objective.
Definitions:	<b>“Archaeological Assessment”</b> means the archaeological assessment activities identified in the “Guidelines for The Archaeological Overview Assessment (AOA) Process for Forest Development Planning in the Kamloops TSA” as amended from time to time or, a similar process as agreed to with the affected First Nation Bands.
Approach to Harvest and Road:	Before harvesting of a cutblock or construction of a road to which this FSP applies, on an area indicated as High or Medium Archaeological in the Kamloops TSA AOA Model, a holder of this FSP will undertake an Archaeological Assessment of that area.

#### 4.1.11 Settlement Resource Management Zone (KLRMP 2.2)

Objective	Manage land to meet the objectives set out in approved community land use plans.
Applicable Area:	Within the FDU where it overlaps with the District of Clearwater (Municipality).
Strategy	
Approach to Harvest and Road:	Before harvesting of a cutblock or construction of a road to which this FSP applies, and where these plans are located within the Settlement area, the holder of this FSP will: <ol style="list-style-type: none"> <li>1) Consult with the District of Clearwater to ensure consistency with Community Plans and Objectives.</li> <li>2) Refer to the District of Clearwater Community Wildfire Protection Plan for strategic guidance in planning primary forest activities.</li> </ol>

## 4.2 Objectives Prescribed under section 149(1) of the Act

### 4.2.1 Soils (FPPR s.5)

Objective	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:	Within the FDU.
Result or Strategy	
Definitions:	<p><b>“temporary access allowance”</b> (TAA) means the percentage of a standard unit as determined by the following equation:</p> $\text{TAA} = 12\% - (\text{Permanent Access } \% \text{ or } 7\%; \text{ whichever is less}).$
General Soil Conservation Result	The holder of this FSP adopts as a result, for activities of that holder that the FSP applies to, sections 35(1), 35(3), 35(5), and 36 of the FPPR as they are amended from time to time.
Exceeding Soil Disturbance Limits	<p>A Holder of this FSP may cause soil disturbance that exceeds the limits specified in section 35(3) of the FPPR, as adopted as a result under this FSP, if that Holder is:</p> <ul style="list-style-type: none"> <li>(a) removing infected stumps or salvaging windthrow and the additional disturbance is the minimum necessary;</li> <li>(b) constructing a temporary access structure in an area not referred to in subparagraph (c) and both of the following apply: <ul style="list-style-type: none"> <li>(i) the limit set out in section 35(3) of the FPPR, as adopted as a result or strategy under this FSP, is not exceeded by more than the <b>temporary access allowance (TAA)</b>, excluding the area covered by a roadside work area; and</li> <li>(ii) before the regeneration date, a sufficient amount of the area within the standards unit is rehabilitated such that the Holder is in compliance with the limits set out in section 35(3) of the FPPR, as adopted as a result or strategy under this FSP; or</li> </ul> </li> <li>(c) constructing a temporary access structure: <ul style="list-style-type: none"> <li>(i) within a standard unit with a net area to be reforested that is less than 10 ha,</li> <li>(ii) within a standard unit that is not predominantly comprised of sensitive soils; and</li> <li>(iii) before the regeneration date, a sufficient amount of the area within the standards unit is rehabilitated such that the Holder is in compliance with the limits set out in section 35(3) of the FPPR, as adopted as a result or strategy under this FSP.</li> </ul> </li> </ul>
Work Related to Rehabilitation	<p>A Holder of this FSP who rehabilitates an area of temporary disturbance or an area described in section 35(5) of the FPPR, as adopted as a result under this FSP, must:</p> <ul style="list-style-type: none"> <li>(a) remove or redistribute woody materials that are exposed on the surface of the area and are concentrating subsurface moisture, to the extent necessary to limit the concentration of subsurface moisture on the area;</li> <li>(b) de-compact compacted soils;</li> <li>(c) return retrievable displaced soils where practicable; and</li> </ul>

	<p>(d) where erosion of exposed soil from the area would cause sediment to enter a stream, wetland, or lake, or cause a material adverse effect in relation to one or more of the subjects listed in section 149(1) of the Act, the Holder, unless placing debris or revegetation would not materially reduce the likelihood of erosion, must:</p> <ul style="list-style-type: none"> <li>(i) place woody debris on the exposed soils, or</li> <li>(ii) revegetate the exposed mineral soils.</li> </ul>
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#### 4.2.2 Wildlife (FPPR s.7, SARA, KLRMP Objective 2.1.12.2)

Objective	<p>The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for</p> <ul style="list-style-type: none"> <li>(a) the survival of species at risk,</li> <li>(b) the survival of regionally important wildlife, and</li> <li>(c) the winter survival of specified ungulate species.</li> </ul>
<p><b>No notice has been provided under Section 7(2) of the FPPR for the survival of species at risk or the survival of regionally important wildlife, therefore the holder of this FSP has not set out any results or strategies.</b></p>	

#### 4.2.3 Water, Fish, Wildlife and Biodiversity within Riparian Areas (FPPR s.8)

Objective	The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas..
Applicable Area:	Within the FDU.
Result or Strategy	
General Conservation of Values within Riparian Areas:	The Holder of this FSP adopts as a result or strategy, for activities of that Holder to which this FSP applies, sections 47, 48, 49, 51(3), 52(2) and 53 of the FPPR as it is amended from time to time.
Definitions:	<p><b>“Affected Area”</b> means:</p> <ul style="list-style-type: none"> <li>a) for a stream, the area of crown forest land in the riparian management zone <ul style="list-style-type: none"> <li>i. within a cutblock to which this FSP applies; and</li> <li>ii. associated with the stream for a distance of 500metres (slope distance) or to a stream class boundary, whichever is less, both upstream and downstream from the area identified in (i);</li> </ul> </li> <li>b) for a lake or wetland, where a cutblock to which this FSP applies is located within the riparian management zone of the lake or wetland, the entire riparian management zone of the lake or wetland, both within and outside of the cutblock.</li> </ul> <p><b>“Contributing Area”</b> means the following area within the Affected Area:</p> <ul style="list-style-type: none"> <li>a) an area indicated on forest cover maps or field verified as being age class 3 or greater and is not located within an existing or planned cutblock, and</li> <li>b) an area within an existing or planned cutblock that is not indicated on forest cover maps as being age class 3 or greater, and</li> </ul>

c) an area resulting from the following formula:

Area = the sum of areas [(Area of harvest or planned harvest) x (proportion of basal area retained or planned for retention)].

**“Percent Retention”** means the percent of the affected area retained as contributing area, as determined from the following equation:

Percent Retention (%) = Contributing Area/Affected Area x 100

Retention in a Riparian Management Zone	<p>A Holder of this FSP, harvesting a Cutblock to which this FSP applies, that includes a Riparian Management Zone will not cause retentions in the Affected Area, at the completion of harvest, to be less than the following:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="3" style="padding: 5px;">Riparian Class</th> <th colspan="2" style="padding: 5px;">Riparian Management Area (m)</th> <th colspan="2" style="padding: 5px;">Riparian Management Zone (RMZ) Basal Area Retention (%)</th> </tr> <tr> <th rowspan="2" style="padding: 5px;">RRZ</th> <th rowspan="2" style="padding: 5px;">RMZ</th> <th style="padding: 5px;">Low Windthrow Risk</th> <th style="padding: 5px;">Moderate and High Windthrow Risk</th> </tr> <tr> <th style="padding: 5px;">≥25</th> <th style="padding: 5px;">≥10</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">S1</td><td style="padding: 5px;">50</td><td style="padding: 5px;">20</td><td style="padding: 5px;">≥25</td><td style="padding: 5px;">0-100</td></tr> <tr><td style="padding: 5px;">S2</td><td style="padding: 5px;">30</td><td style="padding: 5px;">20</td><td style="padding: 5px;">≥25</td><td style="padding: 5px;">0-100</td></tr> <tr><td style="padding: 5px;">S3</td><td style="padding: 5px;">20</td><td style="padding: 5px;">20</td><td style="padding: 5px;">≥25</td><td style="padding: 5px;">0-100</td></tr> <tr><td style="padding: 5px;">S4</td><td style="padding: 5px;">0</td><td style="padding: 5px;">30</td><td style="padding: 5px;">≥25</td><td style="padding: 5px;">0-100</td></tr> <tr><td style="padding: 5px;">S5</td><td style="padding: 5px;">0</td><td style="padding: 5px;">30</td><td style="padding: 5px;">≥10</td><td style="padding: 5px;">0-30</td></tr> <tr><td style="padding: 5px;">S6</td><td style="padding: 5px;">0</td><td style="padding: 5px;">20</td><td style="padding: 5px;">0-20</td><td style="padding: 5px;">0-20</td></tr> <tr><td style="padding: 5px;">W1</td><td style="padding: 5px;">10</td><td style="padding: 5px;">40</td><td style="padding: 5px;">≥10</td><td style="padding: 5px;">0-30</td></tr> <tr><td style="padding: 5px;">W3</td><td style="padding: 5px;">0</td><td style="padding: 5px;">30</td><td style="padding: 5px;">≥10</td><td style="padding: 5px;">0-30</td></tr> <tr><td style="padding: 5px;">W5</td><td style="padding: 5px;">10</td><td style="padding: 5px;">40</td><td style="padding: 5px;">≥10</td><td style="padding: 5px;">0-50</td></tr> <tr><td style="padding: 5px;">L1</td><td style="padding: 5px;">10</td><td style="padding: 5px;">0</td><td style="padding: 5px;">≥10</td><td style="padding: 5px;">0-30</td></tr> <tr><td style="padding: 5px;">L3</td><td style="padding: 5px;">0</td><td style="padding: 5px;">30</td><td style="padding: 5px;">≥10</td><td style="padding: 5px;">0-30</td></tr> </tbody> </table> <p style="margin-top: 10px;">Reducing basal area retention below Low Windthrow Risk levels, based on the determination of a moderate or high windthrow hazard, will comply with recommendations made by a Qualified Registered Professional.</p>	Riparian Class	Riparian Management Area (m)		Riparian Management Zone (RMZ) Basal Area Retention (%)		RRZ	RMZ	Low Windthrow Risk	Moderate and High Windthrow Risk	≥25	≥10	S1	50	20	≥25	0-100	S2	30	20	≥25	0-100	S3	20	20	≥25	0-100	S4	0	30	≥25	0-100	S5	0	30	≥10	0-30	S6	0	20	0-20	0-20	W1	10	40	≥10	0-30	W3	0	30	≥10	0-30	W5	10	40	≥10	0-50	L1	10	0	≥10	0-30	L3	0	30	≥10	0-30
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L1	10	0	≥10	0-30																																																															
L3	0	30	≥10	0-30																																																															

**4.2.4 Water in Community Watersheds (FPPR s8.2)**

Objective	<p>The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent the cumulative hydrological effects of primary forest activities within the community watershed from resulting in:</p> <ul style="list-style-type: none"> <li>(a) a material adverse impact on the quantity of water or the timing of the flow of the water to the waterworks, or</li> <li>(b) the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under</li> </ul>
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	(i) an enactment, or (ii) the licence pertaining to the waterworks.
Applicable Area:	Within the FDU and specifically the Russell, Haschaek, MacDougal Community Watershed.
Strategy	
Definitions:	<b>Equivalent Clearcut Area (ECA) above the H60 line</b> – harvested and naturally disturbed area, adjusted for hydrologic recovery achieved through regeneration, as a proportion of the area of a watershed located above an elevational line where 60% of the watershed area is above. In theory this line represents where the snowline is at the time of “peak flow” on the main stem channel at the point of interest.
Strategy for Harvest and Road Construction:	<p>The Holder of this FSP will adopt sections 59 through 61 of the FPPR as they are amended from time to time.</p> <p>Prior to harvest and road construction within a Designated Community Watershed that:</p> <ul style="list-style-type: none"> <li>a) is defined in section 8.2(1) of the FPPR;</li> <li>b) contains a licensed waterworks through which water is being diverted for human consumption; and</li> <li>c) has an “equivalent clearcut area above the H60 line” exceeding 25%,</li> </ul> <p>the Holder will:</p> <ul style="list-style-type: none"> <li>a) provide a notification to the water purveyor;</li> <li>b) complete watershed assessment by a Qualified Registered Professional that addresses the Government Objective (above);</li> <li>c) ensure that primary forest activities are planned and comply with the assessment recommendations.</li> <li>d) Complete reassessment every 5 years.</li> </ul> <p>The Holder of this FSP will complete road inspections to monitor sediment sources and prescribe maintenance or deactivation activities designed to minimize sediment delivery to streams. Road inspections will be scheduled according to risk:</p> <ul style="list-style-type: none"> <li>a) High Risk - annual inspections or after a large storm cycle.</li> <li>b) Medium Risk - biannual inspection</li> <li>c) Low Risk - inspection every 5 years.</li> </ul> <p>The holder of this FSP is not responsible for road use, inspection and maintenance carried out by others that hold Road Use Permit on the Hascheak FSR.</p>

**4.2.5 Wildlife and Biodiversity – Landscape Level (FPPR s.9)**

Objective	The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
Applicable Area:	Within the FDU.
Result or Strategy	



Approach to Harvest and Road:	When the Holder of this FSP carries out primary forest activities, the Holder will comply with Sections 64 and 65 of the FPPR.
	<i>The smaller landbase of the CFA_K2A does not align with the analysis unit (Landscape Unit) used for assessment of Patch Size Distribution. Nevertheless, the Kamloops TSA Analysis of the Clearwater and Raft Landscape Units will be utilized as it is amended from time to time.</i>

#### 4.2.6 Wildlife and Biodiversity – Stand Level (FPPR s. 9.1)

Objective	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:	Within the FDU.
Strategy	
Definitions:	<p><b>“Wildlife Tree Retention”</b> means the area composed of either of the following or a combination of them:</p> <ul style="list-style-type: none"> <li>(i) a wildlife tree retention area; and</li> <li>(ii) the area of wildlife trees retained within a Cutblock based on the following formula:  <math display="block">\text{Area} = (\text{gross block area of the cutblock}) * (\text{basal area reserved from harvesting}) / (\text{Original basal area of the Cutblock})</math> </li> </ul> <p><b>“WTR Zone”</b> means the area defined on the map in Appendix E as the eligible WTR landbase. This area is the result of a GIS delineation of existing OGMA, Riparian Reserves and current WTRA's, buffered by the 500m dash distance discussed in the Biodiversity Guidebook.</p>
Wildlife Tree Retention:	<p>A Holder of this FSP who harvests timber in the WTR Zone to which this FSP applies will ensure that wildlife trees will be retained either as single trees or in groups on 80% of the cutblocks that are greater than 5 ha.</p> <p>Retention levels in the WTR Zone will be consistent with FPPR S. 66.</p>
Restrictions on Harvesting Wildlife Tree Retention	<p>A Holder of this FSP will not harvest Wildlife Tree Retention it has provided unless:</p> <ul style="list-style-type: none"> <li>(a) the trees on the net area to be reforested of the Cutblock to which the Wildlife Tree Retention relates have developed attributes consistent with a mature seral condition;</li> <li>(b) the Holder of this FSP specifies in a site plan an area, number of trees or habitat that is equivalent to the portion of the Wildlife Tree Retention from which timber is to be harvested; and</li> <li>(c) the harvesting is: <ul style="list-style-type: none"> <li>(i) for the purpose of maintaining a road;</li> <li>(ii) to reduce fuel hazard in the Wildland Urban Interface; or</li> <li>(iv) required for safety reasons.</li> </ul> </li> </ul>

#### 4.2.7 Visual Quality (FPPR s. 9.2)

Objective	<p>The objective set by government in relation to visual quality for a scenic area, that</p> <ul style="list-style-type: none"> <li>(a) was established on or before October 24, 2002, and</li> <li>(b) for which there is no visual quality objective</li> </ul> <p>is to ensure that the altered forest landscape for the scenic area:</p> <ul style="list-style-type: none"> <li>(c) in visual sensitivity class 1 is either the preservation or retention category,</li> <li>(d) in visual sensitivity class 2 is either the retention or partial retention category,</li> <li>(e) in visual sensitivity class 3 is either the partial retention or modification category,</li> </ul>
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	(f) in visual sensitivity class 4 is either the partial retention or modification category, and (g) in visual sensitivity class 5 is either the modification or maximum modification category.
From KLRMP Objective 2.1.14	a) In the Visually Sensitive Area, levels of visual quality expected by society are achieved on Crown land in keeping with the concepts and principles of integrated resource management.  b) Outside of the Visually Sensitive Area, landscape alterations may dominate the characteristic landscape but must borrow from natural line and form to such an extent and on such a scale that they are comparable to natural occurrences.
Applicable Area:	<b>Scenic Area Inside and Outside of a Visually Sensitive Area</b>
Result or Strategy	In relation to a visual quality objective, the result for the identified FDU is:  i) that a planned cutblock or road will be designed and implemented to comply with the category of visually altered forest landscape (as set out in section 1.1 of the Forest Planning and Practices Regulation as it is amended from time to time) applicable to the visual quality objective illustrated on the FDU Maps included in Appendix 1 of this FSP.
	<b>Areas Not Visually Sensitive and Outside of the Scenic Area</b>
Applicable Area:	Area outside of the identified visually sensitive areas within the FDU (See Figure 5 of KLRMP 2.1.14.1) and not within the Scenic Area.
<b>Result or Strategy</b>	Within an area in the FDU that is outside of the identified Visually Sensitive Area and not within the Scenic Area, the Holder of this FSP will only carry out primary forest activities if the Holder ensures that the design of the cutblock or road is consistent with mimicking naturally occurring landscape characteristics with a variety of openings (in size, shape and distribution), by following natural boundaries, lines and forms such as ridges, creeks, draws, rock outcrops or timber types etc, to ensure naturally appearing boundaries.

**4.2.8 Cultural Heritage Resources (FPPR s.10)**

Objective	The objective set by government for cultural heritage resources 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.
Applicable Area:	Within the FDU.
Strategy	
Definitions:	<p><b>“cultural heritage resource”</b> refers only to those resources that are the focus of a traditional use by an aboriginal people that are of continuing importance to that people, and not regulated under the <i>Heritage Conservation Act</i>.</p> <p>A <b>“cultural heritage resource evaluation”</b> (CHRE) is a process conducted by a qualified person and consisting of the following steps:</p> <ul style="list-style-type: none"> <li>i. Complete a referral to the affected First Nations and solicit input.</li> <li>ii. Record the location of the cultural heritage resource.</li> </ul>

	<ul style="list-style-type: none"> <li>iii. Evaluate the direct impact of the planned forest harvesting or road building activity on the cultural heritage resource.</li> <li>iv. Prepare recommendations to mitigate the impact on, conserve or, if necessary, protect, the cultural heritage resource considering: the relative value or importance of the cultural heritage resource to a traditional use by an aboriginal people; the relative abundance or scarcity of the cultural heritage resource; the historical extent of the traditional use of the cultural heritage resource; and, the impact that conserving or protecting the cultural heritage resource has on the agreement holder’s timber harvesting rights.</li> <li>v. Communicate the outcomes of this evaluation to the First Nation in whose affected traditional territory the area lies as well as MOFLNRORD.</li> </ul> <p>A <b>"qualified person"</b> is an individual who has the necessary training, ability and experience that makes the person competent to carry out the CHRE. This person is either authorized by the affected First Nation or is a Qualified Professional.</p>
<p>Strategy for Conservation or Protection of Cultural Heritage Resources:</p>	<p>In relation to the objective set by government for cultural heritage resources set out in the section 10 of the FPPR, the strategies that apply to the FDU are:</p> <ul style="list-style-type: none"> <li>(a) The Holder of this FSP will complete a referral of road construction and harvest plans to affected First Nation bands, seeking information related to the existence or potential existence of cultural heritage resources (CHRs) in the area where roads or cutblocks are planned. This referral will be completed at least 30 days prior to these activities commence.</li> <li>(b) Prior to the construction of a road or harvest of a cutblock, the Holder of this FSP will conduct a Cultural Heritage Resource Evaluation (CHRE) if, for the area being planned for road construction and harvest: <ul style="list-style-type: none"> <li>i. a cultural heritage resource is identified that has not been previously evaluated, or</li> <li>ii. the area is located in “high potential” based on Forest District archaeological impact assessment predictive models approved by the appropriate government agency for use in the area of this FDU, or</li> <li>iii. site specific information regarding a cultural heritage resource is brought to the attention of the Holder of this FSP by First Nations, government employees or other individuals.</li> </ul> </li> <li>(c) In the case that construction of a road or harvest of a cutblock is located in an area described by (ii), and a First Nation advises the Holder of the FSP that a CHRE is not required, then a CHRE will not be carried out.</li> <li>(d) In the case where the affected First Nation does not respond to the referral and the location of the CHR is identified in accordance with part (b) of this strategy, the Holder of this FSP will complete a CHRE with an otherwise qualified person without First Nation involvement.</li> </ul>

	<p>The Holder of this FSP will implement the recommendations that are communicated in the CHRE.</p> <p>(e) If a previously unidentified CHR is encountered by the Holder of this FSP while conducting a primary forest practice, operations will cease or be modified to protect the resource until a CHRE can be carried out. MOFLNRORD and affected First Nations will be contacted and a CHRE will be completed. Operations will recommence once the site plan complies with recommendations made in the CHRE.</p>
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#### 4.2.9 Recreation Site (FPC of B.C. Act S. 104; Objective Grandfathered FRPA 180, 181)

Objective	The objective set by government for the Clearwater Interpretive Forest Site includes providing opportunities for interpretation, viewing, cross country skiing (Candle Creek Trails), and hiking. Recreation features of significance are coniferous and deciduous forest, wetland vegetation and wildlife.
Applicable Area:	The area of the Clearwater Interpretive Forest Site, located in the NE portion of the FDU.
Result or Strategy	
Definitions:	<b>Wells Gray Outdoors Club</b> – a non-profit organisation that holds Management Agreement 16660-20/5823 7 6839, an agreement with the MOFLNRORD for the management and maintenance of the Candle Creek Trails; located in REC5823 Clearwater Demonstration Forest.
Approach to Roads and Harvest	When the Holder of this FSP carries out primary forest activities, the Holder will: <ul style="list-style-type: none"> <li>• refer all industrial activities located in this recreation feature area, 1 month prior to planned commencement date, to the MOFLNRORD District Recreation Officer.</li> <li>• The Woodlot Licence Holder will comply with conditions communicated in the Section 16 authorizations letter.,</li> <li>• provide notification of operations to the Wells Gray Outdoors Club,</li> <li>• maintain recreation opportunities as identified in the Objective.</li> </ul>

Note that there are other Recreation Features located within the K2A FDU:

- REC4599 – Raft River Falls
- REC240810 – Raft Mountain Snowmobile Trail; stakeholder is Clearwater Snodrifters
- REC4527 – Raft Mountain

However, at the time of writing this FSP, there were no established Government objectives for these recreation features and therefore there is no requirement for the FSP Holder to write a Result or Strategy.

The Holder of this FSP is committed to:

- Meeting with the Clearwater Snodrifters to discuss industrial operations located in the vicinity of the snow mobile trail,
- Referring road and harvest plans, 1 month prior to planned commencement date, to the Clearwater Recreation Officer,
- Complying with recommendations made by the District Recreation Officer in associated authorizations (Section 16).

## 5.0 Measures to Prevent the Introduction or Spread of Invasive Plants (Act s.47 and FPPR s. 17)

The following measures will be taken to prevent the introduction or spread of Invasive Plants:

### Assessment

- a) before the FSP Holder carries out or authorizes primary forest activities within an FDU, the FSP Holder will check the provincial Invasive Alien Plant Program (IAPP) for the presence of invasive plant species in the area proposed for development;
- b) Ensure that all staff and contractors working within the agreement area are familiar with the list of potential invasive plants, and can identify these species in the field. This will be achieved by providing field identification materials available at the IAPP as part of prework meeting materials.

### Reporting

- a) report new invasive plant infestation sites within one year of discovery through the provincial Invasive Alien Plant Program (IAPP) Application.

### Prevention of Introduction and Spread

- a) Minimize soil disturbance in riparian areas by adhering to Section 5.4 of this Forest Stewardship Plan. Such action is intended to maintain riparian areas in a state that is less suitable for the establishment of invasive plants.
- b) Where safe and practicable, retain natural regeneration and understory vegetation at all stages of primary forest activity to prevent the creation of disturbance that is suitable for the establishment of invasive plants.
- c) Where exposed soil is created through road construction or harvest operations, seed the exposed soil within 1 year of completion of forest operations. Road running surface will be included in the area requiring seeding unless further use of the road is planned within 12 months of seeding operations. This action is intended to reduce the area of ground suitable for colonization by invasive plants.
- d) Use seed which meets or exceeds Canada Common No.1 Forage Mix specifications stated in the Canada Seeds Act to ensure that invasive species are not introduced through seeding activities.
- e) Request a Certificate of Seed Analysis for all seed mixes to be purchased and reject those that contain invasive plant material.
- f) Monitor the areas that were seeded in c) one year after application and repeat additional seeding if revegetation has not been achieved.
- g) Take precautions to prevent the spread of invasive plants if such species are identified on a worksite. Such precautions may include, but are not limited to, changing the season of operation, cleaning equipment (with or without water) following completion of work, and avoiding the location of landings or storage areas where invasive plants are present.

## 6.0 Measures to Mitigate the Effect of Removing or Rendering Ineffective Natural Range Barriers (FPPR s.18)

The following measures will be taken in all FDU areas that contain or are adjacent to range tenures, to mitigate the effect of removing or rendering ineffective natural range barriers that are being relied upon pursuant to range tenures inside or immediately adjacent to the FDU:

### **Definitions**

**Natural Range Barrier:** a river, a rock face, dense timber or other naturally occurring feature that stops or significantly impedes livestock movement to and from an adjacent area.<sup>1</sup>

**Measures:** Before carrying out or authorizing primary forest activities, the FSP Holder will:

- a) At least 30 days before carrying out primary forest activities within or adjacent to (within 500m) their range tenure, complete a referral to the range tenure holder and request that the range tenure holder identify the location of Natural Range Barriers that may be rendered ineffective by the proposed primary forest activities;
- b) Where a range tenure holder indicates that primary forest activities may remove or render ineffective a Natural Range Barrier, strategies will be developed to minimize or mitigate the potential impact of the proposed activities on the natural range barrier.
- c) Implement strategies in accordance within the timelines agreed to with the range tenure holder.

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<sup>1</sup> Ministry of Forests and Range Definitions of Forestry Terms as referenced in FRPA General Bulletin #21. February 2009

## 7.0 Stocking Standards

### 7.1 GENERAL STANDARDS

Where a holder of this FSP is required under the Act and Regulations to establish a free growing stand in respect of timber harvested under this FSP, the holder will do so in accordance with Section 7.0 and Appendix A of this FSP. These standards are applicable across the entire Forest Development Unit of the K2A.

#### 7.1.1 Pre-amble

The standards and criteria included in this FSP support stocking areas with ecologically suitable species that address immediate and long-term forest health issues on the area to a density that (in either case) is consistent with:

- (a) maintaining or enhancing an economically valuable supply of commercial timber from British Columbia's forests;
- (b) the timber supply analysis and forest management assumptions that apply to the area covered by the plan on the **Submission Date**; and
- (c) the application to meet specific objectives (such as broadleaf species management for specific habitat objectives or landscape level representation) that are to service an objective to the benefit of the province and the stakeholder(s), in a manner that is reasonable and worthwhile, in consideration of the trade-offs against timber supply.

#### 7.1.2 Even-aged Stocking Standards

Even-aged stocking standards, for the appropriate biogeoclimatic zone and site series, will be applied, as permitted under this FSP, where timber harvesting that is being carried out on the cutblock removes > 40% of the basal area of the stand that was on the cutblock before timber harvesting.

Refer to Appendix A for Even-aged stocking standards.

#### 7.1.3 Uneven-aged Stocking Standards

Uneven-aged stocking standards for the appropriate biogeoclimatic zone and site series will be applied as permitted under this FSP where timber harvesting that is being carried out on the cutblock retains 40% or more of basal area of the stand that was on the cutblock before timber harvesting and the tree retention is not a result of commercial thinning, removal of individual trees, or a similar type of intermediate cutting.

Refer to Appendix B for Uneven-aged stocking standards.

#### 7.1.4 Broadleaf Stocking Standards

Broadleaf stocking standards for the appropriate biogeoclimatic zone and site series may be applied as permitted under this FSP where the broadleaf tree species comprise more than 80% of the cruise gross basal area or volume of the stand. It is estimated this standard will influence less than 5% of the free growing obligation area.

#### 7.1.5 Minimum Stocking Standards (MSSpa AND MSSp)

If the SP does not specify any acceptable species, MSSp equals MSSpa.

#### 7.1.6 Minimum Inter-Tree Distance (MITD)

Unless otherwise specified by this FSP, the MITD defaults to 2.0m for all stocking standards.



**Subject to a post harvest plantability evaluation and where unfavourable stocking conditions have been identified in a Site Plan**, the MITD may be reduced to provide an opportunity to advance the level of stocking standard achievement (improve site occupancy) associated with the following:

- Slash - inter tree spacing will be reduced when site preparation is not feasible to reduce slash loading and plantable spots at 2.0m, distance would have a slash depth of >40cm.
- Rock - inter tree distance will be reduced when the planting spot selected has >70% coarse fragments. Site prep will not be considered to reduce rocky conditions.
- Wet areas - inter tree spacing will be reduced where site preparation is not feasible and standing water (pooling) is present during the planting operation or has been identified at the preharvest planning stage.
- Cattle Damage - to place planted trees near obstacles to protect them from damage by cattle.

### 7.1.7 Crop Tree/Brush Ratio

The following table illustrates the ratio of crop tree to brush that will be a measure for a free growing tree.

% Height of Brush	Biogeoclimatic Zone
125	ESSF, IDF, MS, PP
150	ICH

Provincially accepted procedures for assessing Crop Tree/Brush Ratio, as they are amended from time to time, will be utilized during free to grow surveys.

### 7.1.8 Characteristics of Residual Mature and Pole Layer Crop Trees

Unless otherwise specified by this FSP, the minimum characteristics of any leave trees, including, form, health and vigor are as per the guideline criteria outlined in Section 7f of *Acceptability guidelines for residual mature and pole layer crop trees* in FS 660-1 HFP 01 and the *Tree Wounding Guidebook*.

### 7.1.9 Broadleaf Free Growing Heights

Unless otherwise specified by this FSP, the broadleaf free growing height will be equal to the tallest conifer height for the site series/ stocking standard ID.

### 7.1.10 Regeneration Delay

Up to a maximum of 7 years regeneration delay is applied to all stocking standards where harvesting has resulted in an obligation to establish a free growing stand. Where harvesting has not resulted in an obligation to establish a free growing stand as a result of commercial thinning, removal of individual trees, or a similar type of intermediate cutting, a two year regeneration is applied. In practice, the most suitable earlier regeneration delay period will be applied considering applicable TSR assumptions, site conditions and operational situations.

### 7.1.11 Maximum Density

Unless otherwise specified by this FSP, the maximum density for interior lodgepole pine leading stands is 25,000 countable stems per hectare. Lodgepole pine leading stands are stands where lodgepole pine is greater than and equal to 80% of the inventory.

Unless otherwise specified by this FSP, the maximum density number for all other conifer species in non-lodgepole pine leading stands and mixed lodgepole pine stands is 10,000 countable stems per hectare. Broadleaf density will not contribute towards stand conifer density reduction thresholds.

Unless otherwise specified by this FSP, no maximum density number is defined for broadleaf tree species. Broadleaf species rapid self-thinning characteristics lend themselves well for natural thinning.

### 7.1.12 Free Growing Damage Criteria

Even aged age class 1 stands: unless otherwise specified by this FSP, at the time of the free growing survey, the following free growing damage criteria will apply: Appendix 5 of *Establishment to Free Growing Guidebook* (revised edition May 2000, Kamloops Forest Region), Appendix 5 of *Establishment to Free Growing Guidebook* (revised edition Version 2.2, May 2000, Vancouver Forest Region) and/or Appendix 5 of *Establishment to Free Growing Guidebook* (version 2.3, Cariboo Forest Region, January 2002).

Uneven-aged stands, layer 3 & 4 advance regeneration: unless otherwise specified by this FSP, at the time of the free growing survey the following free growing damage criteria will apply: Appendix 10, Table A10-1 of the *Establishment to Free Growing Guidebook* (revised edition May 2000, Kamloops Forest Region), Appendix 10, Table A10-1 of the *Establishment to Free Growing Guidebook* (revised edition Version 2.2, May 2000, Vancouver Forest Region) and/ or Appendix 10, Table A10-1 of the *Establishment to Free Growing Guidebook* (version 2.3, Cariboo Forest Region, January 2002).

A tree susceptible to dwarf mistletoe that is located within 10 m of an overtopping tree, which is infected with dwarf mistletoe, will not be considered susceptible if the overtopping infected tree is part of an approved cut block boundary or is reserved from harvest within the harvestable area to address other non-timber objectives, as permitted under this FSP.

### 7.1.13 Tree Species Mix

Areas harvested in accordance with this Forest Stewardship Plan will be reforested with the most ecologically suitable species and in accordance with preferred and acceptable species included in Appendix A of this document. Factors that will influence the mix of species selected for reforestation includes:

- To effectively manage the inherent forest health risk of root disease in the IDFmw2, ICHmk2, ICHmw3, and MSdm2, tree species will be mixed with no single species exceeding 70% of the stand density.
- To anticipate climate change, the provincial species selection guide will be utilized.
- Consideration for low fuel hazard species to be established in interface areas with the District of Clearwater or with values (infrastructure) at risk.

### 7.1.14 White Pine

Where Pw is listed as an acceptable species, planted rust resistant stock will be considered preferred to a maximum of 50% of the total preferred and acceptable well spaced stems.

To reduce white pine blister rust infections, non-rust resistant Pw is to be pruned to 1.3 meter height where it makes up more than 5% of the minimum free growing number. SU with less than 5% non-resistant Pw contributing to the minimum free growing number require no pruning and can be accepted as free growing.

### 7.1.15 Free Growing Standard Adjustment

Based on an Evaluation at the time of the development of the SP or within two years after the completion of harvest, the stocking standard target and minimum WSS values and minimum height criteria may be reduced. The reduction is to address the resulting impacts of established non-timber objectives that restrict the ability to achieve the WSS and height values for the stocking standard. This adjustment is to be applied where the stocking standard is not correct for the planned or resulting stand structure or site condition due to:

- modifying a silviculture system to address visuals, wildlife, adjacency, cattle, grassland, First Nations cultural heritage, beetle management areas with lower levels of beetle attack, and/or susceptible host trees;
- dispersed non-plantable ground having site conditions and limiting factors associated with soil moisture, soil temperature, soil nutrients, climatic conditions, tree species and stock type to be planted, site occupancy target, and growing space.
- fuel hazard reduction treatments that are completed in the Wildland Urban Interface in accordance with the District of Clearwater's Community Wildfire Protection Plan.

It is estimated the standard adjustment will influence less than 2 % of the silviculture obligation area.

#### **7.1.16 Species Suitability**

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

#### **7.1.17 Root Disease**

A significant portion of the CFA operating area is located in biogeoclimatic zones that are known to have incidence of *Armillaria mellea* and *Phellinus weirii*. These can have significant effect on stand volumes over the rotation. Incidence of these root diseases are mapped during the field layout of harvest plans and then a post harvest survey is conducted to determine the affected area. These areas will be stumped. Regardless of root disease incidence, in ecosystems that are known to host these root diseases, a mix of ecologically suited species will be established.

## 8.0 Signatures of Preparing Forester and Person Required to Submit Plan

	<p><b>Preparing Forester</b></p> <p><i>“I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work”</i></p>
<p><b>Wes Bieber, R.P.F.</b> Longfellows Natural Resource Management Solutions Inc. Clearwater, B.C.</p>	

On behalf of the holder of Community Forest Agreement K2A

<p><b>George Brcko, R.F.T.</b> General Manager, Wells Gray Community Forest Corporation.</p>	<p><b>Dave Meehan</b> President</p>

## **Appendix A – Stocking Standard Tables**

### **Stocking Standards, Regeneration Dates and Free Growing Dates for Free Growing Stands**

Stocking Standards for free growing stands are included in the following tables of this Forest Stewardship Plan and are largely based on the MFR publication “Reference Guide for Forest Development Plan Stocking Standards”. Changes have been made to the Acceptable and Preferred Species based on a number of factors:

- a) The biogeoclimatic zones associated with this Community Forest (IDFmw2, ICHmk2, ICHmw3, and MSdm2) are known to have incidence of armellaria root disease. From a management perspective, one strategy to deal with this incidence is to accept a larger number of conifer species and species that are known to be more resilient to this root disease.
- b) Sx Seedlots 30664 and 33263 originate from the area near the CFA\_K2A operating area that is indicated to be in the IDFmw2 biogeoclimatic zone. These seedlots are recognized as high performing and it therefore makes sense to add Sx to the zonal sites in this ecosystem.
- c) Given southerly aspects with potential for both drought and deer browse, conifer species that are known to be more drought tolerant and less palatable to ungulate damage have been added (ie. Py). Again in this case, increased flexibility with conifer species will improve the manager’s ability to establish a suitable crop of ecologically suitable species.

Biogeoclimatic Zone/ Subzone				Regeneration Guide						Free Growing Guide					
Classification		Standards ID	Description	Species		Broadleaf	Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)		
Zone/SZ	Series			Preferred (p)	Acceptable (a)		Target	MIN pa	MIN p		Earliest	Latest	Species	Ht	
							(well-spaced/ha)								
ICHmk2	01	1043956	CwSxw - Falsebox - Knight's plume	Fd <sup>9,14,32</sup> PI Sx	BI <sup>10,13</sup> Cw Lw <sup>9,14,23,32</sup>	Act <sup>b</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	PI, Lw	2.0	
													Fd	1.4	
													Sx	0.8	
													Others	1.0	
													PI	1.4	
													Fd	1.0	
	02	1043918	Fd - Juniper - Pinegrass	Fd PI	BI <sup>10,13</sup> Sx <sup>10,13</sup>	At <sup>b</sup> Ep <sup>b</sup>	600	400	400	7	12	15	Others	0.8	
													PI	1.4	
													Fd	1.0	
													Others	0.8	
	03	1043920	Fd - Falsebox - Pinegrass	Fd PI Sx <sup>10,13</sup>	BI <sup>10,13</sup> Cw <sup>10,13</sup>	At <sup>a</sup> Ep <sup>b</sup>	1000	500	400	7	12	15	PI	1.4	
													Fd	1.0	
													Others	0.8	
	04	1043921	CwSxw - Douglas maple - Fairybells	Fd PI Sx	BI <sup>10,13</sup> , Cw <sup>10,13</sup> Lw <sup>9,14,23,32</sup>	At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	PI, Lw	2.0	
													Fd	1.4	
													Sx	0.8	
													Others	1.0	
	05	1043957	CwSxw - Oak fern - Bunchberry	Fd <sup>9,14,32</sup> PI Sx	BI <sup>13</sup> Cw <sup>32</sup>	Act <sup>a</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	4	9	15	PI	2.0	
													Fd	1.4	
													Others	1.0	
	06	1043958	Sxw - Horsetail	PI <sup>1</sup> Sx <sup>1</sup> Fd <sup>1,32</sup>	BI <sup>1</sup> Cw <sup>32</sup>	Act <sup>a</sup> At <sup>b</sup> Ep <sup>b</sup>	1000	500	400	4	9	15	PI	1.4	
													Fd	1.0	
													Others	0.8	
ICHmw3	01	1043922	HwCw - Falsebox - Feathermoss	Fd Sx <sup>10,13</sup> Cw <sup>10,13</sup>	PI <sup>51</sup> BI <sup>10,13</sup> Pw <sup>31</sup> Lw <sup>23,32</sup>	Act <sup>b</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	4	9	15	PI, Pw	2.0	
														Lw	2.0
														Fd	1.4
														Others	1.0

Biogeoclimatic Zone/ Subzone				Regeneration Guide						Free Growing Guide				
Classification		Standards ID	Description	Species		Broadleaf	Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)	
Zone/SZ	Series			Preferred (p)	Acceptable (a)		Target	MIN pa	MIN p		Earliest (yrs)	Latest (yrs)	Species	Ht (m)
ICHmw3	01-YC	1043923	HwCw - Feathermoss	Fd Cw <sup>10,13</sup> Sx <sup>10,13</sup>	BI <sup>10,13</sup> Hw <sup>10,13</sup>	Act <sup>b</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	4	9	15	Pl, Pw	2.0
					PI <sup>51</sup> Pw <sup>31</sup> Lw <sup>23,32</sup>								Lw	2.0
	02	1043959	Fd - Juniper - Cladina	Fd PI	Cw <sup>10,13</sup> Pw <sup>31</sup>	Ep <sup>b</sup>	1000	500	400	7	12	15	Pl, Pw	1.4
					Fd								Fd	1.0
	03	1043960	FdPI - Pinegrass - Feathermoss	Fd <sup>32</sup> PI	Cw <sup>10,13</sup> Pw <sup>31</sup>	At <sup>53,a</sup> Ep <sup>53,a</sup>	1000	500	400	7	12	15	Pl, Pw	1.4
					Sx <sup>10,13</sup> , BI <sup>10,13</sup>								Lw	1.4
	04	1043924	CwFd - Soopolallie - Twinflower	Fd PI <sup>51</sup>	Cw <sup>10,13</sup> Pw <sup>31</sup>	At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	Pl, Pw	2.0
Sx <sup>10,13</sup> BI					Lw								2.0	
05	1043925	CwFd - Falsebox	Fd Cw <sup>10,13</sup> Sx <sup>10,13</sup>	BI <sup>10,13</sup> PI <sup>51</sup> Pw <sup>31</sup>	Act <sup>b</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	Pl, Pw	2.0	
				Lw <sup>23,32</sup>								Lw	2.0	
06	1043961	CwHw - Oak fern	Cw Fd <sup>14</sup> Hw Sx	BI <sup>10,13</sup> PI <sup>51</sup> Pw <sup>31</sup>	Act <sup>a</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	4	9	15	Pl, Pw	2.0	
				Fd								Fd	1.4	
07	1043962	CwHw - Devil's club - Lady fern	Cw <sup>32</sup> Sx Fd <sup>1,32</sup>	BI Hw <sup>32</sup> PI <sup>51</sup> Pw <sup>31</sup>	Act <sup>a</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	4	9	15	Pl, Pw	2.0	
				Fd								Lw	2.0	

Biogeoclimatic Zone/ Subzone			Regeneration Guide							Free Growing Guide				
Classification		Standards ID	Description	Species		Broadleaf	Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)	
Zone/SZ	Series			Conifer	Preferred (p)		Acceptable (a)	Target	MIN pa		MIN p	Earliest	Latest	Species
						(well-spaced/ha)					(m)			
ICHmw3	08	1043963	CwSxw - Skunk cabbage	Cw <sup>1,32</sup> Hw <sup>1,32</sup>	Bl <sup>1</sup> Pw <sup>31</sup>	Act <sup>a</sup> At <sup>b</sup> Ep <sup>b</sup>	1000	500	400	4	9	15	Fd	1.4
				Pl <sup>1,51</sup> Sx <sup>1</sup>									Others	1.0
IDFmw2	09	-	Sedge - Sphagnum FdCw - Falsebox - Prince's pine	non-forested		At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	PI, Lw	1.6
				Fd PI	Bl <sup>10,13</sup>								Fd	1.0
IDFmw2	01	1043926	CwFd - Feathermoss	Cw <sup>10,13</sup> Sx <sup>10,13</sup>		Act <sup>b</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	Others	0.8
				Py <sup>9,14,16</sup>									PI, Lw	1.6
IDFmw2	01-YC	1043927	EpAt - Thimbleberry - Falsebox	Fd PI	Bl <sup>10,13</sup>	At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	7	12	15	Fd	1.0
				Cw <sup>10,13</sup> Sx <sup>10,13</sup>									Others	0.8
IDFmw2	01-YS	1043928	Fd - Snowberry - Bluebunch wheatgrass	Py <sup>9,14,16</sup>		At <sup>b</sup>	600	400	400	7	12	15	PI, Lw	1.6
				Fd PI	Bl <sup>10,13</sup>								Fd	1.0
IDFmw2	02	1043929	Fd - Pinegrass - Feathermoss	Cw <sup>10,13</sup> Sx <sup>10,13</sup>		At <sup>b</sup> Ep <sup>b</sup>	1000	500	400	7	12	15	Others	0.8
				Py <sup>9,14,16</sup>	Cw <sup>10,13</sup> Sx <sup>10,13</sup>								PI, Lw	1.6
IDFmw2	03	1043930	CwSxw - Oak fern	Fd <sup>14</sup> PI		Act <sup>a</sup> At <sup>a</sup> Ep <sup>a</sup>	1200	700	600	4	9	15	Fd	1.0
				Py <sup>9,14,16</sup>									Others	0.8
IDFmw2	04	1043931	Dogwood - Sedge	Fd <sup>32</sup> Sx PI		Act <sup>a</sup> At <sup>b</sup> Ep <sup>b</sup>	400	200	200	4	9	15	PI, Lw	1.6
				Cw <sup>32,27</sup>									Fd	1.0
IDFmw2	05*	1043932		Sx <sup>1</sup> Pl <sup>1</sup>		Act <sup>a</sup> At <sup>b</sup> Ep <sup>b</sup>	400	200	200	4	9	15	Others	0.8
				Cw <sup>1,32</sup>									PI	1.2
											Others		0.6	



Biogeoclimatic Zone/ Subzone				Regeneration Guide					Free Growing Guide					
Classification		Standards ID	Description	Species		Broadleaf	Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)	
Zone/SZ	Series			Conifer	Preferred (p)		Acceptable (a)	Target	MIN pa		MIN p	Earliest (yrs)	Latest (yrs)	Species
ESSFdc2	01	1043940	BI - Rhododendron - Grouseberry	PI Se	BI		1200	700	600	4	12	20	PI	1.6
													Others	0.8
	03	1043941	PISe - Falsebox Pinegrass	PI	BI <sup>13</sup> Pa <sup>9,17</sup> Se		1000	500	400	7	15	20	PI	1.2
													Others	0.6
	04	1043942	BI - Grouseberry - Cladonia	PI	BI <sup>13</sup> Se		1000	500	400	7	15	20	PI	1.2
													Others	0.6
	05	1043943	BI - Huckleberry - Feathermoss	PI Se	BI <sup>10,13</sup>		1000	500	400	7	15	20	PI	1.2
													Others	0.6
	06	1043944	BI - Gooseberry - Oak fern	PI Se	BI		1200	700	600	4	12	20	PI	1.6
												Others	0.8	
	07	1043945	BI - Rhododendron - Valerian	PI Se <sup>32</sup>	BI		1200	700	600	4	12	20	PI	1.6
												Others	0.8	
	08	1043946	BI - Trapper's tea	PI <sup>1</sup> Se <sup>1,32</sup>	BI <sup>1,32</sup>		1000	500	400	4	12	20	PI	1.2
												Others	0.6	
	09	-	Sedge - Sphagnum	non-forested			-	-	-	-	-	-	-	-
ESSFwc2	01	1043947	BI - Azalea - Oak fern	BI Se	PI <sup>17,34</sup>		1200	700	600	4	12	20	PI	1.6
													Others	0.8
	02	1043948	PI - Huckleberry - Cladonia	PI <sup>17</sup> Se <sup>10,13</sup>	BI <sup>10</sup>		1000	500	400	7	15	20	PI	1.2
													Others	0.6
	03	1043949	BI - Huckleberry - Arnica	Se PI <sup>17,34</sup>	BI <sup>10</sup>		1000	500	400	7	15	20	PI	1.2
												Others	0.6	
	04	1043950	BI - Rhododendron - Heron's bill	BI Se	PI <sup>17,34</sup>		1200	700	600	7	15	20	PI	1.6
												Others	0.8	

Biogeoclimatic Zone/ Subzone				Regeneration Guide						Free Growing Guide				
Classification		Standards ID	Description	Species		Broadleaf	Stocking(i)			Regen Delay (Max yrs)	Assessment		Min. Height(ii)	
Zone/SZ	Series			Conifer			Target	MIN pa	MIN p		Earliest (yrs)	Latest (yrs)	Species	Ht (m)
				Preferred (p)	Acceptable (a)	(well-spaced/ha)								
ESSFwc2	05	1043951	BI - Azalea - Feathermoss	BI Se	PI <sup>23,34</sup>		1200	700	600	7	15	20	PI	1.6
													Others	0.8
	06	1043952	BI - Valerian - Oak fern	BI <sup>32</sup> Se <sup>32</sup>	PI <sup>23,34</sup>		1200	700	600	4	12	20	PI	1.6
													Others	0.8
	07	1043953	BI - Devil's club - Lady fern	BI Se	PI <sup>23,34</sup>		1200	700	600	4	12	20	PI	1.6
													Others	0.8
08	1043954	BI - Horsetail - Sphagnum	BI <sup>1,32</sup> Se <sup>1,32</sup>	PI <sup>23,34</sup>		1000	500	400	4	12	20	PI	1.2	
												Others	0.6	
09*	1043955	PI - Dwarf blueberry - Sphagnum	PI <sup>1</sup> Se <sup>1,32</sup>	BI <sup>1,32</sup>		400	200	200	4	12	20	PI	1.2	
												Others	0.6	
10	-	-	Sedge - Sphagnum	non-forested			-	-	-	-	-	-	-	-
MSdm2	01	1043933	Sxw - Falsebox - Feathermoss	PI Sx Fd <sup>9,14,32</sup>	Lw <sup>14,23,32</sup>	At <sup>a</sup>	1200	700	600	7	12	15	PI, Lw	1.4
				BI <sup>10,13</sup>									Others	0.8
	02*	-	Juniper - Pinegrass	non-forested			-	-	-	-	-	-	-	-
			PI - Juniper - Grouseberry	Fd <sup>9,14</sup> PI	BI <sup>10,13</sup> Sx <sup>10,13</sup>	At <sup>b</sup>	1000	500	400	7	12	15	PI	1.0
													Others	0.6
	04	1043934	PI - Grouseberry - Pinegrass	PI Fd <sup>9,14,32</sup> Sx <sup>10,13</sup>	BI <sup>10,13</sup> Lw <sup>14,23,32</sup>	At <sup>a</sup>	1200	700	600	7	12	15	PI, Lw	1.4
													Others	0.8
	05	1043935	Sxw - Gooseberry - Grouseberry	PI Sx Fd <sup>9,14,32</sup>	Cw <sup>32</sup> Lw <sup>14,23,32</sup>	Act <sup>a</sup> At <sup>a</sup>	1200	700	600	4	9	15	PI, Lw	1.4
			BI									Others	0.8	
06	1043936	Sxw - Gooseberry - Devil's club	PI Sx Fd <sup>9,14,32</sup>	BI, Lw <sup>14,23,32</sup>	Act <sup>a</sup> At <sup>a</sup>	1200	700	600	4	9	15	PI, Lw	1.4	
												Others	0.8	
07	1043965	Sxw - Horsetail - Leafy moss	PI Sx	BI	Act <sup>a</sup> At <sup>b</sup>	1000	500	400	4	9	15	PI	1.0	
												Others	0.6	

<b>Footnote #</b>	<b><u>Footnote</u></b>	<b>Footnote #</b>	<b><u>Footnote</u></b>
1	elevated microsites are preferred	46	restricted to area north of the Dean Channel
2	suitable on thick forest floors	47	risk of balsam wooly adelgid
3	restricted to coarse-textured soils	48	risk of heavy browsing by deer
4	restricted to medium-textured soils	49	applies only to rust resistant, planted stock.
5	footnote retired	50	restricted to sites where the species occurs as a major species in a pre-harvest, natural stand
6	restricted to nutrient-very-poor sites	51	restricted to areas with proven PI performance
7	restricted to nutrient-medium sites	52	restricted to sheltered microsites with deep soil
8	restricted to steep slopes	53	minor component
9	restricted to southerly aspects	54	risk of unsuccessful release of advance regeneration
10	restricted to northerly aspects	55	acceptable in sx-sm portion of site series
11	restricted to crest slope positions		
12	suitable on cold air drainage sites restricted to upper elevations of biogeoclimatic unit	<b>#</b>	<b><u>Broadleaf Management Constraints</u></b>
13	restricted to lower elevations of biogeoclimatic unit	a	productive, reliable, and feasible regeneration option
14	restricted to northern portion of biogeoclimatic unit in region	b	limited in productivity, reliability and/or feasibility
15	restricted to southern portion of biogeoclimatic unit in region		
16	restricted to western portion of biogeoclimatic unit in region	<b>#</b>	<b><u>Localized Footnotes</u></b>
17	restricted to eastern portion of biogeoclimatic unit in region	56	<b>Kalum</b> forest district - spruce content restricted to < 20% well- spaced and free growing trees on a standards unit due to leader weevil.
18	restricted, not in Queen Charlotte Islands	57	<b>Arrow</b> forest district - Pw rust-resistant stock may be preferred to a max 50% of preferred and acceptable well-spaced stems.
19	restricted, not near outer coast	58	<b>Arrow</b> forest district - Fd limited to a max 50% of preferred and acceptable well-spaced stems due to root rot.
20		59	<b>Prince George region</b> - max 1,400 total sph of aspen and cottonwood.
21	restricted to mainland		Treat as 'ghost' trees in surveys.
22	restricted to southern Gardner Canal-Kitlope area	60	<b>Squamish</b> forest district - species is acceptable in Squamish forest district only.
23	restricted to trial use	61	<b>Squamish</b> forest district only - acceptable on cold air drainage sites only.
24	suitable (as a major species) in wetter portion of biogeoclimatic unit	62	<b>S. Island</b> forest district - may only be used as acceptable species within the balsam wooly adelgid quarantine zone.
25	suitable on sites lacking salal	63	<b>Queen Charlotte Islands</b> forest district - must meet district manager specified minimum well-spaced preferred stems per hectare and minimum height requirements for Cw and/or Yc
26	suitable minor species on salal-dominated sites partial canopy cover required for successful establishment		
27	limited by moisture deficit		
28	limited by moisture deficit		
29	risk of heavy browsing by moose		
30	risk of porcupine damage		
31	risk of white pine blister rust		
32	limited by growing-season frosts		
33	footnote retired and replaced with footnote 'a'		
34	risk of snow damage		
35	risk of weevil damage		

<b>Footnote #</b>	<b><u>Footnote</u></b>
36	suitable major species on salal-dominated sites
37	risk of heart rots
38	footnote retired
39	avoid exposed and windy sites
40	risk of redheart
41	limited by poorly drained soils
42	restricted to fresh soil moisture regimes
43	suitable on mainland coast only (QCI only)
44	suitable in areas with stronger maritime influence
45	suitable in areas with stronger continental influence

<b>Footnote #</b>	<b><u>Footnote</u></b>
66	<b>Mackenzie</b> forest district - may be preferred where risk of snow damage is low or where risk of frost damage is excessive on spruce
67	<b>Chilliwack</b> forest district - species is acceptable in Chilliwack forest district only.
68	<b>Chilliwack</b> forest district - species is preferred in Chilliwack forest district only.
69	Species is restricted to upper elevations when used in the southern portion of the biogeoclimatic unit.
70	<b>Pr Rupert</b> region - Hw is restricted to a maximum of 50% of the well spaced stems at free growing

## Appendix B – Conifer Uneven Age Stocking Standards

Interior Douglas-fir (IDF) Uneven-aged Stocking Standards\* -- Single-tree selection only

		Layer**	Stocking***		
			Target pa	Min pa	Min p
<b>Zone/SZ</b>	<b>Standards ID</b>		(well-spaced/ha)		
IDFmw2 01	1044334	1	600	300	250
IDFmw2 01YC	1044335	2	800	400	300
IDFmw2 01YS	1044336	3	1000	500	400
IDFmw2 04	1044339	4	1200	700	600
IDFmw2 03	1044338	1	400	200	200
		2	600	300	250
		3	800	400	300
		4	1000	500	400
IDFmw2 02	1044337	1	300	150	150
		2	400	200	200
		3	500	300	300
		4	600	400	400
IDFmw2 05	1044340	1	200	100	100
		2	300	125	125
		3	300	150	150
		4	400	200	200

### \*\* Stand Layer Definition

Layer 1	Mature	trees $\geq$ 12.5 cm dbh	Preferred and acceptable species as specified in Table A by biogeoclimatic ecosystem classification (BEC) site series.
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh	
Layer 3	Sapling	trees $\geq$ 1.3 m height to 7.4 cm dbh	
Layer 4	Regeneration	trees < 1.3 m height	

\*\*\*Min = minimum  
 \*\*\*pa = preferred and acceptable species  
 \*\*\*p = preferred species

## Appendix C – Broadleaf Stocking Standards

Stocking Standard Reference Number	Target from Conifer Standards	Regeneration Guide					Free Growing Guide				
		Species	Stocking			Regen Delay (Max yrs)	Assessment		Min. Height		
		Broadleaf	Target	Min pa (well-spaced/ha)	Min p Conifers		Earliest (yrs) <sup>1</sup>	Latest (yrs) <sup>2</sup>	Species	Ht (m)	
1043937	1000	Act, At, Ep	1600	1000	800	NA	7	1	20	All	1.2
1043938	1200	Act, At, Ep	2000	1200	1000	NA	7	1	20	All	1.5

**Source - Ainsworth Central Cariboo Forest District Pulpwood Agreement 16 Stocking Standards**

- 1 - Reduced from 12 years to 1 year.
- 2 - Increased from 15 years to 20 years

## Appendix D – Forest Development Unit (FDU) Map

## Appendix E – WTR Zone Map and Visual Quality Objectives Map